Research Project
"Heading Toward Prevention: The Development of a Safety Culture in the Fishing Industry"

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Context

Concern: After years of investigations and reports on the causes and factors contributing to the fishing accidents, are the causes of the accidents always the same

Even though	The number of fishing vessels in operation and the number of accidents reported decreased, as well as the overall rate of accidents and the overall rate of fatal accidents.
Nevertheless	There is no corresponding reduction of the mortality rate. This means that, despite the efforts of the fishing community to save lives:

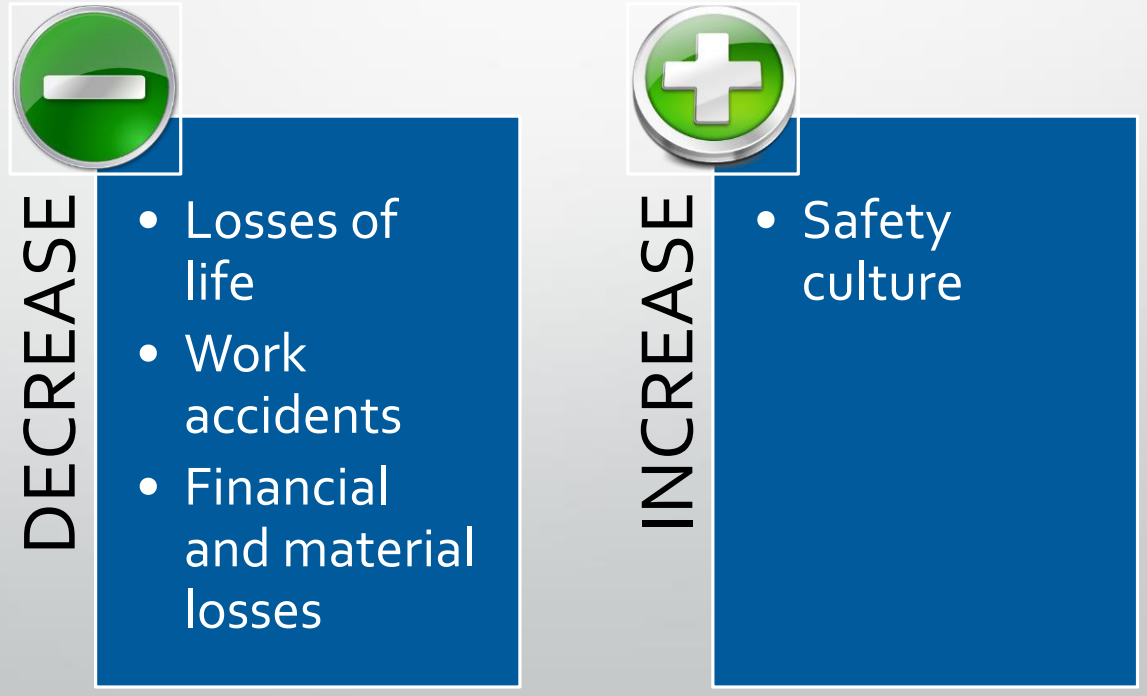
The risk of dying in a fishing accident today is not really weaker than in 1999 or 2009.

Solutions and proposals

TSB	**Discussion** and **coordination** in the approach of the ministerial authorities
	Development of a **safety culture** within fishing industry
Transport Canada	The will of the Minister to see **governance structures** in place in each coastal province that will work towards enhancing safety culture among the industry and reducing loss of life, workplace accidents and materiel losses related to fishing vessels accidents

Mandate of the governance structures

- Bring together all the stakeholders having an impact on the safety at sea of the professional fishermen
- Seek contributions for the evolution of the safety culture within the commercial fishing industry



Overview of the current situation

- How to measure the effectiveness of these governance structures?
- How to measure their impact on fishermen's safety?

The first step is to get an accurate overview of the current situation.

3 questions

1- Risk factors

- What are the **causes** of the accidents/incidents **involving fishing vessels**?

2- Estimate of the financial and human costs of the fishing accidents

- What are the **costs** related to these accidents?

3- Level of the safety culture

- What is the **level** of the **safety culture** in the industry?

Methodology

Statistical part

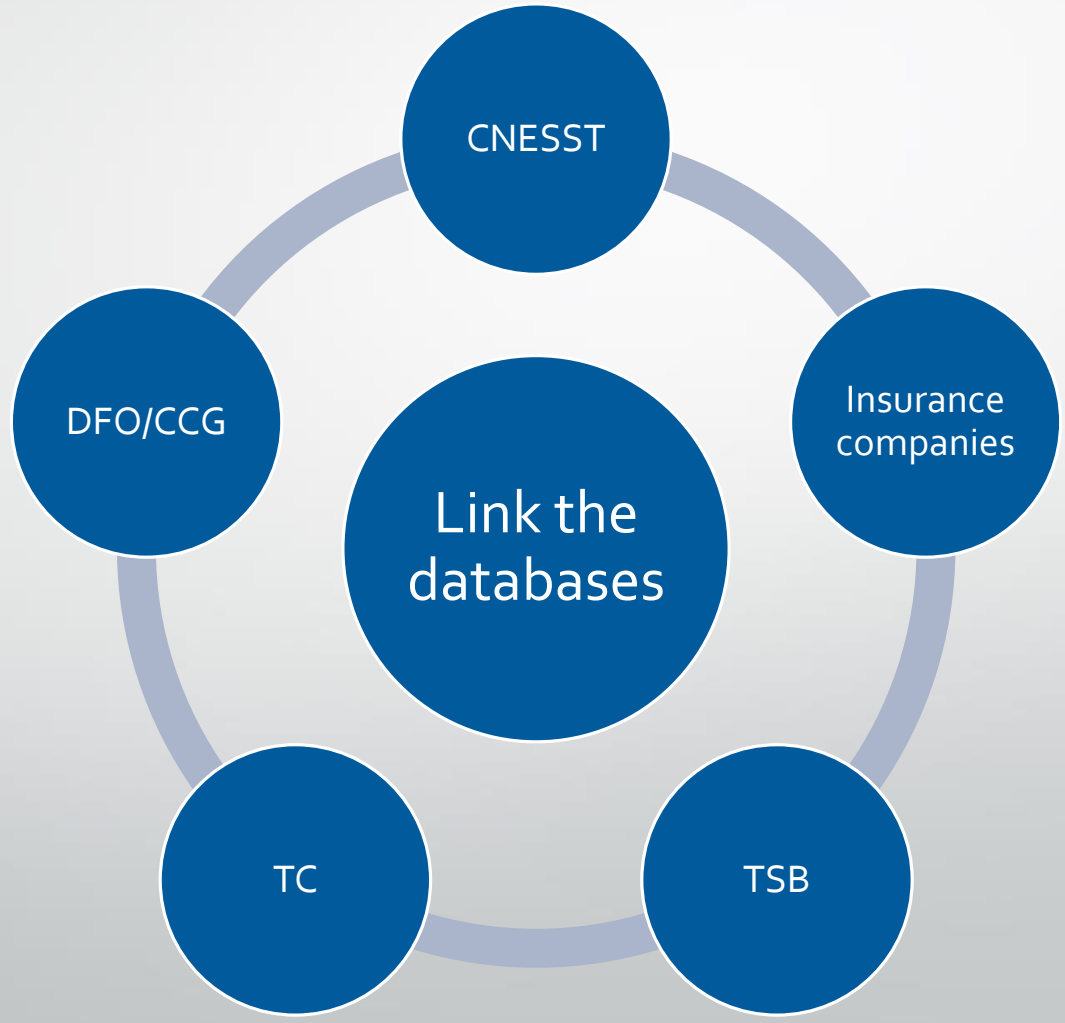
- It is necessary to match all the databases to understand all the risk factors and to assess all the costs.
- Matching key: the accident date

Sociological part

- Define the safety culture in commercial fishing and develop a questionnaire measuring the level of the safety culture of the fishermen.

Which data should we use?

- The causes of the accidents? We don't really know them…



Statistical tools for a better understanding

- Risk factors?
- The costs related to accidents involving a fishing vessel?

Without numbers, it is hard to make decisions and to take action with the industry.

Risk factors : causes of the accidents and incidents

- To ensure a better alignment of the data-gathering methods, hiring of a researcher and statistician
  - Review of the existing databases and creation of a statistical tool to analyze the causes of the accidents
- Difficulty: the level of risk exposure varies depending on the **fishing type**
- Nonetheless: the important review will allow a better targeting of the accident/incident type
  - By type of vessel?
  - By flotilla?
  - By area?
  - By equipment type?

Risk factors: causes of the accidents and incidents

CCG

Area and equipment type

- Name of the vessel and number of people on board
- Incident type (fire, collision, stranding, etc.)
- Places where accidents happen
  - Distance from the coast?
  - Fishing area?

CNESST

Injuries type

- Site and nature of the injury
- Cause of the injury

Risk factors: causes of the accidents and incidents (cont.)

Insurance companies

Detailed description of the accident

- Loss type (motor, structure, electronic equipment, etc.)
- Construction type (glass fibre, steel, wood)
- Facilitates matches with the other databases (date – name of the vessel, owner)

TSB

Findings and conclusions

- Number of deaths
- Factor involved (familiarization, preparation to emergencies, stability issues, etc.)

Risk factors: causes of the accidents and incidents (cont.)

TC

Context of the accident

- Access to accident/incident and inspection reports
- Vessel data (length, tonnage, etc.)

DFO

Fishing type

- Number of registered fishermen
- Specie caught and types of equipment aboard
- Landings

Costs of the fishing accidents/incidents

- Why measure the costs related to accidents/incidents involving a fishing vessel?

Insurance companies
CNESST
CCG SAR

We know that: professionnal injuries are costly; prevention is then even more important!
What is the cost of the fishing accidents?
No-one really knows.

Without convincing data on which based their decisions, the government authorities cannot justify the investment of public funds to improve fishermen safety.

Human, financial and material costs of accidents/incidents

CCG

Costs borne by the Canadian taxpayers

- Deployment of SAR (costs/h depending on the vessel type used or air cover)
- Costs related to the taken action (type of assistance offered)

CNESST

Amount of compensation

- Amount of compensation paid
- Costs related to a death
- Duration of the convalescence

Human, financial and material costs of accidents/incidents (cont.)

Insurance companies

Amount of compensation paid

- Annual amount of compensation paid
- Vessel value

Decrease of working accidents

=

Decrease of financial and material losses

=

Possible investment of the amount devoted to fishing accidents in awareness and information programs

How do we measure a safety culture?

- Traditional solutions are no longer sufficient: regulations and supervision, equipment and training

Health and safety has to become a **value**, it has to be "**metabolized in the DNA**" of the organization

BUT first, we must define it…

How do we measure a safety culture? (cont.)

Commercial fishing = **particular** working context

Factors to be considered	Employer-employee relationship
	Working environment
	Season length
	etc.

How do we measure a safety culture? (cont.)

- Hiring of an OHS researcher
  - **Mandate**: development of a safety culture within the fishing industry—how to measure it at this time and how to follow its evolution?
- Preparation of a **questionnaire**
- In **2019**, TC interns will meet a **critical mass of fishermen on the entire maritime Quebec Territory** to invite them to answer the questionnaire.

Same questions **5 years later**: did the situation evolved?

QUESTIONS?

Thank you!

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