

Centralized collection of fishery data and development for effective fishery management in Japan

Tokio Wada
(Japan Fisheries Information Service Center: JAFIC)

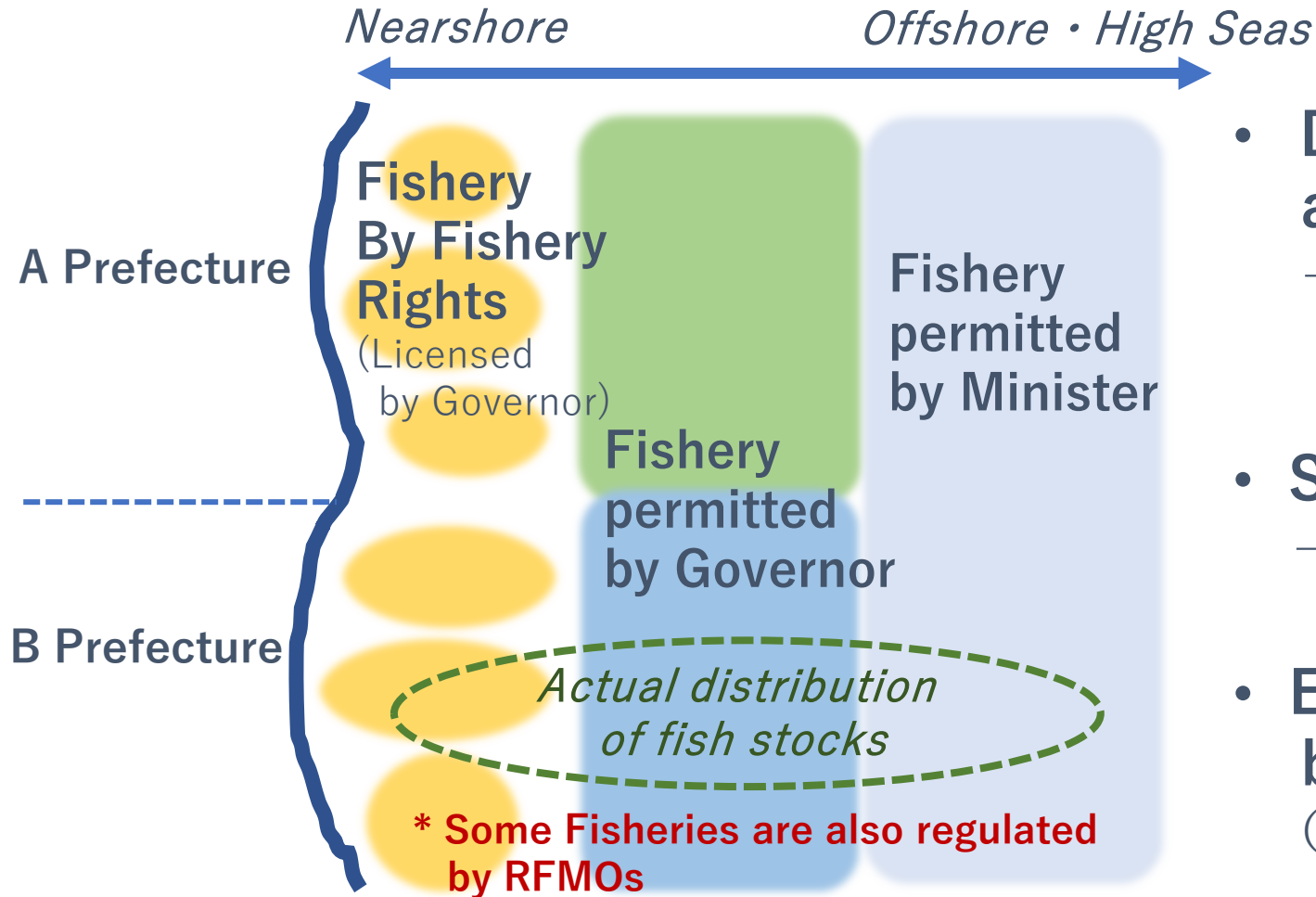
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- Background
- Data System for Fisheries Resource Management
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- Current Progress
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Background

1. Existence of multiple fisheries management bodies

● Conceptual Image of the fishery system in Japan

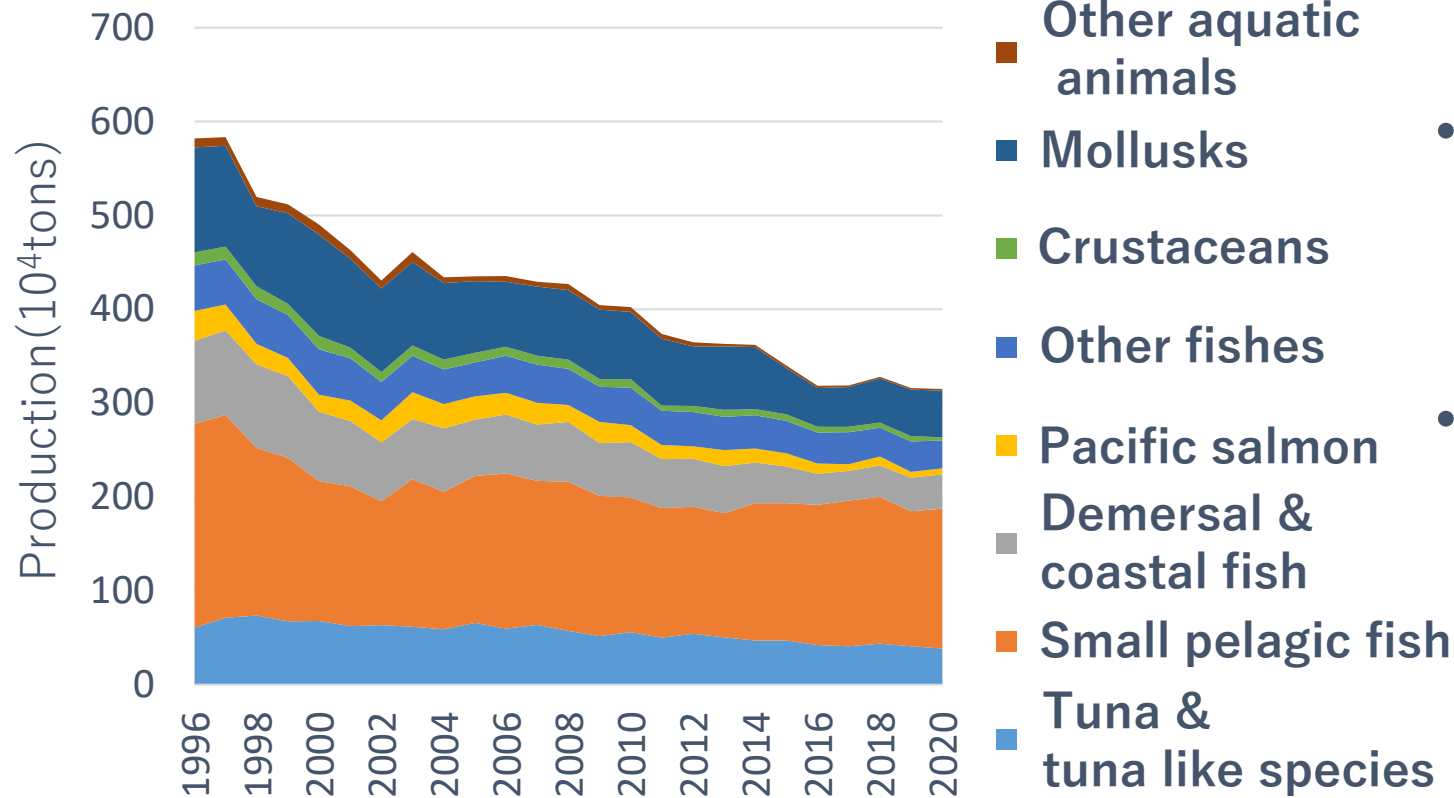


- **Diverse marine ecosystems around Japan**
→ **Existence of diverse fishery resources and fisheries**
- **Spatial hierarchy of fishery**
→ **Current Fishery System in Japan**
- **Existence of multiple management bodies for a fish stock**
(ex. Japanese sardine, Walleye pollock)

Background

2. Stagnation of the fishery resources

● Trends in the marine capture fishery production in Japan



Ratification of UNCLOSS in 1996

Start the Fisheries management by TAC in 1997

Amendment of Fishery Act in 2018

- Consistent decreasing in demersal & coastal fish stocks

← *Climate Change & Fishing*



- Necessity of strengthening of stock assessment & resources management

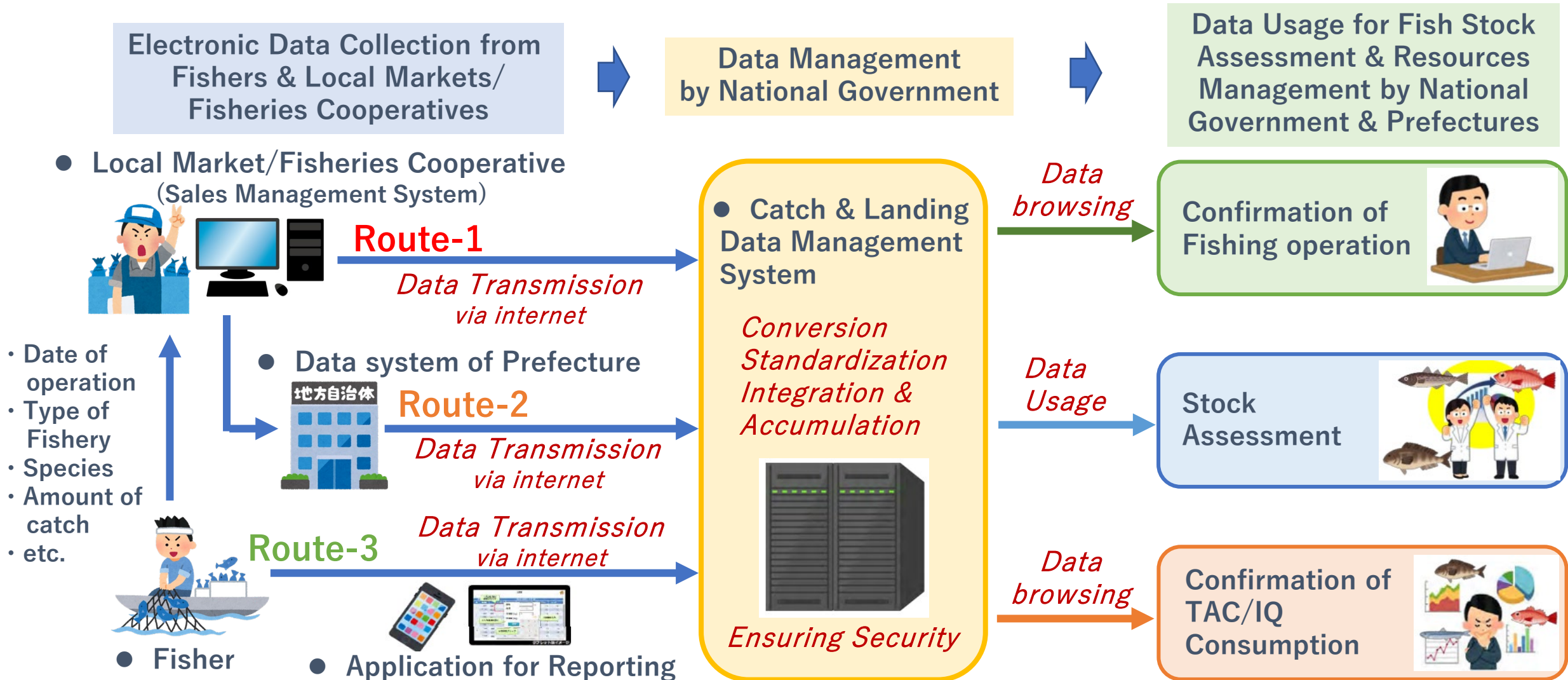


- Necessity of comprehensive and centralized collection of fishery data, including small-scale fisheries

→ *Usage of landing data from Local Markets/Fisheries Cooperatives*

Data System for Fisheries Resource Management

● Integrated promotion of stock assessment and resources management



(Partially modified Fisheries Agency <https://www.jfa.maff.go.jp/j/kenkyu/smart/attach/pdf/index-3.pdf>)

System Construction for the Data Collection

- **Project Type: Government subsidy project**

(Supplementary budget in 2020 FY~)

Government bears the necessary expenses to refurbish/develop the systems/applications to submit catch and landing data from fishers/local markets

- **Contents:**

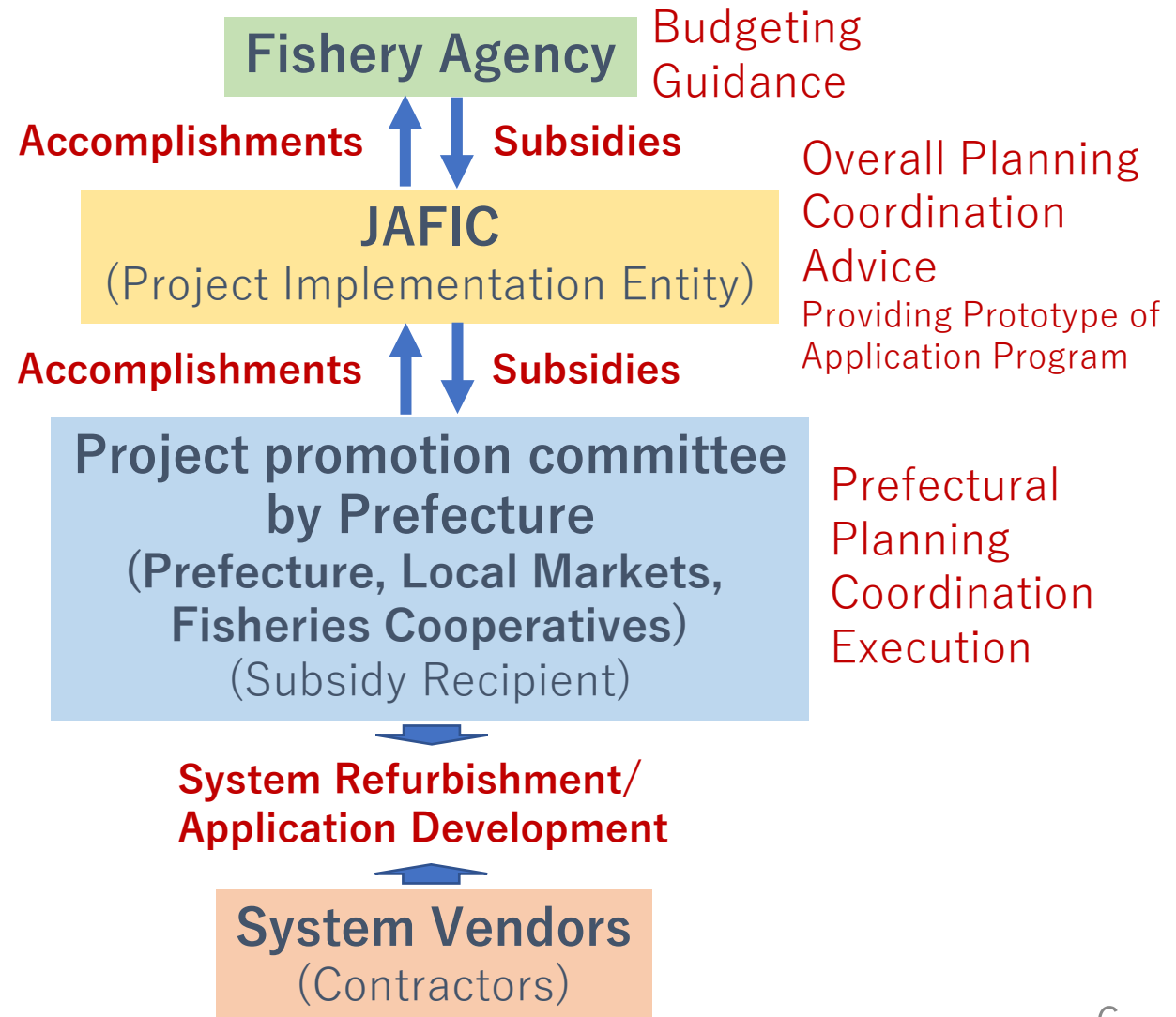
1. Refurbishment of

- a) Sales management systems of Local Markets/Fisheries Cooperatives **(Route-1)**

- b) Prefectural data systems **(Route-2)** and Sales management systems of Local Markets/Fisheries Cooperatives if necessary for data extraction and transmission

2. Development of Application programs for direct reporting by fishers **(Route-3)**

- **Project Scheme**



Current Progress

1. Overall status of the system refurbishment/application development

- **Target: 40 Prefectures ; 400 Markets/Fisheries Cooperatives**
(by the end of March, 2023)

- **Current Status (Under progress as of March, 2022)**

★ **Route-1** 17 Pref. ; 168 Markets/Cooperatives

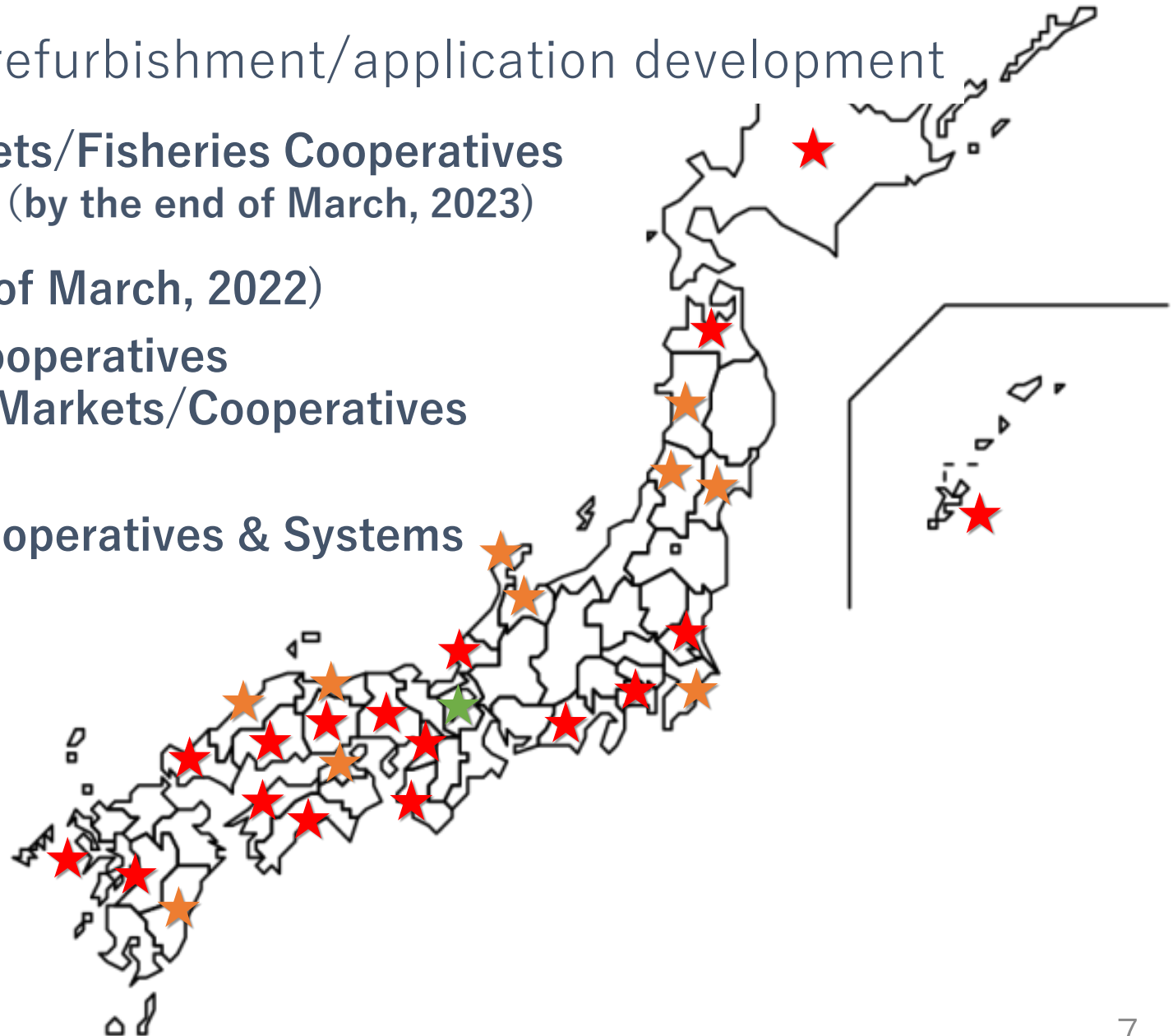
★ **Route-2** 10 Pref. ; 37 Systems & Markets/Cooperatives

★ **Route-3** 1 Pref. ; 1 System

Total 28 Pref. ; 206 Markets/Cooperatives & Systems

12 Prefectures:

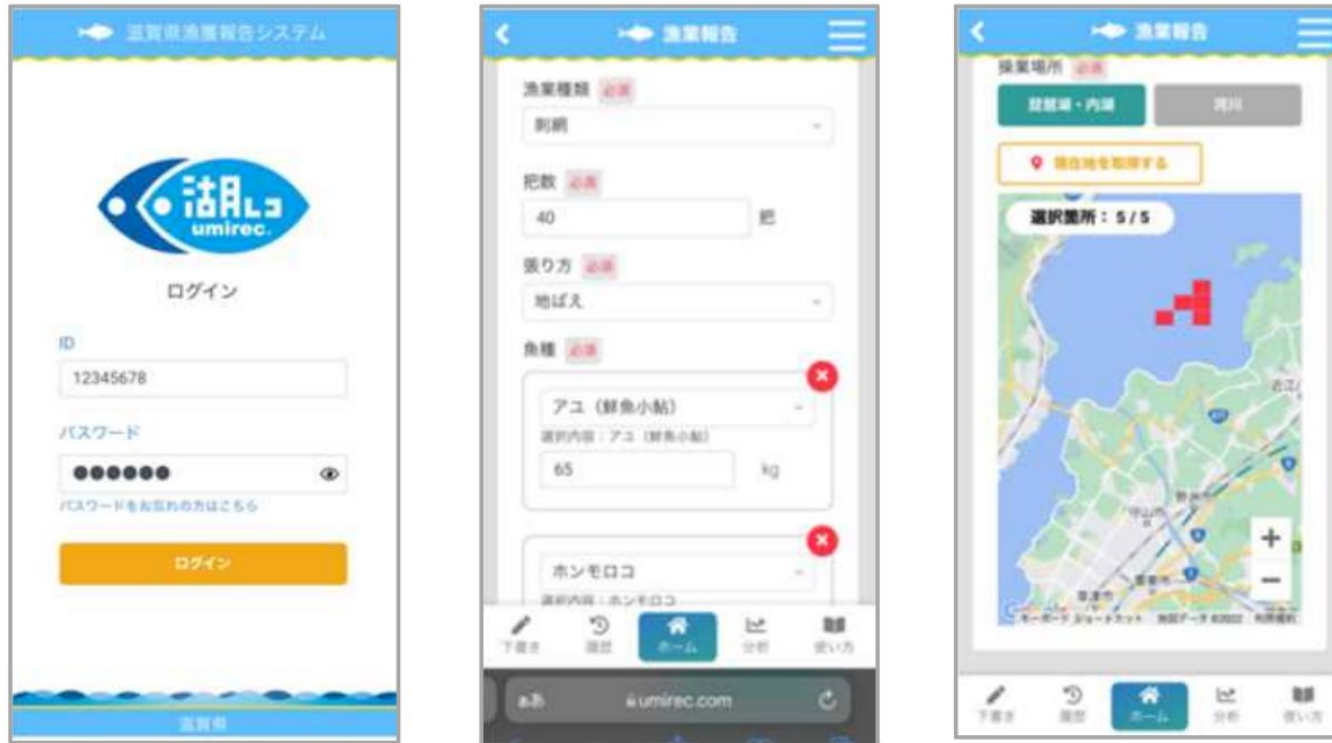
Under discussion of project
implementation
by the end of March, 2023



Current Progress

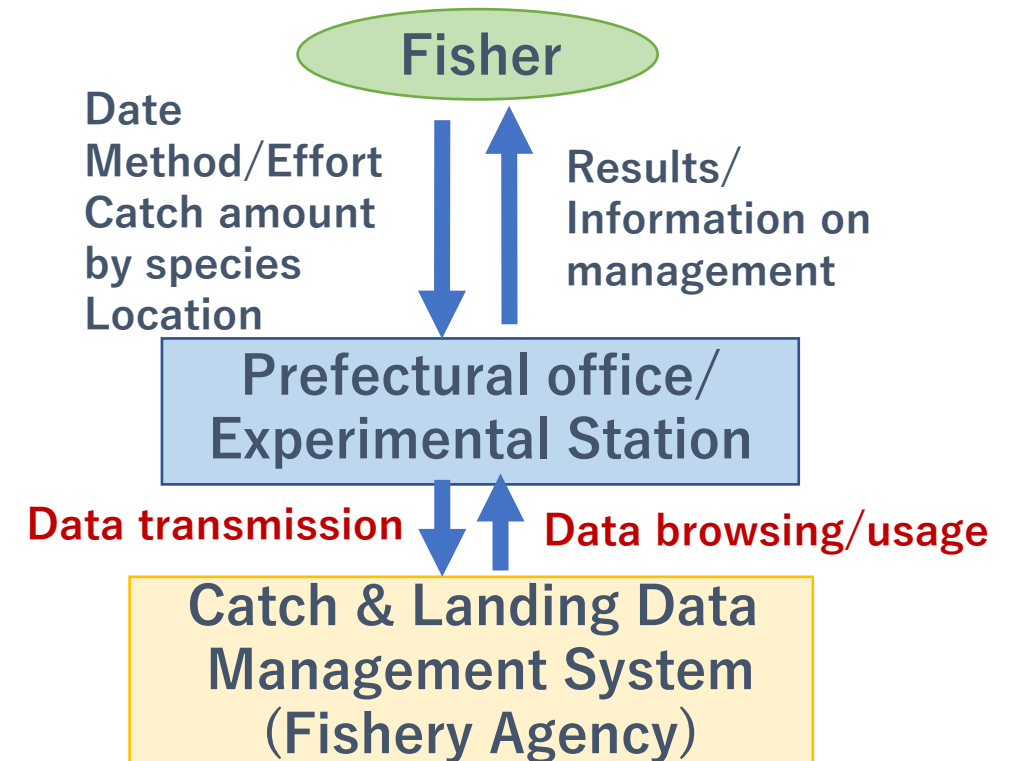
2. Development of the application for direct reporting - *Shiga Prefecture*

- **Function Overview and Input Screen**



(Partially modified Shiga Prefecture press release
<https://www.pref.shiga.lg.jp/file/attachment/5314728.pdf>)

- **Data Flow**



- **520 fishers are expected to use this application**

Issues in the Project Promotion

- Awareness of problems as the project implementation entity

1. Monitoring of operation status of refurbished systems

- Finding problems and promptly responding
- Feedback from system users (data providers/data users) is required

2. Development and implementation of direct reporting applications

- Correspondence to Prefectures where there are many out-of-market distributions
- Creation of specifications that match the characteristics of the region

3. Establishing error checking and correction procedures

- Incorporation of mechanical (=does not depend on human hands) procedures into the data collection/data management systems
- Feedback from stock assessment works is required

4. Reliable data conversion & standardization

- Correspondence to various fish species and size categories
- Correspondence to future changes in fish species composition

Acknowledgments

I would like to express my sincere thanks to the Fisheries Agency for their kind guidance and strong support in promoting this project.

I would also like to express my deepest thanks to all the Prefectures, local markets and fishery cooperatives for their efforts in system refurbishment and application development despite the COVID-19 pandemic.

Thank you for your attention.