## CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA



Thirtieth meeting of the Animals Committee Geneva (Switzerland), 16 – 21 July 2018

## Conservation and Management Measures to Ensure the Sustainability of International Trade in *Pterapogon* <u>Kauderni [(Decision No. 17.259 (ref. CoP 17)]</u>

### INDONESIA PROGRESS REPORT

- 1. This document has been prepared by Indonesia.
- 2. At its 17th meeting (Johannesburg, 2016), the Conference of the Parties adopted Decisions on Banggai Cardinal Fish, as follows:

#### Directed to Indonesia:

Indonesia should implement conservation and management measures to ensure the sustainability of international trade in *Pterapogon kauderni*, and report progress on these measures to the Animals Committee at its 30th meeting.

- 3. Prior to the progress report submission at the 30<sup>th</sup> meeting, however, Indonesia had submitted initial progress report at the 29<sup>th</sup> AC meeting in order to have comment and input on the existing activities and plan to conserve and manage *Pterapogon kauderni*.
- 4. The Animals Committee at its 29<sup>th</sup> meeting welcomed the initial progress report and congratulated Indonesia on the comprehensive action plan and the valuable progress currently underway with following recommendations for consideration for its report to the 30<sup>th</sup> meeting of the Animals Committee [(AC29 Com. 10 (Rev. by Sec.)]:

a) Indonesia was encouraged to share any preliminary data or results in their next report, recognizing this may consist of early results of work intended to extend beyond 2018.

b) Indonesia was also asked to provide more information on where additional marine protected areas are planned and how the marine protected areas are related to the selected monitoring sites. It was noted that for monitoring purposes having control sites outside protected areas may be beneficial. Indonesia indicated that an updated marine protected area map has been prepared and will be incorporated into the next report.

c) It was noted that further information could be provided on the objectives for undertaking actions both in areas of natural habitat and in areas where the species has been introduced, and how those actions are intended to support conservation in natural habitat.

d) Noting that, among other actions, restocking activities are proposed, it was suggested Indonesia provide the updated reintroduction protocols it will be using to support the restocking activities and avoid genetic mixing. It was further noted that the IUCN Reintroduction Guidelines may be useful for Indonesia to consider in this regard.

e) Indonesia was encouraged to think about safeguards for populations that are outside of the 22 selected monitoring sites.

f) Regarding the setting of harvest quotas, it was noted this species can be susceptible to high mortality in transit and disease such that these impacts should be taken into account when establishing quotas.

- 5. The Animals Committee also noted the high level of community involvement foreseen in the action plan and also encouraged the further involvements of Indonesian scientists and specialists in the work and preparing publications.
- 6. Indonesia has undertaken actions and measures to conserve and manage Banggai Cardinal Fish as directed by Decision No. 17.259 (REF. COP 17). The actions are based on the Banggai Cardinal Fish National Plan of Action (2017-2021) where 5 major targets have been agreed: 1) availability of and information on Banggai Cardinal Fish population in its natural habitats and other geographic areas, 2) implementation of protection and preservation of Banggai Cardinal Fish and its natural habitats, 3) sustainable use and trade of Banggai Cardinal Fish, 4) Improvement of human resources capacity to conserve and manage Bagai Cardinal Fish, 5) Improvement of conservation governance, and 6) implementation of restocking of Banggai Cardinal Fish population. The progress for each target is as follow:
  - 6.1. Information on Banggai Cardinal Fish population in its natural habitats and other geographic areas.

Indonesia has accomplished most of planned actions under strategy No. 1. Action that has not been implemented is the genetic test for BCF in Banggai Islands and introduction areas due to the fund availability. Attempts to get funding have been undertaken for example Researcher form Tadulako University (Local State University in Central Sulawesi) had applied for funding to the Indonesian Institute of Sciences under Demand Driven Research Scheme, but not successful. Initial discussion with Franz Weber Foundation had been tried but seems it will take some times before Indonesian proposal is agreed. Another action that is yet to accomplish is the development of survey and monitoring guideline for BCF. However, the content of the guideline has been formulated and will be discussed in a meeting expected in the end of May 2018.

Under this target, Ministry of Marine Affairs and Fisheries (MMAF) together with Indonesian Institute of Sciences (LIPI), Tadulako University, Fisheries Agency of Banggai Laut District, Fisheries Agency of Banggai Kepulauan District, and LINI Foundation has conducted the T0 Survey of BCF population in the waters of Banggai Kepulauan District and Banggai Laut District in October 2017. The T0 of BCF population is intended to provide Indonesia with baseline information of BCF population that will be compared with the Tn's population (1 or 2 years after T0 survey) to see if the management and conservation measures are effective and produce positive impacts.

The T0 survey was conducted using Belt Transect method. LIPI consider this is a scientific and valid method for assessing population of living marine biota and It has been used in many researches such as monitoring of coral, fish and other biota (English et al., 1997). The T0 survey was conducted at 24 observation points (Figure 1) using 20m x 5m sized-transect with 6 (six) repetitions at each observation point. Additional sites for survey was also considered for this T0 as recommended by the 29<sup>th</sup> AC meeting, but in general we still used the design that has been reported during previous AC meeting. As we can see from Figure 1 and 2, at least 2 out of 24 monitoring sites are outside the MPA. Considering that the BCF live in shallow water (0-3 m depth), the BCF population density was assessed by placing the transect parallel to the coastline. Indonesian Institute of Sciences endorsed and recommended this method as a standard method for assessing the BCF population for next survey (T1) by Letter No. B-160/IPK.2/KS.02.04/IV/2018. The results of T0 survey can be seen in Table 1. The final report is also being prepared for publication.

Specific survey for other locations outside natural habitat at Banggai Islands have not been done yet. However, researchers and students at Tadulako University have recorded BCF sighting during their marine habitat survey at several sites outside Banggai Islands. More surveys are planned in the future to map the distribution of BCF at introduction areas outside Banggai Islands. We consider that conducting activities outside Banggai Islands are still important for several reasons including: i) BCF has been introduced in many coastal waters outside its natural habitat, ii) the positive and negative impacts of the introduction need to be assessed, iii) the survival and population growth of BCF population at outside Banggai Islands can improve the understanding of this species, and iv) anticipation of BCF wild caught for trade from introduced areas that will affect the trade from Banggai Islands.

6.2. Protection and preservation of Banggai Cardinal Fish and its natural habitats.

Following the 29<sup>th</sup> AC meeting, the Ministry of Marine Affairs and Fisheries conducted meetings and consultation with stakeholder in Central Sulawesi, Banggai Islands, and local universities and NGOs to revisit the existing Marine Protected Areas. Several critical considerations were discussed and agreed including extension of habitat protection under the existing MPA to cover BCF major habitats. Effort to develop a locally managed marine protected areas also initiated to protect critical microhabitats. Local community surveillance groups were formed to assist the management of the MPA.

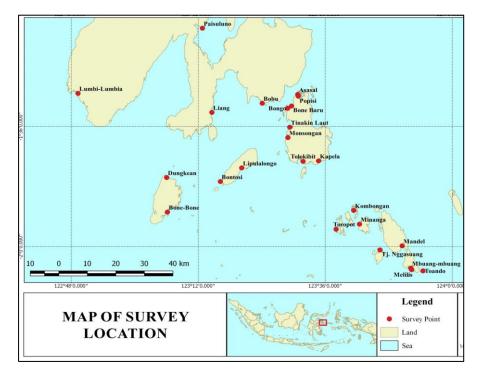


Figure 1. Twenty four monitoring sites that have been surveyed for T0 population

No.	Sites	Total TO individuals recorded in transects	Density at transects areas (600 m2)/m2	Recruit (<1.8 cm)	Juv (1.8 - 3.5 cm)	Adult (3.5 cm<)
1	Toado	2732	4.88	718	1330	684
2	Melilis	328	0.55	163	99	67
3	Mbuang mbuang	280	0.47	181	58	41
4	Mandel	40	0.07	23	0	17
5	Tj Nggasuang	669	1.10	347	142	172
6	Minanga	1566	2.61	731	387	449
7	Kombongan	242	0.40	72	70	101
8	Toropot	2005	3.34	975	618	412
9	Bongo	2089	3.48	733	911	445
10	Kapela	404	0.67	86	69	249
11	Tolokibit	296	0.49	165	41	90
12	Monsongan	222	0.37	126	45	51
13	Tinakin Laut	675	1.13	293	149	233
14	Popisi	1503	2.51	141	468	894
15	Bone Baru	4961	8.27	1265	2532	1164
16	Asasal	1308	2.18	187	426	695
17	BoneBone	1013	1.69	200	656	157
18	Dungkean	304	0.51	94	92	118
19	Bontosi	478	0.80	2	273	203
20	Lipulalongo	90	0.15	10	20	60
21	Paisuluno	228	0.38	8	121	99
22	Lumbi lumbia	1159	1.93	444	266	449
23	Liang	53	0.09	28	11	14
24	Bobu	131	0.22	21	27	83

Table 1. The populati	on of BCF as result	of October 2017	survey (T0)
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As a result, the Governor of Central Sulawesi under the Decree No. 523/635A/DIS.KANLUT-GST/2017 established 869.059,94 ha of MPA that cover areas such as Banggai, Banggai Kepulauan dan Banggai Laut. This new MPA is much bigger and cover more areas than the previous one (Figure 2 and 3). The enactment of governor decree allows the habitat of BCF to be protected in accordance with management plan and zoning document. The protected area consists of several zones namely: core zone (no take and no entry area), sustainable fisheries zone (limited and regulated fishing is allowed), and utilization zone (no take area but regulated tourism is allowed). This way, the area/habitats where harvest is allowed is distinct. Additionally, preliminary survey to identify rehabilitation sites were held in Liang (Peleng island) in March 2018. Liang site is designated as rehabilitation zone under the newly established Provincial MPA. Two other sites which are planned for rehabilitation sites are Bone Baru and Popisi. These sites will be developed as Locally Managed Marine Areas.

Complementing the habitat protection, Indonesia is also re-initiating the proposal to apply a certain protection status for Banggai Cardinal Fish i.e. limited protection where harvest and trade are still allowed but only limited from certain areas and times. Meetings and coordination on this action were intensively conducted both in national and local level. As a result, The Minister of Marine Affairs and Fisheries enacted Decree No. 49/2018 on the Protection of Banggai Cardinal Fish. Under the decree BCF is not allowed to be caught during its reproduction peak times that take place during February, March, October, and November within Banggai Islands waters (Figure 3). During the socialization of the new regulation, it was agreed that the local government will follow up with more detailed measures on the use of sustainable fishing gear, number of catch, size, and certification scheme.

Following the enactment of the ministerial decree and marine protected area of BCF, the government has run socialization and conservation campaign both in site and via online media (awareness program).

To ensure that the protection of BCF give positive impacts to wild population of Banggai Cardinal Fish, enforcement and surveillance will be strengthened. Coordination with Directorate General of Surveillance and Quarantine Agency (both are under the Ministry of Marine Affairs and Fisheries) are undertaken to develop record and surveillance system to implement the decree. Initial ideas include application of registration mechanism for all traders and specimens transported from Banggai, Banggai Laut, and Banggai Islands. More detailed discussion requirement is anticipated and planned to be conducted during 2018.

6.3. Sustainable use and trade of Banggai Cardinal Fish.

Under this measure, several actions have been done and some are still under preparation. Priority activities have been identified include trade arrangement/coordination, assessment of the application of wild harvest quota for Banggai Cardinal Fish, monitoring of inter islands trade/distribution, set up association, education and awareness campaign, and promotion of community aquaculture. Efforts to set up BCF quota for harvest from wild are still underway and need more discussion. The quarantine authority has recorded data on annual BCF domestic trades. However, the data needs to be further examined with the recent population data collected during T0 survey as well as other important data.

In relation to quota allocation, we consider that precise and accurate data for quota allocation is crucial in order to better balance the interests between economic and conservation interests. During the public consultation in Palu – Central Sulawesi, it was agreed that there is a need to balance between conservation efforts that will take times to give impacts and trade need that require specimens for shorter time frame. It is expected that the quota design can be initiated and discussed for Banggai, Banggai Laut and Banggai Archipelago district in 2018. Recommendation of the 29<sup>th</sup> AC meeting on the mortality in transit and disease will be taken into consideration for the quota design.

Despite BCF is not listed in the CITES appendix, we take into account some CITES approach in the management of the endemic species. For instance BCF Exporter Association where initial meeting have conducted in December 2017. All BCF traders will be registered and certificate is also proposed to be applied for all exported specimen. In addition, we have also devised National Standard (SNI) on BCF Aquaculture No: 8109:2015 that is expected to improve the quality of BCF aquaculture.

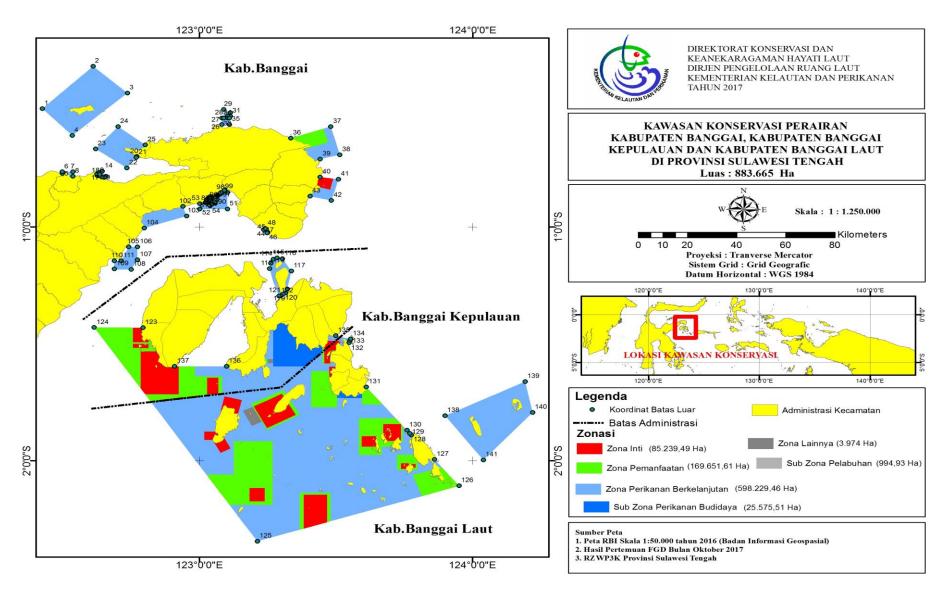
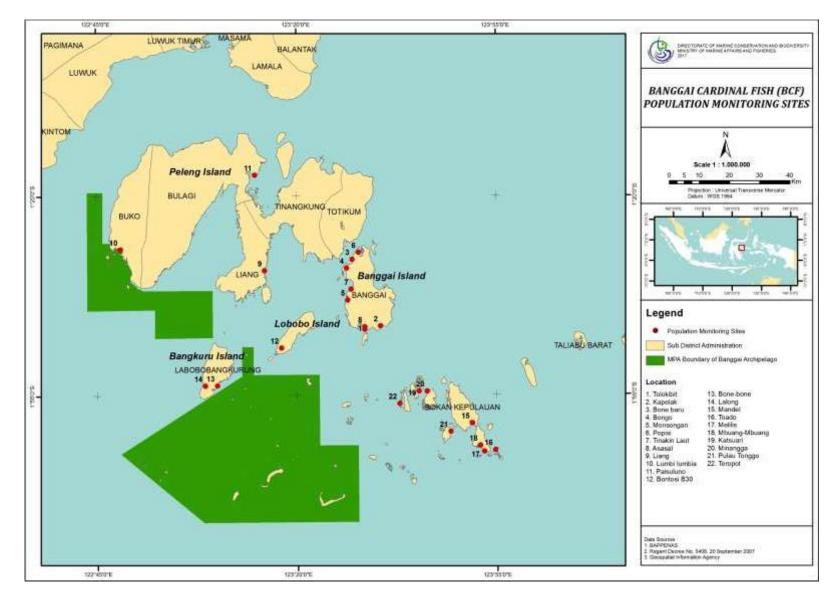


Figure 2. The MPA for Banggai, Banggai Laut, and Banggai Kepulauan



Distribution of permanent population monitoring sites (these sites will also be declared as locally manage MPA and rehabilitation sites)

Figure 3. Previous MPA for Banggai 28 angai Laut, and Banggai Kepulauan

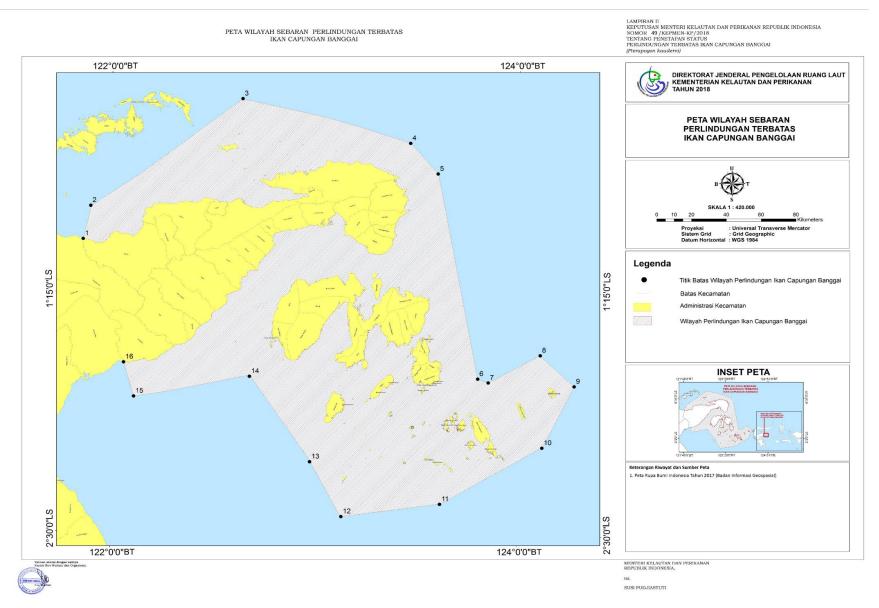


Figure 4. Areas where BCF is not allowed to be caught during February, March, October, and November

As reported previously during the 29<sup>th</sup> AC meeting, subject to availability of funding, trade survey will be conducted to assess source, trader, number of individual, and price of Banggai Cardinal Fish. Trade survey is important to know whether existing harvest is non detrimental to wild population or not, in particular after the implementation of protection and management measures. Trade survey is also required to know actual number of individual transported out from Banggai Islands. This survey has not been conducted and is expected will be undertaken together with the study that will be carried out by secretariat as one of the consultant team is proposed to be Indonesian expert.

## 6.4. Improvement of human resources capacity

During this two years action, capacity improvement has been focused on community level. For example we have conducted join monitoring and surveillance of BCF exploitation with community and government officials. Routine patrols have been planned in particular during the time when BCF harvest is prohibited. The Conservation Community Groups, called KOMPAK, who received assistances from the Ministry of Marine Affairs and Fisheries have agreed to join and strengthen the government efforts by voluntarily monitor BCF exploitation in adjacent area.

In particular to community empowerment, over the course of 2017, 10 Community Conservation Groups (KOMPAK) have received assistance in the form of small shipping boat and aquaculture facility. In January 2018, two community groups from Bone Baru (Banggai Laut), the Khatulistiwa Lestari and BCF Lestari, the recipients of 2017 MMAF community empowerment program, installed community aquaculture facility on the land given by the village head of Bone Baru. In February 2018, four community from two community groups attended aquaculture training program.

### 6.5. Improvement of conservation governance

Under this measure, the Ministry of Marine Affairs and Fisheries has facilitated Central Sulawesi Provincial Government to develop and manage their MPA. The management plan of the new MPA is formulating this year with Ministry's technical and financial assistance. Simultaneously, we are on the process of establishing the MPA management unit under the Central Sulawesi Province.

Partnership with local stakeholder such as university, NGO, and private company is promoted. Additionally, to improve BCF conservation and management governance, we will optimize the role of aquaculture training center in Bali (LATC) and Ambon in addition to the use of current BCF center. Capacity building for the locals towards BCF aquaculture have also been conducted in 2017 by Yayasan Pemerhati Lingkungan (YPL). Soon in May 2018, we plan to conduct aquaculture training in LATC Bali. It is important to highlight that our efforts/concern to reduce wild harvest towards aquaculture methods is quite promising given the positive outcomes of the methods. More than 600 BCF individuals resulted from aquaculture center in Ambon have been traded in the market.

## 6.6. Restocking of Banggai Cardinal Fish population

The aquaculture production from Ambon Aquaculture Research Center, have also contributed to annual restocking programs run by The Directorate General of Aquaculture MMAF in Ambon. That includes 3000 individuals released in the wild in 2017 and 750 individuals in 2018. All of which were released around Ambon Bay, Outer Ambon Bay, and in Natsepa and Ora Beach.

As recommended by the 29<sup>th</sup> AC meeting, we are very careful in conducting restocking in particular to minimise the genetic mixing. Restocking is conducted by following the guideline of Endangered Fish Species Restocking that has been developed by the Ministry of Marine Affairs and Fisheries in 2015. The existing protocol for restocking of endangered species has guidance where all restocking individuals must be: i) in good physical shape, ii) free from disease, and iii) genetically pure. However, we also consider that specific guidance need to be provided for certain species in particular endemic species to avoid genetic mixing. Therefore, we plan to have more detailed arrangement for BCF restocking for example how to do restocking within the Banggai Islands water and outside the Banggai Islands waters.

Initial idea is all individuals should come from Banggai Island waters if the restocking is located within this areas. This will ensure the genetic preservation of BCF. However, if the restocking site is located outside Banggai Island waters, than individuals can be from any hatchery facilities. Additionally, all restocking activities also need to be recorded including its location, time, source of individual, and checked regularly. This concern was also recommended by the 29<sup>th</sup> AC meeting.

- 7. In relation to cooperation with other organization, Indonesia has been working with Yayasan LINI (LINI Foundation), Yayasan Pemerhati Lingkungan (Environment Observer Foundation) and Yayasan Kehati (Biodiversity Foundation). Further discussions have been undertaken also with European Union, Franz Weber Fondation, and Yayasan Burung Indonesia (Indonesian Bird Foundation). Following the public consultation in early Mei 2018 at Palu, the local government also plans to engage private companies at Central Sulawesi to assist the BCF conservation and management actions. We expect to see more activities supported by these organization in the near future.
- 8. To implement the action plan, supports have been provided mostly by national agencies such as Central Sulawesi Provincial Government, Haluoleo University (local university at Central Sulawesi), LINI Foundation, and Yayasan Pemerhati Lingkungan (Environmental Care Foundation). It is expected that further support from international organization, donors, and agencies will be available during 2017 and 2018.
- 9. Documentation of all activities for 2017-2018 is on Attachment A and progress table for each activities is on Attachment B.

### Recommendation

- 10. The committee is invited to provide comments, inputs, and suggestion on this progress report to improve of the implementation of BCF conservation and management plan.
- 11. The committee is invited to acknowledge Indonesia accomplishment for the implementation of Decision No. 17.259 (ref. CoP 17) and report this to the Standing Committee.
- 12. The Secretariat is invited to provide any information on the progress of a study to assess the impact of international trade on the conservation status of *Pterapogon kauderni* and to advise on suitable conservation and management measures.

ACTIVITIES Focus Group Discussion to secure community involvement and their inputs in the development of Minister of Marine Affairs Decree Concerning Limited Protected Status of BCF





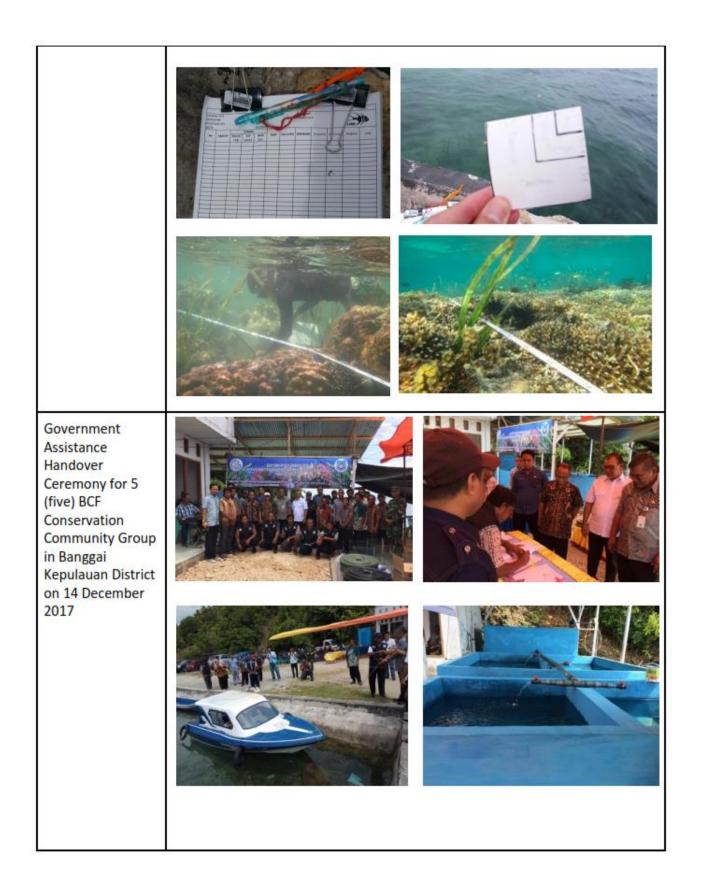


Banggai Laut District, 16 May 2017





	Banggai District (Luwuk City), 18 May 2018
	<image/>
Socialization of BCF's National Plan of Action in Palu City on 23 September 2017	
Training on Identification and Population Monitoring of BCF in Banggai Kepulauan District on 17 October 2017	
TO Survey in Banggai Kepulauan and Banggai Laut Waters on 18 October 2017	

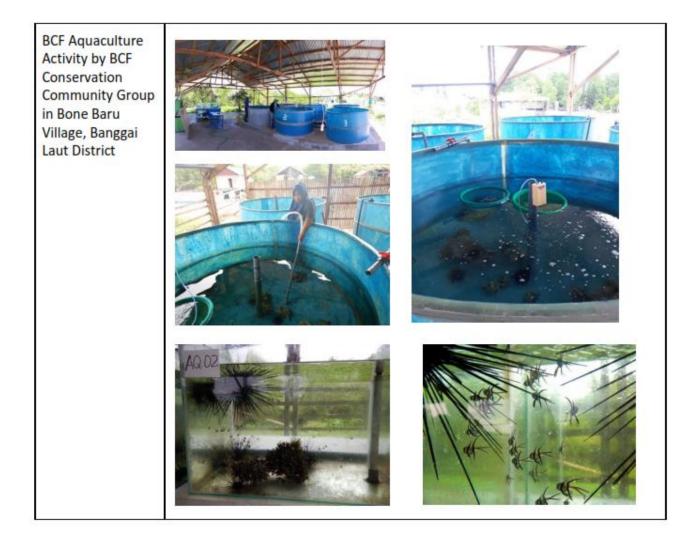






MMAF on 13 February 2018	
Coordination meeting to Finalize the Franz Webber's proposal on 28 February 2018	
Coordination Meeting on the Preparation of BCF Aquaculture in Depok City on 6 April 2018	
Socialization on Zoning Plan of Banggai Waters Protected Area in Palu City on 19 April 18	
Coordination Meeting to Evaluate the Implementation of BCF's National Plan of Action on 24 April 2018	

Coordination Meeting to Discuss: (i) Conservation and Management of BCF; (ii) International Issues and its Legislation; and (iii) Action Plan- Indonesia Report to CITES	<image/>
Socialization on Minister of Marine Affairs and Fisheries Decree Number 49/KEPMEN- KP/2018 concerning Limited Protected Status of BCF in Banggai Laut District on 3 May 2018	<image/>
Media Campaign of BCF Conservation	<complex-block></complex-block>



# Attachment B. Summary of Progress for BCF Conservation and Management Measures 2017-2018

NO	STRATEGY	ACTION	INITIAL REPORT AT 29 <sup>th</sup> AC Meeting	PROGRESS AT 30 <sup>th</sup> AC MEETING
1.	Development of database, information, and documentation of BCF both at its natural habitats and introductions	1. Developm ent of survey and monitorin g manual for BCF.	On going and expected to be ready by 1st semester of 2017.	The formal document is under development but the methodology itself already exist and have been adopted in the past population survey
	areas.	2. Training on survey and monitoring of BCF population.	Planned for the 2 <sup>nd</sup> quarter of 2017.	Done in October 2017, 30 participants consist of community groups of Banggai Kepulauan
		3. Conduct survey and monitoring of BCF population at its major habitats.	<ul> <li>Planned in the end of 2017.</li> <li>Lead by the Ministry of Marine Affairs and Fisheries local implementation unit and supported by the Research and Development Agency.</li> <li>Part of the development of population T0 and permanent monitoring sites.</li> </ul>	The T0 surveys have been accomplished in October 2017 involving Indonesian Institute of Sciences (LIPI), Local Fisheries Office (DKP), University Researchers (UNTAD) and NGO (LINI). The complete report is under development to be published in a Journal while the abstract is already submitted to the National Ichthyology seminar in May 2018
		4. Conduct a genetic test for BCF population outside Banggai as its natural habitat.	<ul> <li>Subject to funding availability.</li> <li>Conducted by the ministry of Marine Affairs and Fisheries R&amp;D agency.</li> </ul>	The genetic test program might be delayed due to the fund availability for the activity.
		5. Updating BCF population status.	<ul> <li>Planned activities for 2017:</li> <li>Collecting previous data from national and international researcher.</li> <li>Development of baseline data for population number as T0.</li> <li>Conducting workshop to facilitate the development of T0 data on June 2017.</li> <li>Regular population monitoring (once or twice per year depend on budget availability).</li> </ul>	<ul> <li>Study on population stock have once been conducted by fisheries research center nevertheless it only valid from 2011 to 2015</li> <li>The T0 survey have been conducted in October 2017. The survey results have been discussed in December 2017 in Luwuk and in February 2018 in Bogor.</li> <li>T1 survey will be conducted in October 2018</li> </ul>
2.	Habitat protection	1. Identification of potential habitats for conservation	Planned to be completed by November 2017	Governor of Central Sulawesi has enacted Governor Decree No 523/635A/DIS.KANLUT- GST/2017 that established protected area for BCF covering an area of

NO	STRATEGY	ACTION	INITIAL REPORT AT 29 <sup>th</sup> AC Meeting	PROGRESS AT 30 <sup>th</sup> AC MEETING
		2. Rezoning existing MPA to cover all BCF major habitats		869.059,94 ha across three regency namely Banggai, Banggai Laut and Banggai Archipelago
		3. Establishment of new MPA under the provincial government.		
		<ol> <li>Establishment of locally managed MPAs</li> </ol>		
3.	Re-initiating the proposal to apply protection status for BCF	1. Formulation of policy paper	Drafting and expected to be ready by 1 <sup>st</sup> semester of 2017.	<ul> <li>the Minister of Marine Affairs and Fisheries has enacted BCF protection status through ministerial decree No 49/KEPMEN-KP/2018</li> </ul>
		2. Regulation on limited protection status (options include: limit on size, number of harverst, and catch sites/areas)	<ul> <li>Initial discussion and consultation</li> <li>Expected completed by early 2018</li> </ul>	<ul> <li>49/KEPMEN-KP/2018 concerning BCF limited protection status.</li> <li>The decree says that any catch of the fish during peak breeding seasons – February, March, October, November - is illegal.</li> </ul>
4.	Designation of area/habitats which	1. Conduct population survey at all potential harvest	Planned for 2018	• The ministerial decree No 49/KEPMEN-KP/2018 concerning BCF limited protection have outlined the time
	allowed for harvest	<ol> <li>Dissemination on harvest rotation system and open- close system.</li> </ol>	Planned for 2018	<ul> <li>when harvest is allowed and not allowed.</li> <li>Additionally, the MPA Zoning systems have regulated the area where harvest is allowed and not allowed (Harvest of the fish is allowed in sustainable fisheries zone except during February, March, October and November).</li> <li>The socialization of the regulations have been conducted in April 2018 (Palu, Central Sulawesi) and in May 2018 (Banggai Laut)</li> </ul>
5.	Setting up quota for BCF harvest from wild	1. Conducting level of exploitation at each market chain.	2017 (subject to funding availability).	• While domestic trade data are already available, we are still underway to develop additional, reliable and precise data in order to setup the quota.
		2. Quota allocation	2018	We plan to exercise and discuss quota for three districts including Banggai, Banggai Laut and Banggai Archipelago district in 2018.

NO	STRATEGY	ACTION	INITIAL REPORT AT 29 <sup>th</sup> AC Meeting	PROGRESS AT 30 <sup>th</sup> AC MEETING
6.	Conducting monitoring and surveillance of BCF exploitation	1. Socialization on BCF regulation	2018	<ul> <li>The ministerial decree has been submitted officially from central government (the MMAF) to the Governor of Central Sulawesi for implementation.</li> <li>Public socialization have been conducted in Palu and Banggai Laut attended by provincial and local stakeholders.</li> </ul>
		<ol> <li>Surveillance on harvest, distribution, and trade.</li> <li>Enforcement</li> </ol>	2017 - 2018	<ul> <li>Monitoring and surveillance of BCF exploitation is run by both community and government.</li> <li>Patrols are planned to run in a regular basis particularly during the time when BCF harvest is prohibited.</li> </ul>
7.	Application of Cites approach to regulate trade of BCF (although this species is not yet listed in Cites Appendix)	1. Development of SOP for BCF trade outside main habitats in Banggai Islands and trade from aquaculture	2018	<ul> <li>We are preparing several SOPs that will detail regulation on national trades and traffic of the endemic species</li> <li>The National Standard (SNI) on BCF Aquaculture No: 8109:2015 that is expected to support effort to reduce harvest in the wild</li> </ul>
		2. Data collection of international trade	2017 (subject to funding availability)	2017 export data have been collected
		3. Development of NDF (Non Detrimental Finding) for BCF	2018 (subject to funding availability)	Need further discussion to fit with the protection status of BCF.
		4. Registering BCF exportir and setting up association	2017-2018	• establishment of BCF Exporter Association (initial meeting have concluded in December 2017)
8.	Community empowerment	1. Community based surveillance program.	2017 and integrated with material/equipm ent assistance	• 10 Community Conservation Groups (KOMPAK) have received assistance in the form of small shipping boat and aquaculture facility.

NO	STRATEGY	ACTION	INITIAL REPORT AT 29 <sup>th</sup> AC Meeting	PROGRESS AT 30 <sup>th</sup> AC MEETING
		<ol> <li>Sustainable use of BCF for community welfare.</li> <li>Training and technical assistance to community (aquaculture, restoking, trade- chain, disease management)</li> <li>Socialization, education, and awareness campaign</li> </ol>	2017 – 2018 limited to 10- 15 villages and need further financial assistance to cover more villages.	<ul> <li>LINI Foundation have been running technical assistance for community groups for years towards BCF aquaculture. In January 2018, two community groups from Bone Baru (Banggai Laut), the <i>Khatulistiwa Lestari</i> and <i>BCF Lestari</i>, , installed community aquaculture facility. In February 2018, four persons from KOMPAK attended aquaculture training program. From February 2018, the Community aquaculture determing program.</li> <li>Training centers for BCF aquaculture already exist in LATC Bali dan BPBL Ambon</li> <li>Marine education program to introduce BCF and general marine conservation to local children has been conducted regularly in Bone baru.</li> <li>The education activities include reef rehabilitation and regular beach clean-up where not only children participate, but involving other stakeholders including Bone Baru village Authority and Fisheries staff</li> </ul>
9.	Improving BCF conservation and management governance	<ol> <li>Optimising Banggai Cardinal Fish Center</li> </ol>	2018 subject to funding availability	Still waiting the process of MPA authority transfer from district government to provincial government
		2. Development of ex situ dconservation and training	Will be lead by the Directorate General of Aquaculture.	Training centers for BCF aquaculture already exist in LATC Bali dan BPBL Ambon
		3. Increasing natural habitat coverage	On going trough Provincial MPA and locally managed MPA.	<ul> <li>BCF habitats have been designated as MPA</li> <li>Rehabilitation of microhabitat will be conducted in the MPA</li> </ul>
		4. Development of national trade network and promotion	2018 alongside with the establishment of association	The BCF trades will mainly base on Minister of MAF Regulation No 04/2010 concerning utilization of fish species
		5. Improving the role & function of national task force.	Existing national task force is available and requires further information on BCF	The draft of improvement of national task force is discussed.

NO	STRATEGY	ACTION	INITIAL REPORT AT 29 <sup>th</sup> AC Meeting	PROGRESS AT 30 <sup>th</sup> AC MEETING
10.	Strengthening brood stock center for BCF culture	<ol> <li>Community training on BCF culture</li> <li>Increasing of BCF culture activities</li> </ol>	2017-2018 facilitated by the Ministry of Marine Affairs and Fisheries and Yayasan Pemerhati Lingkungan (Environmental Care Foundation).	<ul> <li>Training centers for BCF aquaculture already exist in LATC Bali dan BPBL Ambon</li> <li>BPBL Ambon has conducted education programs to community on BCF aquaculture</li> <li>YPL Foundation have also run BCF aquaculture training in 2017</li> </ul>
		<ol> <li>Restocking of adult</li> <li>Assessment of habitat rehabilitation sites</li> </ol>	• Prioritized at 3 islands at Banggai by August 2017 and using original species from Luwuk.	<ul> <li>The yield of community groups (KOMPAK) aquaculture in Banggai Laut and Banggai Kepulauan is expected to support the restocking of adults program</li> <li>Preliminary survey to identify rehabilitation sites were held in Liang (Peleng island) in March 2018. Liang site is designated as rehabilitation zone under the newly established Provincial MPA Banggai Kepulauan. Two other sites which are planned for rehabilitation sites are Bone Baru and Popisi. These sites will be developed as Locally Managed Marine Areas</li> </ul>
11.	Restocking program	1. Updating manual for BCF restockin	The manual had been developed in 2015.	The guideline is being reviewed
		2. Community education and training on BCF restocking.	2018	Planned for 2018
		3. Conducting re- stocking activities	The Directorate General of Aquaculture has undertaken restocking in Ambon (5000 individuals).	• The restocking programs have not been conducted in BCF origins habitat but the yield of BCF aquaculture from Ambon have contributed to restocking programs run by in Maluku. That includes 3000 individuals released in the wild in 2017 and 750 individuals in 2018
		4. Evaluation on restocking effectiveness	2018	Monitoring and evaluation have been run in 2017 for the restocking programs in Ambon