PREVENT ARCTIC OIL SPILLS:

DANGEROUS AND DESTRUCTIVE

EXECUTIVE SUMMARY

The risk of oil spills in the Arctic ocean will substantially increase as shipping efforts rise due to reductions in sea ice making shipping routes more accessible. Extreme conditions in the Arctic would make oil spill clean up extremely difficult and dangerous, emphasizing the necessity of preventative measures. Preventative measures must be taken before shipping pressure in the arctic ocean increases.

RECOMMENDATIONS

1. Strengthening of international shipping guidelines and agreements
2. circumpolar mapping and environmental assessment of shipping routes
3. Development of Arctic infrastructure

The Arctic environment is one of the most remote on our planet, yet it is currently experiencing extremely rapid changes due to human activity. Reductions in sea ice due to increased ocean temperatures are not only directly threatening Arctic ecosystems, they expose this vulnerable environment to a dramatic increase in human pressures.

In their 2004 Arctic Climate Impact Assessment (ACIA), the Arctic Council stated that "reduced sea ice is very likely to increase marine transport and access to resources." possible to access current shipping routes.

This is due to exposure of previously inaccesible shipping routes, as well as extension of the season during which it is possible to access current shipping routes. Human transport in the Arctic includes tourism, as well as shipping, including direct shipment of oil: shipment of oil and gas through the western Northern Sea Route could reach as much as 40 million tons per year by 2020 (AMSA 2009). The nature of the Arctic environment lends it to having a particularly high risk of oil spills, and making an oil spill particularly dangerous and harmful, if it did occur. This is due to:

Poor mapping
This puts shipping vessels at a high risk of accidental collisions and consequently oil spills

Harsh Weather conditions
Increases the likelihood of equipment failure and poor navigation.

Vulnerability of Arctic ecosystems
Due to the pressure Arctic ecosystems are already under, they are particularly vulnerable to environmental pollution.

FULL RECOMMENDATIONS

The severe consequences of an Arctic oil spill and the diffuclty in clean up highlight the necessity for preventative measures against oil spills. These fall under 3 main categories:

STRENGTHENING OF INTERNATIONAL SHIPPING GUILDELINES

Currently the United Nations on the Law of the Sea (UNCLOS) provides a framework for marine navigation in the Arctic for the prevention, reduction and control of marine pollution from vessels in ice-covered waters (Article 234). Under this framework the International Maritime Organization (IMO) has developed Guidelines for Ships Operating in Arctic Ice-covered Waters.

However these guidelines are voluntary and do not contain specific requirements for international environmental and safety standards for Arctic vessels, or safety standards for Arctic seafarers.

Sections of the IMO Guidelines for Ships Operating in Arctic Ice-covered Waters should be made mandatory. Specifically, mandates on ship construction, design, crewing and training that maximize environmental safety and pollution prevention, are required.

CIRCUMPOLAR MAPPING AND ENVIRONMENTAL ASSESSMENT

There is currently a large deficit in data for mapping arctic shipping routes, especially those that will be newly exposed as sea ice retreats. Basic information on the marine environment must be collected and shared between international organizations in order to chart Arctic hydrography and plan safe shipping routes to prevent oil spills.

` Along with mapping will be analysis of ecologically significant areas that should be avoided by shipping routes. The implementation of marine protected areas is highly recommended, as relieving certain areas of human impact is the only way to completely ensure they will not come into contact with oil spills.

DEVELOPMENT OF ARCTIC INFRASTRUCTURE.

There is currently a lack of proper infrastructure to ensure safe and environmentally responsible shipping in the Arctic. Aspects of infrastructure that need improvement are navigational training, charts, communications systems and centres for gathering and sending up-to-date information on ice and weather conditions. The Emergency Prevention, Preparedness and Response (EPPR) Working Group of the Arctic Council has suggested the use of Unmanned Aerial Vehicles (UAV) to monitor ice conditions in real-time and to aid in oil spill response. Investment in this, and other monitoring technologies that are able to cope with harsh conditions is recommended.

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