Final Project Report

MEPC 83 – Country Submissions Analysis

Sindhura Polepalli

Table of contents

Introduction

The project traces environmental justice within the submissions made at the International Maritime Organization's 83rd Marine Environment Protection Committee and locates the countries making the submissions on the map

Objective

-Identify environmental justice themes within MEPC 83 submissions

-Map the countries that submitted documents to show geographic patterns of participation.

Data Sources

- IMO documents
- code-coocuurance data from Atlas.ti

Data Processing

Data processing was done for co-occurrence matrix exported from Atlas.ti using several R libraries, including readxl, readr, dplyr, tidyr, stringr, and janitor. The data is imported from Excel, and R processing standardizes column names, removes empty rows and columns, and replaces missing numeric values with zeros. Data processing includes renaming the first column to Framework and reshapes the wide co-occurrence matrix into a long, tidy format with Framework, Cooccurrence, and Frequency columns, keeping only positive frequencies. Additional text cleaning removes bullets, grade labels (e.g., "Gr=12"), underscores, line breaks, and unnecessary spaces, while applying title case formatting. The cleaned, organized dataset is then exported as a CSV file for further analysis. Further, the countries that submitted that data have been spatially analysed and mapped.
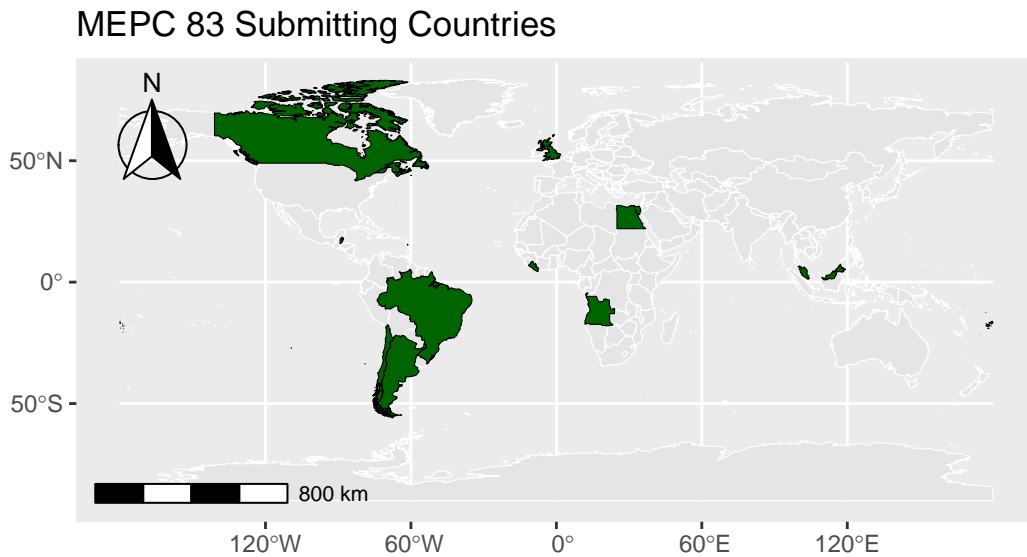
Main Findings

Figure 1

Figure 1: Countries that submitted documents for MEPC 83 (Net Zero Framework).

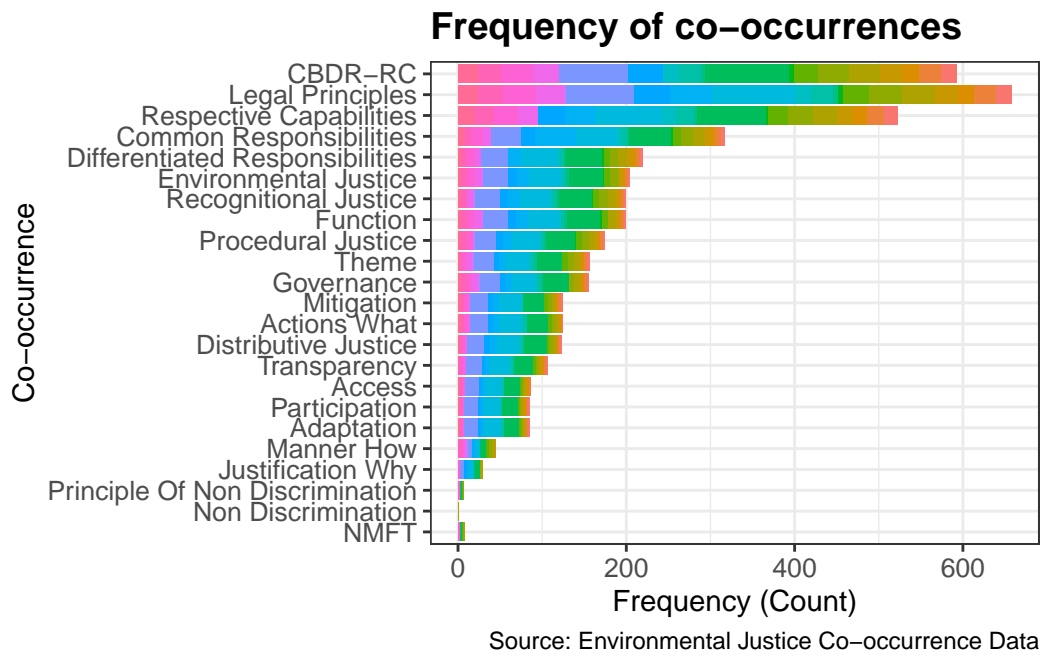**Figure 2**

Frequency of co−occurrences

Figure 2: Bar Chart on the frequency of co-occurances of Environmental Justice

References

- IMO documents