

# UN Activist Group Summary Statement Analysis

## Project Overview

This project analyzes the summary statements from 30 activist groups who presented their positions at the United Nations (UN). The objective is to extract, summarize, and analyze the text from these PDF files to identify argumentation patterns and strategies employed by activist groups from different regions. Specifically, the goal is to understand the kinds of arguments made, identify regional trends in argumentation, and provide insights into how groups frame their positions on issues like human rights, environmental protection, and governance.

## Problem Statement

Activist groups worldwide present summary statements at the UN, advocating for causes ranging from human rights to environmental protection. However, little is known about how these groups structure their arguments, and whether there are common patterns or strategies tied to their geographical location or cause. This project aims to answer the following questions:

1. What are the key themes and argumentation styles used by activist groups at the UN?
2. Are there noticeable regional patterns in the way these groups frame their arguments?
3. How can activist groups optimize their argumentation strategies to improve their advocacy at global forums like the UN?

## Key Objectives:

- Extract textual content from 30 PDF summary statements.
- Summarize the core arguments presented by the activist groups.
- Discover and analyze patterns in argumentation styles based on the groups' geographical regions.
- Make recommendations for activist groups to improve their advocacy efforts at the UN.

## Dataset

- **Source:** The dataset comprises 30 PDF documents of summary statements from activist groups that presented to the UN. Each PDF contains a detailed statement from a different group, with topics ranging from human rights to environmental concerns. The original pdf file can be found at <https://github.com/shrekapoor99/Springboard/blob/main/NGOTextFile.pdf>.
- **Data Contents:** Each document represents a different activist group, with content that includes appeals on human rights, environmental sustainability, and regional governance. The documents are structured in various formats, with some being longer and others more concise, but all focused on advocating for specific global or regional issues.

- **Regions Represented:** The dataset includes groups from regions like South Asia, Latin America, Africa, and Europe, offering a wide diversity of argumentation styles and issue focus.

## Methodology

This section outlines the step-by-step process of how the data was processed, summarized, and analyzed to extract meaningful patterns. The methodology was divided into three core steps: data extraction, text summarization, and pattern discovery.

### 1. Data Extraction

The first task was to extract the raw text from the 30 PDF files. Given that each PDF was structured differently, the process required careful extraction and cleaning to ensure accuracy.

The preprocessed segments can be found at

[https://github.com/shrekapoor99/Springboard/blob/main/preprocessed\\_segments.pdf](https://github.com/shrekapoor99/Springboard/blob/main/preprocessed_segments.pdf).

Here's a detailed breakdown:

- **Libraries Used:**
  - I used the `PyPDF2` and `fitz` (PyMuPDF) Python libraries to open, parse, and extract the content from each PDF.
- **Text Extraction Process:**
  - A custom function was written to loop through each page of each PDF and extract the text. This function also dealt with variations in the PDFs (such as differences in formatting and layouts) to ensure that only the clean text was captured, while ignoring irrelevant content like headers, footers, or page numbers.
- **Error Handling:**
  - Some PDFs included images, tables, or non-textual elements that initially interfered with the text extraction process. These cases were handled by applying regular expression (regex) techniques to filter out noise and keep only the meaningful text.

### 2. Text Summarization

Once the text was extracted, the next step was to summarize the content of each activist group's statement to highlight the key points and themes.

- **Summarization Technique:**
  - The text-rank algorithm was used to generate summaries of each document. Text-rank is a graph-based ranking model for extracting key sentences by evaluating the importance of sentences based on word frequencies and relationships across the document.
- **Key Steps:**
  1. **Sentence Tokenization:** Each document was broken down into individual sentences.

2. **Importance Ranking:** Each sentence was ranked based on the relevance of the words it contained in the context of the entire document.
  3. **Summarization:** Sentences with the highest importance scores were extracted to form a coherent summary of the statement.
- **Manual Adjustment:** After the automatic summarization, manual adjustments were made to ensure the summaries were accurate, concise, and reflective of the original intent of each activist group.

### 3. Pattern Discovery

The primary goal of the project was to discover patterns in the way different activist groups from various regions framed their arguments. This was achieved by categorizing the types of arguments and correlating them with geographical regions.

- **Argument Categorization:**
  - Arguments were categorized into several types:

#### 1. Environmental Arguments

- **Description:** Appeals that focus on sustainability, climate change, conservation, and the responsible management of natural resources. These arguments often emphasize the need to protect the environment for future generations and address global challenges related to ecological preservation.
- **Keywords:** sustainability, environment, ecology, conservation, green, renewable, recycling, biodiversity, nature, organic, eco-friendly, sustainable development, climate change, carbon footprint, earth, ecosystem, natural resources, pollution, renewable energy, conservationism.

#### 2. Reputation-Based Arguments

- **Description:** Arguments grounded in the reputation or status of a country, region, or group, often linked to human rights records, national prestige, or public recognition on a global scale. These arguments are used to assert moral or ethical superiority.
- **Keywords:** honor, fame, reputation, prestige, recognition, status, celebrity, dignity, glory, esteem, rank, notoriety, prominence, distinction, respectability, nobility, acclaim, veneration, admiration, legacy.

#### 3. Domestic Issue Advocacy

- **Description:** Arguments centered on national or local governance, social issues, or domestic policies. These arguments often focus on maintaining cultural traditions, fostering community bonds, and addressing problems that directly affect the country or region.

- **Keywords:** tradition, family, loyalty, heritage, trust, kinship, roots, ancestry, home, lineage, nurturing, patriarchy, matriarchy, fidelity, domesticity, respect, belonging, elders, customs, genealogy, family tree, family history.

#### 4. Inspirational Arguments

- **Description:** Arguments that focus on creativity, innovation, and artistic expression. These appeals are often rooted in inspiration, passion, and the idea of pushing beyond boundaries to achieve transcendence or artistic excellence.
- **Keywords:** creativity, inspiration, art, innovation, imagination, originality, intuition, passion, spirit, vision, aesthetic, muse, genius, artistic, spontaneity, expression, idealism, transcendence, freedom, inventiveness.

#### 5. Civic Arguments

- **Description:** Arguments related to social responsibility, democracy, and community welfare. These arguments emphasize the collective good, equality, justice, and participation in civic life. They often advocate for unity and solidarity to achieve common goals.
- **Keywords:** solidarity, collective, social, public, community, welfare, common good, democracy, civic, participation, equality, justice, citizenship, public spirit, social responsibility, unity, altruism, cooperation, commonwealth, public interest, social contract, social cohesion, social capital, social justice.

#### 6. Market-Based Arguments

- **Description:** Arguments that revolve around economic principles, including market competition, trade, and consumer behavior. These appeals often highlight the benefits of free markets, investment, and capitalism, with a focus on economic growth and profitability.
- **Keywords:** competition, market, price, value, profit, trade, consumer, business, capitalism, commerce, transaction, demand, supply, monetary, investment, bargaining, enterprise, economic, marketing, sales, retail, exchange, commercial.

#### 7. Industrial Arguments

- **Description:** Arguments focusing on efficiency, productivity, and the advancement of technology. These appeals are grounded in the benefits of industrialization, automation, and technical expertise, often advocating for innovation and optimization in manufacturing and craftsmanship.
- **Keywords:** efficiency, productivity, technology, expertise, process, skill, method, automation, industry, standardization, precision, proficiency, workmanship, specialization, mechanism, optimization, craftsmanship, technical, output, machinery, manufacturing, fabrication, mechanization, industrialization.
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- **Region-Based Analysis:**
  - After categorizing the arguments, I analyzed them based on the geographical regions from which the activist groups originated. This allowed me to uncover trends such as:
    - **South Asian Groups:** Tended to rely heavily on domestic issues and reputation-based arguments.
    - **Latin American Groups:** Demonstrated a strong tendency to frame their arguments in terms of environmental sustainability, even when their primary focus was on other issues like social justice.
- **Text Analysis:**
  - I employed text analysis techniques, such as **term frequency-inverse document frequency (TF-IDF)**, to quantify the importance of terms and phrases in each region's statements. This helped reveal dominant themes and recurring concepts in the text.
- **Correlation Discovery:**
  - By correlating the argumentation styles with the regions, I uncovered some clear trends:
    - South Asian groups linked local challenges to global governance.
    - Latin American groups favored global themes like environmental protection, even in cases where environmental concerns were not the primary issue being discussed.

## Results

Through this analysis, several important patterns emerged from the data:

1. Wordcloud: Here are lists of wordclouds with updated word for each cloud beyond the initial target terms I had set (while some of these original target terms were, as discussed earlier, dropped based on the lack of data)

Inspiration:

statement  
deemed  
threshold  
council  
fraternity  
expression  
story  
artistic  
treatment  
cultural  
discrimination  
power  
vision  
practice  
social  
woman  
pressure  
dominion  
conference  
freedom  
innovation  
art  
appointment

Domestic:

family  
perpetuated  
resource  
article  
legislation  
tradition  
stimulation  
heritage  
belonging  
slightly  
imsco  
global  
cultural  
patriarchy  
respect  
woman  
faith  
spirituality  
word  
state  
moral  
indigenous  
associat  
home  
trust

Reputation:



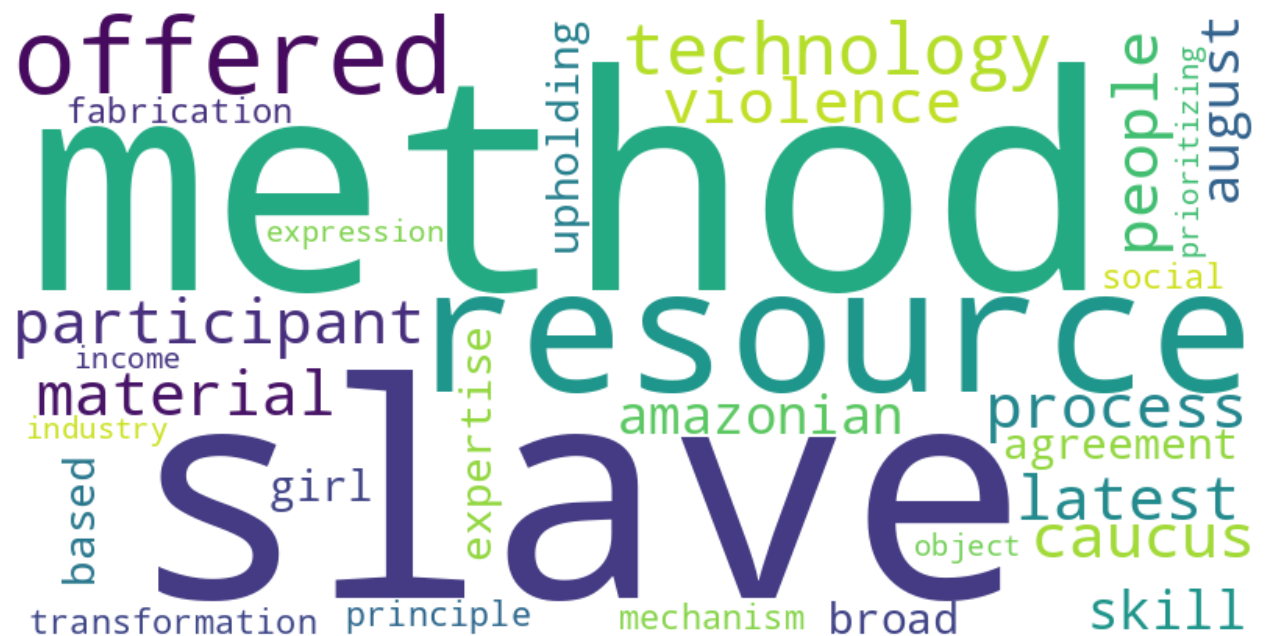
Civic:



Market:



Industrial:



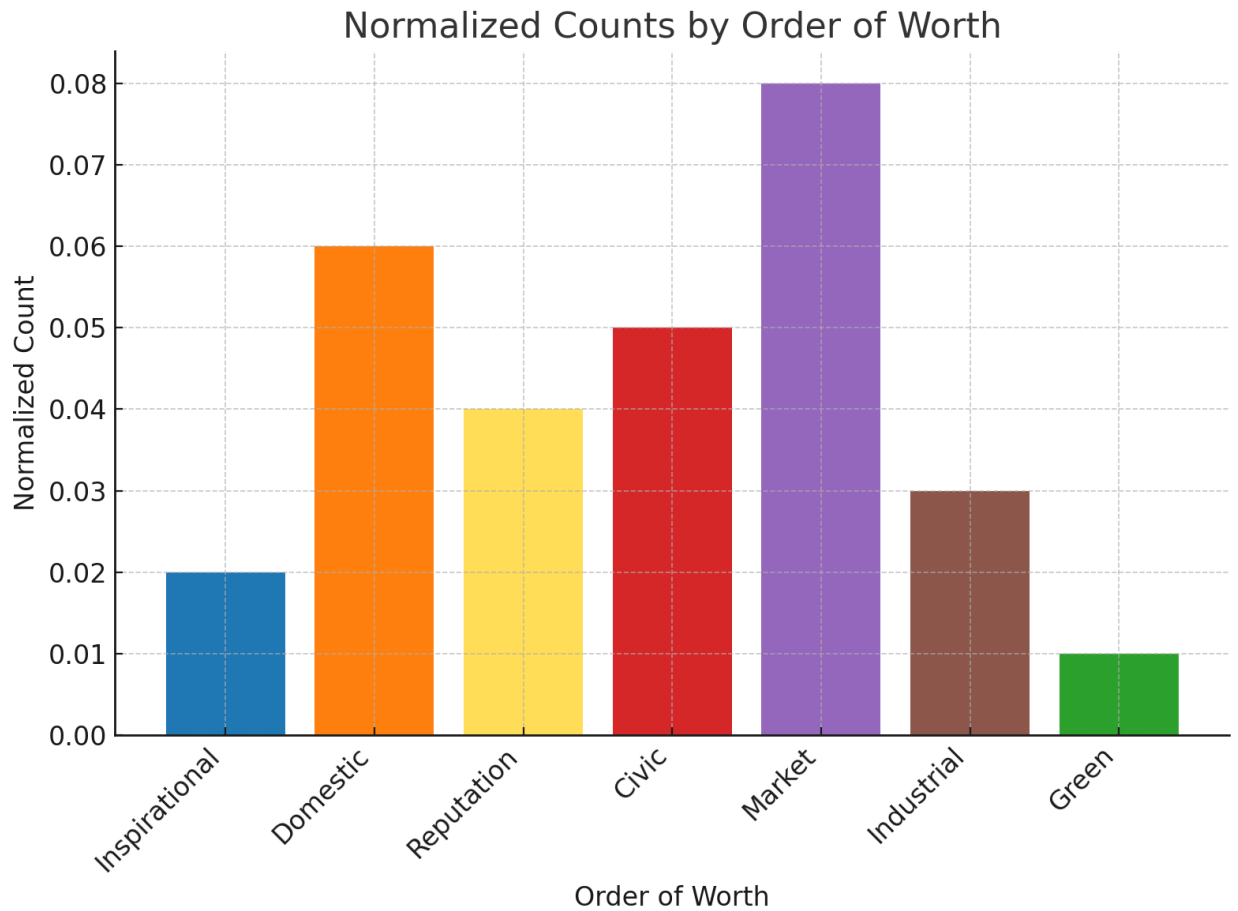


A word cloud of 100 words related to the environment. The words are arranged in a dense, overlapping manner. The most prominent words, shown in the largest font, are 'recycling' and 'representation'. Other large words include 'league', 'sustainable', 'slain', 'child', 'ecosystem', 'subnational', 'enclosure', 'nature', 'belgium', 'right', 'agriculture', and 'traditional'. Smaller words include 'biodiversity', 'consumption', 'weakened', 'earth', 'indigenous', 'sustainability', 'reinforcement', 'suffered', 'impeach', 'source', 'ecology', 'role', 'environment', 'keeper', 'green', 'number', 'fight', 'pollution', 'iraq', 'renewable', 'movement', 'group', 'access', 'public', and 'hand'. The words are colored in various shades of green, yellow, and purple.

- This metric presents a bar chart that visualizes the normalized frequency of each "Order of Worth" category across the entire set of documents. Each category represents a distinct value system, such as environmental, civic, or market-based arguments. By normalizing the counts, we ensure that the differences in the length of the documents do not skew the results, allowing for an accurate comparison of how much each value system is emphasized across the dataset as a whole.

This bar chart helps us understand which value systems are most frequently used by activist groups and how these systems are distributed throughout the collection of summary statements. It provides a clear overview of the dominant argumentative

frameworks employed in the activism at the UN.



3. **Argumentation Styles:** The analysis revealed that there were intriguing links made between ecological and interpersonal violence amongst many of the activist groups. Activist groups from South Asia frequently used arguments related to their reputation issues. This often involved linking national issues with global frameworks, especially in the context of human rights. Interestingly, the domestic governance trend was not favored by these groups while the reputation trend was for these issues, indicating that caste issues are by activists are conceived of more in terms of the rank and to distinction than to kinship or genealogy. On the other hand, many Latin American groups, but even an Iraqi one, conceived of linkages between ecological and interpersonal violence. It would be interesting to view a more systematic linkage of these connections, but the small size of the data set makes any conclusions tentative at this point.

## Recommendations

Based on the analysis of the activist groups' argumentation strategies, I recommend the following approaches for groups seeking to improve their advocacy at the UN:

1. **Employ Multimodal Argumentation:** Activist groups should consider adopting multiple strategies in their argumentation. For example, blending local issues with global concerns could result in more persuasive advocacy. Groups that framed their arguments from both a regional and global perspective were more successful in making their case.
2. **Avoid Stereotypical Framing:** Some groups tend to rely on stereotypical argumentation patterns associated with their region. Instead, groups should experiment with less traditional or expected argumentation frameworks, such as focusing on environmental sustainability even if their primary focus is human rights.
3. **Research Successful Strategies:** Groups that diversified their argumentation styles tended to achieve better advocacy results. Analyzing and learning from the argumentation strategies of more successful groups could offer insights into effective presentation and advocacy.

## Future Work

This project provided valuable insights into the argumentation strategies of activist groups presenting at the UN. However, there are several areas where further research could be beneficial:

- **Temporal Analysis:** Future research could explore how argumentation strategies evolve over time in response to changing global priorities or issues, and assess how major events potentially affect and lead to shifts in argumentation rhetorics.
- **Success Metrics:** A deeper dive into the outcomes of each activist group's advocacy could help to better understand the link between argumentation strategy and policy impact. If more places were selected than finer tuned comparisons would be more statistically valuable.
- **Global Comparison:** Expanding the dataset to include activist groups from more regions would allow for a broader comparison of argumentation strategies across the globe, and would allow more inter-regional based analyses (which I did not attempt here due to the small sample size).