# **Complex History, Hopeful Future**

The Community Fisheries organizations in Cambodia form a vital framework for collective, rightsbased fisheries management that persists and thrives in inland and coastal settings to this day

> lanked by two of the world's largest marine fishing nations— Thailand to the west and Vietnam to the southeast—Cambodia's relatively modest 435-km coastline has not historically been renowned for marine fisheries. However, despite the longstanding dominance of freshwater fisheries across the Cambodian portion of the Mekong River system, marine fisheries have grown considerably, their production increasing from 75,000 tonnes in 2009 to over 212,000 tonnes in 2018, a 180 percent growth in a decade.

> This emerging sector reveals a fascinating picture of the social, ecological and political challenges faced by a rapidly developing ocean economy. Very little is known about

...since 2000, there has been a conscious governmentdriven policy dedicated to the 'Small-scale-isation' of the fishery through the creation of Community Fisheries organizations.

This article is by **Sour Kim** (Kim.Sour@ fauna-flora.org), Senior Research Coordinator, Fauna & Flora International, Cambodia; **Dan Steadman** (daniel. steadman@fauna-flora.org), Fisheries & Biodiversity Technical Specialist, Fauna & Flora International, United Kingdom; and **Henry Duffy** (henry.duffy@fauna-flora. org), Marine Technical Specialist Asia-Pacific, Fauna & Flora International, United Kingdom the social or cultural history of coastal fisheries in Cambodia prior to the 20th century, predominantly due to limited record-keeping during the colonial rule by France that ended in 1953. Up until the 1950s, Cambodia's coastal fisheries were predominantly small-scale, with minimal exports to its immediate neighbours. This is in contrast to other Southeast Asian countries such as Thailand and the Philippines, both of which relied on support from Japan in rapidly industrializing their demersal and pelagic fleets in this period. Mechanized fisheries in Cambodia, in fact, seem to have been tentatively introduced from Thailand in the 1960s as the expansion of their diesel-powered bottom-trawl fleet radiated out across neighbouring waters.

The civil and political disruption of the 1970s stopped much of this early development in its tracks, with all fishing banned during the Khmer Rouge era (1975-1979). The turmoil of this period saw both urban and rural communities violently displaced and relocated, seemingly eradicating the oral histories and traditions of coastal fishers and communities. In addition to halting the socioeconomic development potential of coastal fisheries-with rice agriculture and peasant farming the principal focus of the regime-this mass upheaval also created a serious 'trust deficit' between and within communities, inhibiting the social cohesion needed to adequately manage common resources.

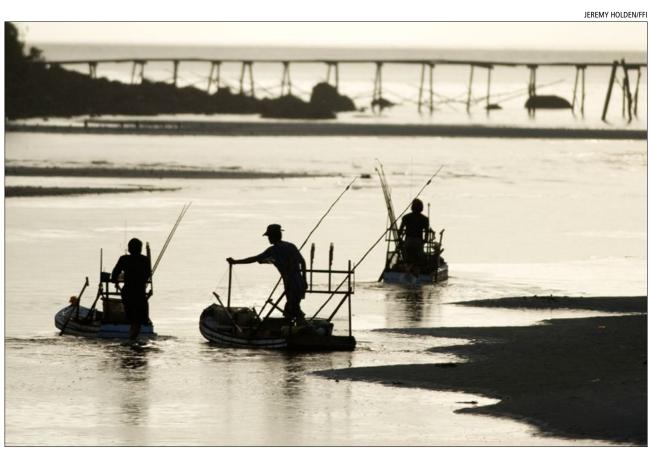
The end of the Khmer Rouge regime ushered in a 20-year period characterized by a dramatic shift towards communitybased management of both freshwater and marine fisheries. This culminated in the radical fishery reform of 2000, when Prime Minister Hun Sen overturned the private ownership or the 'lot' system that previously governed freshwater fisheries.

#### **Vital framework**

While this ambitious policy change did not directly affect marine fisheries governance—no coastal areas were under private ownership—it provided the basis for the Community Fisheries organizations, a vital framework for collective, rights-based fisheries management that persists and thrives in

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#### COMMUNITY FISHERIES



Small-scale fishing boats in Koh Rong archipelago, Cambodia. The combination of highspeed fishery industrialization and government-driven promotion of small-scale fisheries has left the country's marine resources in a challenging state

inland and coastal settings to this day. As John Kurien notably observed in a 2017 review of these institutions: "Cambodia is the only country in Asia where, since 2000, there has been a conscious government-driven policy dedicated to the 'small-scale-isation' of the fishery through the creation of Community Fisheries organizations." In parallel to this concerted national recognition of the small-scale sector, Cambodia's industrial marine fisheries also evolved considerably between the 1980s and the early 2000s, particularly the demersal fleet. The Cambodian bottom-trawling fleet more than trebled between the early 1990s and the early 2000s to a high point of nearly 1,600 vessels in 2002, reducing slightly to around 1,450 vessels over the ensuing two decades. (It should be noted that the absence of a functional vessel register or licensing system mean these are estimates.)

A majority of this fleet development was driven by relatively small (or 'baby') trawlers, with 72 per cent of the current trawl fleet under 12 metres in length and none larger than 24 metres. This expansive middle-scale section—it is not quite artisanal but not industrial—of the fleet has posed significant difficulties

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for sustainable fisheries management in Cambodia. It conflicted with Community Fisheries organizations, thereby slowing the implementation of rights-based marine fishery governance, and posing a management challenge for the design and implementation of a national marine protected area (MPA) network.

The combination of highspeed fishery industrialization and government-driven promotion of small-scale fisheries has left the country's marine resources in a challenging state. Several authors have noted likely drastic declines in demersal and pelagic resources across the Gulf of Thailand, although it has also been noted that insufficient catch monitoring may hinder drawing any concrete conclusions at the national level. While Cambodian fisheries law laudably promotes good governance and small-scale fishery inclusivity, it should be noted that 'open access' rights marine fisheries for all Cambodians have left little scope to control expansion, tackle overcapacity or limit environmental degradation.

This disconnect between fishery policy and the reality of resource decline is nowhere more evident than in the 'middle-scale' demersal trawl fisheries. While there are a small number of large trawlers under beneficial foreign ownership, 'middle-scale' vessels are owned by elite Cambodians, who each own between three and five vessels that

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switch between trawling and swimming crab gillnetting, according to season. Although still categorized as 'smallscale' in the eyes of the government, these vessels are increasing their fishing power, marginalizing the truly local operators and even taking advantage of the associated benefits of this miscategorization (for example, avoiding paying tax due to being considered 'small-scale').

As in many Southeast Asian nations like Malaysia and Myanmar, Cambodia has attempted to separate trawling from coastal fishing through an inshore restriction, with trawling nominally banned in waters shallower than 20 metres. However, this seems to have had the principal effect of criminalizing trawl effort and exposing the lack of fisheries enforcement capacity needed to make the restriction effective in practice. The 20-metre depth restriction may also be impractical for fishers to comply with, since many Cambodian vessels lack digital navigation or depth sounding equipment.

While the demersal trawl fishery nominally targets penaeid shrimps, it is likely that widespread declines in these species have driven a less-selective 'trash fish' catch, mostly destined for fishmeal and fish oil factories. A 1999 study of small-scale fisher perceptions of shrimp catch changes in the northernmost Koh Kong province found perceived catch per unit effort reduced by up to 90 percent since the 1960s. These declines have, in turn, led to the collapse of several Cambodian joint shrimp processing ventures as well as caused Cambodia to be outcompeted by the entrenched shrimp export sectors of Vietnam and Thailand.

On a wider, ecosystem level, the minimal regulation of the trawl fleet has had dire consequences. The decline of rich, inshore habitats along the Cambodian coastline has been repeatedly linked to excessive bottomtrawling effort, damaging sensitive seagrass beds in the provinces of Kep and Kampot and even degrading precious coral reef habitats. An interview-based study in 2012 identified bycatch in bottom trawling gear as the principal cause of decline in green and hawksbill sea turtles, considered Endangered and Critically Endangered, respectively. Cambodian seas have historically supported up to five sea turtle species, but only green and hawksbill have been recently sighted; no nesting by any turtle species has been recorded in almost a decade. Declines in globally significant seahorse populations in Cambodian waters, including within MPAs, have also been linked to the trawl fishery.

### **Destructive trawlers**

The resource and ecosystem declines associated with this mid-sized trawl fleet have also had the social consequence of squeezing out truly 'small-scale' marine fisheries, and constantly impeding coastal Community Fisheries institutions. There are multiple accounts of trawlers destroying small-scale fishing gear and physically assaulting smallscale Cambodian fishers. In a 2010 study, conflicts witnessed by two Community Fisheries in Koh Kong province were repeatedly linked to "outsider fishermen using trawl nets" who "never landed the

## A new fisheries law

Major revisions are currently underway in the legal framework governing the use of aquatic resources in Cambodia: the country's Fisheries Law, last revised in 2006. The most substantial changes are the requirement for consistent and coherent registration of fishing vessels as well as the inclusion of entirely new provisions relating to monitoring, control and surveillance. While the law will retain the national spatial system of restricting trawling in 'coastal fishing areas', this will now be delimited by a distance from shore measure, as opposed to a depth contour restriction.

fish that they caught in the area to avoid any public criticism".

In a 2020 interview, Chhang, a community fisher in Koh Sdach Archipelago, explained that "the key challenges are [that] illegal fishing is still the same as during the previous time, trawling in the conservation area is still in place [and] fisheries resources are decreasing". Fishery inequity extends further offshore, where the licensing of Vietnamese and Thai trawlers to operate in Cambodian waters (and the minimal catch reporting and potential illegalities associated with these licences) means further value loss for the Community Fisheries sector.

Despite these challenges, the Cambodian government is beginning to develop the partnerships, resources and tools needed to better manage its coastal waters. A sweeping revision of the outdated Fisheries Law of 2006 is underway. The country has recently ratified two important international fisheries treaties: the Port States Measures Agreement (aimed at reducing illegal fishing through better collaboration between nations) and the Straddling Stocks Agreement (aimed at enhancing co-operative management of highly migratory fish species such as tuna).

Funding of US\$124 million between 2019 and 2023, through the European Union's CAPFISH programme, has enabled extensive financial and technical support to Cambodia's main fishery regulator, the Fisheries Administration (FiA). In addition to a thorough policy review, these funds will support development of new systems to gather the vital data needed to inform management. For example, the country's first full vessel census concluded in 2020, and plans are in motion to

develop a robust catch documentation scheme that encompasses all fisheries sectors. The Spatial Monitoring and Reporting Tool (SMART)—successfully applied in MPA management in the Koh Rong Archipelago by FiA, supported by Fauna & Flora International (FFI)—will be extended to support co-managed marine enforcement across the whole coastline.

Site-based marine conservation approaches are also being scaled up through new investment by the Blue Action Fund and Arcadia, a charitable fund of Lisbet Rausing and Peter Baldwin, with FFI and a partner consortium implementing a national MPA network across Koh Kong, Preah Sihanouk, Kep and Kampot provinces. Finally, under the structure of a soon-tobe-completed National Plan of Control and Inspection, the FiA will receive desperately needed increases in human resources and marine enforcement assets to put these new policies and data to effective use.

#### **Tenure protection**

The last 30 years have seen not only the rapid exploitation and decline of coastal fisheries in Cambodia, but also the emergence of a socially positive movement to protect the rights of smallscale fishers. Through harmonizing major changes in the national fishing sector with the emerging MPA network and established small-scale tenure protection, future decades will hopefully see significant progress towards equitably governed Cambodian smallscale fisheries and gradual signs of a recovering marine environment. 3

### For more

Fishing disarmed https://www.icsf.net/images/samudra/pdf/

english/issue\_31/328\_art02.pdf

#### From Individual Rights to Community Commons

https://www.icsf.net/images/samudra/pdf/ english/issue\_80/4367\_art\_Sam\_80\_ Cambodial\_FisheryRights\_John\_Kurien. pdf

#### **Banding Together**

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21