

The relevance of NGO work analysed on the basis of Greenpeace Germany and the German Federal Ministry for the Environment (BMUV)

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Motivation and research question

- NGOs represent the interest of the general public and heavily rely on private financial contributions.
 - Greenpeace Germany raises > 80mil. € from private sources yearly.
- Is Greenpeace Germany ahead of the environmental ministry BMUV in picking up pressing societal issues?

Methods

1. Data acquisition:

BMUV press releases: provided (.csv)
Greenpeace press releases: manual (.pdf)

2. Pre-processing:

Tokenisation:

removal of punctuation, symbols, numbers,
German stopwords and features < 4
characters, splitting of hyphens

Feature and document selection:

removal of features: tf-idf score < median and
documents: < no. features than 1. quantile

3. Main analysis:

Topic model: Correlated Topic Model (CTM)

R package: topicmodels

Iterative procedure: fit model for 2 to 12 topics

Model selection: comparison of histograms describing
uniqueness of topic assignment

Final model: CTM for describing the documents of the
corpus by 2 topics

Final topic assignment: most likely topic proposed by CTM

Data and results

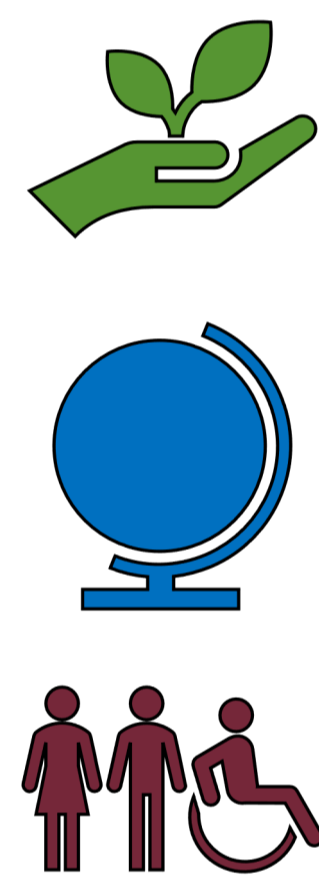
Corpus characterisation

Time period covered: 01.11.2016 – 31.10.2021 → 5 years

Press releases of Greenpeace

- 511 documents
- most frequent features:

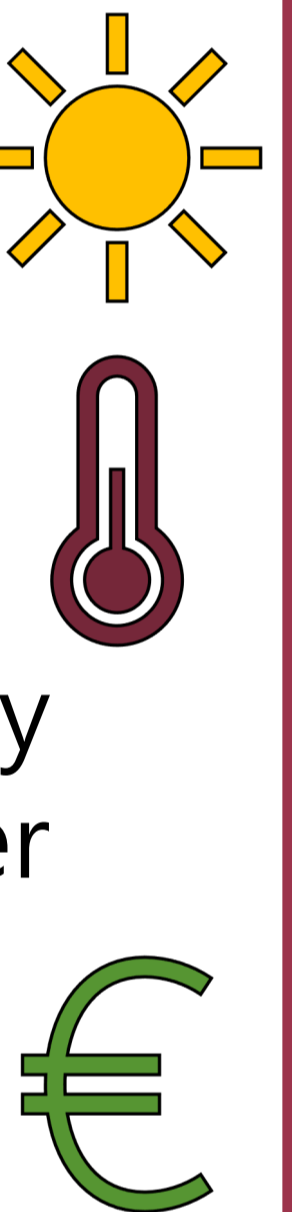
greenpeace	
deutschland	germany
schutz	protection
prozent	percent
natur	nature
internationale	international
mensch	human
lebensgrundlagen	livelihood



Press releases of BMUV

- 1084 documents
- most frequent features:

deutschland	germany
klimaschutz	climate protection
euro	euro
bundesumweltministerium	environmental ministry
bundesumweltministerin	environmental minister
millionen	millions
umwelt	environment
jahr	year



Tracking relevant topics through time

Topic1: "economic climate protection"
(greenpeace, germany, climate protection, euro, more,
percent, year, million, enterprise, about)

Topic2: "environmental protection"
(germany, greenpeace, protection, more, diversity, as well,
percent, environmental ministry, environment, must)

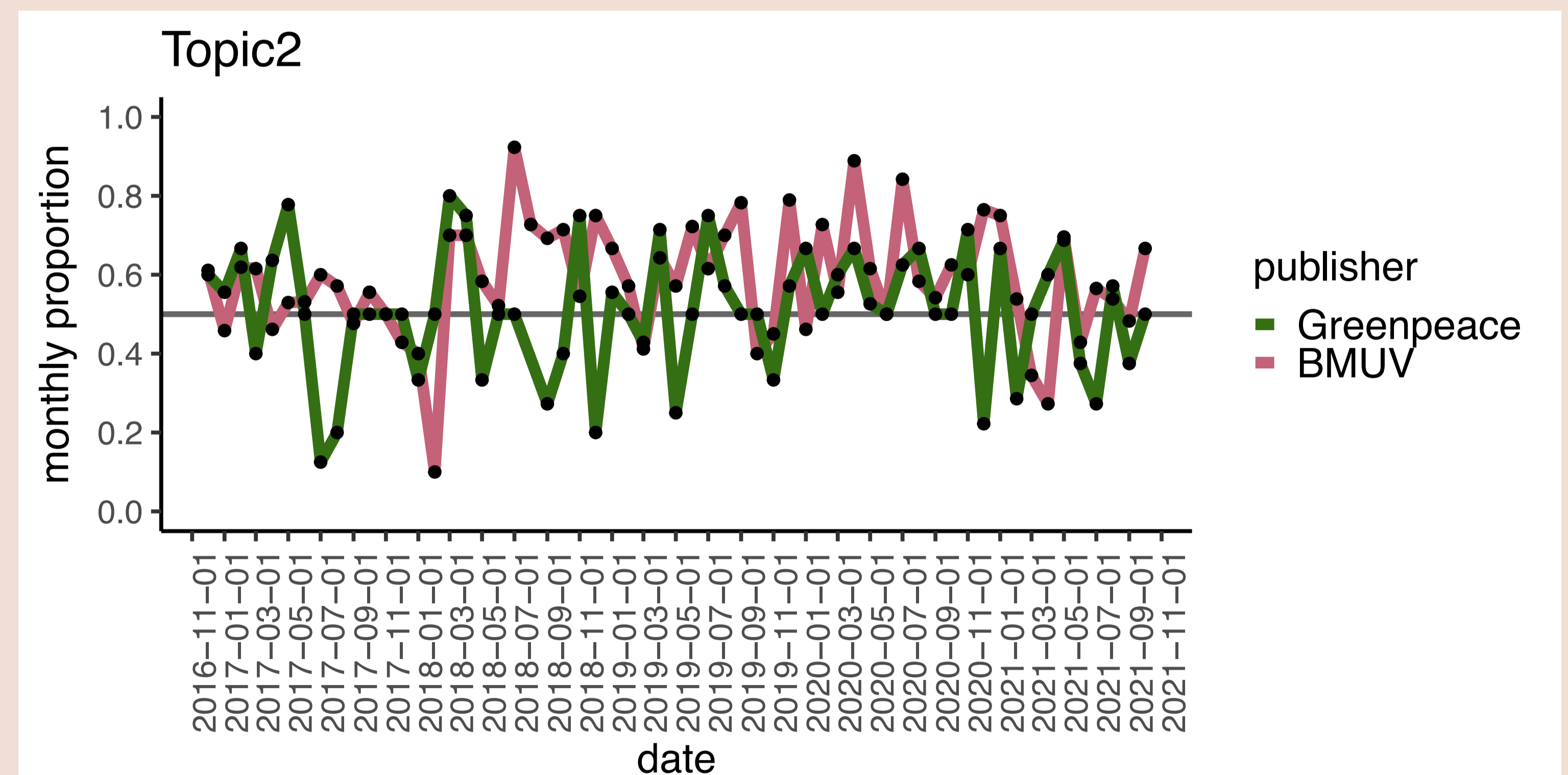
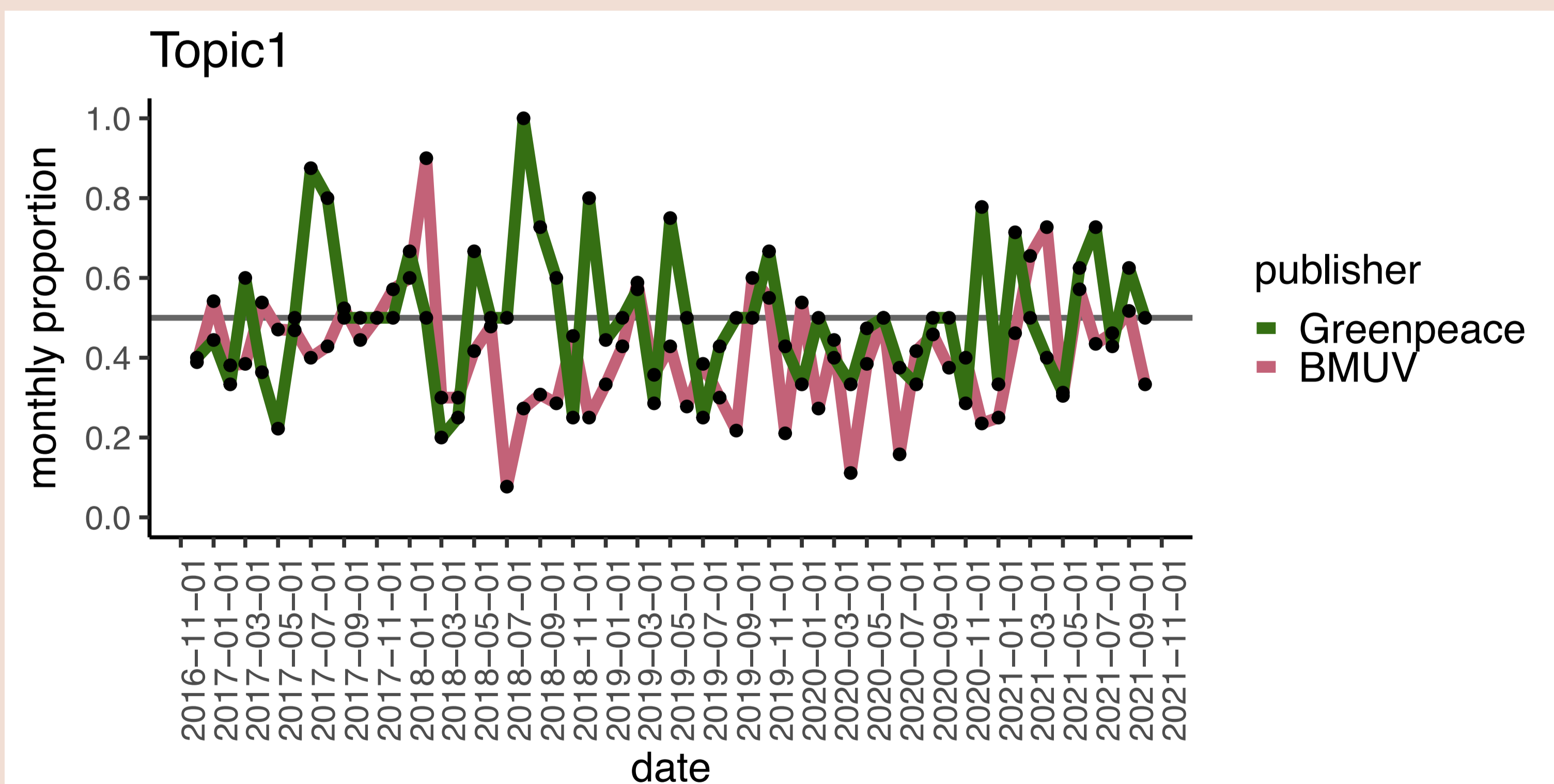


Figure 1. Monthly proportion of documents covering Topic1 or Topic2 published by Greenpeace and the BMUV from 01.11.16 to 31.10.21.

Conclusions

• Key insights:

Greenpeace focused more on topic1 whereas BMUV focused more on topic2.

Topic2 appears to be preferred between Nov. 2019 and Sept 2020 by both institutions.

Both topics are relatively broad and cannot be connected to specific events. Topic coverage was overall quite variable.

• Model fit:

Unbalanced corpus lead to topic identification that was predominated by BMUV documents.

Model could not fit a higher number of topics well, may be improved by more thorough pre-processing.