



PROMOTION OF THE CONSERVATION AND MANAGEMENT OF TROPICAL ANGUILLID EEL RESOURCES AND PROMOTION OF SUSTAINABLE AQUACULTURE

SEAFDEC-IFRDMD

Executive Summary

A. INTRODUCTION

1. Tropical anguillid eels are drawing more attention in recent years to fill up the shortage of supply of eel seeds from the European and Japanese eels for aquaculture (eel farming). However, there is little historical record in Southeast Asia on the status of tropical anguillid eel resources, such as catch statistics especially on juveniles for seeds and eel farming production. On 27-29 April 2016, SEAFDEC organized the regional workshop “Enhancement of Sustainability of Catadromous Eel Resources in Southeast Asia” to address the technical issues and confirm the need to promote the sustainable utilization of tropical eel resources. The results of the workshop indicated that statistical records among the AMSs is insufficient with regards to the status of exploitation of tropical anguillid eel resources (fisheries) and eel aquaculture production, while effective measures to sustainably manage the eel resources have not been established. The workshop however agreed that the tropical anguillid eel resources should be properly conserved and managed to prevent its over exploitation and listing in the CITES Appendices. In this connection, to improve and strengthen the statistics data collection system and improve survival rate of juvenile eels under aquaculture in ASEAN Region, ASEAN Member States (AMS) approved the 2 years project titled "Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia" funded by the Japan ASEAN Integration Fund (JAIF) in the 3rd Quarter of 2017. Furthermore, the existing eels project funded by JTF managed by IFRDMD is also play an important role to integrate the JAIF funded project into one target goal. This paper summarizes the progress of works based on the baseline survey, regular survey, and meetings for updating and assessing the preliminary results including the recommendations made at the Regional Meeting.

B. ACHIEVEMENTS/PROGRESS ON ACTIVITIES/PROGRAM BY SEAFDEC

2. SEAFDEC has organized many meetings and consultations with the objectives of enhancing the Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia and to support foundational capacity building, portfolio learning, and targeted research needs for Resources Management Framework on sustainable utilization of anguillid eel resources in the AMSs.

These activities include the following:

Activity	Target	Year/Period
36 th Meeting of the Program Committee	SEAFDEC was requested to spearhead the conduct of a study on eel resources - in collaboration with the Member Countries	November 2013
First Regional Technical Meeting on Information Gathering of Eel Resources and Aquaculture Production in Southeast Asia	Compiled the information related to eel resources from the wild and status of aquaculture in the Southeast Asian Countries, and developed the way forward	27 January 2014

	and plans for future meetings of eel experts of the Southeast Asian region	
Second Regional Consultation on Development of Regional Policy Recommendation on Sustainable Management of Eel Resources and Aquaculture Production in Southeast Asia	Developed the Regional Policy Recommendations and Strategic Actions for the Conservation and Management of Catadromous Eel Resources (<i>Anguilla spp.</i>) and Sustainable Development of Catadromous Eel Aquaculture in Southeast Asia	31 August to 1 September 2014
17 th Meeting of FCG/ASSP	Policy Recommendations raised for consideration and endorsement under the ASSP mechanism	December 2014
47 th Meeting of the SEAFDEC Council	Adopted the Policy Recommendations for consideration and endorsement under the ASSP mechanism	April 2015
23 rd ASEAN Sectorial Working Group on Fisheries	Endorsed the Policy Recommendations for consideration under the ASSP mechanism	June 2015
First Workshop on Enhancement of Sustainability of Catadromous Eel Resources in South East Asia	Addressed technical issues and confirmed the need to promote the sustainable utilization of eel resources	27-29 April 2016
49 th Meeting of SEAFDEC Council	Considered and supported the proposed JAIF-supported project by SEAFDEC “Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia”	3-7 April 2017
Preparatory Meeting for new JAIF project on anguillid eels, “Enhancing Sustainable Utilization and Management scheme of Tropical Anguillid Eel Resources in Southeast Asia”	Requested fisheries agencies (5 countries) to compile information on eel fisheries before starting the baseline survey	9 June 2017
Project Planning Meeting for the JAIF Projection Anguillid Eels “Enhancing Sustainable Utilization and Management Scheme of Tropical Anguillid Eel Resources in Southeast Asia”	AMSs considered and supported the proposed JAIF project by SEAFDEC	4 August 2017
Meeting on Progressive Results of Implementation Activities on Anguillid Eels	Compiled the preliminary results of the activities from June 2017- December 2017	11 December 2017
First Assessment Committee Meeting	Discussed the preliminary results of the regular and baseline surveys	19 December 2017
First Regional Meeting	Discussed with invited international organizations, <i>i.e.</i> FAO, IUCN, CITES on the results from the First Assessment, while the recommendations from the meeting were compiled for adjustment of the work plan to align with the ASEAN-SEAFDEC events and meet the FAO/CITES requirements	25 January 2018

3. Achievements from the SEAFDEC activities included the following:
 - ❖ Designations of contact persons and Person in Charge on specific issues on eel, information gathering on eel fisheries and present status on resources management in 5 countries (Cambodia, Indonesia, Myanmar, Philippines, and Viet Nam)
 - ❖ Important and latest information on anguillid eel fisheries in this region gathered through the baseline (JAIF) and regular surveys (JTF)
 - ❖ Established that 5 countries have juvenile anguillid eel fishery for seeds for aquaculture, *i.e.* Indonesia, Philippines, Viet Nam, Myanmar, Thailand (additional).
 - ❖ Information were gathered regarding the commodity chains and demand-supply relationships of eel seeds in certain countries
 - ❖ Data collecting system established for developing the catch statistics (with indices of effort) in 5 countries (Indonesia, Philippines, Viet Nam, Myanmar, and Thailand additional) for monitoring of the trend and fluctuation of catch of eel seeds in the region
 - ❖ Recommendations from the First Regional Meeting were addressed for improvement of the JAIF work plan and activities

C. REVIEW OF TRADE IN LIVE EELS (*Anguilla* spp.) IN SOUTHEAST ASIA

4. To support the data collection for assessment of the status and trends of *Anguilla* spp. in Southeast Asia, the SEAFDEC Secretariat reviewed the existing trade, either exportation or importation, in live eels particularly the *Anguilla* spp. Results of the review are meant to enhance understanding of the concerned countries in Southeast Asia on eel fisheries and aquaculture. The results could also be used in developing the proper work plan and survey (baseline and regular surveys) to clarify the status and trends of eel fisheries and aquaculture as well as promote the development and management of *Anguilla* spp. for sustainability.
5. Based on the export and import data of only live eels (*Anguilla* spp.), the commodity code 030192(HS2007) of the UN ComTrade Statistics shows trade data on eels of all ASEAN Member States except the Brunei Darussalam. In addition, some interesting findings include the following:
 - a. About 7,242 tons of live eels exported Myanmar are not only *Anguilla* spp. as mentioned in the UN ComTrade Statistics, but also swamp eels
 - b. Department of Fisheries Malaysia is not aware that some companies in the country obtained export permit in 2016 for 846 kg of live glass eels (*Anguilla* spp.) exported to China
 - c. Department of Fisheries of Thailand also is not aware that some companies in the country obtained export permit in 2016 for 33,525 kg of live eels (*Anguilla* spp.) f exported to China

D. RECOMMENDATIONS FROM THE 2018 FIRST REGIONAL MEETING

6. FAO suggested that works eels should focus on: (1) **sustainability related to biodiversity conservation of the eels**, and (2) **trade optimization**, because 95% of glass eel catch has potentially no concern to biodiversity conservation due to the generally high mortality in juveniles and early life stages. Any approaches to know the sample size (*i.e.* number of catch), age structures and abundance of yellow and larger eels in low, medium and heavy-fishing rivers, survey for adult fish, would be a key to answer (1) above.
7. While SEAFDEC has focused on catch, production and farming data collection in each concerned Member Country, this could be first step of this project.
8. FAO also suggested that the paper “Overview of the current situation of the fisheries/aquaculture, current management scheme and future plan to enhance sustainable utilization of the tropical Anguillid eels” should include trade regulation mechanism, because CITES also focuses on the biodiversity conservation. Furthermore, the criteria of population reduction, extent of occurrence (productivity is high or low, or distribution becomes small) should also be included in this paper.
9. Japan mentioned that stock evaluation for eel is challenging, considering the numerous

research cruise surveys and pilot surveys conducted to monitor migration pattern of eels and evaluate stock abundant of eels, independent from fishery data. Historical data is therefore essential for stock evaluation, but ways and means of evaluating stock status without using historical data could also be explored.

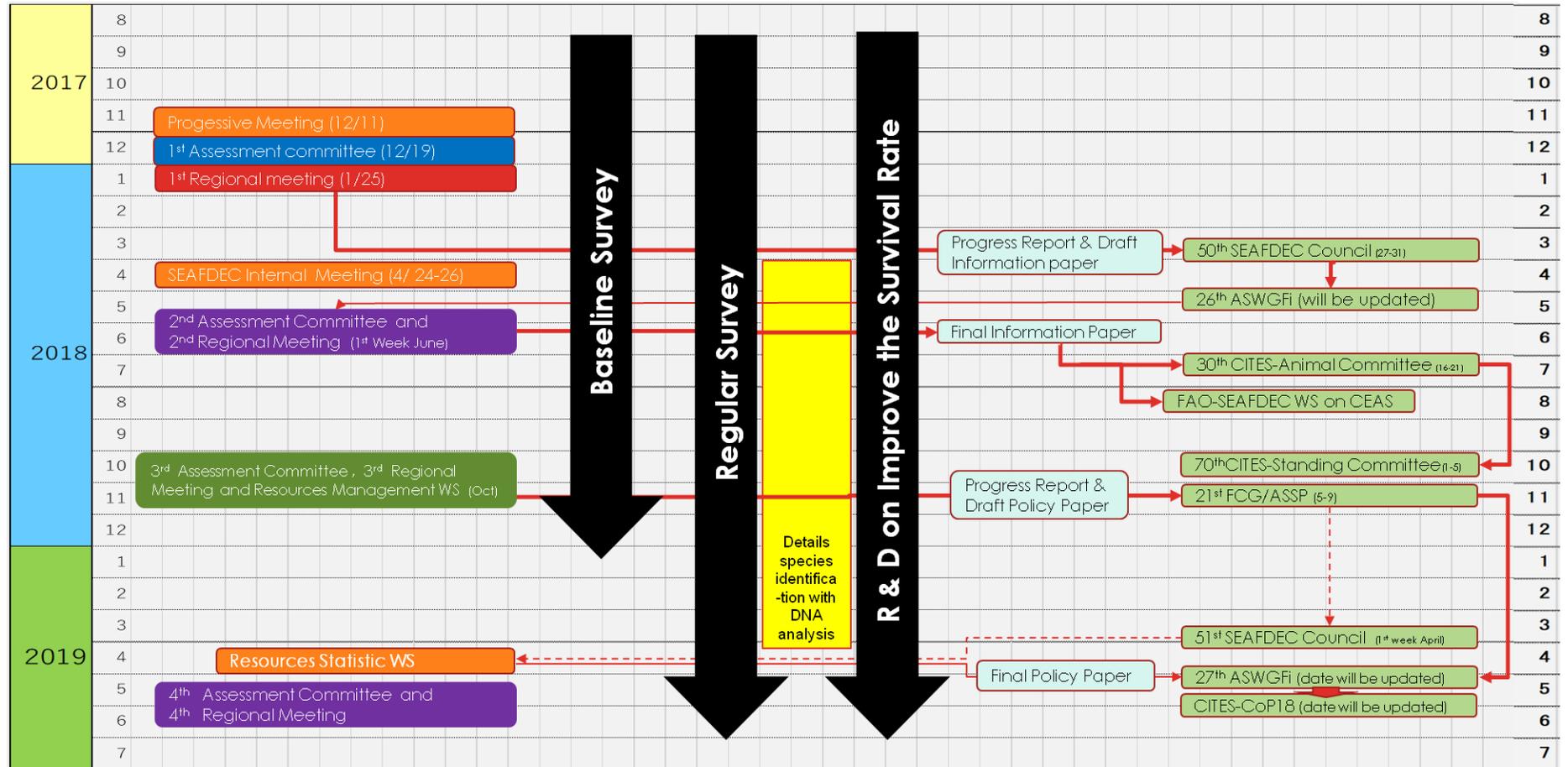
10. AQD noted that although sampling of different stages of eels in open oceans or rivers, like those undertaken during the Japanese surveys, could be important but such kind of survey seems to be difficult to undertake under this project because of timeframe and budget limitations. FAO therefore clarified that field sampling at sea would not be an option.
11. The next regional meeting will be convened in June 2018, before the forthcoming event of Animal Committee of CITES.
12. The Meeting noted the two ways of submitting documents to CITES Animal Committee: (1) working paper with the deadline of 60 days before the Animal Committee event, and (2) information paper with no deadline. Submission of position paper to the Standing Committee could also be one of the options.
13. Considering that many ASEAN-SEAFDEC events are linked to the process of submitting the progress and endorsement before further submission to other events organized by FAO and/or CITES, SEAFDEC/Secretariat proposed to revise the work plan of the JAIF project activities for 2018-2019 (**Annex 1**). In this connection, the proposed original budget under the JAIF assistance may be subject to change.

Required Consideration by the Council

- 1) The Council is requested to take note of the progress of the SEAFDE activities on eels, support the activities related to the anguillid eel surveys, and assist in the establishment of the catch statistics on anguillid eels including eel seeds for aquaculture at each SEAFDEC Member Country;
- 2) The Council is also invited to provide advice and future direction to SEAFDEC and the Member Countries on the trade in live eels based on the recommendations raised during the First Regional Meeting in January 2018;
- 3) The Council is also requested to endorse the revised work plan aligned with the ASEAN-SEAFDEC events and meet the FAO/CITES requirements to support the process of endorsement on the progress work.

Annex 1: Revised work plan of the JAIF project activities from 2018-19

Work Plan from 2017-2019 (as of 26 February 2018)



Regular Survey in Targeted AMSs: To collect catch data & aquaculture production data, and To strengthen data collection scheme & resource management scheme
Baseline Survey in 10 AMSs: To collect basic data/information on eel fisheries and aquaculture