

MARINHA DO BRASIL
DIRETORIA DE ENSINO DA MARINHA

***(CONCURSO PÚBLICO PARA INGRESSO NO
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**NÃO ESTÁ AUTORIZADA A UTILIZAÇÃO
DE MATERIAL EXTRA**

TRADUÇÃO DE TEXTO EM INGLÊS

TEXTO EM INGLÊS PARA TRADUÇÃO

Leia e traduza para o português o seguinte texto:

Shipping is the most energy-efficient way of transporting bulk freights. Still, it accounted for 3.3% of global CO₂ emissions in 2007. Shipping also emits sulfur oxides (SO_x), nitrogen oxides (NO_x), particulate matter (PM), etc. The International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI was revised in 2008 to reduce SO_x, NO_x, and PM. More amendments were made in 2011 to decrease greenhouse gas (GHG) emissions. Besides, the increasing and fluctuating fuel prices form another incentive to reduce fuel consumption and emissions as fuel cost can form a great share of operational costs.

[...]

The growing environmental concerns in shipping, the need for complying with stricter emission regulations, and the financial burdens due to fuel price and emission taxes have brought up several studies and debates in favor of improving the current situation. Significant further progress may be achieved by implementing operational or technological measures. While some energy-related studies focus on energy conservation, others address energy efficiency. In other words, while energy conservation aims at decreasing the consumed energy by reducing the demanded output, energy efficiency addresses using less energy to produce the same amount of useful output. Energy conservation and energy efficiency should be considered simultaneously as improvement in energy efficiency may lead to increased ship speed instead of reduced fuel consumption. In other cases, increased energy efficiency may be followed by increased fuel consumption which is referred to as the 'rebound effect' in various sectors. This cancels out the savings that could be gained. For convenience energy conservation and energy efficiency terms are used interchangeably in this article.

Even though cost-effective technologies that can improve energy efficiency are identified, they are not always implemented. In addition to technological measures, operational measures in shipping can save fuel. This inconsistency between optimal and actual implementation is called the 'energy efficiency gap', which is often explained by the existence of some barriers. Barriers are rooted in different disciplines, such as economic, organizational, and behavioral sciences. They can range from limited access to capital and weak energy management in an organization to putting little value on energy issues by individuals.

[351 palavras]

Fonte: Adaptado de: Jafarzadeh, S. and Utne, I. B. "A framework to bridge the energy efficiency gap in shipping". *Energy*, vol. 69, 2014.

RASCUNHO PARA TRADUÇÃO DE TEXTO

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