

when fishing turns deadly

*The Environmental and Social Impacts
of Illegal Trawling in North Sumatra*

*“What can we do if we can’t fish? Maybe the government
will wake up when it’s already too late”*

LOCAL FISHERMAN

A briefing by
JALA – the Advocacy Network for North Sumatra Fisherfolk

*Working with local Fisher Communities to Protect Livelihoods
and the Marine Environment and to Resolve Conflict*

in cooperation with the **Environmental Justice Foundation**



JALA is the Advocacy Network for North Sumatra Fisherfolk. JALA brings together fisherfolk and NGOs to address the problems faced by traditional fisherfolk, particularly the increasing poverty levels found in many fishing communities. JALA's mission and vision is to stop the unsustainable exploitation of coastal areas in order to achieve sustainable livelihoods for the fisherfolk of North Sumatra as well as the protection of local marine environments.

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CONTENTS

Introduction	1
IUU and Trawling in North Sumatra	2
The Failure of Law Enforcement in Indonesia – A case study of Presidential Decree 39/1980	2
The Environmental Impacts of Trawling	3
What is Trawling?	3
Recommendations	4
JALA : The Next Steps	4
References	5



Trawlers (right) are widespread throughout North Sumatra, where JALA estimates 300 are operating out of the port of Belawan alone. Meanwhile, traditional fishermen (top) are struggling to make enough income to feed their families due to dwindling fish stocks.

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When Fishing turns Deadly

North Sumatra is particularly significant to the anti-trawler movement in Indonesia because it is here that the numbers of trawlers are greatest, and therefore also here that the conflict between traditional fishing communities and trawlers has been the most widespread and severe. The large increase in the number of trawlers in the 1970s and 1980s resulted in large decreases in catch and income levels for local fishermen¹⁰, particularly in the 3 mile zone reserved for traditional fishing activities. Trawlers have often illegally entered these areas, a practice that frequently continues to this day. There was and is little enforcement of the law by any level of government.

The result has been anger and frustration on the

INTRODUCTION

“Globally, IUU fishing is seriously undermining international efforts to conserve and manage fish stocks in a sustainable manner. All responsible countries must work...to put an end to IUU fishing”¹

ICHIRO NOMURA, FAO ASSISTANT DIRECTOR-GENERAL FOR FISHERIES

Illegal, Unreported and Unregulated (IUU) fishing has become a global phenomenon that represents one of the most serious threats to the future of world fisheries^{2,3,4}. In a world where the United Nations Food and Agriculture Organization (FAO) has estimated that seventy-five percent of the world’s fish stocks are fully exploited, over-exploited or depleted⁵, IUU fishing represents a serious threat to the sustainability of fish stocks. Meanwhile IUU fishing fleets are critically damaging many of the world’s marine habitats and are stealing the food and livelihoods of many of the poorest people in the world.

Indonesia is particularly vulnerable to illegal fishing, encompassing a territorial sea of some 5.8 million km² surrounding approximately 17,508 islands, the largest of any country. These marine areas contain some of the richest fishing grounds in the world. Indonesia has a populace highly dependent on the sea; it has been estimated that marine resources provide food to over 60% of the population⁶. Approximately 63 million people, or 50 percent of coastal residents, are fishers⁷. By far the majority of these are involved in traditional small scale fisheries.

However, IUU fishing by foreign and domestic vessels is widespread, and as many as 4,900 foreign fishing ships from countries such as Japan, China, South Korea, Taiwan Province of China and the Philippines operate in Indonesia’s waters every year⁸. However, Indonesian vessels are also widely responsible for rampant IUU fishing throughout the country. The estimated annual losses to Indonesia from IUU fishing range from US \$1.4 billion to \$2 billion per year⁹. There is a clear need for the Indonesian government to immediately and effectively address the severe impacts that IUU fishing is having on incomes and the marine environment throughout the country.



part of local fishing communities over their decrease in income and the lack of government action. The incursions by trawlers into the traditional fishing zone and resulting contact with local fishermen have had tragic consequences. Trawlers have crushed small fishing boats, resulting in injuries and loss of equipment, and in some cases deaths¹¹. In response traditional fishermen have attacked and burnt trawlers.

These clashes between traditional fishermen and trawlers result in injury and loss of life on both sides; many fishermen have been injured, disappeared or died. JALA estimates that the conflict has resulted in over 200 casualties in North Sumatra over the last 15 years. These events continue to be of serious concern; the most recent deadly confrontation occurred at the end of February 2007 near Pantai Cermin, Deli Serdang district.

JALA strongly condemns the violent actions taken by both sides, and promotes non-violent solutions amongst the local fishing communities to the problem of trawlers. Together with other NGOs and fishermen organizations, JALA is active in resolving the conflict by providing non-litigation support for traditional fishermen. JALA also works with the NGO Legal Aid Foundation (LBH), which provides professional legal representation for local fishermen impacted by the conflict, who otherwise would not be provided with any information or assistance

“They brought my husband home in a coffin, and told me he had been killed by trawlers. I only saw photos of his body, he’d been stabbed all over...”

— local fisherman’s widow

The Failure of Law Enforcement in Indonesia – A case study of Presidential Decree 39/1980

"If fisheries laws cannot be enforced they are useless"¹⁶ — High Seas Task Force

The number of trawlers in Indonesia started to increase dramatically in 1970s and 1980s, resulting in an escalation of violence between traditional fishermen and trawlers that continues to this day¹⁷. In response to this conflict in 1980 the national government implemented Presidential Decree 39/1980 to ban trawlers. Based on presidential decision number 503/KPTS/UM/7/1980 a trawler was defined as a fishing method that works with a motor machine, beam, otter board and weighted nets, pulled by boats¹⁸.

The law was implemented to increase the fishermen's catch / income and to avoid growing social tensions. It forbids fishing vessels 'using' trawl and other similar forms of nets. The word "using" was defined by the Indonesian National Court in Circulated Document Number 03 in 1988 as a criminal action, which embraces the making, owning (using, holding) and selling of trawler nets.

Despite this law, the government has implemented little or no enforcement of its trawl ban, and in some cases government officials have likely been directly complicit in their use and expansion. This combination of lack of controls and illicit support has led to trawlers being widespread throughout Indonesia, particularly in North Sumatra. It has also frustrated traditional fishermen who have in some cases set up local patrols, often further contributing to the violence that Presidential Decree 39 was supposed to address.

This lack of enforcement can be partly explained by the large levels of corruption found within various government departments, but also by weaknesses in the law itself. Presidential Decrees, while being law, have less authority than legislation passed by the Parliament. They are usually passed in response to a particular situation, and are often disregarded later on. Presidential Decree 39/1980 is now 27 years old, is little known, and is being completely ignored.

JALA is strongly urging the National Government to incorporate Presidential Decree 39/1980 into the 2004 national legislation governing fisheries affairs. The ban on trawlers must be incorporated into Indonesian law at the highest level, and fully enforced to ensure the end of the trawl conflict.

IUU AND TRAWLING IN NORTH SUMATRA

On the north coast of Sumatra, IUU fishing is mainly conducted by local Indonesian and foreign interests utilizing trawlers. Trawling has been globally condemned as ecologically destructive and unsustainable, resulting in high levels of bycatch while destroying coral, seagrass and other marine habitats¹². It has been estimated that widespread illegal trawling has resulted in a 40% decrease in catch per fisher in the Malacca Strait¹³. However, reports by local fishermen to JALA indicate that this figure is maybe closer to a 70% loss in fish size and numbers.

Astonishingly, trawlers were banned in Indonesian waters Presidential Decree 39/1980 in 1980¹⁴. However, since the ban there has been an almost complete failure in the implementation and enforcement of this decree/law, and traditional fishermen have observed that trawling has actually increased significantly over the last 20 years in Sumatra. Both national and local authorities have taken little action and there is considerable anecdotal evidence pointing to bribery and corruption among officials who are paid to ignore the problem. Traditional fishermen have described watching local authorities pulling alongside trawlers with a specially rigged basket on the end of a long pole in order to receive cash bribes¹⁵.

Traditional fishermen are suffering the brunt of the trawling activities as the size and amount of their catches steadily decline. The 3-mile zone off the coast of Sumatra reserved exclusively for traditional fishing is rarely respected by the trawlers, and even more rarely enforced by the authorities. Local communities are becoming progressively poorer as their catches and income levels drop. The result has been clashes between traditional fishermen and trawlers, resulting in injuries and deaths on both sides. It is clear that the government's failure to impose effective controls is leading to a decline and probable collapse of local fisheries and with it escalating conflicts between poor artisanal fishers and larger trawlers.



"Fishermen have big economic problems. Every day there are less fish to catch"

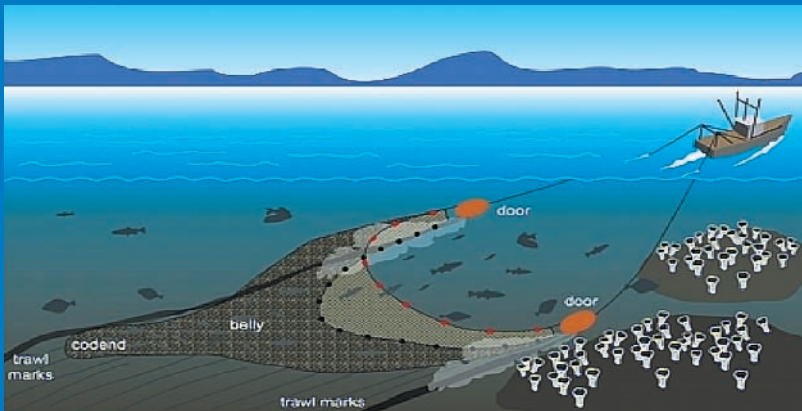
LOCAL FISHERMAN

"We don't get enough to meet our family needs. Poverty is increasing among fishing communities. We struggle to send our child to school."

LOCAL FISHERMAN'S WIFE

LEFT: Fish such as these being unloaded from an illegal trawler in Belawan, North Sumatra are vital sources of food and income for traditional fishing communities. Trawling is indiscriminately catching marine species of all types, sizes and ages, wiping out local fish stocks and the livelihoods of the communities who depend on them.

© All Images JALA / EJF



ABOVE: Trawling involves towing a heavy net along the sea bottom. It destroys the seabed habitat, and catches everything unlucky enough to be in its path, regardless of size, age or species. Trawling in North Sumatra is destroying the marine environment and local fishing livelihoods.

The Environmental Impacts of Trawling

"It's true, you can see all the waste in the net. Anyone would be concerned. We are destroying where the fish live" — trawler fisherman

There are two major ecological concerns relating to trawling: the lack of selectivity of the method, and the physical damage that trawling does to the seabed.

Trawl nets are non-selective, sweeping up both marketable and undesirable fish as well as fish of both mature and juvenile size. The target species in North Sumatra are primarily shrimp and high value fish species for the export market; although some less valuable species are also kept to be sold locally. Internationally, shrimp trawling has been recognized as particularly damaging to non-target, or 'bycatch', species. Bycatch to shrimp ratios in the Indonesian shrimp industry have been estimated to be as high as 26:1¹⁹, meaning that for every 1kg of shrimp produced, 26kg of other species are caught.

The bycatch from the local trawl fleet is comprised of hundreds of species. A report from the nearby Northern Australian shrimp fishery indicates that 437 vertebrate species (e.g. fish, sharks, rays) and 234 invertebrate taxa (e.g. crabs, squid and scallops) are incidentally caught by trawlers there²⁰. Other species of concern that are often taken as bycatch include sea-turtles and cetaceans²¹. Bycatch also includes the juveniles of target species which then never reach maturity and reproduce, further lowering fish numbers and negatively impacting initiatives to sustainably manage fish stocks. JALA estimates that two thirds of the catch by the trawler fleet operating in North Sumatra is discarded over the side, lost to the marine ecosystem and local fishermen.

Trawling involves dragging the net along the bottom of the seabed, scraping up everything in the net's path. Habitat features such as coral gardens, sponges, seagrass beds, and rocky ledges comprise the living seafloor and provide critical refuges for juvenile fish and crab. They are also valuable spawning and feeding grounds for adult fish. The effects of trawling on these ecosystems have been shown to reduce habitat complexity; reduce seafloor productivity; and change seafloor communities²².

The trawlers in North Sumatra are entering the 3-mile traditional fishing grounds that not only contain the fish utilized by local fishermen, but also often contain the most significant fish breeding grounds. Local fishermen have repeatedly discussed their observations of significant decreases in the size and amount of their catches, and their concern about the effect the trawlers are having on the sea bottom. They believe that important local breeding sites are being destroyed at a rapid rate, and this assault must stop if fish species and local livelihoods are to be saved.

Traditional fishing methods via small laid nets, traps and hand-lines are far more sustainable methods of catching fish, and allow for sustainable management of stocks. Traditional fishing methods have the added bonus of producing much higher quality of catch, as the impact on organisms as they are dragged along in the trawl net and along the bottom often damage them. Trawlers must be removed from the traditional fishing areas in order to allow for fish stocks to recover, and to allow local fishermen to catch greater amounts and quality of fish and shrimp.

What is Trawling?

Trawling was first introduced by the Dutch into Indonesia around 1910, although it didn't become significant in North Sumatra until the end of the 1950's. It is a method of fishing that works by pulling the net along the seabed bottom behind one or two boats, called trawlers. The mouth of the net is kept open by trawl doors that act as wings, using a hydrodynamic shape to provide horizontal spread. The vertical opening of a trawl net is created using flotation on the upper edge and sufficient weight on the lower edge of the net mouth to ensure the net drags along the ocean bottom. Fish in the path of the trawl pass over the footrope and beneath the head line down the net into the end of the net, which has a smaller mesh size, and where the fish are collected.

Because bottom trawling involves towing heavy fishing gear over the seabed at a speed of several knots, it is destructive to the ocean bottom. The primary sources of impact are the doors, which can weigh several tonnes and create furrows when dragged along the bottom, and the footrope configuration, which usually remains in contact with the bottom across the entire lower edge of the net. This may turn over boulders, disturb or damage bottom-dwelling organisms or alter bottom sediments. Trawling is also associated with high levels of bycatch.

Below: There are 3 main types of trawlers in North Sumatra –

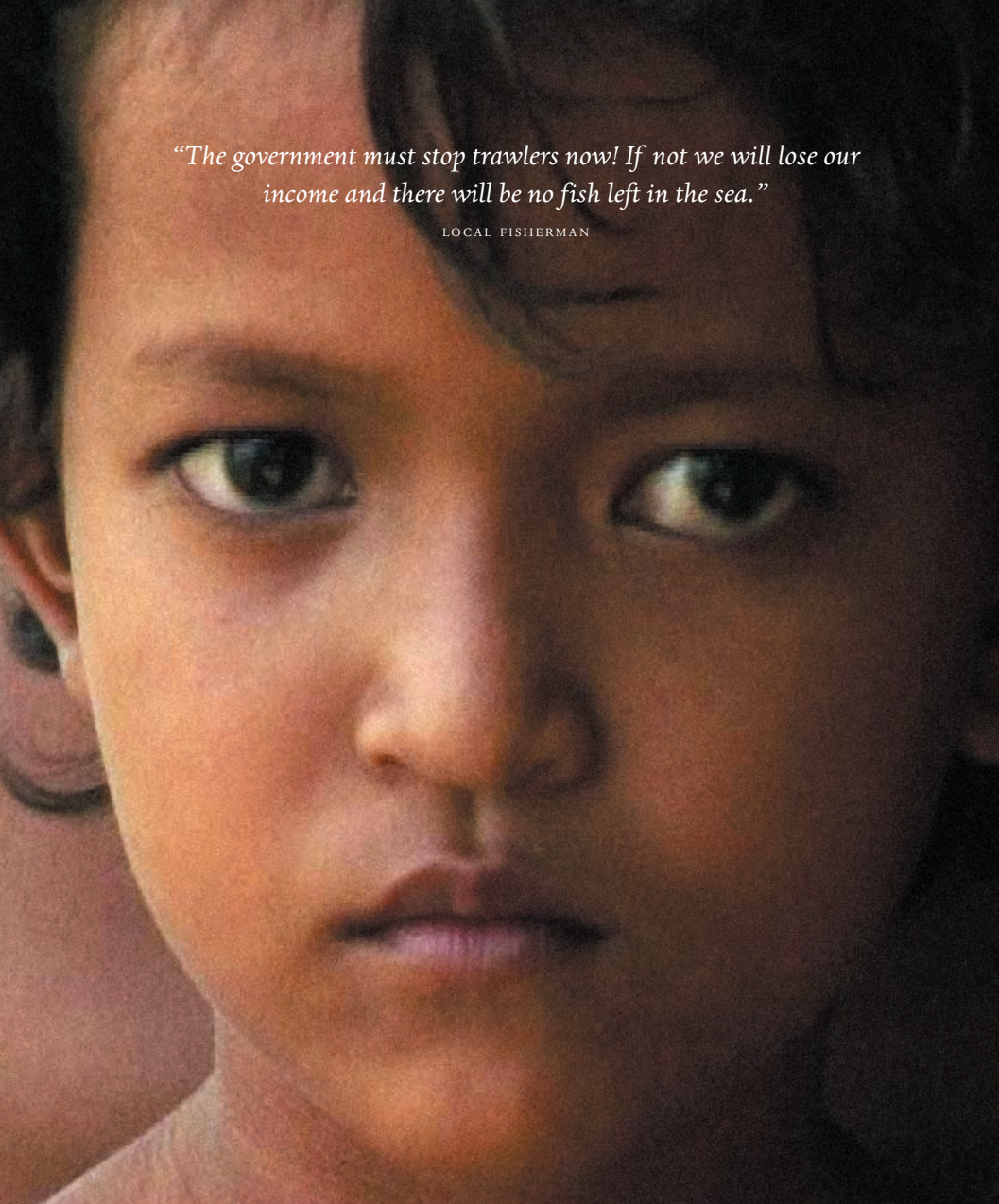
'Pukat' (large industrial vessels)

'Sondong or Langgai' (medium vessels)

'Mini-Trawl' (local vessels that have been converted)

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“The government must stop trawlers now! If not we will lose our income and there will be no fish left in the sea.”

LOCAL FISHERMAN

RECOMMENDATIONS

JALA strongly urges the local and national governments of Indonesia to:

- Immediately enforce Presidential Decree 39/1980 by banning all trawling activity in Indonesia territorial waters. Enforcement needs to come at both the local and national level, and incorporate local fisher participation in monitoring and enforcement programs.
- Incorporate Presidential Decree 39/1980 banning trawling into national legislation governing fisheries affairs to increase the strength and effectiveness of the law.
- Increase the role of traditional fishing communities in the planning and decision making for the sustainable management of local marine resources. If fisheries are not made sustainable these communities will be the most severely impacted, particularly the poorest.

JALA: The Next Steps

The extent and scale of the trawler problem and conflict in North Sumatra means the campaign to stop unsustainable trawling requires substantially greater effort and input if it is to be effective. Local, national and international attention is urgently required to address this issue successfully. In order to build upon the work done so far, JALA will continue the struggle to stop trawling by campaigning among the local communities, government and public. JALA is hoping to support the creation of a representational fisherfolk organization that would have capacity to present their own demands to the Indonesian government. JALA will then become part of this social movement, supporting traditional fishing communities taking an active part in the process for change. JALA will also continue and expand its programs to increase awareness about protecting the environment. The focus here is on the health of the mangrove forest as this is directly linked to the ecological, social and economic situation of the local people.

☛ JALA is updating and expanding our research on the environmental and social impacts of trawling. In particular we are planning to investigate the number and extent of trawlers in North Sumatra, as well as the social and environmental impacts of trawling activities and of the conflict. Research will take place in the field utilising both quantitative and qualitative research methodologies, and with the complete participation of the traditional fishing communities.

☛ The recently produced anti-trawl documentary, 'Stop Trawl', filmed and edited by the JALA team, will be used to engage local fishing communities in the campaign; to inform and gain support from the various stakeholders, locally, nationally and internationally.

☛ JALA will continue to promote gender balance in local fishing communities by providing training and information to empower women fishers, while providing support to those women whose husbands have been arrested or killed in the trawl conflict.

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BENCANA TRAWL





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