

COVID-19 and Thai marine capture fishery in the Gulf of Thailand: A case of small-scale fishery versus industrial fishery

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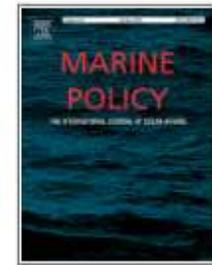
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Outline

- COVID-19 situation (end of 2020)
- Fisheries sector of Thailand
- Impacts of COVID-19 on the global fish value chain (FAO study in 2020)
- Gaps
- Objectives
- Materials and method
- Results and discussion
- Conclusion
- Ways forward



Introduction

GLOBAL
Cases: 81.5 million
Deaths: 1.8 million

THAILAND
Cases: 7,000
Deaths: 60

COVID-19 situation
(end of 2020)

Severe impacts on the economy

Low-risk sector: agriculture, forestry, and fisheries

- Short-term and moderate COVID-19 control measures
- Minimal production losses

Introduction

Royal Ordinance on Fisheries (2015)

Fisheries sector of Thailand

Capture

Culture

Marine

Inland

Marine

Inland

MARINE CAPTURE FISHERY

1.4 ± 0.1 million t

average annual production

(2014–2018)

Artisanal or small-scale (SSF)

Fishery vessels: < 10 GT

Fishing ground: Inshore

Commercial or industrial (IDF)

Fishery vessels: ≥ 10 GT

Fishing ground: Offshore (> 3 nm from the shoreline)

Introduction

Impacts of COVID-19 on the global fish value chain

(FAO study in 2020)

Vulnerable groups

- **Women**
 - greater risk of infection due to close contact with others at all stages of the value chain
 - job loss due to closure or reduction of processing and marketing activities
- **Small-scale fishers**
 - fully dependent on fishing
 - lack the capital
 - limited access to health services

Marine capture fishery

- Decreased fishing operations of SSF and IDF
- Shortage of labor force
- Reduced demand for fish and fishery products from the food services sector
- Dropped prices of fish
- Canceled key seafood trade events across the world

Gaps

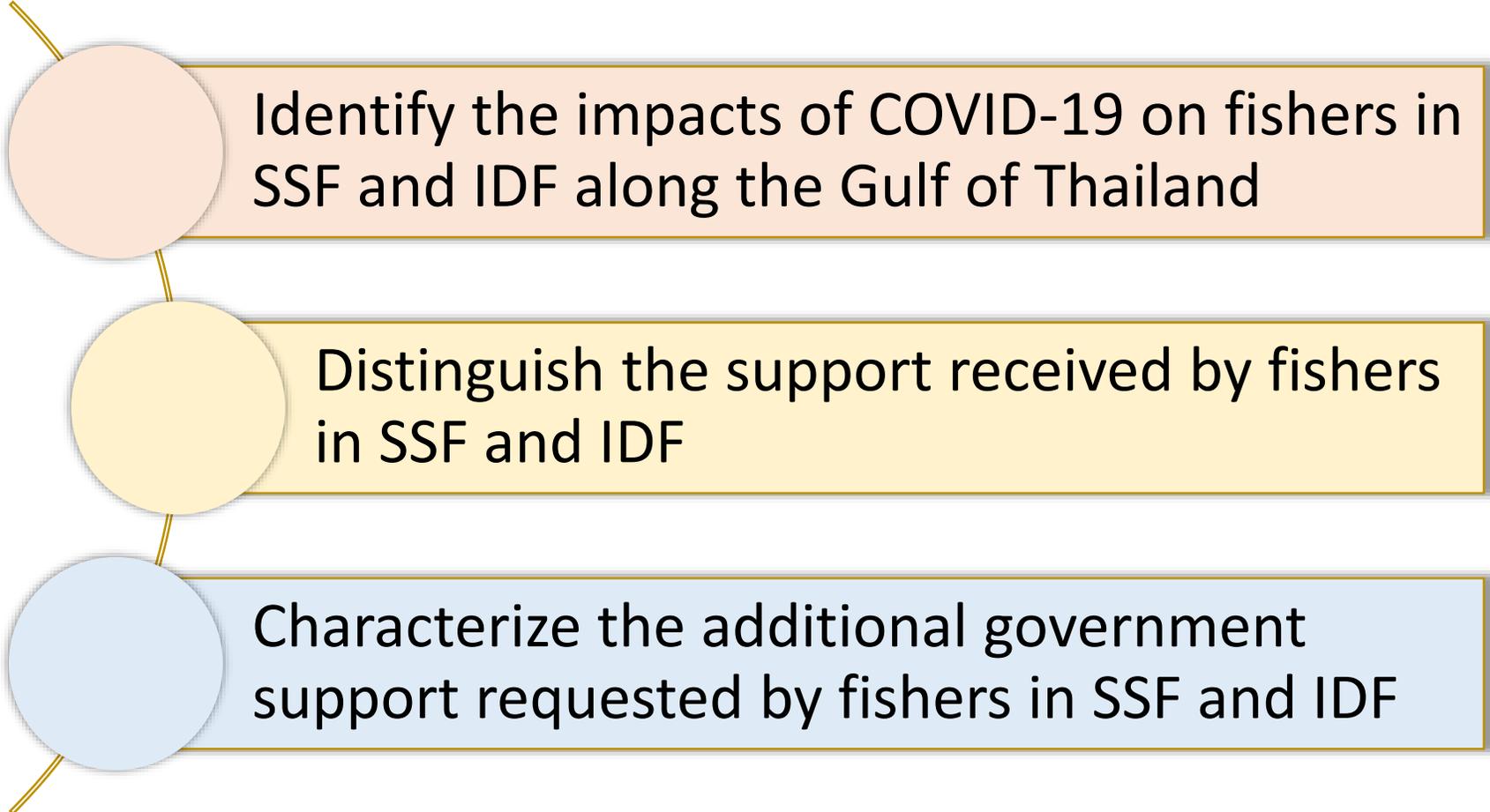
Lack of comprehensive assessments

- Impacts of COVID-19 on fishers in SSF and IDF
- Relief measures to mitigate the impacts

Need for tools to mitigate the impacts and sustain marine capture fishery in Thailand

- Fishing technology extension

Objectives



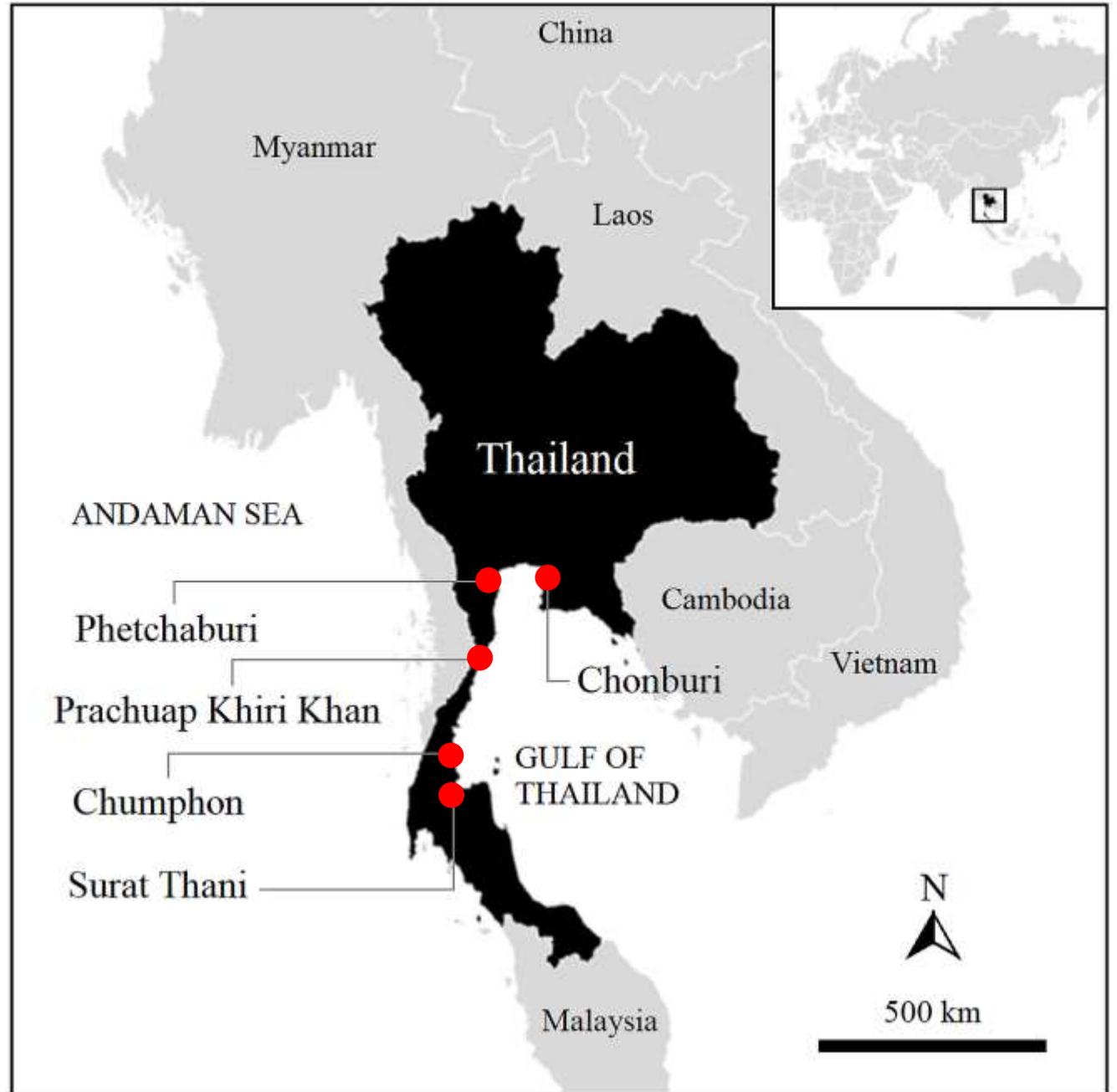
Identify the impacts of COVID-19 on fishers in SSF and IDF along the Gulf of Thailand

Distinguish the support received by fishers in SSF and IDF

Characterize the additional government support requested by fishers in SSF and IDF

Materials and Method

- **Study sites:** coastal provinces along the Gulf of Thailand
 - Chonburi
 - Chumphon
 - Phetchaburi
 - Prachuap Khiri Khan
 - Surat Thani
- **Study period:** Jul-Nov 2020
- **Total number of respondents:** n = 171 fishers



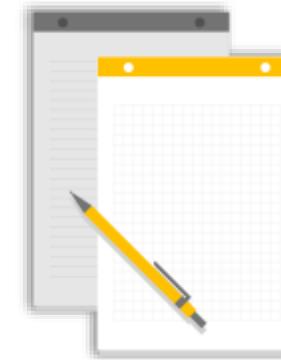
Materials and Method

- **Face-to-face interview**

- Minimum health protocols  ← physical distance → 

- **Open- and closed-ended questions based on FAO guidelines**

- Characteristics of fishers
- Fishing activities
- Impacts of COVID-19
- Support to fishers to alleviate the impacts of COVID-19
- Additional government support requested by fishers



- **Data analysis**

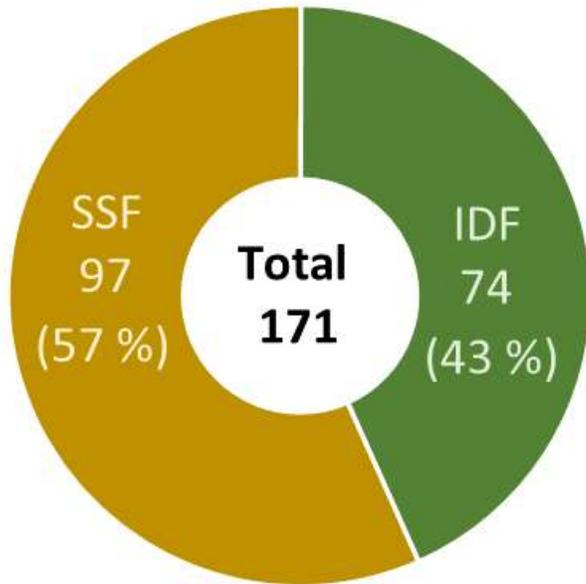
- Descriptive statistics: percentage, mean, and standard deviation
- Inferential statistics: comparison of means (Two Independent-sample T-test); comparison of proportions (Two Proportions Unpooled Z-test); and $p = 0.05$ significance level



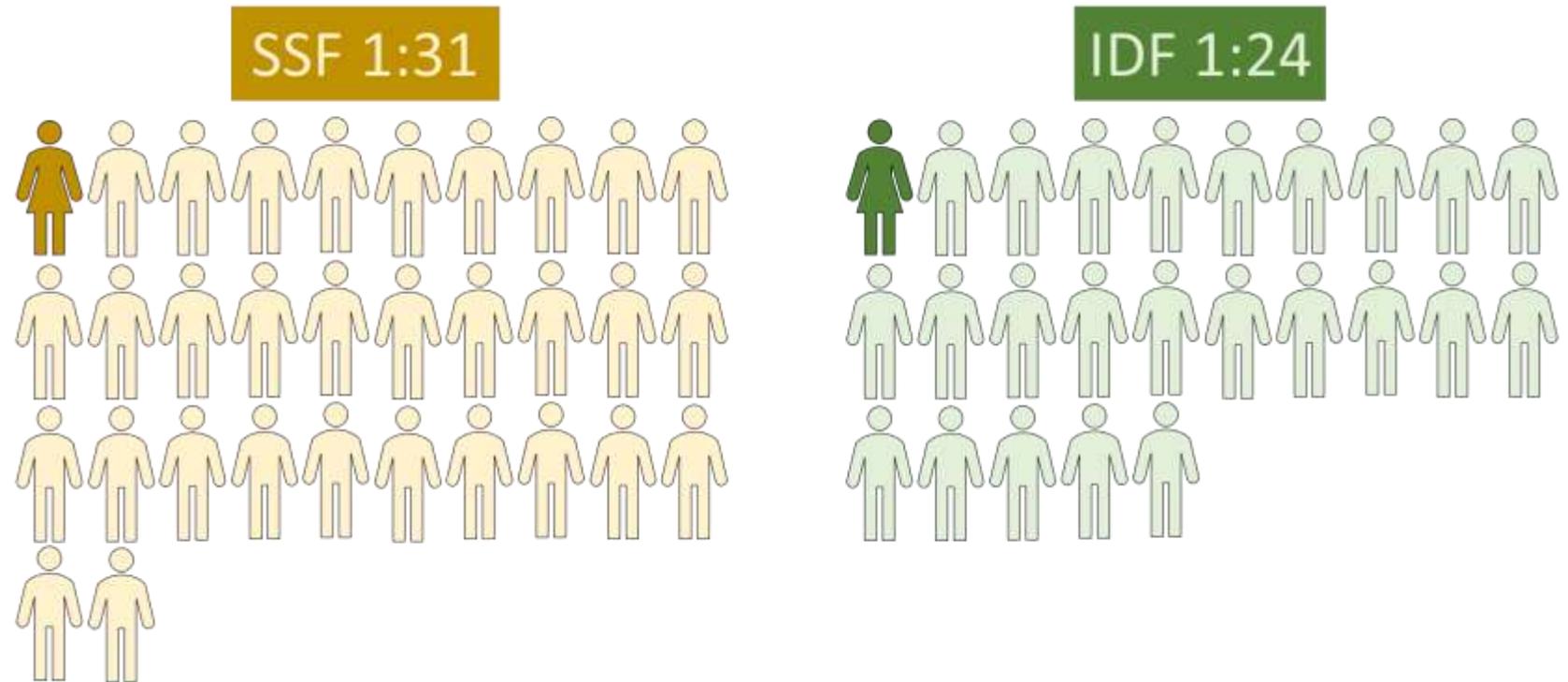
Results and Discussion

Characteristics of fishers

No. of respondents

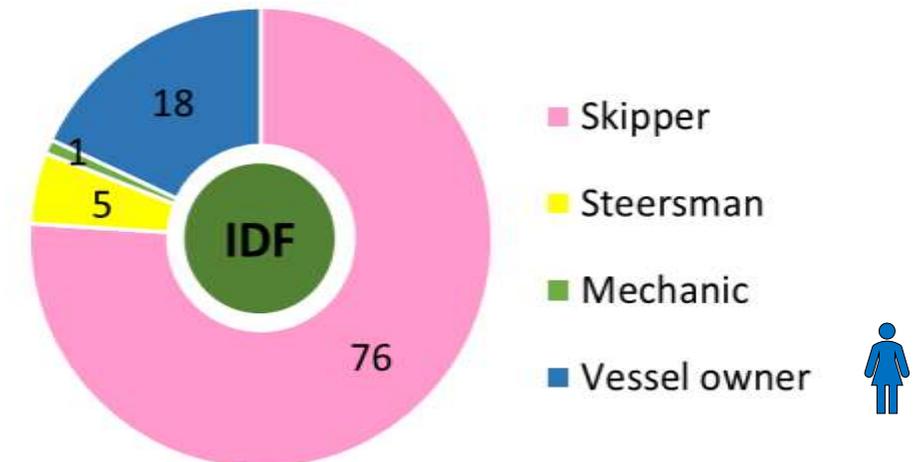
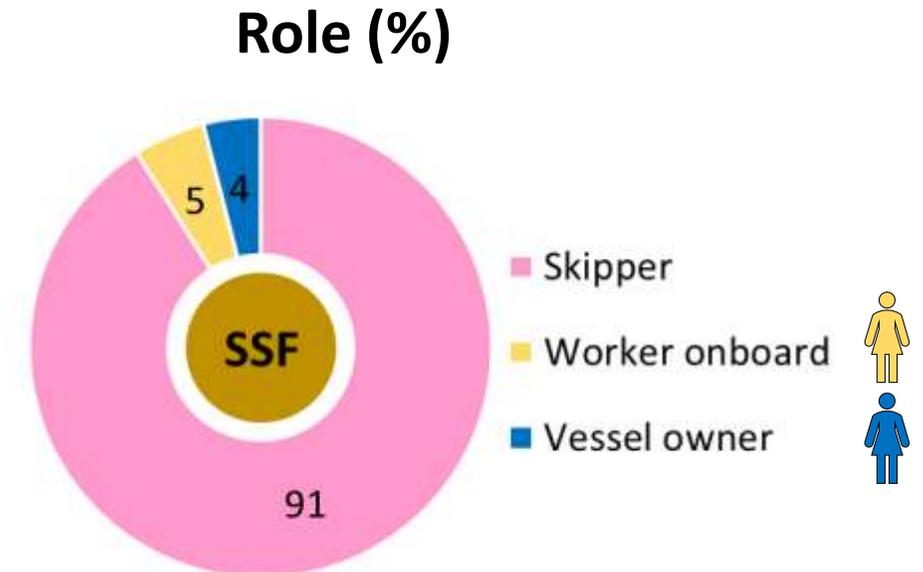
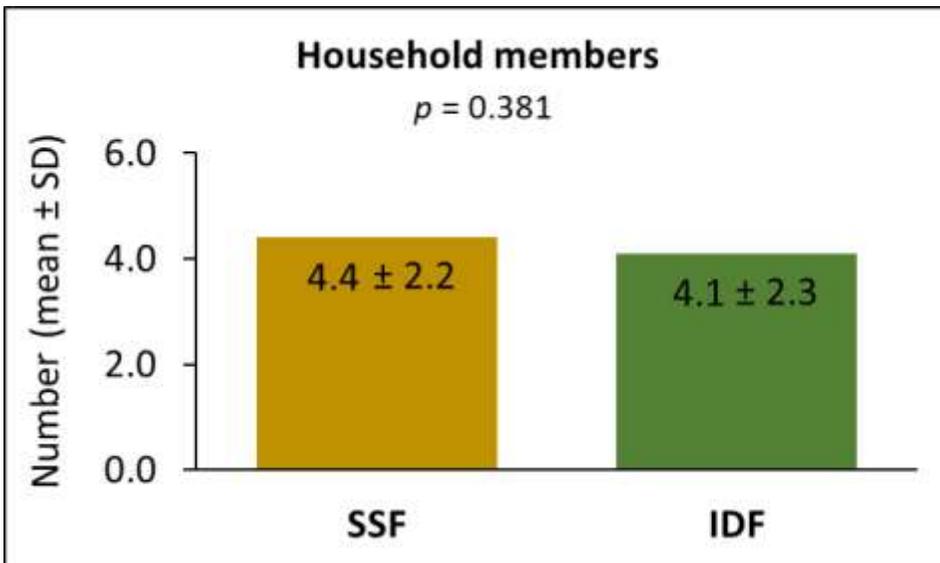
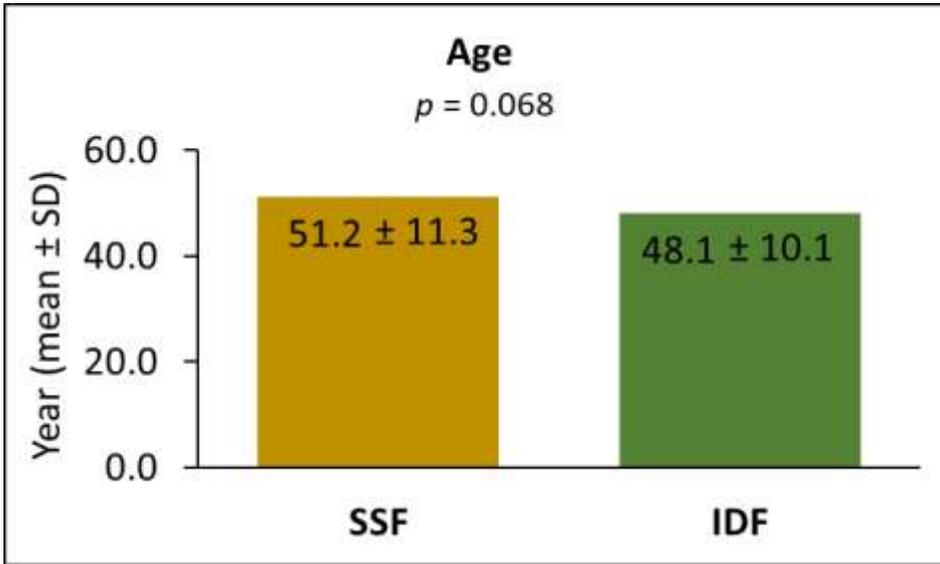


Gender ratio of the respondents (woman:men)



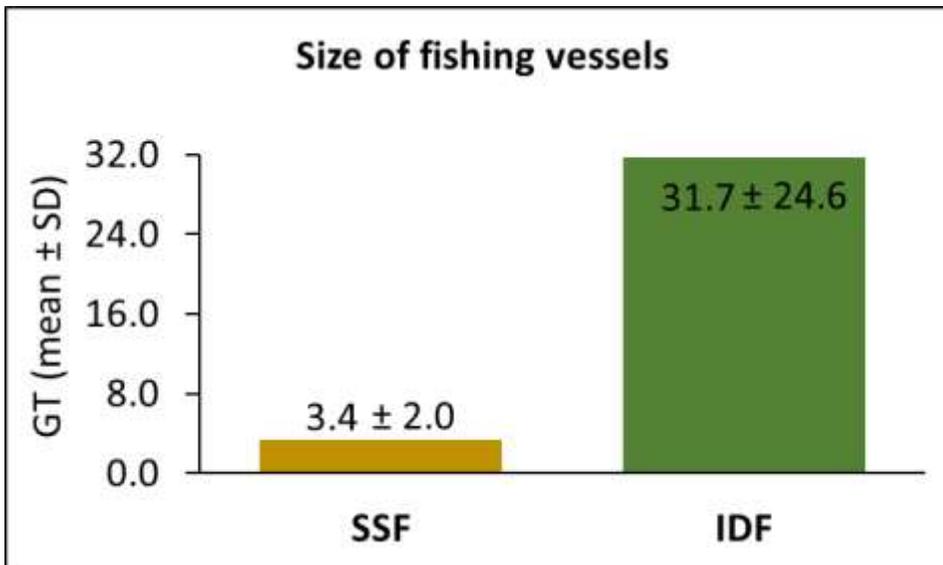
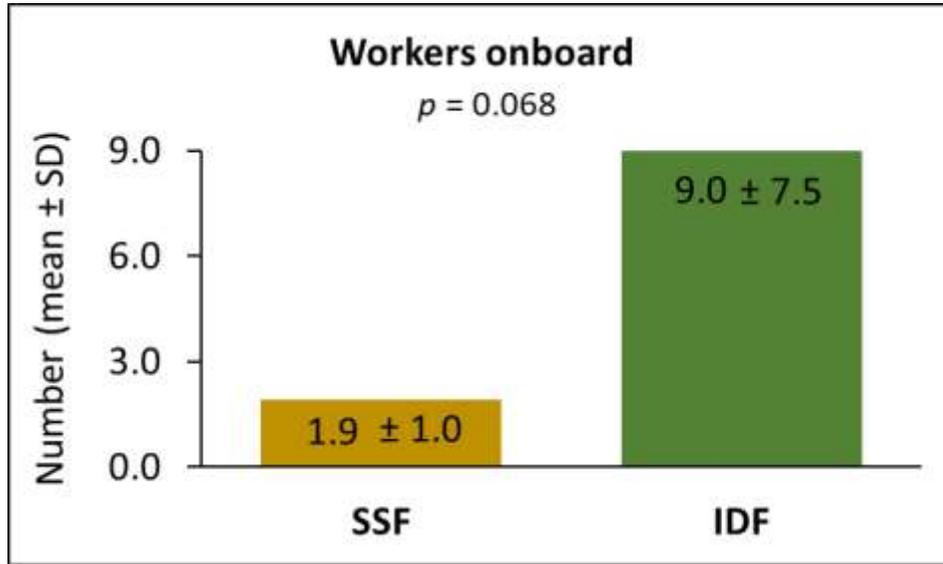
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Characteristics of fishers

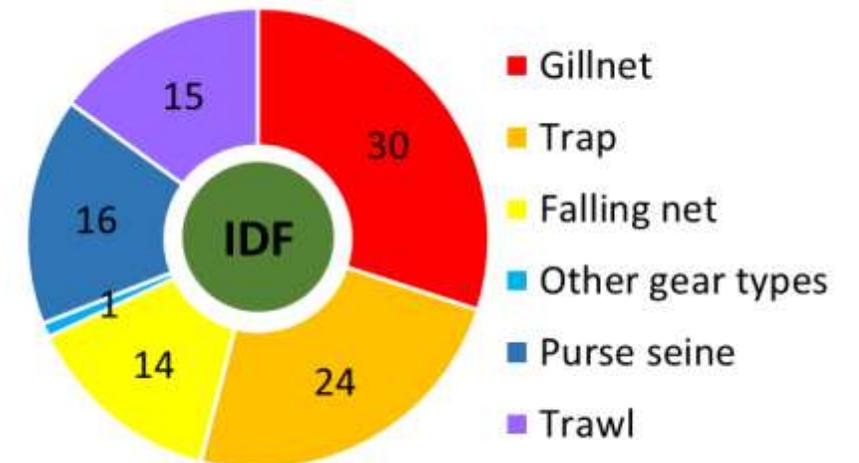
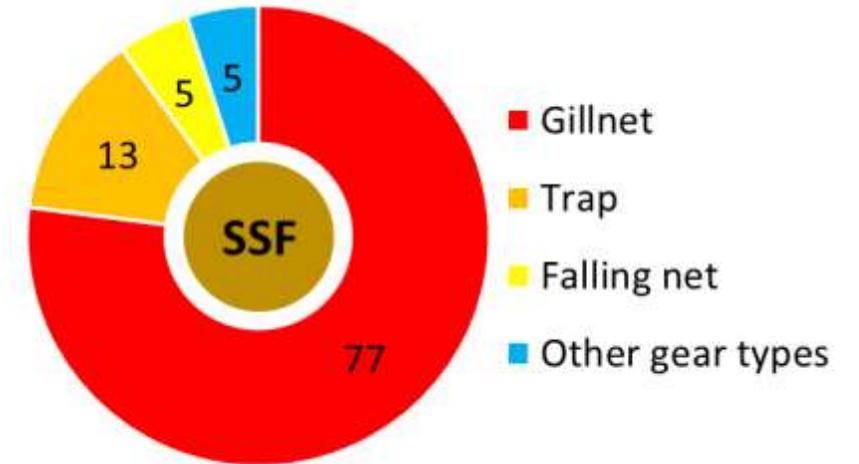


Results and Discussion

Fishing activities

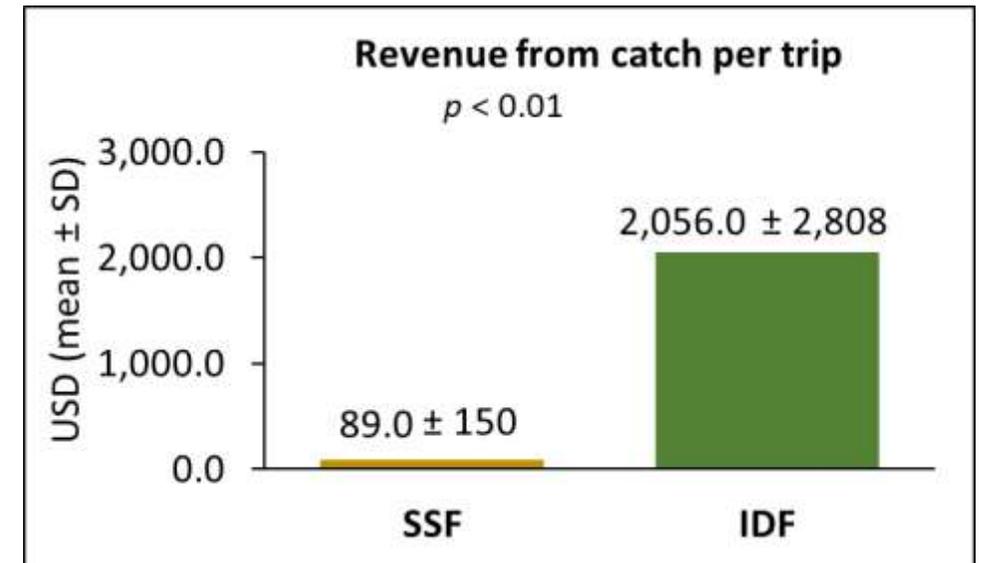
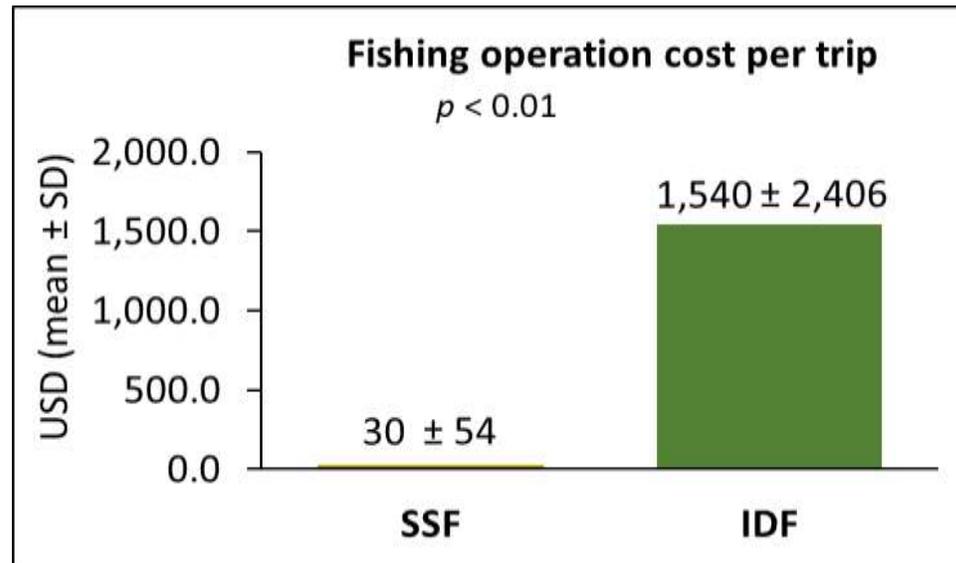
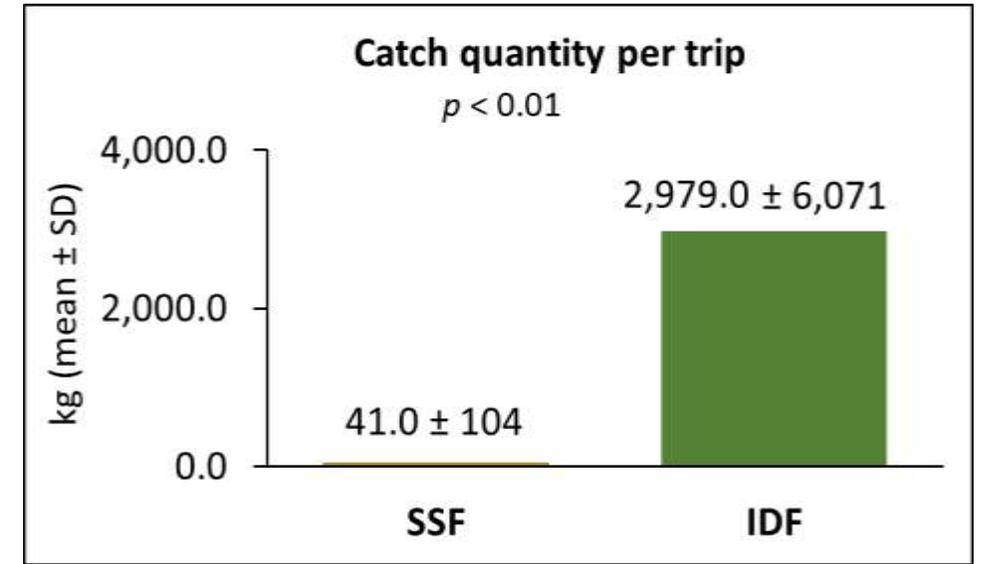
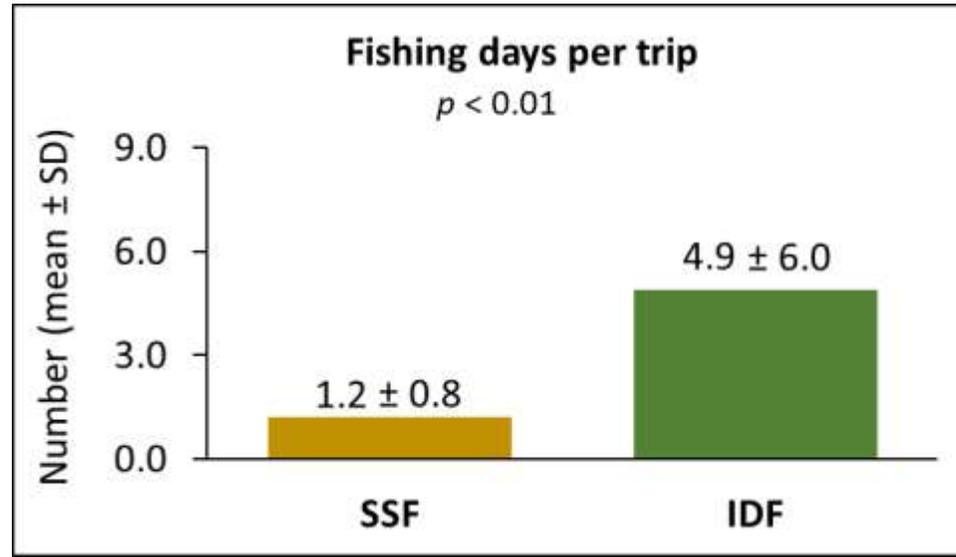


Main fishing gear (%)



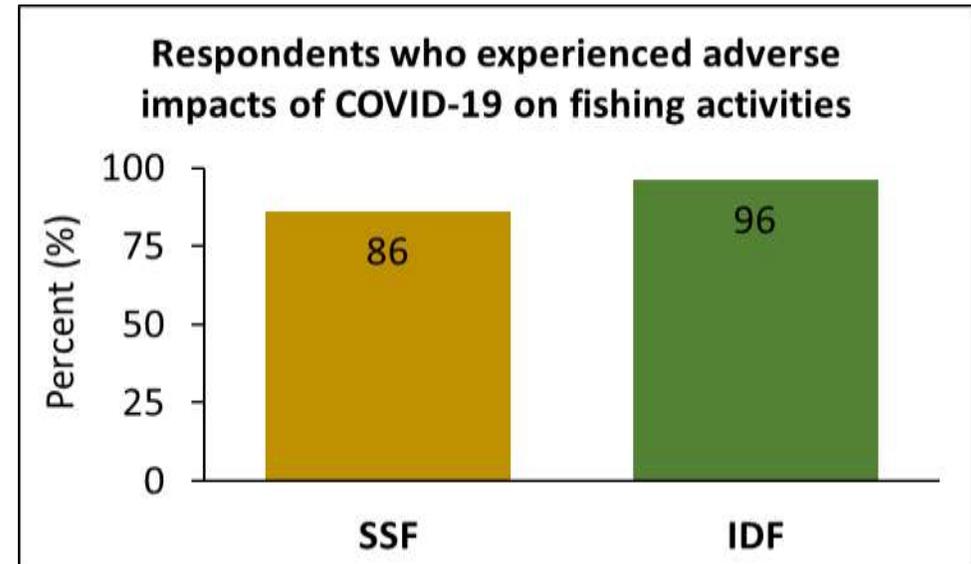
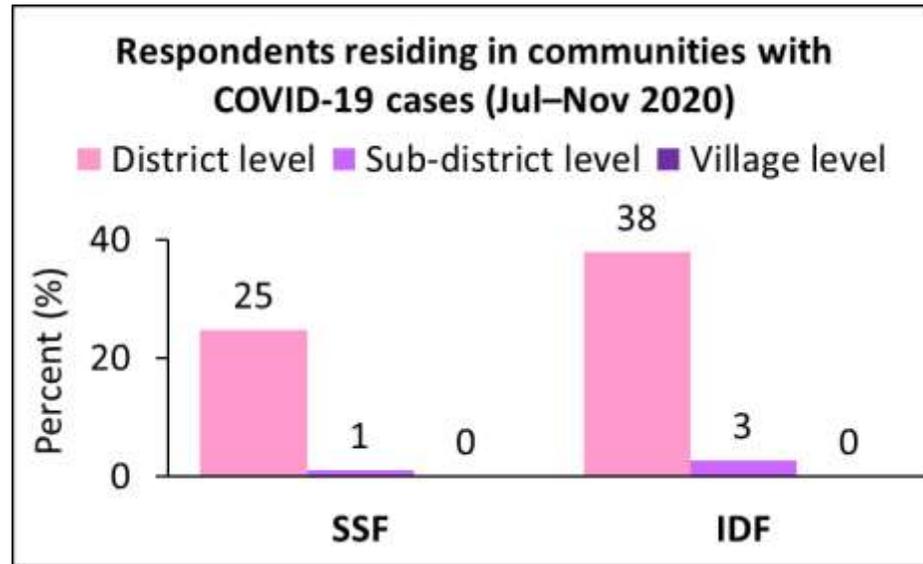
Results and Discussion

Fishing activities



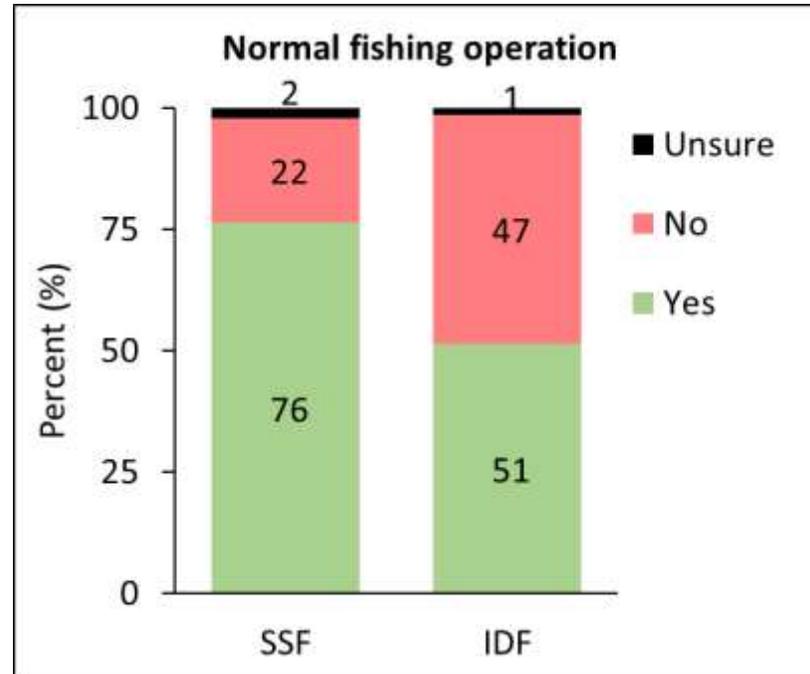
Results and Discussion

Impacts of COVID-19



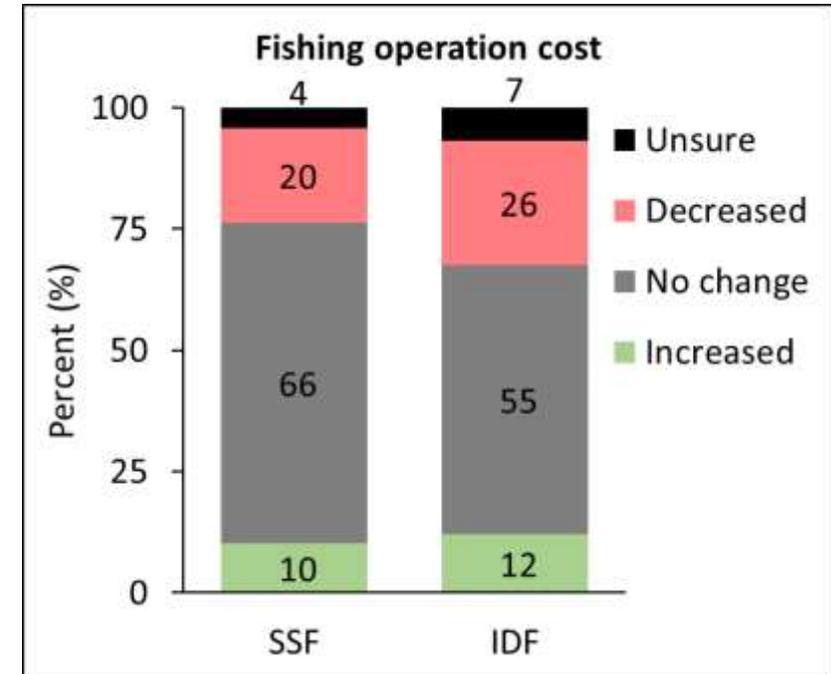
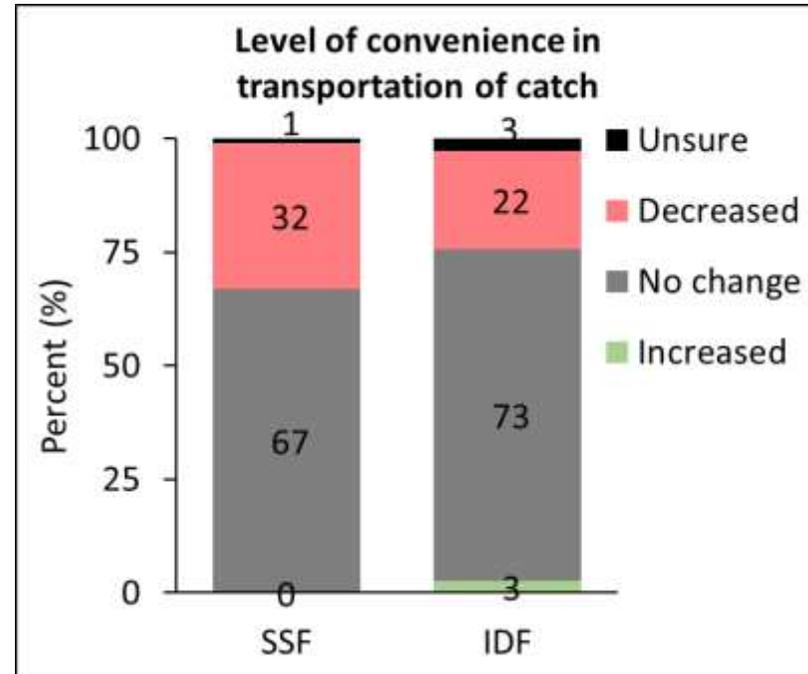
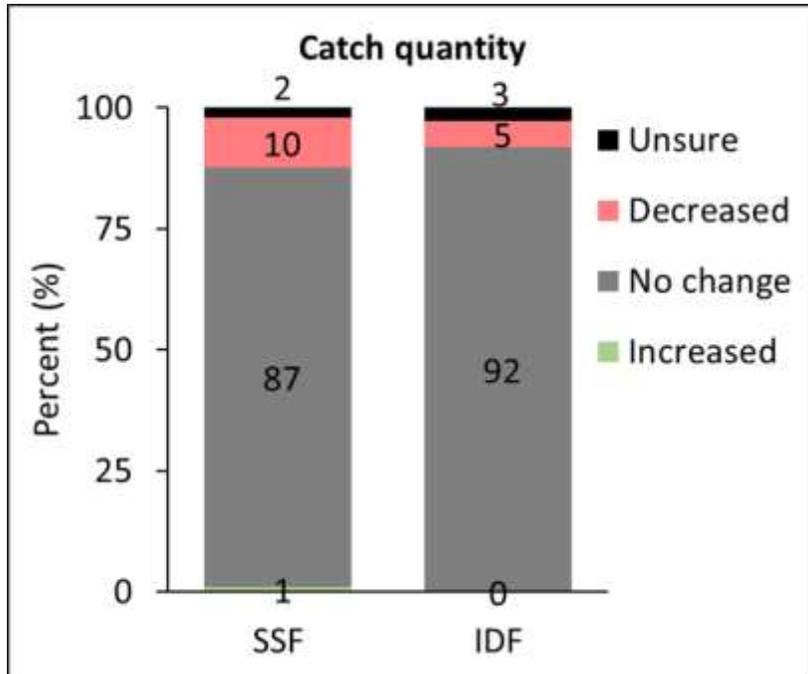
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Impacts of COVID-19



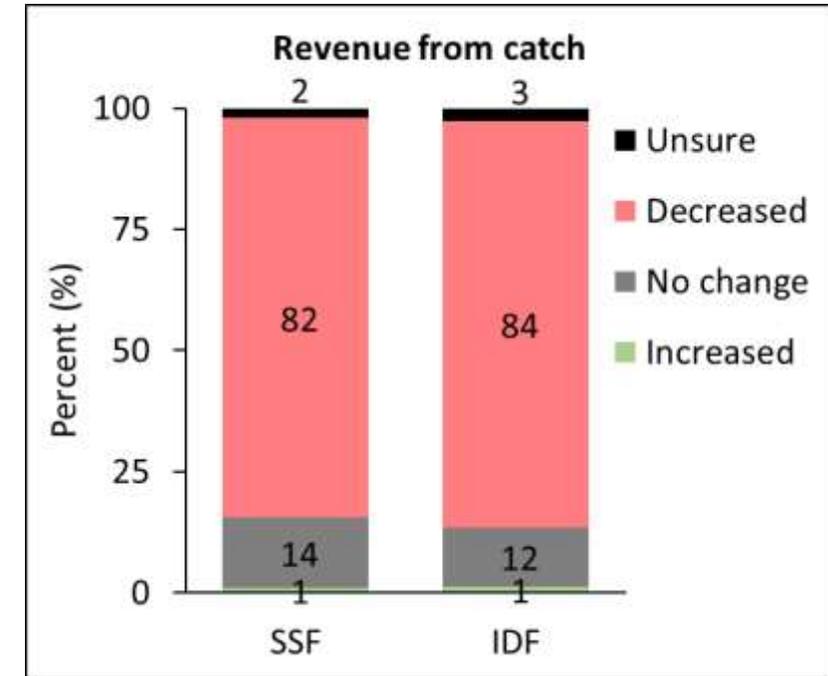
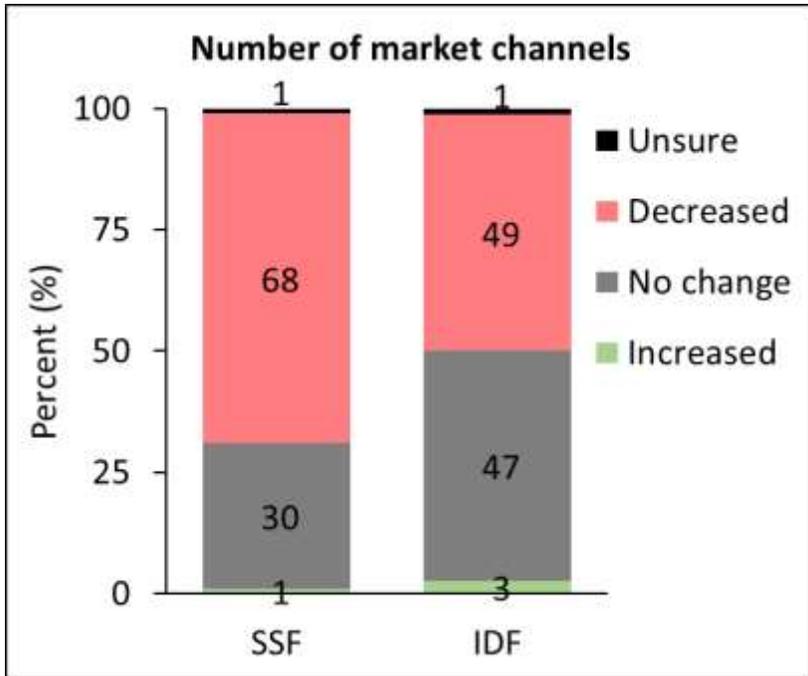
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Impacts of COVID-19



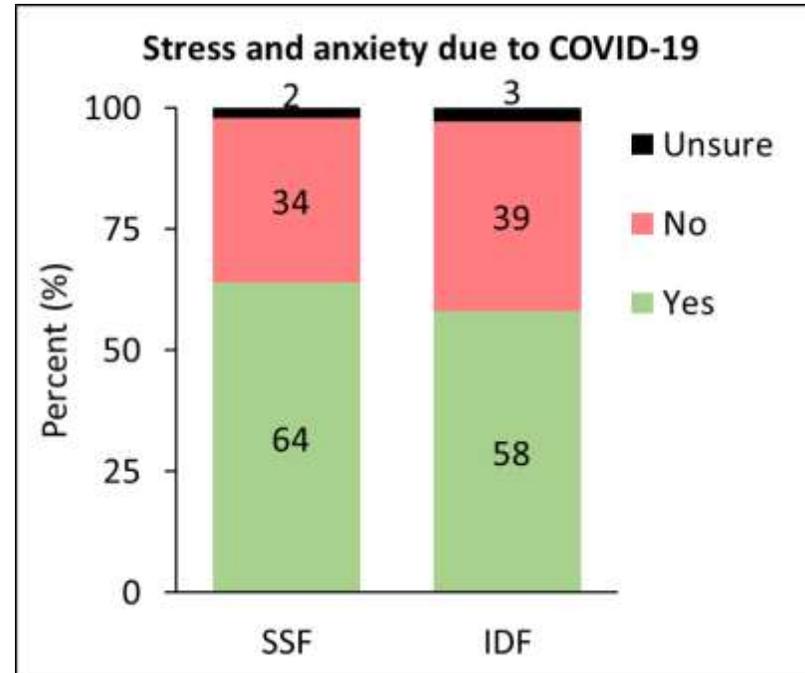
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Impacts of COVID-19



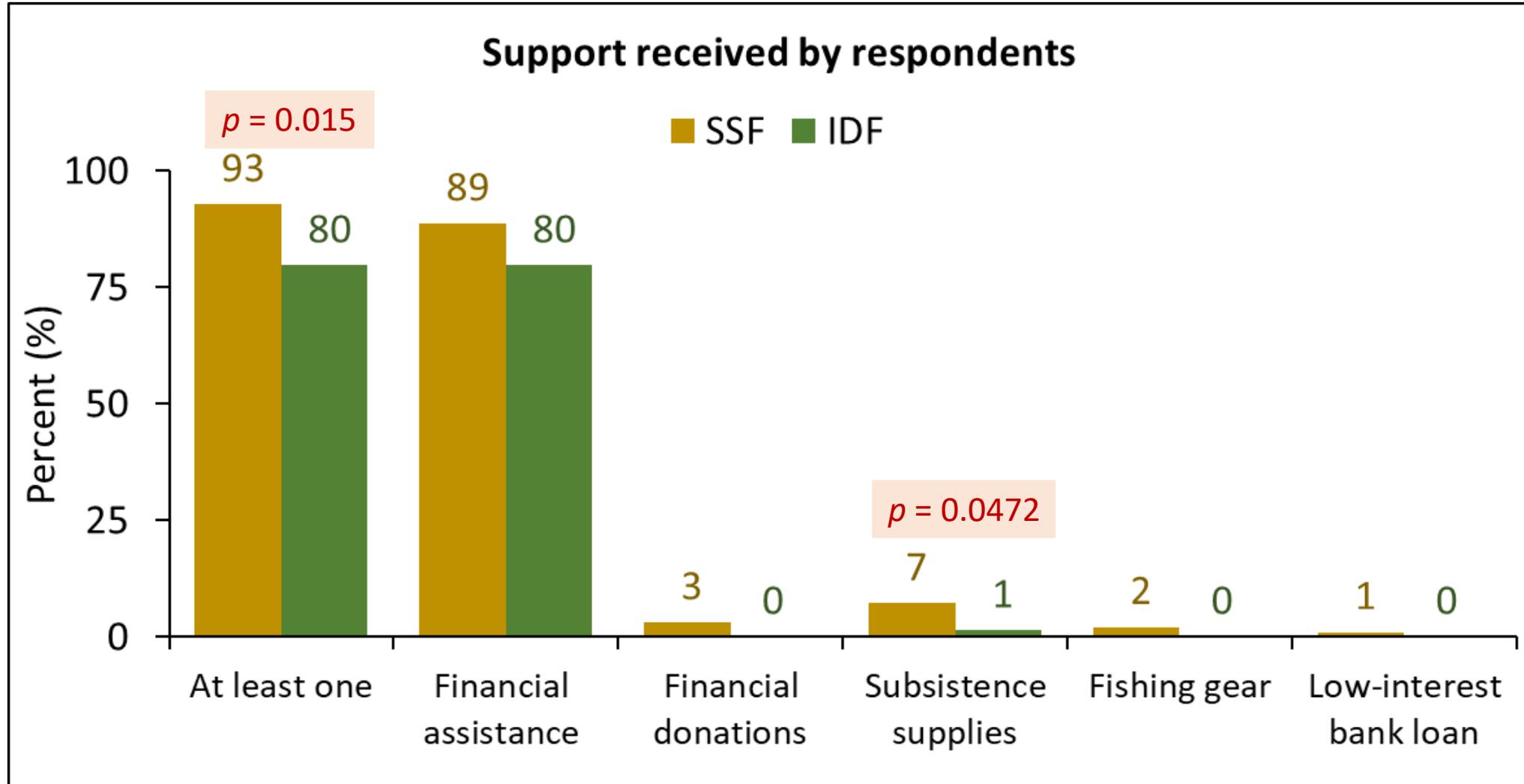
Results and Discussion

Impacts of COVID-19



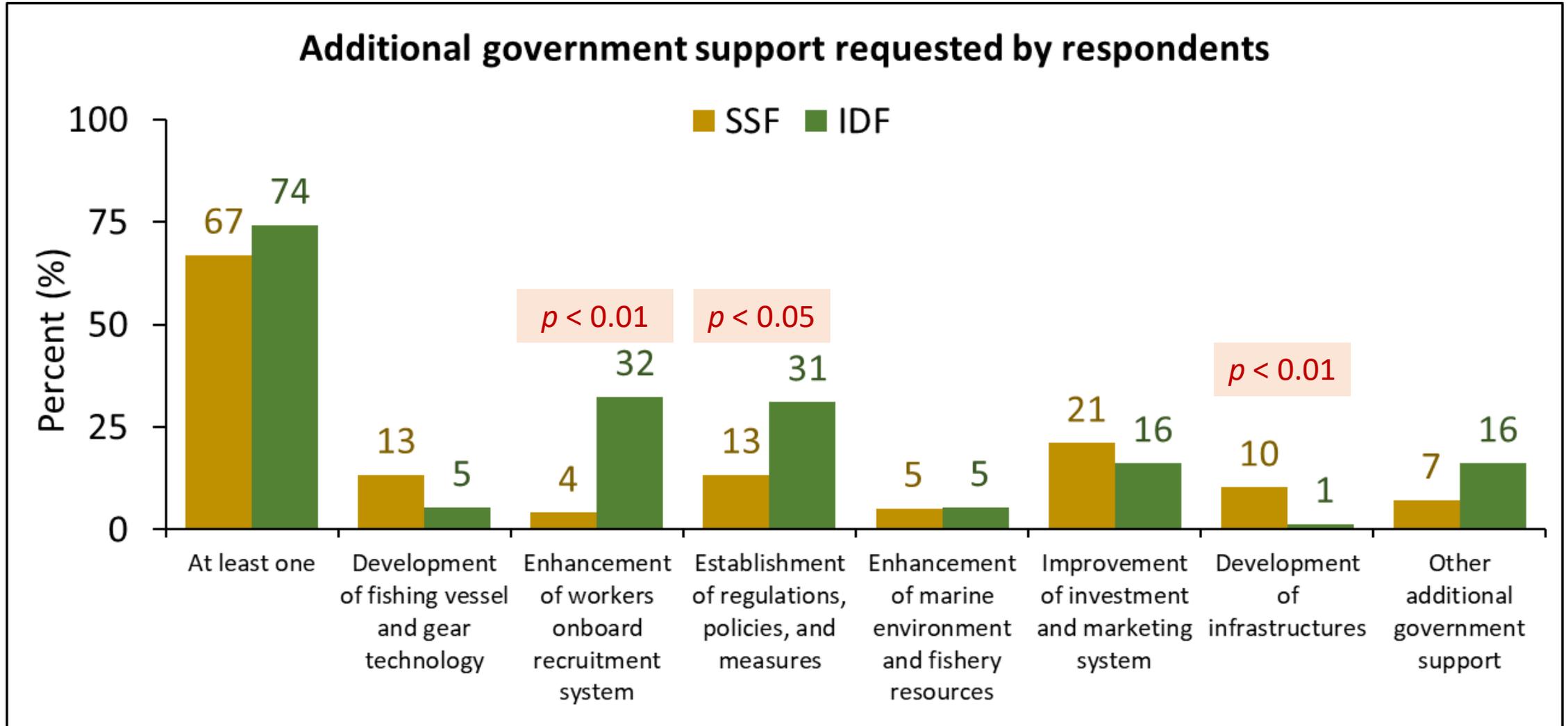
Results and Discussion

Support to fishers to alleviate the impacts of COVID-19



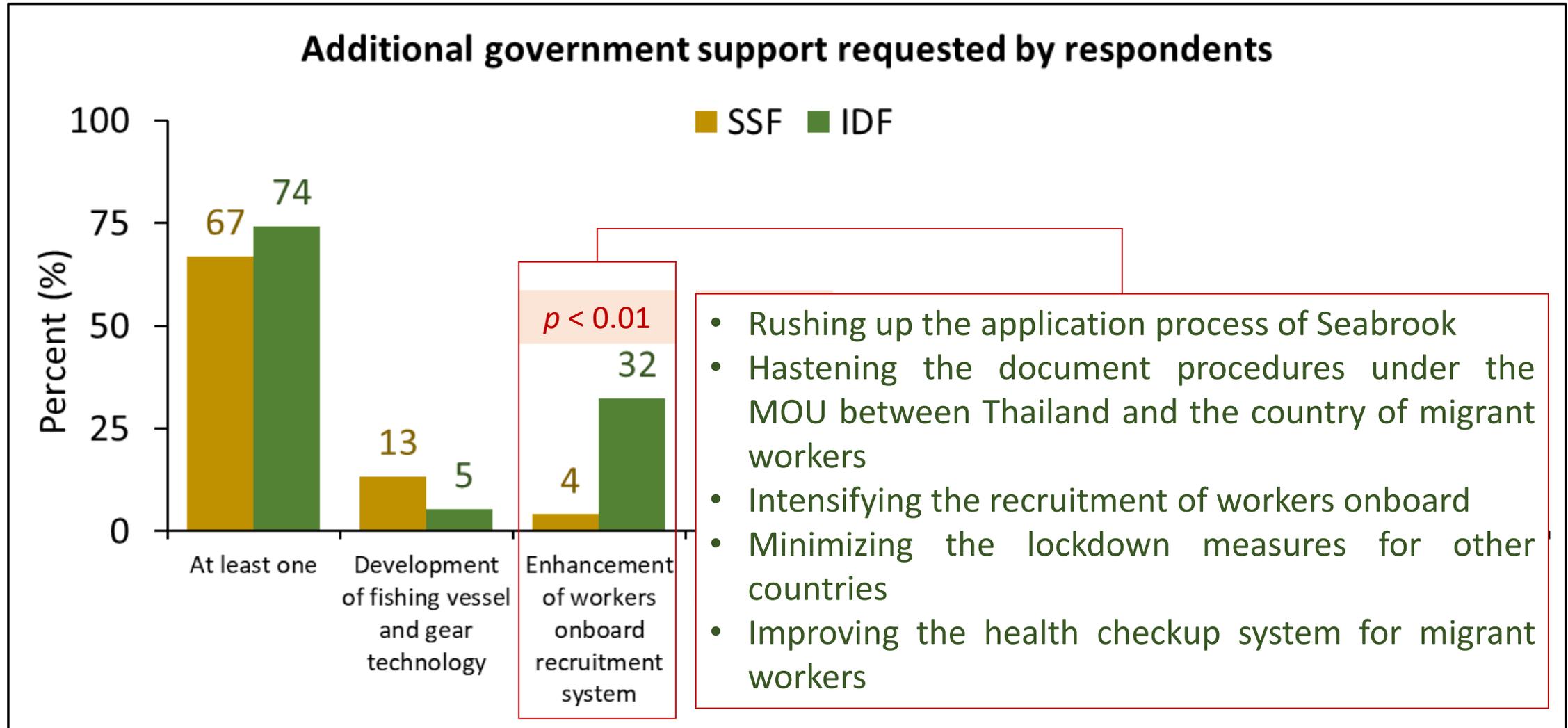
Results and Discussion

Additional support requested by fishers



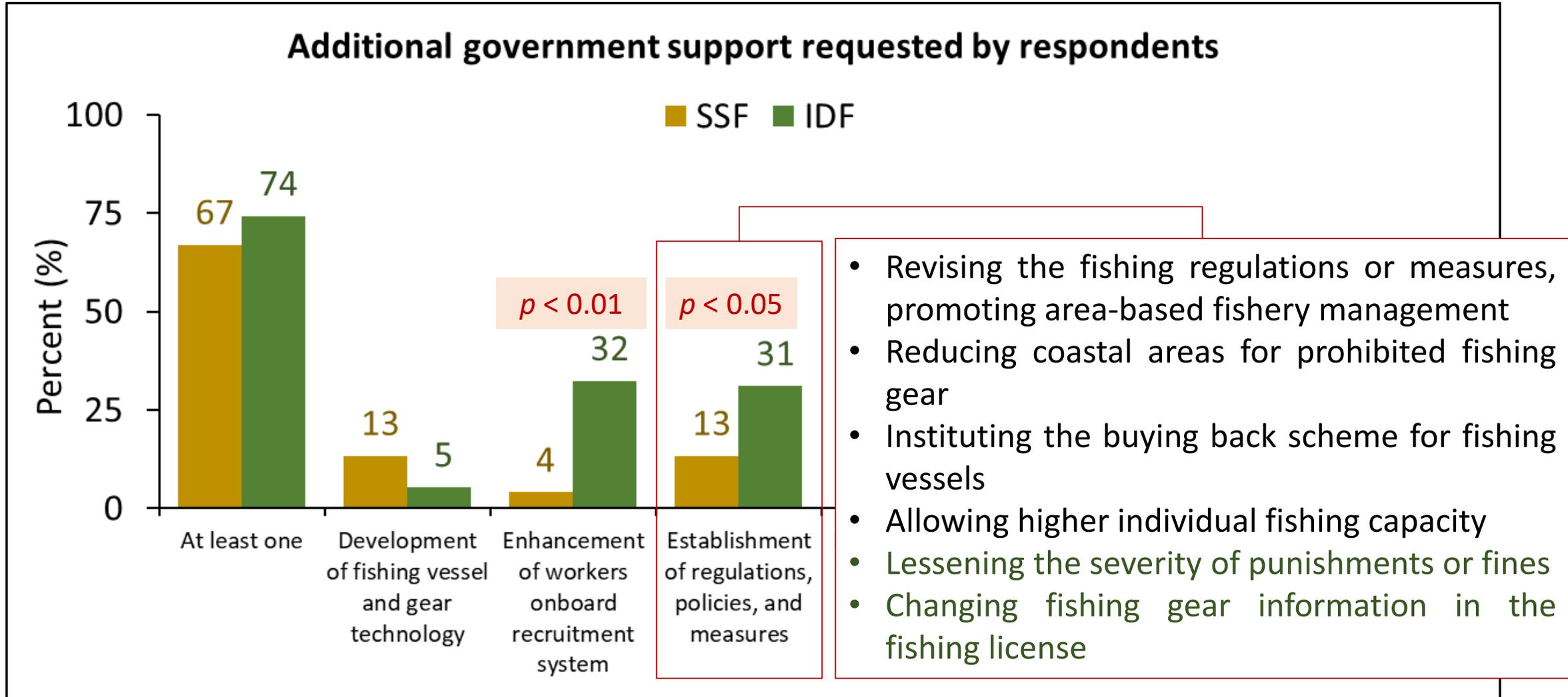
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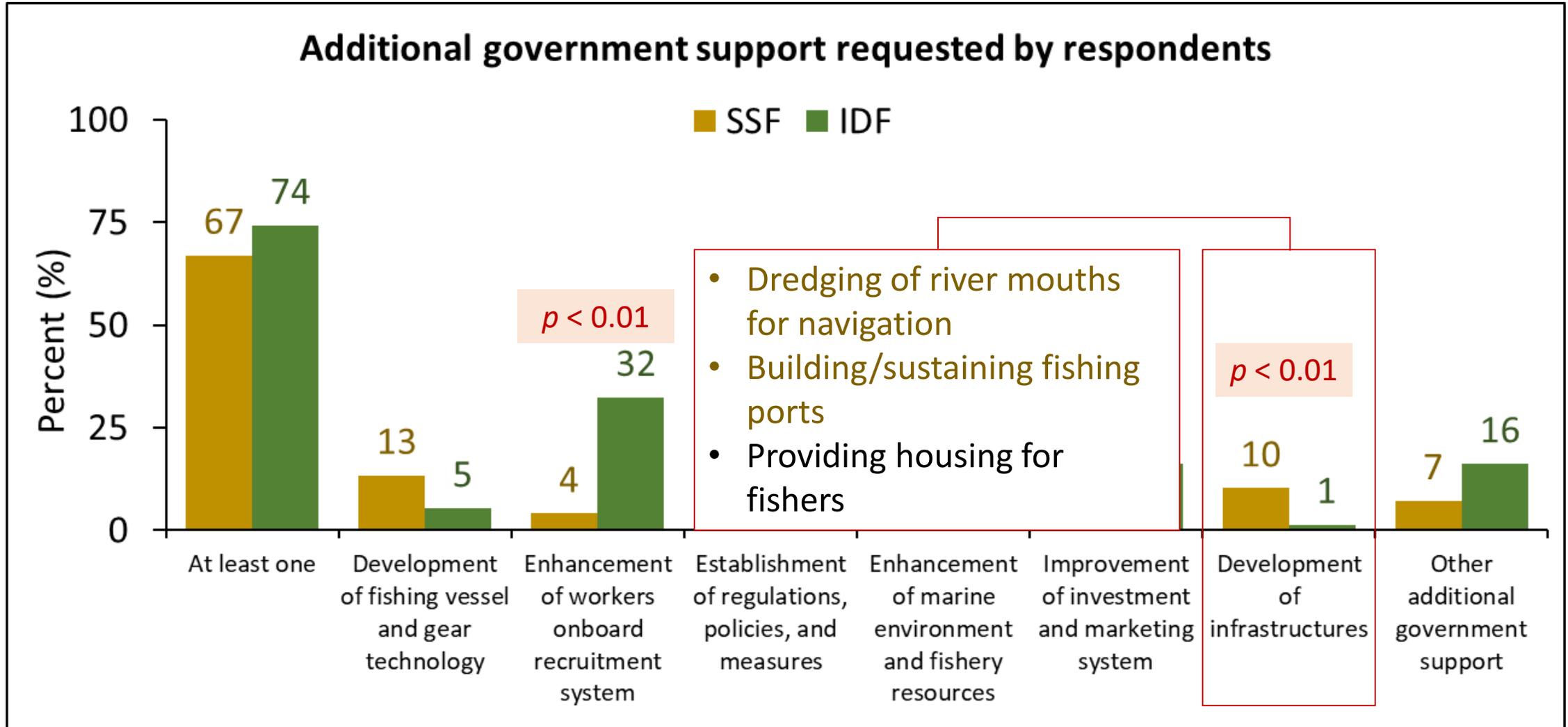
Results and Discussion

Additional support requested by fishers



Results and Discussion

Additional support requested by fishers



Conclusion

- Most of the interviewed fishers in both SSF and IDF along the Gulf of Thailand experienced similar impacts of COVID-19
 - Decreased number of market channels
 - Decreased price of fish
 - Decreased revenue from catch
- The interviewed fishers received five kinds of support to mitigate the impacts of COVID-19
- Most of the interviewed fishers in both SSF and IDF still needed additional government support composed of seven categories

Ways forward

Further validate the impacts of COVID-19

- In-depth studies on the impacts of COVID-19 based on fishing gear types and **gender**

Consider the specific additional government support in each category

Consider the lessons learned

Provide sustainable support to fishers in SSF and IDF

Extend fishing technology and other technical support

- Power-block system
- Refrigerated seawater system
- Net drum
- Vessel monitoring system
- Marketing strategies
- Alternative occupation

Acknowledgments

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Australian Government

**Australian Centre for
International Agricultural Research**



Thank you very much

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