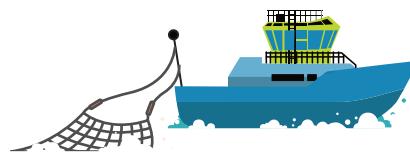


## Driving change in South East Asian trawl fisheries, fishmeal supply and aquafeed

To further spur development in South East Asia and increase the availability of responsibly sourced fishmeal, IFFO, The Marine Ingredients Organisation and the Global Aquaculture Alliance (GAA) collaborated to produce a pivotal report on the region, focused on Vietnam and Thailand. These are the report's main findings.

### 3 THE TRAWL AND PURSE SEINE SECTORS DOMINATE PRODUCTION



During the 1960's through 1980's there was considerable investment in fisheries development in Thailand and Vietnam which increased catches enormously.

### 7 HANDLING IMPROVEMENTS ARE NEEDED



The low value fish directed into the fishmeal supply chain could benefit from quality improvements in handling (like refrigeration) and this would result in better fishmeal and increased value.

### 1 IN SOUTH EAST ASIA, MARINE ECOSYSTEMS ARE COMPLEX



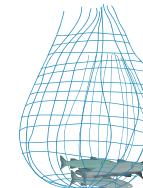
- Fisheries science developed in cool water countries focuses on selective fishing and maximizing the production of a small number of 'target' species. In tropical Asia, there is high species diversity and efficient use of the catch.

### 4 THE FISHMEAL SECTOR IS EXPERIENCING RAPID GROWTH

- The low value species from the trawl catches were used in the fast growing aquaculture sector. By-product from aquaculture also provides raw material.



### 5 POOR FISHERIES MANAGEMENT HAS LED TO OVERFISHING



- Poor fisheries management resulted in too many fishing vessels, which in turn resulted in overfishing, zero net profits and a lack of incentives to fish legally.

### 2 THE FISHERIES ARE VERY EFFICIENT



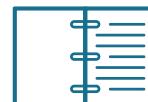
- Fish for fishmeal represent one component of the catch, which is commonly dominated by fish for direct or processed human food. Nothing is discarded or wasted.

### 6 OVERFISHING HAS LED TO THE FAVOURING OF SMALLER SPECIES



- One of the consequences of excessive fishing pressure has been the major decline in larger fish and slower growing species and the favouring of smaller, faster growing species.

### 8 THE GOVERNMENT OF THAILAND HAS DEVELOPED FISHERY MANAGEMENT PLANS



- The government of Thailand has developed and implemented a comprehensive set of fishery management plans for the Gulf of Thailand and the Andaman Sea fisheries. The plans have addressed the fundamental need to cut fishing effort, improve enforcement, increase mesh size in the trawls and rebuild fish stocks.

### 9 COLLABORATION IS REQUIRED TO ACHIEVE EFFECTIVE ACTIONS



- IFFO and GAA are keen to see some positive change. Fishery Improvement Projects (FIPs) should be encouraged as the key mechanism for involving local governments, the post-harvest sector and the industry to provide support for the implementation of management plans.