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Safety practices related to small fishing vessel stability







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FAO FISHERIES AND AQUACULTURE TECHNICAL

517

by **Ari Gudmundsson**

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Preparation of this document

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Abstract

This document introduces some basic principles on the stability of small fishing vessels and provides simple guidance on what fishing vessel crews can do to maintain adequate stability for their vessels. It is not intended to be a complete course on fishing vessel stability

The publication is aimed at fishers and their families, fishing vessel owners, boatbuilders, competent authorities and others who are interested in the safety of fishing vessels and fishers. It may also serve as a guide for those concerned with training in matters of safety of fishing vessels. It is recommended to translate and adapt the content for each target audience, in order to be consistent with the local weather conditions, types of vessels, fishing gear being used, etc.

Gudmundsson, A.

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1. Introduction

Stability is one of the most important factors in every fishing vessel's overall safety. Without reducing the importance of life-saving equipment, every possible means should be used to prevent the capsizing of a vessel. The vessel itself is the best survival craft.

Stability is the ability of a vessel to return to its upright position after being heeled by an external force, such as the wind, a wave or the strain from its fishing gear. It is determined by the characteristics of the vessel, such as hull form and weight distribution and how the vessel is operated. The stability of a fishing vessel is not a constant condition; it undergoes continuous changes during each voyage and through the vessel's life. An originally stable fishing vessel may become unstable because of changes in weather, because of the way it is loaded and operated, or if the vessel's layout or equipment is changed.

It is stressed however, that whereas this document is not intended to be a complete training course, it does provide an insight to the stability of small fishing vessels. Thus it can be of use to competent authorities responsible for setting stability criteria, framing stability booklets and defining acceptable means to carry out stability tests. It would also be of use to boatbuilders during the construction of new vessels and following refitting or alterations to existing vessels. In addition, the contents could provide the basis for course material in relation to fishing vessel stability for the training of fishing vessel inspectors and in the training of fishers with particular reference to operational safety.

Furthermore, fishing vessel owners and potential owners making use of this document will have a better understanding on the importance of stability in relation to the design and operation of fishing vessels and would be of assistance in completing contractual arrangements for new construction, refitting and possible alterations to existing vessels. It would also be a useful reference to an owner when preparing operational safety procedures to be followed by the crew whether at sea or in harbour.

Finally, but by no means least, individual fishers, groups of fishers and their families will have a better understanding of the various factors that can affect the stability of a fishing vessel when preparing for sea, during fishing operations and when discharging the catch at sea or in harbour. The chapter on precautions may be of particular interest to many small-scale fishers, especially the section on crossing sand bars and beach landing; the latter often witnessed by the families of fishers.