



The complications of CITES inclusion of endemic species in Indonesia: Lessons learned from an in-country deliberation on protecting the Banggai cardinalfish, *Pterapogon kauderni*

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The Banggai cardinalfish, *Pterapogon kauderni* (hereafter, BCF), was first brought to the attention of science in 1920 by Walter Kaudern. After not having been reported for about 75 years, BCF was “rediscovered” in 1994 by Allen and Steene (1995). BCF has now become an internationally well-known (and sought after) aquarium fish in Europe and the United States of America (USA). This reef-dependent apogonid was initially believed to be naturally distributed only in the Banggai Islands, which administratively comprise an entire district (region) in the province of Central Sulawesi, Indonesia. However, recent observations indicate that BCF also occur in Luwuk Harbor, on the mainland eastern peninsula, Lembah Strait in North Sulawesi, and Palu Bay in Central Sulawesi (Vagelli 2002). The fish observed in Lembah, and possibly Palu, are feral populations³ (Vagelli and Erdmann 2002). Collecting pressure has been high: between 2000 and 2001, close to 700,000 BCF were traded in the Banggai Islands. An assessment made just after this period estimated a total population of about 1.7 million surviving individuals (Vagelli 2002). According to a more recent estimate, there are about 1.8–2.2 million fishes, and the harvest rate is at least 900,000 fishes per year (Vagelli 2007). However, these estimates have yet to be adequately peer-reviewed, and the harvest rate, having been estimated by extrapolating from short-term export figures, might be inflated if there were substantial between-year variations in exports (IUCN/TRAFFIC 2007).

This high harvest rate, combined with certain biological and ecological attributes of BCF that constrain rates of colonisation of vacant habitats (e.g. its association with benthic substrate, its lack of planktonic larval dispersal, the fact that its habi-

tat is fragmented due to the geomorphology of the reef substrate, and the fact that currents preventing colonization between reefs; Vagelli 1999, 2007), give rise to concerns about the species’ conservation status. It is seriously doubted whether recruitment and recolonisation rates can keep up with ongoing harvesting rates (Vagelli 2002, 2007; Vagelli and Erdmann 2002). BCF has not received national or international protection status, but in September 2007 it was classified as “endangered” by the World Conservation Union (IUCN).

In early 2007, in anticipation of the 3–15 June 2007 Fourteenth Meeting of the Conference of the Parties (CoP 14) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), deliberations within Indonesia were held to discuss and determine whether or not to support the proposal by the USA to list BCF under Appendix II of CITES⁴, as well as proposals for other species. The authors participated in some of those deliberations, specifically a preparatory meeting (in Jakarta, 24 May 2007)⁵ that included representatives from the central government (scientific and management authorities), conservation non-governmental organizations (NGOs), sub-national governments (province and region), and scientists (regional, national and international). Considerable differences of opinion regarding the proposed inclusion of BCF under CITES arose, which highlighted the complexity of listing an endemic species. It is hoped that the lessons learned from that process can be used to inform the policy formulation process in the future.

This article focuses on consensus-building and decision-making processes, not on the decision

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3. Over the years, middlemen and exporters have released rejected BCF in various parts of the Indonesian Archipelago.

4. Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances. Appendix II includes species not necessarily threatened with extinction, but the trade of which trade must be controlled in order to avoid utilization incompatible with their survival (<http://www.cites.org/eng/disc/how.shtml>; accessed 15 March 2008). Under Appendix II, an exporting country should set a quota, and the quota should be based on good evidence showing that the harvest rate is not detrimental to the population(s).

5. Suseno also served as a member of the Indonesian delegation to the CoP 14, in Den Haag, the Netherlands.

itself or its basis (the decision at CoP 14 was not to list BCF).⁶

In the course of the preparatory meeting, different interest groups made proposals on various grounds. Representatives of the central government, represented by personnel from the Ministry of Fisheries and Marine Affairs, as well as the Indonesian Institute of Sciences, reasoned that inclusion of BCF under CITES would only increase the already substantial CITES paperwork burden (for already listed species) without improving BCF's conservation prospects. But the central government left the final decision (of whether or not to support the listing of BCF) to the provincial and regional governments. Representatives of the provincial government of Central Sulawesi reasoned that inclusion in CITES would disrupt local livelihoods. Days after this preparatory meeting, the head of the provincial fisheries agency (Dinas Perikanan Propinsi Sulawesi Tengah) raised concerns through a statement in a national newspaper that CITES protection would hamper local captive breeding efforts should they become feasible in the future (Anon. 2007a). The regional government of Banggai Islands (represented by a senior official from the district fisheries agency), which had had no previous exposure to CITES, hesitantly supported the proposal, arguing that the inclusion of BCF under CITES would enhance recognition of the biodiversity importance of the Banggai Islands. Notably, local fisheries stakeholders — fishers, collectors and traders — were not present at the meeting, yet they are important beneficiaries of the BCF resource. All meeting participants agreed that more time was needed to make a final decision.

The variety of opinions on the issue highlighted the need for a closer look at the pros and cons of listing under CITES. It is conceivable that one positive impact of listing would be increased awareness among regional stakeholders of the value of their own natural resources, which in an era of strong regional autonomy within Indonesia, could be valuable for conservation.

The other side of the coin is that in some of the more remote archipelagic regions of Indonesia (of which Banggai Islands is one), enforcement is difficult and the imposition of new regulations might bring socio-political resistance on the part of the people

involved in the trade of BCF (some of which have considerable political clout). Also, the central Indonesian government might not favour the additional bureaucratic layer that would be necessitated by the inclusion of another species under CITES. Under Indonesia's regional autonomy laws (Laws 22/1999 and 25/1999, Government Regulations 25/2000, and Law 32/2004), governance of the natural resources "sector" (as opposed to "function") is devolved to regional governments, with the exception of "strategic" issues (see USAID DRSP 2006). However, decentralization of management of marine space and resources is yet to be effectively implemented, as governmental regulations are still needed to form the necessary legal framework (Satria 2003). Consequently, the roles of various governing authorities need to be clarified.⁷

CITES, by its international nature, primarily involves central governments, a characteristic that in Indonesia has yet to be effectively reconciled with regional autonomy principles. In the remote and scattered Banggai Archipelago, it is difficult enough to convince people of the need for conservation on ethical grounds alone. It is almost impossible to introduce into the public mainstream the concept of, and need for, multilateral environmental agreements. Regional governments that have had experience with CITES are likely to oppose the inclusion under CITES of species that are present locally because it is likely to lead to stacks of additional *berita acara* (paperwork). The central government is experienced with CITES, and if it tries to discourage the inclusion of a species, it is often because it is simply trying to spare the regions from additional paperwork.

One positive outcome of CITES inclusion of an endemic species is that it might be accompanied by technical assistance to the regional and central governments and stakeholders, which would provide capacity building opportunities.

During the meeting, one participant (and only one) proposed that the significance to the local economy of the current (unsustainable) level of harvest of *Pterapogon kauderni* was very modest, and that less than 0.1% of the local people were involved in the BCF trade (which began only about 12 years ago). It was consequently argued that BCF should be listed in CITES Appendix I, which would effectively prohibit international trade. It was

6. Considering the geopolitics of Indonesia, in order to be effective, decisions for including species under CITES should be supported by the sub-national governments as well as the national government. Naturally, challenges remain in attaining such agreement, especially in how to improve communications with, and the knowledge base of, local governments, especially in more remote islands such as those in the Banggai archipelago.

7. Although decentralization is a time-consuming process and has yet to be fully achieved, evidence remains that it can bring positive outcomes, including increased public services, institutional resilience, and improved capacity for governance reform (USAID DRSP 2006; Suseno 2007).

countered, however, that further socio-economic information was needed to weigh the importance of the fact that less than 0.1% of the population, or about 160 people, were involved in the trade. It was recognized that even when fish collecting is considered to be artisanal, and the number of people involved is small, the impacts can be substantial. The fishers are members of closely knit family groups and clans whose deep social coherence means that the benefits of the fishery carry well beyond the fishers themselves.

The difficulties in introducing conservation measures were also recognized. If carelessly introduced to local communities, even basic conservation ideas may not be perceived by the communities in the same way that they are by the government bodies introducing them, resulting in both misunderstanding and animosity towards the government and conservation interest groups (including researchers and activists). Empirical evidence abounds showing that “cultures of nature” such as the fishing communities of the Banggai Islands have very different perspectives on the politics of local conservation, and that working closely with members of such communities may be the only way to understand them (e.g. Lowe 2006). Also important is the need to understand and take into account the combined political influence of the traders who drive the collection of BCF, particularly since the structure of the trade has for many years been an oligopoly (Indrawan pers. obs.).

Multiple conclusions may be drawn. Firstly, CITES inclusion faces the political reality of the decentralized nature of governance in Indonesia, where the respective governing roles for natural resources have yet to be clarified among the three levels of government: national, provincial and regional. Sorting out those roles would be particularly challenging for a species with such a highly restricted range as BCF, which is distributed in a single region.

Secondly, for a species or resource such as BCF with local economic importance, the decision of whether to list under CITES should be based on adequate analysis of the impacts of listing, including consideration of socio-political dimensions. Undertaking such an analysis calls for the direct involvement of the trade stakeholders themselves. Archipelagic-wide consultations should be undertaken. Considerable effort should be spent to disseminate the principles of CITES to the regions (especially those with higher levels of endemism), and to help the regions prepare any necessary rules and regula-

tions. Effective participation of artisanal fishers must be ensured so that they do not feel victimized by government policies to which they otherwise would have little input. In order to realize policies that side with the poor and the marginalized, it is important to appreciate the aspirations of, and preserve the dignity of, local communities. One risk of not doing so is that stakeholders would be confused by the regulations at multiple governance levels. Given the need for such consultations, ample time should be provided before a decision is made to list a species under CITES.⁸

Thirdly, consideration should be given to the trade-offs between the timing of listing, and the threat to BCF imposed by trade. For instance, the (then-upcoming) CoP 14 could be viewed as an opportunity to list BCF and consequently stem the threat, but that opportunity has to be weighed against the advantages of deferring the decision about whether to list in order to gain time to further deliberate and gain support for such a decision.

Fourthly, properly conducted research is, of course, crucial to effective decision-making. Cooperation between local and international scientists in such research should be fostered and encouraged. Naturally, each country has its own sets of norms, ethics and rules that need to be respected. The process for obtaining the necessary research permits — for both national and international scientists alike — can require considerable time. However, it would be a pity if excellent and useful research were to be viewed in an unfavorable light only because of concerns over the legal status of the research. Complying with legal requirements would also bring the benefits of cooperative research between local and international scientists: local researchers and their international counterparts can learn and develop more holistic analytical approaches, including more socially and culturally sensitive approaches.

In conclusion, the basic tenet emerges that every interest group has something valid to contribute to the decision-making process. In order to harmonize the different perspectives of those groups and produce a shared understanding of the issues and a common conservation goal, more extensive and careful outreach effort with all interest groups, as well as making the appropriate linkages with research, would be worthwhile.

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8. As an example of such outreach, following the CoP 14, between June and September, 2007, the Ministry of Marine Affairs and Fisheries of the central government, in collaboration with the regional government, organized multiple dialogues for protecting and managing BCF, as reported in local newspapers (e.g. Anon. 2007b).

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