

## MARINE POLLUTION FROM SUNKEN VESSELS

- Marine pollution from sunken vessels is predicted to reach its **highest level this decade**, with over 8,500 shipwrecks at risk of leaking approximately 6 billion gallons of oil.
- **Lack of data and international cooperation** means action is often too late to prevent serious harm to communities' health and livelihoods, coastal economies, wildlife populations and ecosystems.
- Governments must work together to **prevent pollution leaking** from vessels, and develop a **new International Standard** to guide action and prioritise resources.
- Governments should also make national plans, which include **financial support for communities** and the **restoration of damaged ecosystems**.

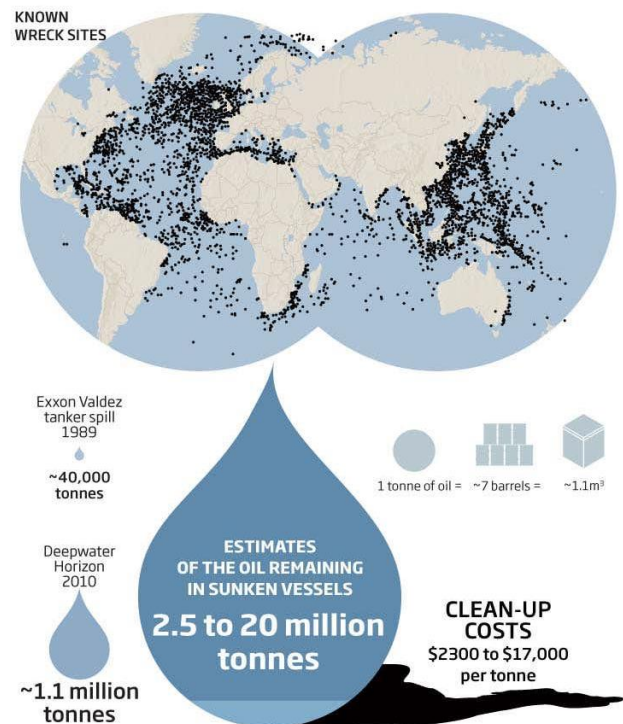
### What is the issue?

There are an estimated 3 million sunken and abandoned vessels in the ocean, over **8,500 of which are classified as 'potentially polluting wrecks'**. The majority of these wrecks date back to World War I and II (WWI and WWII) and contain harmful chemical pollutants, unexploded munitions and an estimated **6 billion gallons of heavy fuel oil**. This is 545 times more oil than the Exxon Valdez leak in 1989 and 30 times that of the Deepwater Horizon spill in 2010, both of which had severe and long-lasting environmental consequences.

Severe weather events resulting from climate change are likely to speed up the process of wrecks breaking apart. After more than 75 years of corrosion, **leaks from sunken vessels are expected to reach their highest levels within ten years** but scientists do not yet have enough data to forecast when or where individual leaks will occur.

The **financial cost of responding to pollution from wrecks is prohibitively expensive for developing nations**. It is also unclear who is responsible for this cost. Many of the countries most affected were not participants in WWI and WWII, and ships sunk in war remain owned by the country they sailed for under the principle of sovereign immunity.

The **lack of data and international cooperation** on how to manage pollution from wrecks means many governments do not act proactively to prevent leaks. Therefore, responses are often **too late to prevent serious harm to marine ecosystems and the health and livelihoods of coastal communities**.



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### Why is this important?

Marine pollution from sunken vessels is a global, cross-border issue that affects people, the environment and economies around the world.

Action on this issue is **required to achieve UN Sustainable Development Goal 14** with its target to “prevent and significantly reduce marine pollution of all kinds by 2025”, and to achieve the **desired outcome of the UN Decade of Ocean Science 2021 to 2030**: “a clean ocean where sources of pollution are identified and reduced or removed”. The regional impacts of pollution from wrecks can be devastating. Impacts include the **loss of wildlife populations** (including commercially important fish species) and **damage to coastal and marine ecosystems** like mangroves and coral reefs. This in turn **threatens communities’ food security, livelihoods and the other benefits these ecosystems provide** such as shelter and climate change mitigation.

Pollution may also pose a **direct threat to human health**. Munitions can explode, and research suggests that eating fish exposed to chemicals found in some wrecks may be toxic and carcinogenic.



Divers 'hot-tapping' the USS Mississinewa; a technique used to extract fuel from sunken vessels © [US Navy 2004](#)

## What can be done?

**Action to prevent pollution leaking is critical** to protect human and environmental health, and is **cheaper in the long-term** too. For example, the USS Mississinewa sank in 1944 in the waters of the Federated States of Micronesia. Following a storm in 2001, the US Navy removed 1.8 million gallons of oil from the vessel. This cost around USD 6 million, which is a fraction of what it would have cost to address had this oil leaked.

Given the large number of wrecks worldwide, action to prevent pollution must be effective and prioritised by risk.

A **new International Standard** is needed to determine best practice and classify sunken vessels according to potential environmental, social and economic impacts. Applying the Standard will help governments know how, where and when to act, and allocate global resources most effectively. **More research is needed to inform the structure of the Standard**, specifically on individual wrecks, possible local impacts, and the risk factors that cause wrecks to break apart. Existing **research programmes should be extended** to combine historical data, local biodiversity and economic assessments, and analysis of weather patterns, currents, water salinity and temperature, seismic activity and detailed mapping of the seafloor. Research teams should prioritise gathering this information and governments, foundations, maritime stakeholders and other funders should support this work.

Developing and implementing the Standard also requires **states to work together**. Collaboration is particularly important between neighbouring governments to manage cross-border impacts, and between 'flag states' (which maintain sovereignty over sunken vessels) and coastal states in whose territorial waters wrecks lie. The International Maritime Organization (IMO), as the UN body that regulates global shipping, can help facilitate collaboration through existing frameworks, and provisions for managing pollution from wrecks in international waters could be introduced through the UN High Seas Treaty (BBNJ).

In the meantime, national governments should incorporate wrecks into their marine spatial and contingency planning urgently. National plans should prepare to:

- **stop pollution spreading** by removing it from wrecks and responding to leaks;
- **provide financial support for communities** whose livelihoods are affected by pollution;
- **restore damaged ecosystems** once pollution has been contained.

Alongside their role in research, civil society organisations can help raise awareness of this issue and ensure it is high on national and international political agendas.

### Where can I get more information?

IUCN Resolution on Sunken Vessels:  
[portals.iucn.org/library/sites/library/files/resrecfiles/WCC\\_2020\\_RE\\_S\\_026\\_EN.pdf](https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2020_RE_S_026_EN.pdf)

Initial research on the Standard being undertaken by Marinas Guardian and the Major Project Foundation, with IUCN:  
[majorprojects.org.au/ppw](https://majorprojects.org.au/ppw)