

ការនេសាទខុសច្បាប់ជុំវិញបឹងទន្លេសាប

ILLEGAL FISHING AROUND THE TONLE SAP



Prepared in 2015 by the
Action Research Teams
in Pursat, Kampong
Chhnang, and Battambang
Provinces.

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COVER IMAGE:

Monitoring illegal fishing in Ek Phnom
District, Battambang Province,
Cambodia, 4th October 2015, by
Focus On The Global South

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ACRONYMS

ART	Action Research Teams
CBO	Community Based Organisations
FiA	Fisheries Administration (within MAFF)
FGS	Focus On The Global South
MAFF	Ministry of Agriculture, Forestry and Fisheries
MoF	Ministry of Fisheries
NGO	Non-Government Organisations
TSA	Tonle Sap Authority
TSBR	Tonle Sap Biosphere Reserve
UNESCO	United Nations Educational, Scientific and Cultural Organisation

Monitoring illegal fishing Ek Phnom
District, Battambang Province, 2015.



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Focus on the Global South (FGS)

INTRODUCTION



PURPOSE OF CASE STUDY BACKGROUND

In 2014 and 2015, fishing communities around the Tonle Sap, identified the persistent issue of illegal fishing and highlighted a marked decrease in fish stock.¹ In discussions facilitated by the Action Research Team (ART) network,² the communities decided to undertake research to explain the reality and impact of illegal fishing on fishing communities around the Tonle Sap in Kampong Chhnang, Pursat and Battambang Provinces. Questions were developed by community representatives to understand:

1. the use of illegal and legal fishing equipment;
2. the division of fishing areas and types of fishing allowed in the three provinces;
3. the duties of authorities to prevent and respond to illegal fishing;
4. the situation for fishing communities after the government eliminated lots, and the types of fishing resources currently available; and
5. to gather data about the impacts of the decline of fishing resources and the increase of fish prices for fisherfolk and local community.

The purpose of this information was to inform:

- ♦ current fishing communities seeking to address illegal fishing to find ways forward based on an understanding of how the local communities see the issues and their situation;
- ♦ the next generation of ART members and youth in communities who will continue to source a livelihood from and work to protect the Tonle Sap Fishery Resources.

The below case study report provides a brief background to the Tonle Sap fishing communities and their environment and outlines the administration and governance structures and laws which shape fisheries management and fishing communities' roles and practices, factors impacting the Tonle Sap ecosystem and communities, and the role of the Action Research Teams. This is followed by a brief outline of the methodology used and then analysis of illegal fishing from the perspective of the fishing communities – examples, drivers, progress and challenges. The report concludes with the communities' suggested ways forward.

Overview of Tonle Sap and fishing communities

Tonle Sap is the biggest natural reservoir in Southeast Asia and is located in the north-west of the Kingdom of Cambodia.³ It is part of the Mekong basin⁴ and is 150 kilometers long and approximately 32 kilometers wide. In the dry season, its total size is approx. 2700 km² with one meter of depth.⁵ During the rainy season however, water from Tonle Sap Lake flows upstream along with the flooded Mekong River and the lake expands to 16,000 km² and 8 – 14 meters deep.⁶ This expansion causes forest and shrubs to be flooded creating the most productive fresh water zone in the world with a biodiversity of over 500 species,⁷ including 296 fish species⁸ – a fertile feeding and breeding ground for fish and aquatic animals.⁹

In 2001, the Tonle Sap was declared a UNESCO Tonle Sap Biosphere Reserve (TSBR), an 'area devoted to the conservation of biological resources, of landscapes and of the ecosystem. The Royal Decree by which the TSBR was declared concurs with this characterization and cites biodiversity conservation, monitoring and research as the primary objectives of the Reserve. The TSBR contains protected sites for conserving biodiversity, monitoring minimally disturbed ecosystems and undertaking non-destructive research and related activities.'¹⁰

The government through the Tonle Sap Authority (TSA), responsible since 2009 for the natural resource management of the Tonle Sap basin,¹¹ has divided the land around the Tonle Sap basin into three zones:¹²

- ♦ Zone 1: Generally residential area and traditional paddy fields with rain-fed farming which can be submerged 1-2 months.
- ♦ Zone 2: Cultivated area with dry season rice that is inundated in the wet season for 4-6 months
- ♦ Zone 3: Area of flooded forests, natural lakes and muddy areas, which is fully protected and permanently holds water around the Tonle Sap.

1. Community Notes – This reference refers to the data collected in 2015 by the ARTs as well as follow-up interviews with the FGS representatives, and their documentation from their work supporting the fishing communities' initiatives on illegal fishing since 2007.

2. Action Research Teams (ARTs) in this context, are community representatives from fishing communities around the Tonle Sap who support their communities to organize and collect data and research to better understand key issues affecting their livelihood and ecosystem. For more information about the ARTs see the background section.

3. Evans.P., Marwiche.M., Paudyal.K., 2004, Flooded Forests, Fish and Fishing Villages, Tonle Sap, Cambodia, FAO and Asia Forest Network

4. Cambodia National Mekong Committee (CNMC), 2011. Profile of Sub-area Tonle Sap (SA-9C). Phnom Penh. <http://www.mekonginfo.org/assets/midocs/0003629-society-sub-area-analysis-and-development-the-tonle-sap-sub-area-sa-9c.pdf>

5. Baran E., 2005, Cambodia inland fisheries: facts, figures and context, WorldFish Center and Inland Fisheries Research and Development Institute, Phnom Penh, Cambodia. 49p

6. Ibid

7. Un B, Pech S and Baran E (2015) Aquatic agricultural systems in Cambodia: National situation analysis, Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Program Report: AAS-2015-13, and see Keskinen, Marko, MattiKummu, Aura Salmivaara, ParadisSometh, HannuLauri, Hans de Moel, Philip Ward & SokhemPech (2013) Tonle Sap now and in the future?, Final Report of the Exploring Tonle Sap Futures study, Aalto University and I00Gen Ltd. with Hatfield Consultants Partnership, VU University Amsterdam, EIA Ltd. and Institute of Technology of Cambodia, in partnership with Tonle Sap Authority and Supreme National Economic Council; Water & Development Publications WD-II, Aalto University, Espoo, Finland

8. Un B, Pech S and Baran E (2015)

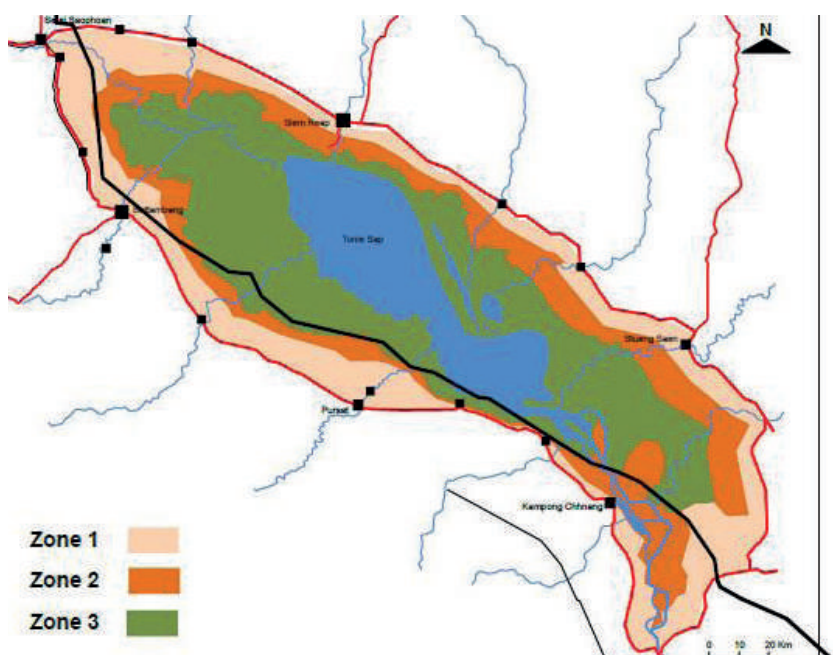


FIGURE I: *Tonle Sap Designated Zones*¹³

The Tonle Sap basin is considered the heart of Cambodia, supplying over 60% of the country's total fresh water fish yields – an essential source of protein for over 80% of the Cambodian population.¹⁴ In 2014, the Tonle Sap produced over 500,000 metric tons of fish¹⁵ and provided a key source of livelihood for the 1.2 – 1.7 million people who live around the lake and on its' floodplains. Un, Pech and Baran, 2015 identify three groups of communities which live around the lake: floating villages, stand-stilt communities and farming/fishing communities.¹⁶ The first two communities, located in Zone 1 and 2, are highly dependent on fishing and fish processing, marketing and the collection of forest products such as firewood, aquatic animals and plants in different seasons for their livelihoods. The farming/fishing communities have more mixed livelihoods largely characterized by intensive rice farming (wet and dry season) supplemented with fishing related activities when not farming.¹⁷ The fertile flood plains support rice production which makes up approximately 12% of Cambodia's annual harvest.¹⁸ While most of the fisherfolk around the lake, particularly in Zone 3 and 2 continue to live a traditional subsistence way of life, they are facing many challenges which are adversely impacting their

livelihoods and environment leading to entrenched poverty.¹⁹

Overview of the administration of fisheries

Since 2000 the Cambodian Government has been devolving the management of commercial fishing lots to communities. A push in 2009 and 2010 by organized fishing communities and civil society networks around the lake advocating for reform led to 'the Prime Minister publicly acknowledged widespread corruption in the administration of the commercial lot system, and the announcement of the suspension of all remaining fishing lots on the lake.'²⁰ In 2012, remaining commercial fishing lots (with the exception of the bagnet [dai] fishery) were transferred to community fisheries or were designated as fishery conservation zones.²¹ "In total, more than 1 million hectares of private concessions were transferred to community fisheries, a radical shift in the management approach, from centralism and private ownership to decentralization and community-based management"²² with the broader goal to support subsistence

9. Ibid and Evans, 2004 and World Fish (2012)

10. Ibid

11. Open Development Cambodia, Agriculture and Fishing pages and sub-pages, sourced April 2017, <https://opendevelopmentcambodia.net/topics/agriculture-and-fishing/>

12. Cambodian Ministry of Public Works and Transport (2014) Integrated Urban Environmental Management in the Tonle Sap Basin, Prepared with support of ADB technical assistance, June 2014, Phnom Penh

13. Ibid

14. Ibid with nutrition data sourced from Cambodian government data, and M. C. Arenas and A. Lentisco, 2011, Mainstreaming gender into project cycle management in the fisheries sector, Food and Agriculture Organization of the United Nations, Regional Office for Asia and Pacific and Keskinen (2013) and World Fish (2014) <https://www.worldfishcenter.org/country-pages/cambodia>

15. Sourced from <http://www.conservation.org/projects/Pages/tonle-sap-lake-conserving-cambodia-fish-factory-mekong.aspx> data from 2012

16. Ibid and cite Mak 2011 as original source

17. Johnstone, G. et al. (2013). Tonle Sap scoping report, CGIAR Research Program on Aquatic Agricultural Systems. Penang, Malaysia. Project Report: AAS-2013-28

18. Starr, P., (2007) Tonle Sap Information Guide, Live and Learn Environmental Education

19. Ibid

fisherfolk and conserve fish stock.²³ The TSA was to provide new institutional and legal management which incorporated key laws including the Royal Decree for Community Fishery Establishment and the Sub-Decree on Management of Fishing Communities (2006)²⁴ and a strategic planning framework for Fisheries 2010 – 2019 which identified key fisheries development targets.²⁵ These targets highlight recognition by the Cambodian government that capture fisheries need to be regulated in the Tonle Sap environment to ensure sustainability of fish species, preserving the natural habitat, creating key protected areas, and raising awareness about the importance of these initiatives with key stakeholders, to ensure this. Both of these Decrees also allow for 'serious penalties to be applied to those who break fisheries law, including government officers. Fishing Administration (FiA) Officers are considered as judicial fisheries police and are tasked with the enforcement of fisheries regulations including the investigation, prevention and counteraction of illegal activities and the compilation of documents for submission to the courts.'²⁶ **SEE ANNEX I** for the regulations for the establishment of community fisheries and roles of key stakeholders according to the Sub-Decree on the Management of Community Fisheries.

This national policy reform was welcomed with the key and ongoing challenge being the effective management and implementation by relevant local administrations and officials.²⁷

Factors impacting the Tonle Sap ecosystem and communities

While the overarching protections and framework for the sustainable management of the Tonle Sap ecosystem are well developed at a national level, there are a range of challenges faced at the local level in its implementation.

Some key drivers informing these challenges include:²⁸

- The increasing population in Cambodia with an identified increase by 69% by 2050²⁹
- The need for employment and livelihood opportunities for this increasing population
- Greater ease of movement between rural areas with developing road systems enabling migration and movement of people
- The loss of land and livelihoods by rural communities due to insecurity of land tenure for the rural poor, and the commodification of land and weak governance structures enabling international and national companies unregulated access to large tracts of land through Land Concessions.
- Climate change and its impact of the Tonle Sap ecosystem³⁰
- Future hydropower developments leading to large scale impacts on fish yields and food security³¹

Some of the challenges faced include:

- Weak governance and lack of enforcement and monitoring of the new regulation, laws and officials responsible for implementing them, with the policy shift in 2012 opening the door to:
 - land grabbing on the floodplains of the Tonle Sap with former commercial fishing lots deforested for profit and for conversion into farm land.³² MK I6. Project, 2013 reports that between 1990 and 2009 forest cover in

20. World Fish, 5th Jan 2012, Building resilient community fisheries on Cambodia's Tonle Sap Lake, <https://www.worldfishcenter.org/content/building-resilient-community-fisheries-cambodias-tonle-sap-lake>

21. Un B, Pech S and Baran E (2015) and M. C. Arenas and A. Lentisco, 2011, Mainstreaming gender into project cycle management in the fisheries sector, Food and Agriculture Organization of the United Nations, Regional Office for Asia and Pacific

22. Un B, Pech S and Baran E (2015)

23. OpenDevelopmentCambodia source April 2017

24. Ibid

25. From Un, Pech and Baran (2015) - According to the strategic framework, the targets for capture fisheries are (i) at least 1200 communes (75% of the total) with a sustainable and effective fish refuge by the end of 2019; (ii) 470 community fisheries officially registered and operating effectively by the end of 2019; (iii) fishing lot catches maintained at sustainable levels throughout the period; (iv) scientifically based plans for the sustainable exploitation of marine fisheries implemented by the end of 2014; (v) at least 35% of the area of inland flooded forest and at least 75% of the area of coastal flooded forest protected through physical demarcation by the end of 2019; and (vi) at least 40 of the 97 Upper Mekong deep pools effectively protected and conserved and at least 80% of Tonle Sap Lake fish sanctuaries improved through boundary demarcation, protection and public awareness by the end of 2019

26. <https://opendevelopmentcambodia.net/topics/fishing-policy-and-administration/> which sourced this from FAO. National Fishery Sector Overview: Cambodia . 2011. Accessed September 11, 2014. ftp://ftp.fao.org/fi/document/fcp/en/FI_CP_KH.pdf.

27. Arenas (2011) and Johnstone (2013)

28. Un, Pech and Baran, 2015

29. Arenas, 2011

30. Sourced from Keskinen, 2013 – climate change is expected to cause changes to rainfall and temperature in the Tonle Sap system impacting on water levels and run-off. The exact impact of climate change however based on this reports modelling remains unclear.

31. Arenas, 2011 say "Convergent studies predict significant losses in fish production following dam development. Two main analyses provide insights about the impact of dams on fish resources. According to the Strategic Environmental Assessment of Mekong mainstream dams (ICEM 2010), the construction of 11 mainstream hydropower projects is expected to reduce the fish production in 2030 by 550,000 to 880,000 metric tons (i.e. 26%– 42% less than the 2000 baseline). This would also correspond to a loss of approximately 340,000 metric tons compared to the situation in 2030 without mainstream dams. Such a loss represents 110% of the current cumulated annual livestock production of Cambodia and Laos and would have critical consequences for food security in Cambodia and Laos."

32. Forsyth L., 17 August 2015, A fishy situation in Cambodia's biggest lake, Al Jazeera and see MK I6 Project team, December 2013, Land forest Use and Trend Analysis: Fostering Evidence Based IWRM in Stung Pursat Catchment (Tonle Sap Great Lake), Prepared by Ministry of Water Resources and Meteorology, Tonle Sap Authority, Supreme National Economic Council, Hatfield Consultant and CEPA, Phnom Penh

the Tonle Sap Basin decreased by 43% with the most significant impact created by the conversion of land for economic activities through the granting of land to companies through Economic Land Concessions and Mining Concession. They also cite a recent study by the USAID HARVEST project which “posits that the most important driver of community vulnerability and ecosystem instability is the deforestation of the upper catchment areas within the I2 watersheds that drain the region.”

- the continuation of the logging and burning of flooded forest although data in 2004 suggests that by this time over 50% of the flooded forest had been destroyed.³³ Flooded forests are destroyed for charcoal production, to create more water space for fishing, and to convert protected land into agricultural land.³⁴
- increase in illegal fishing, with the government confirming this in 2015³⁵
- overfishing due to increasing fishing populations³⁶
- increase in the illegal breeding of hybrid fish from Vietnam

♦ Poverty, which is located most prevalently in the communities who reside in Zone I and 2 with limited sources of income outside of fishing and fishing related production due to limited access to or no access to land, capital or saving.³⁷ Lack of critical services – clean water, health care facilities affects productivity leading 30-50% of families to migrate for alternative livelihood opportunities within Cambodia or across its borders.³⁸

♦ Migration into the Tonle Sap basin is also occurring with rural people from other provinces seeking alternative livelihoods as they confront a range of pressures including loss of land from land grabbing, and lack of employment and opportunities in rural communities. These new migrants add to the competition for the Tonle Sap fish stock with over-fishing and loss of fish species a concern.

All of these drivers and challenges are critical to the formation of conditions in which illegal fishing can occur.

Overview of ART network and ways of working³⁹

Action Research Teams evolved from a local NGO and local community networks of land, forest, irrigation and fishing rights activists, who were community representatives from locations across Cambodia. The network developed to exchange strategies and share perspectives on the ways in which they could work with and contest the systems, policies and practices which were oppressing them and irrevocably changing their lives. This network devolved over time to communities in specific locations working on local issues and in 2007 an ART network established itself in the provinces of Battambang, Pursat and Kampong Chhnang to work on the issue of illegal fishing and the rights of local fishing communities. The primary purpose of the ART network was to support communities to identify their priority issues and to strengthen them with skills to organize and analyse (research and think critically) their situation and experience so they could advocate on issues and solve their problems.

Unique to the ART network working on community fishing issues is that it is favorably supported by existing established networks of community fishing activist and NGOs. The network is interconnected locally, regionally and nationally and information is shared, and conferences and actions coordinated where appropriate. The ART entry point has also been through fishing communities who receive some supports from local NGOs which gives them greater flexibility in their day to day planning.⁴⁰

The ART network is established in 2-4 fishing communities in each province, however these members then reach many fishing communities through their existing networks on the ground. ART members are not permanent positions, it is a fluid membership with key people moving in and out of an ART role as their circumstances dictate. There is 50/50% male female representation with a push for younger people to become involved. The ART members have key informants and share information across communities, linking communities together across provinces and encouraging them to think beyond their local concerns to what would benefit all the communities and their natural resources and livelihoods. The Focus on the Global South (FGS) representative provides guidance

33. Evans.P., Marwchke.M., Paudyal.K., 2004, Flooded Forests, Fish and Fishing Villages, Tonle Sap, Cambodia, FAO and Asia Forest Network

34. Community Notes

35. <https://opendevlopmentcambodia.net/topics/agriculture-and-fishing/> -sourced from Phorn, Bopha, and Alex Consiglio. "As fish stocks vanish, locals flout law to survive." The Cambodia Daily, 9 July 9, 2014. Accessed 30 January 2015. <https://www.cambodiadaily.com/archives/as-fish-stocks-vanish-locals-flout-law-to-survive-63567/> "The government confirms this: officials said cases of illegal fishing continued to rise in 2015, when almost 4,000 illegal fishing offenses were stopped and 181 were sent to court."

36. Identified as a challenge in the SWOT analysis sourced from Fishing Administration, 2010, The Strategic Planning Framework for Fisheries 2010 – 2019: Fishing for the Future, Ministry of Agriculture, Forestry and Fisheries

37. Johnstone, 2013

38. Johnstone, 2013

39. Community notes

40. As identified in the 2015 research, two types of fishing communities have developed (1) fishing communities with close oversight by MAFF (2) fishing communities with supports provided by NGOs. The latter group while having to adhere to the regulations which govern community fisheries, and need to work with local authority and officials on illegal fishing issues, has greater flexibility in their day to day planning

to the ART networks and facilitates bringing members together across the provinces for reflection and sharing.



Third Discussion meeting at fishery community in Krakor District, Pursat Province in September 2014.

PHOTO CREDIT:
FGS



METHODOLOGY

A qualitative participatory process was utilized to collect the data which most broadly informs this case study report. The community through the ART network identified in 2014 that the issue of illegal fishing was something they wished to understand more fully and to write up into a case study report which captured their experiences, approaches and challenges. In 2015, they developed a research process with the support of the FGS representatives who assisted with the training of ART members to design the research questions, sampling plan and questionnaire tools for key informant interviews and Focus Groups. **SEE ANNEX 2 – DATA COLLECTION PLAN.** Target communities were identified in Ekphnom District, Battambang, Krakor District, Pursat, and Baribor District, Kampong Chhnang, as well as additional stakeholders such as relevant NGOs. The ART enumerators collected the data across the three provinces – 4 days in each province.

The data collected was then presented to a range of ART members from across Cambodia and community representatives through a series of 3 workshops. The first brought people from across Cambodia together to reflect on and synthesize the data. This was then followed by two workshops which brought community representatives together to validate, reflect on and determine what was most useful from the findings from this initial workshop. While this approach strengthened the findings from the data collected, this process led to the presentation of synthesized findings in the draft case study absent examples, stories or quotes drawn directly from the collected data. A consultant was hired in 2017 to finalise a case study report drafted by the Focus on the Global South representative. At this point additional data was incorporated from secondary sources and utilized primarily in the background section. A series of discussions occurred between the consultant and FGS representatives to reflect on and clarify the information provided. The FGS representative also consulted earlier data records and met with the fishing communities to provide the examples which inform this finalized report.

Of note is that the ARTs have sought to have low key roles in their communities over the years, while the people who filled the ART roles have changed as their visibility as activists became a concern, and as new community members joined. Documentation of events and reflections over the years has largely been captured by the FGS Representatives at meetings in summary form. Considering this, the primary research source for the case study report is the data collected through the research activity in 2015.



COMMUNITY EXAMPLES OF ILLEGAL FISHING ON TONLE SAP

Large scale illegal commercial fishing

As understood by the fishing communities, the Nor-Reav is not legally permitted because it allows for the capture of fish over a small area through the use of long nets. The Nor-Reav can stretch 1,000 – 2,000 meters in length to block waterways for the collection of fish. In 2015, the ART went to investigate a case in Ek-phnom district, Battambang province. They saw that the Nor-Reav was set-up just 600 meters from the fishing administration office. The local people said that it had also been set up since 2013 and 2014.

In 2017, the ART investigated another case in Ek-Phnom District, Battambang Province, where the Nor-Reav was deployed on the open Tonle Sap lake. This was also located very close to the fishery administrative office and to people moving in and out of the village, however it had not been removed. People said that there are 8 – 13 parties involved in this example of illegal fishing. They said that the fishing administration and authorities had accepted money from the offenders and then left. The local people felt that the illegal equipment was seriously threatening their fishery resources and preventing the ability of local people from using traditional methods due to the scale of the illegal fishing.

Another example is Yang Kav or Manh where a large boat collects fish using a big net with a diameter of 50 – 60 meters attached to the front line of the boat. They then use electric shock distributed through a chain which is placed in the collection net. This activity mainly occurs at night. This activity is also illegal. The local people explained that it was usually operated by Vietnamese people who pay large bribes to the fishery administration and other institutions and payments are often between USD\$1000 - \$5000 per night, with a catch of between 10 – 20 tons for those fishing this way.



Small scale illegal fishing

BRUSH FISH FARMING:

The flooded forest is being reduced at an alarming rate, with many reasons for its loss. If it is burned the flooded forest is unable to regenerate and is lost forever – regeneration requires planting anew. One example of small scale illegal fishing described by the communities is the use of a traditional fishing method where a cut branch is put into the water to create a fish habitat from which fish are then harvested after 1-2 months. It is a quick catch that takes fish from the natural spawning and feeding area created around the branch. People are also known to cut back the flooded forest to create shelters in the conservation zones where they hide illegal fishing equipment. The community notes described that on average in one village there might be ten residents who are participating in this activity. The communities indicated that these activities were largely undertaken by people who had migrated there from outside the villages in the three zones, or by the most impoverished members in their own communities. Further, villagers who undertake these activities in the protected Zone I areas were difficult to stop as they had often paid a bribe to local officials to grant permission for this activity.

ELECTRIC SHOCK EQUIPMENT:

Use of electric shock is a non-selective fishing method which is not legal. Electric shock when applied with a battery and recharger is indiscriminate and kills all the fish in the area including all species, big and small fish and fish eggs, impacting fish stock. The communities identified two types of electric shock – one which shocks fish with scales and the other for mudfish with no scales. The shock used for mudfish was the more lethal form in that it was more indiscriminate than the shock used for large fish. It is an effective and easy way to kill fish when compared to using traditional fishing methods, however it completely destroys the natural habitat and fish across their lifecycle. The community explained that fishing officials were aware of this yet they unofficially approved the use of this electrical fishing equipment for a bribe. It is a technique largely used by outsiders who have migrated to the Tonle Sap area.

The most impoverished and vulnerable of community members however do not usually utilize this method as they are afraid of breaking the law and instead prefer to use traditional fishing equipment instead. Fishing communities identified that one effective and simple way to stop the use of this equipment was to tighten regulations around the selling of the battery recharger and place to recharge battery inside village.

Nor -Reav on Tonle Sap Lake,
Battambang Province 2017



PHOTO CREDIT:
FGS





Brush Fish Farming,
Battambang 2015



PHOTO CREDIT:
FGS

TYPES OF ILLEGAL FISHING AND PREVENTION CHALLENGES

Illegal, Unreported and Unregulated fishing (IUU) is a “global problem that depletes fish stocks, damages marine ecosystems, puts legitimate fishers at risk and threatens the livelihoods of some of the world’s most vulnerable communities.”⁴¹ The regulations for the establishment and management of community fisheries in Cambodia articulate the roles of different stakeholders in the prevention and management of illegal fishing – where rules and permissions granted through decrees to community fisheries are broken. The fishing communities approached their research by initially asking themselves how they could determine if a fishing activity was illegal or not? In response to this question the communities identified clear rules within fishing community guidelines which concerned the use of fishing equipment, identifying what could and could not be used by community fishers. For example, see Annex 3 which outlines the internal rules of Sdey Krom – Rohal Suong Fishery Community in, Article 6 and fishing instruments permitted at community fishing sites.

They then highlighted the range of illegal fishing activities which they had observed over the last few years – a mix of illegal activity by large commercial fishing activities; and smaller scale illegal activities by community fishers who had migrated to the lake area to improve their livelihood and local community members, some of whom had moved from Zone 3 to Zone I in the dry season or were very impoverished and were looking to improve their catch.

Actions and fishing equipment identified as being illegal included:

- I. Illegal use of equipment such as:
 - i. Setting up a metal wire in the water in order to produce sound that scares the fish, commonly used by some fishers in village
 - ii. Setting up barriers across water current during closed fishing season (from 01st June to 01st October)
 - iii. Using mechanized push net (from 100 meters to 1000 meters or above);
 - iv. Trawl net fishing (mechanized), Manh fishing (2 machines with long net), Yang Kav fishing (four engines or 6 engines boat trawl – similar to yacht with chain below and at the back);
 - v. Long net (Nor Rav) fishing (500 meters to 3000 meters);
 - vi. Neam fishing pushed by machine (using two boats to drag a long net);
 - vii. Fork with 5 or 6 spikes together with projected lamp;
 - viii. Illuminated lamp to attract insects that will fall into water for fish to eat
 - ix. Thnas fishing together with electric shock devices
 - x. Hot electrical shock fishing (use electrocuting devices to fish in shallow water); cold electrical shock fishing (use electrocuting devices to fish at 12 meters deep of water); electrical shock of fish with and without scales.
2. Large scale commercial seine fishing by external operators including Vietnamese operators
3. A range of land fill, water expansion initiatives including:
 - i. Clearing of forests to set up brush park and digging small ponds along the bank of lakes or streams (fish ponds)
 - ii. Setting up brush parks to catch brood;
 - iii. Land-filling of natural lakes
 - iv. Expansion of lakes, swamps or streams
 - v. Build dikes across creeks, canals, streams; land-filling of lakes and streams;
 - vi. Digging ponds along a river, lake and stream

41. http://www.wwf.eu/what_we_do/oceans/iuu/

4. Using chemical substances to poison fish and birds (the poison is effective for six months before neutralized in the environment);

5. Introducing illegal species like snakehead and striped snakehead fish that eat other fish as food but grow faster than natural snakehead fish and are highly prized in Vietnam

6. Illegal equipment used to block the water current and disturb the movement of fish in the lake and its waterways.

7. Clearing of flooded forest through burning or use of chemicals:

- i. for agricultural farming and to gain rights over land
- ii. to create open water space for long net fishing

Other factors which have enabled and exacerbated illegal fishing as identified by the communities at a local and provincial level include:

I. CORRUPTION OF FISHING ADMINISTRATION, LOCAL AUTHORITY AND COURTS:⁴²

Local authority and officials are tasked with specific roles in response to illegal fishing ([SEE ANNEX I](#)). The communities have identified that corruption inherent in fisheries governance and administration systems nullifies their willingness or ability to act. A key driver encouraging local authorities and officials to permit illegal fishing is their lack of resources, in particular a livable salary. Community members report that some officials accept bribes from both commercial and local people ensuring they look the other way. In the earlier commercial fishing lot system, the local officials would take a percentage of the catch or a fee based on the catch amount, however in the current system these



Lou-Sbai-Moung – blocking the path of the fish, 2017

PHOTO CREDIT:
FGS

officials have had to find other means to supplement their small government salaries and the acceptance of bribes has become an entrenched pattern.

Other key drivers discussed in more detail below include weak governance with a lack of monitoring and oversight of local implementation of fishery laws, regulations and officials responsible for their implementation, further encouraging opportunism by those in power to exploit the natural resources of the Tonle Sap for profit. The community also explained that local authority can also be reluctant to take any action which might challenge the authority of those above them and could compromise their re-election and access to benefits they might gain through their patronage. This opens the door for offenders with direct relationships to those in power to be able to fish illegally with impunity. These factors encourage local authority to remain silent and inactive, to say to communities for example, that they do not have enough staff to respond, or resources to follow-up on a complaint. In addition, some officials have demonstrated willingness to directly block or to coordinate the arrest of protesting community members concerned that these illegal fishing activities are unsustainable for the fish stock and eco system.

Further to this, the experience of the communities has been that the court has protected offenders, for example releasing offenders after a brief period, or not responding to communities' complaints when they are threatened by offenders instead supporting the arrest of villagers who protest these actions at the request of authority.⁴³

In such an environment, large scale commercial fishing by people from within and outside Cambodia (the community identified Vietnamese fisherfolk fishing for export⁴⁴) have been able to use overt modern illegal fishing equipment with seemingly take action to punish them, while smaller scale illegal fishing activities, particularly in the conservation zones continues unabated.

2.ROLE OF MILITARY AND POLICE:

Further to the above the community articulated that rather than arresting people who conduct illegal fishing the military and police would demand payments from them for their silence, or in the case of some illegal commercial fishing initiatives would be hired by the enterprise to provide security for the illegal activity.

3.LACK OF COOPERATION:

The fishing communities feel that the actions by local authority and officials above have created a situation where there has been an erosion of trust and collaboration between local authorities, fishery officials and the communities critical to the management of the Tonle Sap system within current laws and regulations. They also do not feel that NGOs involvement has led to any significant change in cooperation or coordination responding to the illegal fishing.

4.LACK OF RESOURCING:

Lack of resourcing of authority and fishing officials – budget, equipment – reduces their motivation and capacity to monitor, arrest offenders and to destroy equipment. Lack of resourcing for community fisheries – transport, tools, gas and budget – also hampers community fisheries ability to monitor illegal fishing.

5. LOCATION OF LAKE TO ACCESSIBLE AUTHORITY:

Illegal fishing was reportedly more concentrated in provinces where the primary city was some distance from Zone I – such as in Battambang which is 50km from the lake, making monitoring more difficult.

6.LACK OF TRANSPARENCY:

The communities spoke of local officials' reluctance to review their reports, relying solely on data from their own officers and willfully ignoring evidence presented by communities.

7. NEPOTISM AND IMPUNITY:

The communities also identified nepotism and associated corruption as a significant challenge with some offenders of illegal fishing relatives of or connected to the political party of local authority. The offenders were able to fish illegally with impunity due to their relationships with powerful people.

8. POOR LIVELIHOOD OF FISHING COMMUNITIES AROUND THE TONLE SAP PROTECTED AREAS:

Communities who live and work in Zone 2 and 3 are largely dependent on fishing and other natural resources in their environment to survive. Lack of assets such as land and their reduced ability to produce a livelihood from subsistence fishing is embedding their poverty and challenging their strategies to address the situation. These vulnerable community members, and people from communities outside of the Tonle Sap Zones who have migrated due to livelihood pressures, are looking for new ways to source fish for their families and local market. The communities identified that these groups are engaging

42. Any activity committed by officers of local authority, police, army or officer of other institution in order to directly or indirectly intervene to allow fishery activities and any activities against this law or threaten the Fisheries Administration officer or obstruct their duty and operation of the Fisheries Administration officer shall be considered as an offence that is subject to an imprisonment from 1 to 3 years and/or can be subject to a fine from 5.000.000 to 50.000.000 Riels.

43. Community Notes

44. The communities interviewed in the research identified concerns that the Vietnamese people fishing commercially for export were hiding in the Vietnamese communities that reside on the lake. The Situation of the local Vietnamese communities who have resided there for generations was not discussed by the communities. Research indicates that these Vietnamese communities face some unique challenges as they live in Cambodia without citizenship rights and unable to form community fisheries (they can form Vietnamese associations). It would be interesting to better understand how their situation is influencing illegal fishing and creating potential inter-community conflict, and what strategies might mitigate this concern for the benefit of all communities.

in small scale illegal fishing activities such as creating a brush park on the edges of conservation areas. At times, they also used modern illegal fishing equipment such as electric shock, Lou Sbai MOUNG and chemicals to chase the fish. The community notes (2014) have identified however that these groups do not play a significant role in the destruction of fishery resources compared to large scale illegal fishing.

In addition, the communities identified that migrant fisherfolk lacked knowledge of the local laws and regulations, and being outside the structure of a community fishery and lacking connection to the habitat, they viewed the lake as a livelihood opportunity rather than understanding that sourcing a livelihood from the lake and surrounding environment came with a responsibility to do so in a sustainable way.

As identified by the research, critical to this point is the identified reduction in catch and the increased pressures on fish stock and the environment from commercial illegal fishing and increased domestic small scale illegal fishing leading to increased competition for the fish that is available.

9. LOCATION OF VULNERABLE AREAS:

A further challenge identified was that some areas of concern where there was known illegal fishing and destruction of habitat were located outside of communities' allocated management area with the adjoining areas managed by communities at times unwilling to cooperate on the protection of fishery resources.

10. DIFFERING EXPECTATIONS OF ROLE WITHIN FISHING COMMUNITIES TO WHAT WAS STIPULATED IN MAFF REGULATIONS:

The research highlighted the frustration by fishing communities that they were unable to arrest or impose fines on illegal fishers, or prevent them from entering their domains when they identified them (see Annex I). They were only able to monitor, observe, document and then share this information and report to a specialized local authority officer. Even with strong evidence, as discussed above, these officers rarely took effective action. Key expectations the communities had of their role within a fishing community included:

- a. To contribute to crime prevention and the protection of natural resources around Tonle Sap Lake for the next generation;
- b. To educate their communities about the depletion in fishing resources and to build solidarity with the general public to put an end to illegal fishing and destruction of protected areas;
- c. To contribute to the active prevention of illegal activities and to fight against local corruption to improve and develop their village and commune;
- d. To become role-models in the protection of natural resources and to share this with future

generations;

- e. To improve their living conditions and to build equality into the fishing systems putting an end to the illegal commercial fishing, especially by powerful and wealthy people.

In addition to the above, specific challenges the communities identified at a governance level included:

1. CONTRADICTORY INSTRUCTIONS FROM GOVERNMENT:

At times government instruments (such as the Sor-Chho-Nor Order extending the use of traditional farming equipment) have contradicted the Fishery Law leading to confusion and halting progress at a local level.

2. LACK OF MONITORING:

Despite the release of directions to counter illegal fishing – e.g. the instruction circular 2013 extending traditional fishing rights – the community identified that the corruption within the system and lack of resources, encouraged responsible officials and authority to undertake minimal monitoring and to ignore their enforcement responsibilities to prevent illegal fishing. A lack of formal mechanisms to monitor and evaluate the performance of government officials further supported this situation. The government's reliance on reports by these officials without additional monitoring or consideration of community reports and petitions further eroded any checks and balances these may have provided.

3. POWER AND PRIVILEGE:

The government's lack of response to the blatant corruption of local officials and authority reinforced the communities' observation that many of the offenders have links to powerful connected people.



IMPACT OF ILLEGAL FISHING

The fishing communities highlighted a range of impacts created by illegal fishing and the ineffective response by those tasked with preventing it. The fishing communities attributed the reduction in their catch to the unregulated illegal commercial fishing occurring in the lake, affecting their income and living conditions. Specifically, they spoke of their inability to pay the fees for their children to attend school, or to pay for needed health care with health problems occurring largely due to their poor living conditions and diet. This has led to an increase in the number of vulnerable community members who have felt pressure to migrate to Thailand or to work for other people as laborers. With the separation of family members there had been an increase in family violence and in stress for children and adults as traditional family structures have broken down. In general fishing communities felt that their communities were much less secure and that solidarity between households and communities was strained by these issues. Families were in debt to brokers as they sought to meet their expenses further compounding their stress and vulnerability.

Community members were themselves being pushed to illegally fish due to livelihood stress. The loss of flooded forest has led to the deterioration of fish spawning grounds and shelters for animals who lived there, and is an irreplaceable loss of biodiversity and habitat as well as source of additional livelihood opportunities for local communities. In addition, the impact of the illegal activities in conservation areas in particular is further exacerbated by climate change with drought impacting the Tonle Sap biosphere. For example, a reduction in water level can increase the water temperature and lead to the death of many small species of fish, which will also reduce number of fish large fish feed on. The capture of breeding female fish in the conservation areas can also lead to a reduction in fish numbers.

The lack of intervention by those tasked with responsibilities to protect the Tonle Sap and their direct opposition at times to advocacy by fishing communities through intimidation, add further pressures on the fishing communities who see themselves as being in a mutual relationship with their environment – generating a livelihood while also ensuring its health into the future. The fishing communities face the additional challenge of finding the resources required of them – time, budget, motivation and energy to integrate advocacy and research activities – so as to actively address illegal fishing at the same time as trying to meet the daily needs of their households. The fishing communities advocate for a reduction in government institutions managing fishery resources and entrusting the protection of fishery habitats to fishing and farming/fishing communities around the Tonle Sap.

PROGRESS AND ACTIONS TO PREVENT ILLEGAL FISHING

The communities identified that while it is clear that the current laws and decrees which shape the responsibilities of different stakeholders in the management of the Tonle Sap fisheries do not sanction local communities to actively address the issue of illegal fishing, the communities do all that they are empowered to do and implement their roles to patrol and protect their natural resources. As discussed in the challenges section however, these efforts are usually met with inaction or intimidation by local authority and officials. Recently (2015) however the government has indicated it has some awareness of these issues and has modified laws and issued circulars to encourage lower levels officials to pay attention and intervene to prevent illegal fishing around Tonle Sap Lake. For example, on the 7 September 2015, MAFF issued a Notification⁴⁵ requesting local officials to stop the farming of snakehead and striped snakehead in Siem Reap, Pursat, Battambang, Kandal and Kampong Chhnang Provinces. The Ministry requested not just local authority but municipality and provincial governors as well as local sellers and the public to cooperate and take strict actions to end to such illegal activities. Some authority and officials took direct action with the release of this notification and disseminated information about it to the fishing communities. This indicates that the activism of the communities over time does lead to constructive change in the behavior of local officials. As identified below this activism has evolved over time and involves a range of advocacy strategies with communal and collaborative organizing and actions by fishing communities, civil society and CBOs a key aspect.

Key advocacy strategies utilized by community fishery groups over the last decade with support from ART members, were identified in the research to be:

- ♦ The development of solidarity and collaboration between fishing communities, civil society and community-based organizations with the shared mission to improve the livelihood of fishery communities and to enable communities to sustainably protect their natural resources. To study

and learn from each other and to share experiences across communities and provinces to develop effective plans to support their actions and advocacy efforts to prevent illegal fishing. The building of solidarity also supported communities to feel that they have power and agency, and expertise in their situation, which is valuable and necessary if illegal fishing is to be addressed effectively and the impact on fishing communities mitigated. Examples of direct advocacy actions include:

- Research and development of reports, petitions and complaints that identify evidence-based examples of illegal fishing, its impacts, and articulate the required actions. Many of these petitions and complaints were communal while others were specific to individual cases. The communities have identified however that these efforts were largely ineffective with petitions eventually being submitted nationally after failure for there to be action at a local level.
- Demonstrations and marches – for example, if asked to go to the Court, the community turned this into an action with a march by a group to the court to highlight the issues and challenges. This demonstrated community power, unity and resolve to have the court or local authority do their job rather than oppress opposition to illegal fishing.
- Public forums bringing communities together to discuss and reflect on issues
- Conferences to fulfil and educate policy makers and government officials as well as to share challenges and concerns from the communities' perspective about the preservation of natural resources on the Tonle Sap. For example, in 2015 members of the ART network, in cooperation with the Peace Building Network, organized a national conference – “Stop Destroying Forests, Lands, and Fisheries in the Name of Development”⁴⁶

45. www.maff.gov.kh, 09

46. Focus on the Global South. (២០១៥, កុម្ភៈ ០៤) : <http://focusweb.org/>. (F. o. south, Ed.) Retrieved សីហា ២០១៥, ០១, from <http://focusweb.org/press> <http://focusweb.org/content/cambodian-villagers-stop-destroying-forests-lands-and-fisheries-name-development>

- Media events with written and radio media releases and interviews to inform the Cambodian public about the situation
- Educational activities with the public who live around the lake about illegal fishing and the laws and regulations governing the sustainable use of the Tonle Sap ecosystem.

Of note is that the growth of solidarity between fishing communities has varied between provinces. In Pursat it took 7-8 years of discussions and activities between communities before communal actions were developed leading to productive responses from the local authority when confronted with united communities. In Battambang community solidarity was galvanized more quickly as community organisers focused not just on protecting their fishing resources but worked with communities directly to find local solutions to their needs, working for example to improve schools, road, bridge, drainage system and support vulnerable elderly. Informing and educating local people about the Fishery Law and regulations in order to improve their understanding about the impacts of the degradation of fishery resources in the area.

- ♦ Development of community-based livelihood programs focused on small-scale business development, gardening chicken raising, cow bank and fish raising to provide additional income for the households of fisherfolk. This both sought to mitigate the impact of illegal fishing and to provide needed income for families so that they did not contribute to illegal fishing or the destruction of aquatic habitat. Advocacy efforts are also more possible when community members are able to participate without taking away from their ability to feed their families.

- ♦ Development of community-based programs focusing on the communities' responsibilities to care for and manage conservation areas. The communities have identified this work as motivating for them in their activism. Examples include the rebuilding of fisher conservation areas to secure fish in the dry season, ritual village ceremonies to raise funds to support vulnerable community members and build roads, the development of self-help and savings groups, replanting of trees in flooded forest areas.

The growing strength, unity, collaboration and networking of community fisheries coordinated by some active civil society has led to some hopeful outcomes in the removal of and fight against illegal fishing and other illegal fishing activities. An effective strategy of the fishing communities has been to flood the village, commune, provincial and national authority, with reports and petitions describing and advocating for the removal of illegal fishing, especially illegal commercial fishing equipment and offenders and demanding the authorities act according to the law and regulations. While local authority do not respond, they are also more fearful now that national authority

will demand to know why they have not dealt with the issue. A series of public announcements by the Prime Minister in 2016 and 2017 and the development of a special task force to tackle illegal fishing⁴⁷ indicates that there has been some movement nationally with hopefully positive repercussions locally to better prevent illegal fishing. Key to this shift identified in the 2015 research has been the growth in the solidarity between community fisheries groups, authorities and civil society organisations and their mixed advocacy strategies. While communities are hopeful that there is increased motivation by those with the power to mitigate illegal fishing, their experiences over the last decade encourages caution. In general however, the communities feel that an increase in authority and officials involvement in the management of fisheries will lead to greater harassment of fishing community members protesting illegal fishing with local authority more concerned with demonstrating support of their political party, than resolving the problem of illegal fishing.

47. Aun Pheap, Jan 12 2017, Thousands of Cases of Illegal Fishing Found by Task Force, The Cambodia Daily

CONCLUSION AND WAYS FORWARD

The fishery communities working with the support of ART members have described a difficult situation, with the ecosystem and with the conservation- friendly traditional way of life of community fisheries on the Tonle Sap Lake and surrounding zones urgently imperiled by both illegal commercial fishing activities, as well as smaller scale illegal fishing, due to the pressures of poverty on fishing-dependent community members and the migration of rural Cambodians to the Tonle Sap region in search of better livelihoods. Additional stressors they have identified include the encroaching Land Concessions onto the Tonle Sap floodplains in different provinces with communities who both farm and fish losing their land and forests to profit seeking companies, climate change, and the looming impacts of hydroelectric dam projects which are expected to dramatically impact fish stock and food security.

While the frameworks in place largely provide protections for the ecosystem and fishery communities around the lake, the communities involved in this research have highlighted the disconnection between the goals of these frameworks and the reality for communities on the ground, specifically with regards to the prevention and mitigation of illegal fishing. They clearly articulate below the work required to create political, economic and cultural changes, from their perspective, so that officials and authorities entrusted with the protection of the immensely important natural resources of the Tonle Sap biosphere, effectively undertake their roles with close collaboration with local communities. They further identify ways forward that address the growing poverty in fishing dependent households including the diversification of livelihoods, and the integration of planning into community fisheries that addresses the impacts and root causes of incoming and outgoing migration.

Ways forward as identified by community representatives include:

48. For example, Intervene and monitor illegal fishing activities with fishery communities on an occasional basis upon request, go with community members to location of legal equipment to destroy or impound. Community notes that this rarely happens with officials finding reasons not to perform these functions.



A. LOCAL AUTHORITIES

- ♦ Participate in meetings to disseminate Fishery Law and raise issues related to illegal fishing activities in their respective communities;
- ♦ Cooperate with community representatives and organize discussion meetings to discuss issues of concern and effective strategies;
- ♦ Support and recognize the preventative activities of community fisheries;
- ♦ Implement their roles without discriminating against people based on political party affiliation.

B. COMMUNE POLICE

- ♦ Receive reports from fishery communities regarding illegal fishing activities and other fishery issues;
- ♦ Receive complaints from fishery community regarding illegal fishing activities and other fishery issues;
- ♦ Cooperate with fishery communities on time to intervene in illegal fishing activities within their scope of authorities;⁴⁸



- ♦ Authorize the community to be able to arrest offenders of illegal fishing activities and to be able to directly share critical evidence with relevant authority (court);
- ♦ Respect and implement the fishery law strictly and impartially;
- ♦ Possess self-autonomy to protect fishery resources and provide good cooperation with the fishery communities;
- ♦ Lead communities to prevent illegal fishing activities; give suggestion and support to fishery communities to patrol and intervene in illegal fishing activities.

C. GOVERNMENT AT NATIONAL LEVEL

- ♦ Instruct its officials to implement their roles correctly;
- ♦ Further disseminate the Fishery Law to inform the public through awareness raising initiatives (radio, debate, TV, billboards, signs), especially those who are not aware of the law yet;
- ♦ Firmly enforce the Fishery Law and explain to the

Fish processing, Pursat, 2014



PHOTO CREDIT:
FGS

public about the benefits of fishery resources and why they are essential to protect;

- ♦ Fully authorize the fishery community to charge contribution fees to people wishing to fish from outside the fishery communities;
- ♦ MAFF should have a budget from outside the government to support community activities;
- ♦ Punish those who violate the law according to legal provisions;
- ♦ In cases where a specialized official, authorities or relevant institutions commit an offense which is against the law – take a bribe, ignore an offender's actions when clear evidence – ensure they are appropriately tried and punished or removed from their position;
- ♦ Allow fishing communities to replace corrupt fishery officials with officials elected by local people;
- ♦ Promote representatives from fishery communities to become judicial officials who are able to file cases or submit reports on illegal fishing to the court;
- ♦ Authorize the fishery communities to impose fines, arrest, file complaint at court against illegal fishing-offenders /fishery activities;
- ♦ In the commune investment plan, allocate a separate budget other than the development budget for the fishery community to use for natural and fishery resource protection;
- ♦ Amend Article 12, Chapter 12, of the sub-decree on management of fishing communities to authorize the communities to manage, utilize and conduct business to enjoy profits from fishery yield in their fishery domain;
- ♦ Government should allocate some money to support fishery committee members.

D. NON-GOVERNMENTAL ORGANIZATIONS

- ♦ Continue to disseminate the Fishery Law, and other relevant laws, to inform the public so that they are able to protect fishery and natural resources;
- ♦ Encourage people to participate in the protection and reforestation of flooded forests to serve as fish sanctuaries, spawning and breeding grounds for fish and to provide animals with shelter;
- ♦ Continue to support communities to engage in study and shared learning through exchange visits between fishing communities;
- ♦ Continue to provide materials, budget and technical trainings to support activities of fishing communities, for example to support different development projects and establish small-scale businesses within fishing communities, to provide techniques to process and utilize fish resources effectively, or to support communities and organizations to patrol and monitor for illegal fishing activities within their fishing domains, and initiatives like the creation of eco-tourist conservation areas or homestay depending on the conditions of each community;
- ♦ Assist the communities to meet with government

officials during public discussions on illegal fishing and the management of natural resources;

- ♦ Conduct professional impartial evaluation and documentation with consultation with both the government and fishing communities;

F. FISHERY COMMUNITIES

- ♦ Conduct meetings to educate community members about what are illegal fishing activities and what the impacts are for the communities and ecosystem;
- ♦ Conduct studies regarding illegal activities and report to authorities;
- ♦ Disseminate the Fishery Laws and key points on the Sub-Decree on Management of Fishery Community to the fishing communities;
- ♦ Conduct activities to prevent illegal fishing activities and cooperate with relevant authority and among communities all over the country to protect fishery resources;
- ♦ Conduct regular management meetings, develop monthly plans and make reports to relevant stakeholders to make intervention activities possible – for example, develop crime prevention plans in coordination with relevant stakeholders and implement them regularly, especially during off-season period – an important time for the breeding of fish stock;
- ♦ Disseminate information about illegal fishing activities on media networks, radio, TV or social media such as facebook;
- ♦ Follow up and promote law enforcement with specialized officials and local authorities to fine, arrest and file complaints at court against offenders who commit illegal activities;
- ♦ Build strong solidarity between different fishery community and people to submit complaints regarding unfair illegal fishing activities at commune, district and provincial offices.

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ANNEXES

ANNEX I: ANALYSIS OF REGULATIONS FOR COMMUNITY FISHERIES ON TONLE SAP BY COMMUNITY MEMBERS

Establishment of community fisheries: The below presents key components from regulations which determine the roles and responsibilities of key stakeholders in the establishment and management of fishing communities.

Article I of the Royal Decree on the Establishment of Community Fisheries and Sub-decree on Management of Fishing Communities (June, 2006) published by Department of Fishery, MAFF, states:

All Khmer citizens have the right joint together to establish community fisheries in their own local areas, on a voluntary basis and taking the initiative to improve their own standard of living by using fisheries resources sustainably to contribute to economic and social improvement and poverty alleviation. The Ministry of Agriculture, Forestry and Fisheries shall have general jurisdiction over management of community fisheries.

Chapter 2 (Article 6(2)), of the Sub-Decree on Establishment of Fishing Communities states: Department of Fishery, municipal and provincial office of fisheries, municipal and provincial department of agriculture, local authorities, or commune/sangkat council shall cooperate to establish fishing communities. This implies that the local authorities are also responsible stakeholders to protect fishery resources.

Chapter 5, Article 22, stipulates about responsible institutions. It states: Ministry of Agriculture Forestry and Fisheries shall have general jurisdiction over fishery communities and shall have the following roles and responsibilities:

- Act as guardian of the fishing community;
- Issue Prakas to recognize, reject or nullify a fishing community;
- Issue Prakas to provide guidelines regarding fishery community, sample statute, internal rules of fishing community, agreement and

management of fishing communities through consultative process;

- Coordinate with state institutions and other stakeholders to implement, develop and manage fishing communities;
- Intervene to solve disputes of fishery communities;
- Mobilize assistance from everywhere to support fishing communities.

Article 23 states:

Department of Fisheries shall have the following roles and duties:

- Review and give suggestions to MAFF to make decision on the establishment of fishing communities;
- Review and sign agreements with fisheries communities regarding the area covered by a fishing community;
- Make request to MAFF in order to terminate an agreement in case it is found that a fishery community does not comply with the contents of the agreement;
- Review and decide on fishery community management plan;
- Review and respond to request from fishery community to manage fishery resources sustainably;
- Prevent and intervene in illegal fishing activities within the boundary of a fishing community;
- Resolve fishery disputes within community fishery sites;
- Coordinate to organize fishery community, demarcate community fishery site, statute of fishery community, fishery community management plan, and conduct activities to manage fishery resources of fishery communities;
- Disseminate government's policies, fishery-related legal instruments and documents related to fishery community;
- Educate and train to build technical capacity for management of fishing communities;
- Monitor and evaluate the

- implementation of fishery communities;
- Mobilize assistances from all sources to support fishery communities.

According to the statute, committee of the fishing communities shall be composed of a chief, deputy chiefs and members. Fishing communities shall elect one member to work as a secretary and another member as treasurer. They shall discuss to allocate tasks to other members as appropriate. Chief of the fishing communities shall be responsible for leading and management of the fishing community as a whole.

After the chief, deputy chiefs and members of the committee are recruited, members of the fishing communities shall have the following tasks:

- a) Implement provisions of the Law on Fisheries and the King's Royal Decree;
- b) Implement statute, internal rules, agreements and fishing community management plan;
- c) Conduct fishing community mapping activity;
- d) Develop community management plan
- e) Comply with the community's internal rules;

Provisions in the contract between a fishing community and the Fishery Administration state that the community should refrain from the following:

- Community shall not rent, sell, exchange or pawn the fishery domain under their management;
- Community shall not have an authority to arrest an illegal activity; however, it can report the offenses.
- Communities shall not have an authority to file a criminal case. This is the task of specialized authorities. However, the communities can keep their own record. All case filing shall be made by fishery authorities and approval from the community is required before submitting it to the court;
- The communities shall not have an authority to make an arrest or impose fine;
- The communities shall not have an authority to prevent outsiders from entering their fishery domain;
- Fishery communities shall not be permitted to sell, rent, exchange or clear the forest in the fishery domain under their management.

ANNEX 2: DATA COLLECTION PLAN

ILLEGAL FISHING IN KAMPONG CHHNANG, PURSAT AND BATTAMBANG

Objectives of data collection:

- 1) To understand about legal and illegal fishing equipment
- 2) To know about the division of fishing areas and types of fishing allowed in the three provinces
- 3) To understand about authorities that have the duties to suppress on illegal fishing
- 4) To understand about the situation of fisher folks after the government eliminated the fishing lots and the types of fishery resources currently available
- 5) To gather data about the impacts of the decline of fishery resources and the increase of fish prices on fisher folks and normal people.

Source of information

1. Fisher folks, fishery community representatives
2. Authority: village leaders in all targeted villages, commune chiefs in target communes

Fishery administration officials, Fishery Sangkat

3. NGOs: CCD, FAC, ADHOC, LICADHO
4. Relevant materials

Data Collection from Community and Community Representative

Fishing and Fishery equipment

1. Normally, where do you fishing?
2. At fishing lot and fishery lot, does any ethnic coming to fishery? Are they using any equipment? Give detail please?
3. What kind of fishery equipment ban by law? What size and length of those equipment?

Fishery and Conservation Areas

1. In the community what are the fishery and conservation areas?
2. Where areas that allow for fisher folk? How many km from conservation areas?
3. Do you know in the conservation areas have been fishing? Why can they fish?
4. In fishery areas how does the inundated forest? Where? Who has been destroy inundated forest?
5. Do you know, do any impactions to fisher folk, fish, fishing cover and environment from inundated brushes cutting?

Illegal fishery

1. In fishing reason, which months it has prohibited from fishing? Why?
2. Any prohibited to all equipment or specified equipment? What kind of equipment?
3. Do you know, any illegal fishing happened in fishery areas? Who are committed?
What kind of equipment has been used by offender?
4. When does illegal fishery happen?
5. During illegal fishery occur, where did people report to? Which authorities are they report to? Any intervenes occurred after reporting?
6. Before, are there any strategies of in charged authority intervenes on illegal fishery?
7. Does fishery office used to arrest offender? Any processes after arresting offender?
Where are they send to?
8. Have fisher folk ever been threaten by authority? Please provide specified example which happened.
9. Which authority used to threaten for money from fisher folk? How much money?
What offense? Which authority used to arrest you? Please describe.
10. How do fisher folk feel when you were arrest, fishery equipment's capture and threaten for money from authority?
11. What methods are they doing to prevent the offense?
12. Who are involving to prevent on conservation areas? What are the possible processes in conservation areas? (Example: Fisher folk prevention committee, what are their roles? Any shifts, are they going to prevent? How many times pre-month? Does fisher folk prevention has rights to ban offender or how are they capture illegal equipment?

Laws and enforcement

1. Any institutions doing publication on law of fishery to fisher folk? If its have, which institutions? Organisation or ministry?
2. In fishery law, any article states about levels of fining on illegal fishing?
3. A real practice, what are processes and how much money they have to pay

releasing from crime?

4. Do any people think about nepotism, bias and bribe in their fishery areas? Who is committed and how do they do? How about involving authority?

12. What types of fish are lost? What types of fish are increasing

Fish output and type of fishes

1. After government cancel on fishing lots, whether fish are increasing or not?

2. Nowadays, what type of fish do they have? Please describe fish type.

3. What types of fish are lost? What types of fish are increasing?

4. Are any ages imports from neighboring countries to raise or release in the river? If have, what types of fish?

5. After losing fish output:

a. Are fisher folk sending their children to school? If stop, what are the reasons?

b. Does any violent happen or increasing? What are the reasons?

c. Does fisher folk loan money? Why?

d. Does fisher folk have any children to migrate? Does any outsider come to live in your area?

e. Do any impacts to fisher folk while the fish price increasing? How are the impacts to women, men and children?

Data Collection from Authorities

1. What kind of fishery equipment ban by law? What size and length of those equipment?

2. Which authority are they asking for permission to fishing? Why?

3. In the community what are the fishery and conservation areas?

4. Where areas that allow for fisher folk? How many km from conservation areas?

5. Do you know in the conservation areas have been fishing? Why can they fish?

6. In fishing reason, which months it has prohibited from fishing? Why?

7. Any prohibited to all equipment or specified equipment? What kind of equipment?

8. When does illegal fishery happen?

9. Before, are there any strategies of in charged authority intervenes on illegal fishery?

10. Who are involving to prevent on conservation areas? What are the possible processes in conservation areas? (Example: Fisher folk prevention committee, what are their roles? Any shifts, are they going to prevent? How many times pre-month? Does fisher folk prevention has rights to ban offender or how are they capture illegal equipment?

11. After government cancel on fishing lots, whether fish are increasing or not?

ANNEX 3: INTERNAL RULES OF SDEY KROM FISHING COMMUNITY

Article 6 of the Internal Rules of Sdey Krom Fishery Community in Rohal Suong states: “During fishing season, fishery community members are allowed to use the following family-scale instruments:

a. Type, size and quantity of fishing instruments permitted at community fishing site:

No.	NAME OF INSTRUMENT	QUANTITY
1	Santouch Ronong (small hooks)	1000 hooks
2	Santouch Bankai Dot (hooked trap)	200 sets
3	Santouch Borbok (long fishing rod)	1 set
4	Morng Reay (gill net) with mesh size of 2.5 cm - 8 cm	300 meters
5	7 cubit long Samnanh (mosquito net) with mesh size of 2.7 cm - 8 cm	9 cubit long, 1 circle
6	Lob Kranh (hoop net) with 1.5 m long and 0.50 m high; combined with 2 pieces of Pruol (bamboo fences)	15 pairs
7	Lorb Bongkob and Loung Bongkob (buried hoop net and Loung)	10 pairs
8	Leu	20 pairs
9	Lorn (eel trap bamboo basket)	50 sets
10	Chou	10 pairs
11	Santouch Bankai Trey Chdor (snakehead fish hook trap)	0
12	Chuch (drum trap) with 2 decimeters of diameter	0
13	Tom (fishing pot)	10 pairs
14	Angrot (cylindrical bamboo fishing basket)	1
15	Chhneang (fishing scoop made of bamboo strips) of 50 centimeters	1
16	Snor Plae Muoy (Single-edged spike)	1
17	Sorm Plae Bei (three-spiked fork)	0
18	Kongva Trey Chlonh Plae Chren (multiple spike bell-hook)	1
19	Chomrob Antong (eel spike)	1
20	Chhneang Tram Muk (bamboo fishing scoop) of 3 meters diameters (not permitted to soak in lake)	1
21	Anchong (encircling grill nets) of 3 meters diameters	1
22	Chhip Runh Doy Dai (manually-pushed fish gig) of 2 meters diameters.	1

No.	NAME OF INSTRUMENT	QUANTITY
23	Lob Kongkeb (frog trap)	10 pairs
24	Leay	0
25	Trou (fishing bamboo basket)	4 sets
26	Kongva Kongkeb (frog hook)	1
27	Kontron Kongkeb (frog scooping nets)	1
28	Santouch Trey Doy Dai (fishing lines and rods)	1
29	Anlong Trey Lout (fish sinkhole) of 0.5 meter diameter	4
30	20 meters long of Morng Houm Perk Kmean Cheung Chrorvak (Chain-free gillnets encircling)) with mesh size of 2.5 centimeters	1
31	Lob Trey Chlonh (eel fish hoop net)	05 pairs
32	Saiyeun (similar to mosquito net), Kang or Yor to catch shrimp	10 pairs
33	Chbok (fishing harpoon)	1
34	Sang Plae 4-5 (4-5 spiked fork)	1
35	Thnong (Scoop net) of 2 meter diameter	01
36	Kansom (fish net made of tree branches or grass tied together)	10 pairs
37	Prorm of 2 meters wide with mesh size of 2.5 cm or above	01
38	Dob Kanteslong (bottle to catch water beetle)	50



MAY 2

ILLEGAL FISHING AROUND THE TONLE SAP



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