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Sunken WWII shipwrecks of the Pacific and East Asia: The need for regional collaboration to address the potential marine pollution threat

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Abstract

Oil, chemicals and unexploded ordinances onboard sunken World War II (WWII) warships and merchant vessels pose a real and significant marine pollution risk to the nations of the Pacific and East Asia. A recent project of the South Pacific Regional Environment Program (SPREP), through its Pacific Ocean Pollution Prevention Program, has highlighted the extent of the risk posed by vessels lost in WWII to Member Governments. Some of these vessels have already begun to leak fuel oil and cargo into the fragile environment of the Pacific atolls. The oil spills from the oil tanker *USS Mississinewa* sunk in Ulithi Lagoon, Federated States of Micronesia, will be used as an example of the problems associated with WWII wrecks in the region.

A Regional WWII Wreck Strategy was formulated and endorsed by the Members of SPREP, and a preliminary risk assessment of WWII shipwrecks was carried out by the program, as part of this exercise. This led to the development of a Geographic Information System (GIS) database, which details the types of ships, the tonnage and location of over 3800 vessels lost in the Pacific and East Asia. Although not complete, the Pacific WWII Shipwreck Database totals over 13 million tons of sunken vessels—ranging from aircraft carriers to battleships and including over 330 tankers and oilers.

As a major proportion of vessels lost during WWII rest in the East Asian–Pacific sea area, close collaboration needs to be established between the regional environmental bodies and their affected Member Governments to address the scale of marine pollution risk. Complex maritime jurisdictional issues, along with overlapping claims on Economic Exclusion Zones and the interrelationships of the

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marine environments in the region, also underscore the need to address the issue on a multilateral basis.

This paper aims to highlight the extent of the risks posed by sunken WWII vessels to fisheries, marine and coastal resources of the Pacific and East Asian regions, as well as the issues of ownership and responsibility for the WWII shipwrecks of the Pacific.

1. Introduction

The majority of Pacific and East Asian countries were affected in one way or another during the intense land and sea battles of World War II (WWII). The lasting legacy of those battles is the imminent danger and the environmental consequences of leaking oil, fuel, lubricants, chemicals or unexploded ordnances from over 3800 shipwrecks in the region. Marine and coastal environments and fisheries, vital to the standard of living and sustainable future of the people of the Pacific and East Asian region, are at extreme risk from marine pollution.

As 60 years have passed since WWII, many of the vessels sunk during the war are rapidly deteriorating. Over the past few years, a number of pollution incidents have already occurred from oil leaks from sunken vessels in the region and across the globe.

A recent project of the Pacific Ocean Pollution Prevention Program of the South Pacific Regional Environment Program (SPREP) has highlighted the extent of the risk posed by vessels lost in WWII to its Member Governments. One of the program's main activities has been the development and implementation of a Regional Strategy to Address Marine Pollution from WWII Wrecks, which aims to:

- Prevent/minimize damage to marine and coastal environments and resources as a result of marine spills from WWII wrecks; and
- ensure that any action taken will retain the sanctity of these sites, as they are often also war memorials and gravesites [1].

2. Case study: USS Mississinewa

On 20 November 1944, as the *USS Mississinewa*, a 24,400 tons oil tanker and refueler containing about 19 million L (146,000 barrels) of highly volatile aviation gasoline and fuel oil [2], stood ready at anchor in the Ulithi lagoon, it was sunk in by a Japanese one-man submarine called a Kaiten. For 57 years, the vessel remained at the bottom of the lagoon undiscovered until early 2001 when an adventure dive team found the vessel and pinpointed her location.

A few months after her discovery, between July and September, a typhoon passed over the area and shifted the shipwreck, causing heavy fuel oil leakage from the breached vessel. After declaring a state of emergency and placing an immediate ban on fishing in and around the once pristine lagoon, the President of the Federated States of Micronesia requested SPREP's assistance with an independent study on the state of the wreck and the environmental impacts of the oil spills from the vessel. The issue was subsequently raised at the 2001 SPREP Meeting, thus leading to the decision to develop a regional strategy.