(English only / Únicamente en inglés / Seulement en anglais)

MINISTRY OF ENVIRONMENT AND FORESTRY
DIRECTORATE GENERAL OF ECOSYSTEM AND NATURAL RESOURCES CONSERVATION
DIRECTORATE OF BIODIVERSITY CONSERVATION
7th Floor, Block VII, Manggala Wanabakti Building
Jalan Gatot Subroto, Jakarta 10270, Telp. 021-5720227 – Fax. 5720227

Our Ref: S.728/KKH/PKINT/KSA.2/7/2016

22 July 2016

CoP17 Doc. 88.2
Annex 4

CITES Secretariat
International Environment House
Chemin des Anemones
CH-1219 Chateline Geneva
Switzerland
Fax (41 22) 797-3417
Email: info@cites.org, cop17documentation@cites.org

Subject: Indonesia comment of the proposal amendments of appendices I and II to the Convention for the CoP 17 CITES

Dear Sir,

Pursuant to the Notification to the Parties No. 2016/043 dated 26 May 2016 pertaining amendments of appendices I and II to the Convention, please kindly find enclosed Indonesia comment for the proposal for your perusal.

Thank you for your kind attention and consideration.

Sincerely yours,

Ratna Kusuma Sari
Acting
Director of Biodiversity Conservation
CITES Management Authority of Indonesia
Email: macites@menlhk.go.id, rksari@gmail.com, rksari@menlhk.go.id, agnugroho@gmail.com

cc.:
1. Director General of Ecosystem Natural and Resources Conservation, Indonesia
2. CITES Scientific Authority of Indonesia, Cibinong, Indonesia
3. Director of Economic Development and Environment, Ministry of Foreign Affairs, Indonesia
4. Permanent Mission of the Republic of Indonesia to the UN, WTO, and Other International Organizations in Geneva

Attachment Letter
Our Ref. : S.728/ KKH/ PKINT/KSA.2/7/2016
Dated : 22 July 2016
Subject : Indonesia comment of the proposal amendments of appendices I and II to the Convention for the COP 17 CITES

Comments:

1. Proposal 46 Europian Union (*Pterapogon kauderni*/Banggai Cardinal Fish)

Indonesia has responded to EU regarding the proposal. CITES Management and Scientific Authority of Indonesia has conducted series of meeting with stakeholder including related ministry, institution and expert and conclude that the fish (*Pterapogon kuderni*) is not deserve to be included in appendix II of CITES, comprehensive statements regarding our position **as attached**.

2. Proposal 60 USA (*Aquilaria spp., Gyrinops spp.*/ Agarwoods)

Indonesia seek clarification regarding the proposal since The United States of America have never conducted any consultation with Indonesia as the range state and the member of the WG. We need clarification with the word wood-chips. In accordance with the document of PC22 oc. 17.5.3 on Glossary of Agarwood Products, Indonesia propose to use the term of "chips" rather than "wood-chips" and in accordance to national regulation.

STATUS OF BANGGAI CARDINAL FISH IN INDONESIA

Background

Pterapogon kauderni Koumans, 1933 or more popularly known as Banggai cardinalfish (BCF) or Capungan (Indonesian language) is a unique marine species thought to be endemic belongs to the family Apogonidae with a maximum standard length (SL) of around 6.5 cm and it can be live up to 4 years old in captivity and 2 years in a wild. This fish can be easily recognized by the three white-edge black bars on its head and body, enlarged white-spotted pelvic fins and its tasseled first dorsal fin. The Banggai Cardinalfish are shy but become more active during night time, they are commonly seen individually or in an aggregation of 20 or more fish. They sheltered among branching corals, seagrasses, sea urchin especially *Diadema setosum*, the black long spine sea urchin or sea anemone. The fish actively feeds on a variety of small invertebrates such as copepods, polychaetes and other small crustaceans. The Banggai Cardinalfish have a small home range. Reproduction of this species is very special. It is a paternal mouth-brooder with direct development, has no pelagic dispersal of eggs or larvae and considered to have relatively low fecundity (Vagelli, 1999). Female spawn about 12-40 large eggs, which is taken into the male's mouth and incubated for about 20 days. After hatching the embryos remain in the oral cavity of the male for about ten days until completion of their development when they are released as recruits. The unusual behavior is responsible for the very high survival rate of the juvenile and the limited natural distribution. The habitat of *P. kauderni* is limited to shallow coastal waters (0 – 5 m, mostly less than 3m depth) that includes coral reefs and reef flats, sea grass beds, and lagoons (Lunn & Moreau, 2004; Vagelli & Erdmann, 2002; Kasim *et al*, 2014).

Distribution

The species was originally found in the Banggai Islands (Indonesia) with narrow geographical distribution. The fish became more popular among hobbyist, conservationist and scientists after its re-discovery in 1995 and treated as an exotic ornamental fishery species. However, later on, this species was intruduced in the wild habitat other than Banggai Islands. The species has been introduced in several location in Indonesia, i.e. a small population is known to established in the Lembeh Strait (North Sulawesi), 400 km north of Banggai that was said being introduced by aquarium fish traders in 2000 (Erdmann and Vagelli 2001; Makatipu *et al.*, 2013). Another population also found in Central Sulawesi within Luwuk harbor (Vagelli and Erdmann 2002), Luwuk and Tumbak (Ndobe and Moore

2005), Mamboro (in October 2006) and Palu Bay (Moore and Ndobe, 2007). Recently, this species was also being reported to occur in Bali (Lilley, 2008), in Banyuwangi , in Ambon, Lampung and Ternate (pers com) (Fig.1)

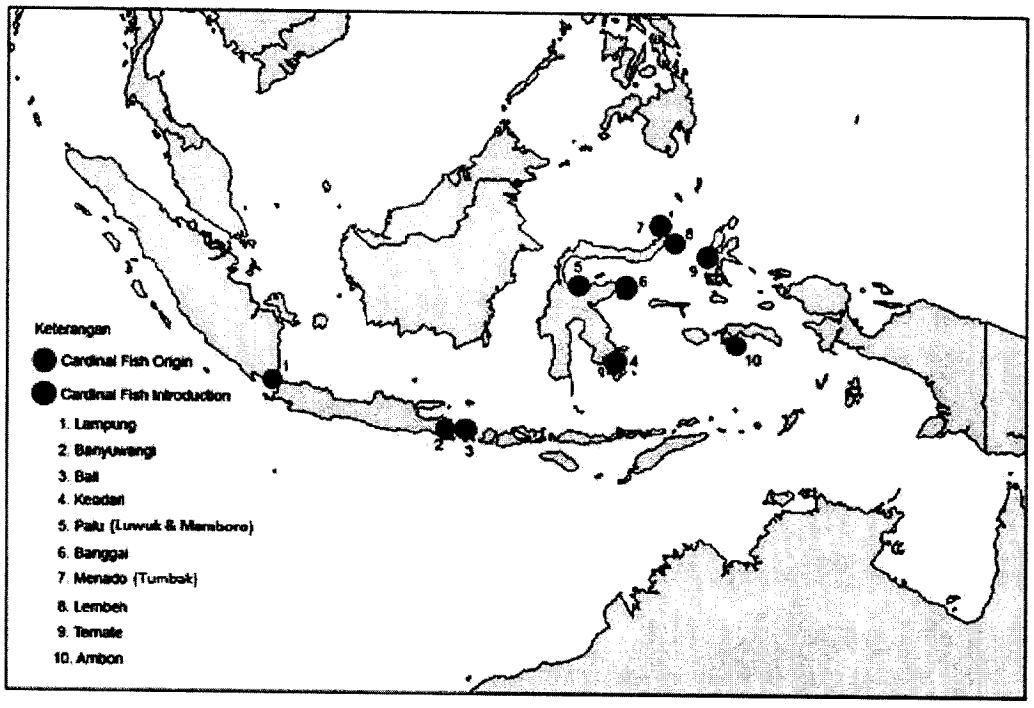

Figure1. The Banggai Cardinafish has been introduced to several places in Indonesia: Lampung, Banyuwangi, Ternate and Ambon (based on personal communication); Bali (Lilley 2008), Lembeh Strait North Sulawesi (Erdmann and Vagelli 2001; Makatipu *et al.*, 2013), Central Sulawesi Luwuk, Tumbak, Mamboro and Palu Bay (Ndobe and Moore 2005; Vagelli and Erdmann 2002; Moore and Ndobe, 2007)

Population

Study on population density had been conducted in 2007-2012 (Yahya *et al.*, 2012) which showed that density of recruits and adult tend to decrease between 2009-2011, whereas for the juveniles more abundant in 2012 compared to 2009. Another study was also carried out in 2010 (Kasim *et al.*, 2014) of which result indicated that the population tend to decrease due to heavy collection for trade and microhabitat loss as the local community and also collect other shallow water marine species for consumption (sea urchin and sea anemone). Its population in Banggai Islands was reported at 1.4 million individuals in 2015, of which number is assumed as a result of 42% reduction compared to the population in 2004 (Vagelli, in prep.). The cause of this decline is reported mostly due to heavy collection for aquarium trade.

Basically, BCF is relatively easy to adapt in other environment that resemble its known original habitat in Banggai. For example, a population in Ambon, reported being introduced in late November 2014, found grow well and expand to a fairly huge number a year after. However, current habitat exploitation practices in Banggai Islands do not support its sustainability. In a normal condition of a wild habitat, this species breed every month in a year, provided its juvenile microhabitat, with acceptable presentation of sea urchin and sea anemone is maintained (Hartati *et al* 2012; Erdy, pers com). Even in a captivity (aquarium), this species can be expected to breed within some dwell time before shipment (CV Cahaya Baru, pers com. Erdy, pers com). The collection of other marine species worsen the BCF native population regardless its collection for trade. Yet, it is acknowledged that more effective control and monitoring for BCF collection in this native habitat is needed, as well as local communities education, especially on the issue of correct fishery practice to avoid habitat destruction and maintain the microhabitat of this species related to their own sustainability livelihood.

Management

Management measures of BCF has been initiated since 2005 either by national government or local as well as through local wisdom. The government of Indonesia either central or local government with other stakeholders agreed to implement a multi years BCF action plan (2007-2011) and many effort had already been taken since, in order to conserve and manage *P.kauderni* through sustainable ornamental fishery practices and training for collectors and middlemen (Ndobe and Moore, 2009; Moore *et al.*, 2011; Yahya *et al*, 2012; Ndobe *et al*, 2013). The first step was marked by the establishment of BCF center through the decree of The Regent of Kepulauan Banggai No.168 year 2007 and the decree of The Regent of Kepulauan Banggai on Local Marine Conservation Area (Kawasan Konservasi Laut Daerah or KKLD) No. 540 year 2007 that also determine the allowed harvest quota at 15,000 individuals/month. Local wisdom also regulate the size of BCF for capture from the wild is at a maximum size of 4-5 cm TL. (Hartati *et al*, 2012). The practice of BCF exploitation also implemented under the Fishery Law No. 31 Year 2014 article 6 that states: fishery management is conducted to achieve optimum and sustainable utilization along with fishery resources sustainability. In 2008, local government decided to establish only three locations namely Bone Baru, Toropot and Bone Bone, as the center for BCF capture (Hartati *et al*, 2012). According to a study conducted in 2011, it was indicated that BCF collection up to

18,000 individuals/month is acceptable to be implemented for at least 3 years (Hartati *et al*, 2012).

Harvest

Banggai Cardinalfish has been traded as a marine ornamental fish and the level was increasing started in the 1990's (Lunn and Moreau, 2004). This species is currently included in the top 10 ten most imported species in the US (Rhyne *et al.*, 2012). According to Yahya *et al,* (2012) the harvest data from one site in Banggai, i.e Bone Baru, showed that the number was 99,898 and 99,719 individuals in 2010 and 2011, respectively. BCF from Banggai is transported to various major cities in Indonesia for international distribution. Some are also shipped from other places around the country to supply international market. However, most of trade level from these various places is not properly documented. Moore *et al.*, (2012) mentioned that annual harvest had reached 600,000-700,000 individual/year. Available information at the moment stated that for international trade, supplies are also obtained from Tumbak (Manado), Kendari and Luwuk with the number of individuals per month was 10,000, 20,000 and 5,000_respectively (CV. Cahaya Baru, pers.com). However, production from other places remain undocumented. All of the fish were taken from wild habitat. Meanwhile, the same company (CV Cahaya Baru) also obtained its supplies from aquaculture facilities operate in Ambon and Bali (hatchery/breeding). In 2015, the harvest of aquaculture in Ambon annually at 19,953 fish with approximate production is 1,600 fish/month, whereas from Bali at 20,000 fish per month. The BCF produced in a marine aquaculture has the same appearance, bright and exotic and considered tougher than the one came from its native habitat in Banggai (Erdy and G. Lilley, pers.com). In addition, The Indonesian Nature Foundation (LINI) had set up Aquaculture and Training Centre for Banggai Cardinal Fish (BCF) in the remote hamlet of Les on Bali's north east coast in 2015. Most of the participants of its training were women came from local village. The fish had being proved to be surprisingly easy to breed in a captivity. The LINI Aquaculture and Training Centre had harvested and sent its first live production to Great Britain in early March this year at a number of 400 individual fishes (Sertori, 2016). The production is meant to meeting the high demand of this species in the aquarium trade (G. Lilley, pers.com).

Livelihood

Collection of this species continues to provide additional income for local communities in the Banggai Islands. However, attention should be addressed to the problem of over-exploited microhabitats such as sea urchin and sea anemone. This microhabitat, in any wild habitat, is proved to be a shelter for early stage of BCF's lifecycle for survival (Yahya *et al.*, 2012; Kasim *et al.*, 2014). It could be suggested such operation as conducted in Bali (LINI) can be applied in Banggai to relived BCF population from over-utilization. Generally, current practice in BCF trade, either with the application of harvest quota from the wild (considered) native habitat or production in fisheries farming, has demonstrated steps that lead to a sustainable management. Whether on the evident of its wider distribution currently known, of which also not considered to be invasive, re-assessment on its conservation status might be proposed.

In conclusion, consider that the Banggai Cardinal fish is naturally easy to adapt, breed every month in a year, currently found almost everywhere around the country, and fairly easy to produce in a farm, the species is not deserve to be included in appendix II of CITES. The population depletion in its (considered) native habitat is more due to local community's ignorance and their lack of understanding on the importance of habitat and microhabitat for the sustainable utilization of this species. It is more preferable to include this species into national regulations that restrict its utilization, such as moratorium of wild collection from its (considered) native habitat in Banggai, and established proper chain of custody with decent documentation of all sources of this species for trade.

References

Erdmann, M.V. and A. Vagelli. 2001. Banggai cardinalfish invade Lembeh Strait. Coral Reefs 20:252-253.

Hartati, S.R., Wudianto and L. Sadiyah. 2012. Management for Banggai Cardinal Fish (BCF) (*Pterapogon kauderni*) In Banggai Islands Waters. J. Kebijak.Perikan.Ind. vol.4 No.1: 1-7

Kasim, Kamaluddin., S.T. Hartati, Prihatingsih, and Gudmundur Thordarson. 2014. Impact of Fishing and Habitat Degradation on The Density of Banggai Cardinal Fish (*Pteropogon kauderni* Koumans 1933), in Banggai Archipelago, Indonesia. Ind.Fish.Res.J vol 1.no 2:29-36

Lilley, Ron. 2008. The Banggai cardinalfish: An overview of conservation challenges. SPC Live Reef Fish Information Bulletin #18

Lunn, K.E. and Moreau, A.M. 2004. Unmonitored trade in Marine Ornamental Fishes: the Case of Indonesia's Banggai Cardinalfish (Pterapogon kauderni). Coral Reefs (2004) 23:344-341.

Makatipu. P.C., T. Peristiwady, N. Manik, I. Pulukadang, M. Pandu Risqi, M. Jabar and N.Mahmud. 2013. Standing Stock dan Pemeliharaan Induk Ikan Capungan "Banggai Cardinalfish" (*Pterapogon kauderni* (Koumans, 1933) Di Selat Lembeh, Bitung, Sulawesi Utara. Laporan Akhir. Unit Pelaksana Teknis Loka Konservasi Biota Laut Pusat Penelitian Oseanografi, Lembaga Ilmu Pengetahuan Indonesia Bitung

Moore A, Ndobe S, Zamrud M (2011). Monitoring the Banggai Cardinalfish, an Endangered Restricted Range Endemic Species. Journal of Indonesia Coral Reefs 1(2) (2011) 99-113

Moore, A. and Ndobe, S. 2007. Discovery of an introduced Banggai Cardinalfish population in Palu Bay, Central Sulawesi, Indonesia. Coral Reefs 26:569.

Ndobe S., Moore A., Salanggon A.I.M., Muslihudin, Setyohadi D., Herawati E.Y. and Soemarno. (2013). Pengelolaan Banggai cardinalfish (*Pterapogon kauderni*) melalui Konsep *Ecosystem-Based Approach* (unpublished)

Ndobe S, Moore A (2009) Banggai cardinalfish: towards a sustainable ornamental fishery. Proc 11th Int Coral Reef Symp 1:1026-1029

Ndobe S. & Moore A. (2005). *Pterapogon kauderni*, Banggai Cardinalfish: Beberapa Aspek Biologi, Ekologi dan Pemanfaatan Spesies Endemik di Sulawesi Tengah yang Potensil untuk Dibudidayakan. Prosiding Seminar Perbenihan Nasional (National Seminar on Breeding) 2005, Palu, Indonesia, hal. 389-404.

Rhyne A. L., Tlusty M. F., 2012 Trends in the marine aquarium trade: The influence of global economics and technology. AACL Bioflux 5:99-102.

Sertori, Trisha. 2016. Banggai Cardinalfish Endemic fish nurtured in Bali. http://www.thejakartapost.com/news/2016/03/24/banggai-cardinalfish-endemic-fish-urtured-bali.html. Accessed on April 8th 2016

Vagelli A (1999) The reproductive biology and early ontogeny of the mouthbrooding Banggai cardinalfish, *Pterapogon kauderni* (Perciformes, Apogonidae). Environ Biol Fish 56:79–92.

Vagelli A.A. & Erdmann M.V. (2002). First Comprehensive Survey of the Banggai Cardinalfish, *Pterapogon kauderni.* Environmental Biology of Fishes 63:1-8.

Yahya, Y., A. Mustain, N. Artiawan, Gayatri Reksodihardjo-Lilley, and M.F. Tlusty. 2012. Summary of results of population density surveys of the Banggai cardinalfish in the Banggai Archipelago, Sulawesi, Indonesia, from 2007 –2012