Codebook for the analysis of frames in online documents and newspaper articles
Issue: Climate change

Project „The impact of challengers' online communication on media agenda-building – a comparison across countries and issues"

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Codebook for the analysis of frames in online documents and newspaper articles

Issues: Food safety/climate change

This codebook is used to code frames mentioned in online documents and articles dealing with the issue of "food safety" or the issue of "climate change".

Definition of "food safety":

Food safety is an important political, economic and public health issue, since food-borne diseases or contaminations cause considerable mortality around the globe. Food safety, and thereby the health of people, can be put in danger by biological (bacteria, viruses, etc.), chemical (industrial pollution, additives, etc.) or physical (glass, stones, etc.) contamination of food. Also, potential dangers arising from genetic manipulation of organisms or application of nanostructures are discussed in the scope of food-safety debates. In a broad sense, we consider all kinds of health problems connected to food as food safety problems. Thus, also problems caused by (too much) unhealthy ingredients like sugar, fat, alcohol, ingredients etc. can endanger public health in terms of obesity, cardiovascular diseases and so forth. Also, allergic reactions pose severe food safety problems to at least parts of the population.

Factors contributing to food safety problems include: intensive farming, changes in consumer demands and the globalization of the food industry. Many actors, such as government regulators and authorities, the food industry, consumer groups and associations as well as international organizations try to ensure food safety along the food production chain both on national and international level. They do so by means of regulations, standards, surveillance systems, controls and communication (Rooney & Wall, 2003; Schlundt, 2008).

Definition of "climate change":

Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period—typically decades or longer. Climate change may be due to natural processes or due to human behavior (cf. IPCC Glossary, available at: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_appendix.pdf).

A frame is understood as a certain pattern in a given text and consists of separate elements (Entman, 1993; Matthes & Kohring, 2008):

- Problem definition
- Causal interpretation: Attribution of failure or success. Specific causes or consequences.
- Treatment recommendation: Call for/against certain actions. Proposition of solutions.
- (Moral) evaluation

In our coding logic, a frame is always linked to an actor (=speaker) who uses it in a specific discourse.

Sample

1. Newspaper articles

The newspapers in the sample are:

Germany:

- BILD (1)
- BILD am Sonntag (2)
- Süddeutsche Zeitung (SZ) (3)
- Die Welt (4)
- Welt am Sonntag (5)
- Der Spiegel (6)
- Taz (7)
- Focus (8)
- Die Zeit (9)
- Frankfurter Rundschau (10)
- GEO (→ only climate) (11)
- Stern (12)
- FAZ (13)
- FAZ am Sonntag (14)
- Financial Times Deutschland (included until its final publication on 2012-12-07) (15)
- Handelsblatt (16)

Switzerland:

- Neue Zürcher Zeitung (39)
- NZZ am Sonntag (40)
- Tages Anzeiger (41)
- Die Sonntagszeitung (42)
- Die Weltwoche (43)
- Beobachter (44)
- Blick (45)
- Der Sonntagsblick (46)
- WOZ (47)
- Der Sonntag (verschiedene Regionalteile) (48)

UK:

- The Sun (17)
- Sunday Mirror (18)
- Daily Mirror (19)
- The People (20)
- Daily Star - Sunday (21)
- Daily Star (22)
- Daily Mail (23)
- The Mail on Sunday (24)
- Sunday Express (25)
- Daily Express (26)
- The Sunday Times (27)

- The Times (28)
- The Daily Telegraph (29)
- The Sunday Telegraph (30)
- Financial Times (31)
- The Observer (32)
- The Guardian (33)
- i (34)
- Independent on Sunday (35)
- The Independent (36)
- The Week (38)

USA:

- National Geographic International (→ only climate) (49)
- Time Magazine (50)
- Newsweek (included until its final publication in December 2012) (51)
- Wall Street Journal (52)
- Wall Street Journal Sunday (53)
- USA Today (54)
- New York Times (55)
- Washington Post (56)
- L.A. Times (57) (→ only climate)
- Chicago Tribune (58) (→ only climate)

An article becomes part of the sample if one of the following search terms is mentioned somewhere in the article and if the article includes at least one actor-frame sequence, i.e. an actor putting forward at least a problem definition (variable CPROBDEF) and additionally a cause, a consequence or a treatment recommendation.:

Issue climate change: klimawandel* oder globale Erwärmung oder globalen Erwärmung oder globaler Erwärmung/climate change or global warming

Issue food safety:

A document is relevant if it contains the keyword of the first column – „Lebensmittelsicherheit" (deutsch) or „food safety" (English), or if it contains at least one keyword of each of the columns 2 and 3 (each language is considered separately, so either the German or the English keywords apply).

Lebensmittelsicherheit	Lebensmittel Nahrung Futter	Erreger Keim Epidemie Seuche Krankheit Gesundheits Infiziert Verunreinig Kontamin Belast Gentechni

		gefähr
		Gefahr
		Skandal
		Hygien
		Risiko
		EFSA
		BVL
		BAG
Food safety	Food	Germ
	Aliment	Epidemic
	Feed	scare
		Illness
		health
		Infected
		borne
		Contagious
		Contaminated
		polluted
		GM food
		Genetical
		bioengineer
		hazard
		harmful
		scandal
		hygien
		Risk
		EFSA
		FDA
		FSA

In general all articles are relevant. Not part of the coding are
- snippets from articles of other newspapers ("Pressestimmen")
- advertisements
- letters to the editor
- caricatures/cartoons
- tables of content/overviews
- calendars of events
- television program overview
- Articles which use the word "climate" with another meaning, e.g. work climate

2. Online documents

First step: Identification of the relevant pages via the Visual Web Spider

A specific page becomes part of the sample if one of the search terms (see above) is mentioned somewhere on the page and if the document includes at least one actor-frame sequence, i.e. an actor putting forward at least a problem definition (variable CPROBDEF) and additionally a cause, a consequence or a treatment recommendation.

Some pages only collect links to articles, which are published on other sites (e.g. the website www.climatedebatedaily.com). These pages are not included in the coding.

Second step: Coding of the identified pages – identification of the relevant content on a page

We only code documents on the page, which deal with our issue climate change or food safety (cf. keywords). Furthermore, we prefer central text documents on the page, i.e. content which has its own headline and/or is located in the middle of the page (cf. Maurer et al., 2011). In cases of several articles on the page, we code that one with the most prominent headline (i.e. bold headline, headline with the largest font). In cases of more than one article with a prominent headline, we code the first one mentioning our search terms[1] (so if the most prominent article does not deal with our issue, but a smaller, less prominent article, we choose this one).

In cases of an article spreading on more than one page, we follow the continuation one step (e.g. click one time "more" at the end of a document). If the link "read more" does not work anymore but the teaser already includes an actor-frame-sequence we only code the teaser.

The same criteria (i.e. issue relevance and centrality/prominence) also apply to other cases:

- In cases of teased articles with only short introductory texts, or simply headlines containing links we follow the "read more" link of the first article dealing with our issue once and code the linked article. This applies also for summaries/abstracts or short introductory texts for other documents like .pdfs: We follow the "download the complete document-link" and code the document.

- If the website contains in its center a dynamic box where several articles are being presented consecutively and the first one cannot be identified due to the dynamic character of the presentation, the articles are supposed to be checked concerning their up-to-dateness, and the newest article is to be coded, unless it does not deal with the desired topic.

- Sometimes the central document on a page is a short "technical" summary of different articles that are published somewhere else on the site. These summaries are not content-based but only tell the visitor what kind of content is on the following webpages. Usually these summaries only contain links leading to the specific documents. In that case, we follow the first link leading to an article which deals with our issue and then, code the specific article.

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[1] In this case, „the first one" means from top to bottom, and from left to right, respectively.

We do not follow any further links within an article (e.g. link to related themes, link to further pdf-documents, link to further presentations, ….).

Generally, all types of pages and all type of online content are relevant. Excluded from the coding are:

- Impressum, contact pages
- Shops
- Link lists
- Lists of names (funders, members, founders, …)
- Recruiting pages, job announcements
- Photo archives, picture galleries
- Registration, subscription, login pages
- Help pages, FAQs
- Privacy statements
- All visual and audible material like videos, podcasts, figures, pictures, tables, powerpoint presentations, …
- Databases
- Advertisement
- Announcement of events, workshops, seminars, contests
- Calls for donation
- Teaching material for schools
- Texts of law
- Glossaries
- Lists of abbreviations
- Travel, local information
- Interactive elements (dialogic elements, …)
- Polls
- Comments of online documents
- Letters to the editor of online media
- Content only available to registered users
- Articles from scientific journals

Generally for all long online and offline documents applies the following rule: We only code the first 10 pages of the document → until August 2012. From September 2012 on we only code the first 2 pages of the document.

3. Units of analysis

The units of analysis are either articles/online-documents or actor-frame sequences.

Level 1: Articles/documents:

Articles or online documents are defined as separate entities with a headline.

Level 2: Actor-frame sequences:

The coding of the concrete frame elements is linked to the actors who express them. As frames are always linked to an actor, every document has to have at least one actor. The journalist/author of the article can be an actor, too.

Procedure

1) Read the article/document and

      a) code the formal attributes of the document

      b) identify the three most central actors in the document (see page 16)

2) Read the sequences attributed to the chosen actors again and code the variables for the actor-frame sequences.

General rules

There are some general rules the coders should have in mind in order to avoid mistakes (cf. Sowka et al., 2011):

a) Ambiguities in coding are not a sign of incompetency but a natural part of the coding process. Ambiguities should not be solved by coding "something or the other" but should be talked through.

b) Ambiguities concerning the allocation of codes should be noted down and should be discussed with the project supervisors. If the ambiguities are of relevance for other codings as well, they should be documented and discussed within the team of coders.

c) The coding should be oriented towards the manifest content of the material. Interpretations that go beyond the coding instructions in this code book are to be avoided.

d) As a general rule, specific codings take priority over general codings. This means that coders should preferably choose specific subcategories rather than more broad meta-categories, e.g., Angela Merkel should be coded as "government" and not as "political actor".

PART 1: Article-level variables

Formal attributes of the document

Note: all variables are numeric except when otherwise indicated

Variables which will be attributed automatically by the database:

- For all documents: article/document identification number,

- For offline documents: name of newspaper/magazine, publication date

- For online documents: name of organization, name of the website ($\rightarrow$ url, without "http://www" $\rightarrow$ starting with the name e.g. "unibe.ch", date of crawl for online documents

Campaigns: Is the website a special campaign-site? [CAMP, coded by the project team]

Note: A campaign website can often be identified through the usage of specific words like for example "campaign", "manifesto", "rebellion". Furthermore the following elements characterize campaigns:

- *they have a concrete goal (e.g. to stop Shell doing something)*

- *they are time-limited*

- *their aim is to mobilize the public, often they have interactive elements (e.g. send a mail, sign a petition, …)*

- *sometimes they have own websites e.g. VW darkside from Greenpeace (http://www.vwdarkside.com/de)*

name of coder [NAMECOD]

10		Team Berlin
	11	Denise
	12	Karolin
	13	Lars
	14	Milan
	15	Susanne
	16	William
	17	Annie
	18	Peter
20		Team Bern

21	Florance
22	Ivo
23	Ueli
24	Franzisca
25	Tom
26	Hannah
27	Denise
28	Chantal
29	Zora
30	Jonas

FILTER: Online documents

Date of publication [W_DATE, format YYYY-MM-DD]

The date of publication is coded as follows:

1. *We code the publication date of the online document, if explicitly indicated on the site.*
2. *If the document does not have its own time stamp, we code the date of the first comment.*
3. *If the document does neither have its own time stamp nor comments, we code the date of the last website update.*

Note: When downloading the texts to be coded from the webpages, it is important to also download this information.

If no information on the publication is given, please code 9999/12/12.

FILTER: Offline articles

type of article [TYPE]

In this variable we code the type of the article and whether the article is written by a journalist/reporter/editor of the newspaper, whether it is adopted from a news agency, or whether it is a guest editorial or column (e.g., journalists from other newspapers, intellectuals, experts). We only code explicit information given with the article, i.e. names of journalists or acronyms of news agencies. Guest articles have to be explicitly labelled as such.

10	news, documentation *(please code this meta category only if it is unclear whether the article is written by a news agency, journalist, or guest)*	
	11 news agency *(indicated by acronyms such as ap, dpa, afp, reuters)*	
	12 journalist, editor *(indicated by the author name or acronym)*	
	13 guest *(usually indicated by the full name and position of the guest author)* *Be careful: Guest commentaries are coded in category 22!*	
20	commentary, editorial, ironical comment ("Glosse") *(opinion-based)*	
	21 journalist, editor *(indicated by the author name or acronym)*	
	22 guest commentary *A "guest commentary" is an article which is not written by a journalist of the newspaper. The value "3" is only coded if the newspaper clearly indicates that the commentary is written by a guest (e.g. by a headline "guest commentary by …"). OP-EDs ("opposite the editorial page) usually are written by guests*	
30	Interview	
40	advise column (Ratgeber-Artikel) *(articles giving advise, for example concerning the proper handling of food)*	
99	unknown, cannot be specified, other	

END OF FILTER: ALL DOCUMENTS

Is there a real-world event that stimulated the writing of the document? [INITEV]
(cf. Peters & Heinrichs, 2003; Adam et al., 2002)

We code concrete events, which have stimulated writing of the document. We are only interested in real-world events explicitly mentioned in the text, and NOT in mere communication acts like press conferences, press releases or unspecified verbal statements (e.g., experts warn…) that might also have stimulated the writing of the document.

The initiating event can also be a historical event or an event which happened some time ago. If more than two initiating events are mentioned, the event that is mentioned first in the document is to be coded. If no concrete real-world event is explicitly mentioned in the text, which serves as initiator (e.g., general background information is given), we code 0.

For some categories, more specific subcategories are given. In general, please code the specific categories whenever possible. If an event does not fit into the subcategories please code it into the more general meta-categories like "political action" or "publication".

0		No real-world initiating event
10		Politics/political process
	11	Political action *legislative, governmental, or judicial decisions, parliamentary vote, resolution, binding agreement, personnel decisions, laws and orders, lawsuits, also regulations by state executive agencies (e.g., establishing prescriptive limits for certain substances)*
	12	Administrative/ authority action *actions of the administration (e.g. arrests, fines, security checks, official controls, inspections, moratoria on sales, shut-down of restaurants or production sites),), also actions of police and military*
	13	Elections/direct-democratic action/ petitioning *initiating referenda, voting on referenda, collecting signatures for referenda*
20		Meeting/conference *conventions, congresses, summits, assemblies, conferences, exhibition, fair, symposium, discussion forum, informative meeting etc.*
30		Protest/ mobilizing event *public assemblies, marches, demonstrations, boycotts, strikes, etc. Also violent protests are coded in this category.*
40		Criminal action *corruption, fraud, violence*
50		Product-related events
	51	New product/ product changes/ technological innovations *(e.g. new recipes, new production processes)*

	52	Product recalls/ stops on sales or production *(e.g., Fresh Express calls back Romaine salad. Also code voluntary sales or production stops, shut-downs of production sites, slaughter of contaminated animals in this category. Note: Mandatory recalls are coded as authority action in category 12)*
60	Publication	
	61	Scientific study (also announcement or start of a new study)
	62	Report or survey *(official reports, reports of NGOs, etc.)*
		621 IPCC report, draft version of the IPCC report
	63	Traditional mass media offline *Newspaper, magazine, radio, tv program, news agency, cinema, movie, book, also announcement of tv program or the like*
	64	Traditional mass media online
	65	Genuine online media *Websites, blogs, social media, independent online media (e.g., Huffington Post), e.g. foundation of a new facebook group*
70	Catastrophes and other incidents (force majeure) *Natural catastrophes, epidemics and other diseases, accidents*	
	71	floods/heavy rainfall
	72	Storms
	73	heatwave/drought
	74	Avalanche
80	Measurement of the temperature *e.g. warmest April since …., coldest winter since …*	
90	Annual days/ events *(e.g. Earth Day, World Food Day)*	
99	Other real-world initiating event	

FILTER: issue climate change. If INITEV=70 (catastrophes and other incidents)

Country of the catastrophe [COUNT_CAT]

1	Switzerland
2	other country
99	not specified

Date of the catastrophe [DAT_CAT]

Date when the catastrophe happened

Year/month/day

Centrality of the issue climate change/food safety [CENTR] (cf. Sowka et al., 2011)
Centrality refers to the relative significance given to the issue of either climate change or food safety in comparison to other issues mentioned by the author. The issue can be of high or medium centrality, or it may represent just a peripheral aspect in a document, depending on the given space the issue covers in the document.

1	Low centrality
	Climate change/food safety is of low centrality (a peripheral aspect) when the document deals with the issue only marginally compared to other topics in the text. This means that it is only shortly mentioned in the document, i.e. only one or two sentences deal with the issue (for longer articles: less than one paragraph).
2	Medium centrality
	Climate change/food safety is of medium centrality when they are an issue next to others and dealt with (= not just mentioned) more or less extensively, but do not stand out clearly against the other issues, i.e. the topic is not prominent in the headline or lead.
3	High centrality
	Climate change/food safety is of high centrality when they constitute the main aspect or one of the main aspects of the article; they should be mentioned in the headline, subheadline or within the first third of the article.

Filter: issue climate change
Climate change: Main topic of the document concerning climate change [MAITO] (cf. Maurer, 2011)
We code the main topic of the article concerning climate change. The main topic is that topic which covers the most space in the document concerning climate change. If several topics are mentioned equally, we code that one that is first mentioned.

000	no main topic identifiable		
100	Politics		
		110	UN climate conference
			e.g., all issue aspects which are mentioned in the context of the conferences: expectancies, evaluations, demands, conflicts, suggestions, results, …
		120	other climate conferences *(e.g. conferences of the EU, …)*
		130	Politics: local/regional level *(besides the conferences)*
		140	politics: national level *(besides the conferences)*
			e.g. parliamentary debates, laws concerning climate change, …
		150	politics: international level *(besides the conferences)*
			e.g. EU level, …
200	Science/aspects of climate change		
		210	methodological discussion of scientific methods/models
			e.g. reliability of methods, quality of the models, … *Note: methodological aspects, not content-based discussion*
		220	IPCC report
		230	Discussion of climate change in general: (discussion of the) evidence of climate change, causes of climate change, consequences of climate change
		240	technologies (e.g. energy generation, energy saving, …)
300	Financial and economic aspects of climate change/climate protection		
	These can be costs or profits caused by climate change, e.g. costs of climate change/climate protection measures; costs of research funding; economic profits/advantages from climate change (e.g. new trade routes due to deglaciation), etc.		
400	Society		
		410	demands made on society/the individual
		420	art and culture
			e.g. movies, books, exhibitions etc.
		430	role of environmental organizations/social movements/protests
		440	role of the media
999	other main topic		

Are there references to other offline or online media? [MEDREF 1-2]

We code this variable only for those parts of the document dealing with the issues of climate change/food safety. References given to other offline or online media cited are coded. Internal references/links to the medium of publication are not coded as MEDREF.

For example, as sources: "Der Mitteldeutsche Rundfunk (MDR) berichtete am vergangenen Wochenende, …" Auf Twitter wurden am Sonntag neue Informationen über….verbreitet", „in an online-platform, consumers can check ingredients of products".

Sources have to be referred to in the text. A list of weblinks or offline sources in the bottom of the page without any cross reference in the text is not considered for MEDREF.

In online documents we only code links to other webpages (i.e. no internal links) if they are explicitly introduced or referred to in the text, e.g.: "Read more information on: www.greenpeace.org." Or: "Foodwatch published on its website new facts about…." Links inserted into the text without further explanation are not coded as references to other media.

We code up to two references. If there are more than two references, we only code the first two references in the order of appearance.

If the same medium (e.g. the New York Times, www.spiegel.de, etc.) is cited more than once, we only code it once.

Note: References to scientific, peer-reviewed journals (e.g. Science, Nature) are not of interest here.

Please google, if you cannot specify by the information given in the text. If a publication is published on- and offline (e.g., Consumer Reports or Greenpeace Magazine), and it is not clear from the reference, which type of media is mentioned, please code the offline medium.

0		No references to other media
10		Reference to offline media
	11	Newspaper, magazine, radio, tv program *(also announcement of a program, etc.)*
	12	Cinema, movie, books, videotapes
20		Offline news agency *e.g. DPA, AP, Reuters, SDA, …* *Only if referred to explicitly in the text as a source of information (not as an author as this will be coded in* **[TYPE]***)*
30		Website or blog of traditional offline mass media *e.g., Spiegel.de, nzz.ch*

40	Genuine online media
	Websites, blogs, social media, independent online media (e.g., Huffington Post), YouTube Videos
	Examples:
	"AllergyEats.com provides a forum for customers to rate the allergy-friendliness of restaurants across the country."
	"… the NFCA maintain lists on their websites of restaurants that have undergone their training programs for handling gluten-free foods."
	"Support groups such as KidsWithFoodAllergies.com are also useful."
50	Reference to "media" in general
	z.B. "wie gewisse Medien behaupten", „while the news media and litigators have our attention focused on…"

PART 2: Variables on the actor-frame sequences level

IDENTIFICATION OF THE MOST IMPORTANT ACTOR: Who expresses his/her opinion in the article, or whose opinion is expressed? (cf. Matthes, 2009)

The most important actors (MIP) are the actors who express their opinion concerning food safety/climate change and are most central in the document. Actors who are only mentioned (e.g. by another actor) do not count as MIP. They must express their opinion in the document, or their opinion must be paraphrased by the journalist, e.g. "XY says, states, criticizes, demands, warns, puts pressure on so., responds by announcing or doing sth., etc." We also code opinions which are attributed to actors by the author of the document, e.g. "XY hopes, wants, aims at, believes, assumes, etc."

In an actor-frame sequence, the MIP gives at least a "problem definition" and another important frame element of the issue, i.e. proposes a cause, consequence, or a treatment to the problem. In a problem definition, the actor takes a specific view or stance on the issue. This view is expressed through the emphasis of certain issue aspects or a specific perspective on the issue. Furthermore, the actor has to mention causes, consequences, and/or solutions to the problem. One actor-frame sequence does not have to contain all these frame elements, but at least a problem definition and one of these other elements must be given.

Actors are defined as individual speakers or collective actors who advance their view of the issue in the document.

An actor is a potential speaker in a text, if:

- his name is mentioned,
- his concrete function is mentioned,
- the used description points clearly to a group of speakers or an institution or
- other substitutes used clearly point to a specific individual or collective actor.

In the case that the potential speaker expresses his opinion about the issue directly or indirectly, he is coded as actor. For us, only actors who express their opinion concerning the issue of climate change/global warming or the issue of food safety are relevant. Statements about other issues are not of interest.

An exception with regard to the above given definition is the journalist/author of the document: He/she also can be a MIP if he/she acts as a speaker in the text giving his/her own interpretation of the issue. As for the other MIPs, the author has to give a problem definition and at least one cause, consequence, or treatment to be considered as MIP, No other actor should be cited to whom the statements can be attributed. Webpages: If no specific author is mentioned, the organization which runs the webpage is the author of the document.

One document can contain several frames. That is the case when several actors express different opinions concerning the issue in a document.

We code up to three MIPs. The first actor to be coded is the most important one – not necessarily the one mentioned first. Crucial for the identification of the most important actor is the space that actor occupies in the document (measured in lines). If, for

example, 60% of a document contains statements from Sigmar Gabriel and another 40% contains the opinion of Angela Merkel, Gabriel is the most important actor. If two actors obtain the same space, the actor who is mentioned first has to be coded first.

Sometimes it is hard to decide, where the statement of an actor begins and where it ends. Generally, we attribute whole sentences to the actors. Also introductory phrases (e.g., introducing the person and its function) are included. The same holds for sentences elaborating on the directly quoted statement which do not clearly belong to other actors such as the author.

In an interview, the interviewee is the most important actor. If the interviewer also conveys opinions, interpretations, and evaluations in his questions or statements, he is also coded as MIP. Other actors who are mentioned in the interview by the interviewee or the interviewer can also be coded as MIPs.

In the documents, sometimes newspaper articles are cited and/or commented on. In this case, we code the newspapers as MIPs.

Generally, if an MIP quotes other actors in his or her statement, the following rules apply: The cited actor can be coded as an MIP if he/she fulfils all of the above mentioned requirements (i.e. having an own perspective on the issue, etc.). Note: all the sequences devoted to the perspective of the cited MIP are only attributed to him/her. The remaining sequences belong to the person citing this MIP. Only if these sequences contain a problem definition itself, will the citing person also be coded as MIP.

Examples:

MATTHEW CARNEY: Professor Karoly said, the strength of the study is that it relies on direct observation instead of only climate computer models and simulations.
→ Carney is just citing the view of professor Karoly. We code Karoly as MIP, but not Carney because he does not express his own perspective on the issue.

Dr. Roberts adds: „As I said before, scientist Miller interprets the study in a way that climate change is caused by natural conditions. However, my opinion is quite the opposite…“
→ Roberts quotes Miller with his interpretation of climate change and adds his own perspective. We code the first part of the statement as belonging to Miller and the second part as belonging to Roberts. Thus, both, the citing actor and the cited actor are coded as MIPs.

Results of opinion polls are not considered MIPs and are therefore not part of the coding

Sometimes the same actor is named differently in the course of an article (e.g. one time his name is mentioned, another time his function, another time the article says only "he", …): All synonyms used for the same actor in one article count for the mentioned actor. Organizations and their individual representatives are considered as one unit, i.e. one

MIP, if they express the same opinion. Only if an individual representative puts forward a different view than the overall organization can we treat him as a separate actor.

The headline or sub-headlines are seen as part of the article and are treated equally as the 'normal' text.

Sometimes an actor conducts a study by order of another actor (e.g. the "Ökoinstitut" conducts a study for Greenpeace). In that case, if the actor who conducts the study is cited (in our example the "Ökoinstitut") it is the possible MIP (and not Greenpeace).

Bern (climate change): One actor-frame sequence can be attributed to several actors, if they express exactly the same position concerning the frame elements. The actors which express the same opinion are coded together with the same MIP ID and not coded separately (e.g. "Germany and France want to stop global warming" → this statement is not coded for Germany and France separately (=twice)).

Berlin (food safety): Sometimes, a position is attributed to several actors so that they express exactly the same position concerning the frame elements. In this case, we only code the actor mentioned first in the text (e.g. "Germany and France want to stop gene food" → this statement is not coded for Germany and France separately (=twice), but only for Germany). However, if the actors do not share the same position, they are coded as separate MIPs.

Procedure:

Read the article/document and

a)   Identify all speakers in the text expressing their view on the issue climate change/ food safety (MIP candidates); here, also check, if the author acts a speaker himself.

b)   For each of these actors, mark sequences dealing with the issue climate change/ food safety.

c)   For each actor, check if he/she gives a problem definition and another frame element: does he/she acknowledge or deny a food/ climate and suggest at least one cause, consequence, or treatment? If not, don't consider this actor any further.

d)   Identify the speakers with the most lines in the document and name them MIP 1 to 3.

e)   Code the actor-frame variables for the first most important actor, afterwards for the second one, then for the third one.

Rank of the most important actor [MIP_Rank]

1	MIP 1 (opinion occupies the most space in a document)
2	MIP 2
3	MIP 3

[ACT_SURNAME, string]

For each of the three most important actors, please write down the full surname (family name/ last name) of the actor. Academic titles (Dr., Prof., M.A., etc.) are not marked down. Name suffixes as titles of nobility or "de", "d' " belong to the surname (e.g., Edd von Schleck → code " von Schleck"), Gregory d'Amato → code d'Amato).

If no names of individual persons are mentioned, but only an institution, organization, project team, etc. we only code the variable [ACT_ORG].

If several persons are mentioned all belonging to the same organization and putting forward the same views and interpretations, we leave this variable blank and only code the organization in [ACT_ORG].

[ACT_NAME, string]
For each of the three most important actors, please write down the full first name of the actor.

[ACT_ORG, string]

If mentioned, please write down the name of the institution, organization, project team, etc. to which the person belongs. Also code this variable if only an organization is mentioned or if several persons belonging to the same organization and representing the same opinion are mentioned.

If you do not have the name of a specific organization, you can also code groups such as "Dutch scientists" or "consumer advocates" in this field.

Journalist/author as MIP: please code the name of the newspaper, the name of the news agency or – in the case of online documents – the name of the organization the document belongs to. In the latter case, the name of the webpage is noted as organization, e.g. for www.greenpeace.org it is greenpeace.org, for www.abgespeist.de it is abgespeist.de.

Blogs: only the name of the organization is written down, not the entire url (e.g. watts up with that)
Political actors like parliament: Please write down "parliament" in the ACT_ORG field and leave the other variables (name & function) empty.

[ACT_FUNC, string]

Only use this field, if additional information on the function of the actor, i.e. his /her position within the organization, is given, or if additional information on the function of the actor is given, or if only the function of the actor is mentioned (e.g. "die Bundeskanzlerin"), please write down this information. . Please code only functions mentioned explicitly in the text.
Journalist/author as MIP: Please code "author" as function.
Guest authors: please write down the concrete function of the person AND "author" (e.g.

James Hansen: director of the NASA institute and author of an article in the NYT → director, author

When you have identified all MIPs in the document, start coding the actor and frame variables for the first MIP, then go on with the second and third.

Position expressed together with other actors (only Bern):

If the position of one MIP expressed together with other actors, e.g. "Germany and France want to stop global warming", we do not code Germany as MIP 1 and France as MIP2. Instead the position for Germany (=the first mentioned MIP) is coded and afterwards this position is duplicated for France. Both actors (=Germany and France) count as MIP1 so that the positions MIP2 and MIP3 are available for other important actors mentioned in the document.

A position is seen as "same position" if the actors are mentioned together by the journalist (e.g. France **and** Germany have the opinion, that … or Switzerland, France and Germany are against ….) and if they share the same frame elements. If that is not the case, the actors count as separate MIPs.

Note: For the duplicated positions (in our example for France) the following variables have to be checked and changed (as they are not the same for Germany and France):

- **To which group does the most important actor belong?**
- **Scope of actor**
- **Country of the actor**
- **Actor**
- **Party affiliation of the actor**

Sonderfall: Wenn ein Akteur Mitglied in mehreren Organisationen ist, wird dieser als MIP und als together with mit immer dem gleichen Namen und den verschiedenen Organisationen codiert.

To which group does the most important actor belong? [ACTG] (cf. Koopmans et al. 2002; Rucht, Yang & Zimmermann)

Please choose the social group to which the actor belongs. If an actor can be associated to several categories because he has several positions, and more than one position is mentioned in the text, choose the position mentioned first.

If the actor is too unspecified to attribute him to one of the specific subcategories, code the main category (10, 20, 30 etc.; e.g. an unspecified politician where it is unclear whether he/she is referred to as government, parliament or parties will be coded as 10-political actor; the same will be done for former states(wo-)men).

All values should be read as including organizations and institutions, as well as unorganized collectives and even individuals, i.e., 'consumers' are coded into 'consumer organizations and groups'. The 'groups' should be read as referring to formally or unorganized collectives as well as individuals speaking or acting for such groups.

Foundations are generally coded as civil society actors, regardless of the founding institution; e.g. also foundations of political parties or economic businesses are coded as civil society actors.

In the case that scientific studies are cited but no specific author of the study is mentioned, we code as MIP the unspecified group "scientists" (→ 361).

If for example a scientist is employed at a political institution and directly works for them, he/she is coded as political actor. The same applies if a scientist works for a media organisation (e.g. a meteorologist) who is responsible for the presentation of weather forecasts. He is coded as "media" (40), not as scientific actor. → the organisation "counts"

Bloggers are subsumed under their respective category, i.e. the CEO of Novartis's blog is the blog of an economic actor, a journalist's blog that of a media actor, etc. Key to their classification is the way they present themselves. If they appear in their institutional role (e.g. "This is the blog of journalist XYZ"), record them in the appropriate category and as specific as possible; if they do not appear in their institutional role ("This is James McNulty's blog"), classify them as "civil society bloggers (363)". Civil society bloggers such as Anthony Watts' climate sceptic blog, who claim to be experts in a certain field are explicitly recorded as such.

10	**Political actor**	
	11	government/executive
		governments and government representatives (spokespersons, ministers, royalty etc.) irrespective of territorial scope. The EU-Commission and Council of Ministers, the UN General Secretary and Security Council are coded as governments. Other examples: mayor, Landesregierung, ministry of education, Berlin senate

12	legislative
	Legislatives and parliaments (all chambers), including individual members thereof, including parliamentary fractions of political parties. Examples: House of Representatives, Congress, Senate, Bundestag, Bundestag, House of Lords, local councils, parliamentary fraction of the SPD, Labor MPs. Intergovernmental organizations which draw up international treaties on the basis of unanimous consent of the signatories are coded among executive/government The European Parliament and the General Assembly of the UN are, however, coded as legislatives, because they have (limited, but still) the power to make binding decisions on the basis of majority decisions
13	political parties
	This category should be used only for parties as parties, e.g., party chairman, party congress, "die SPD", "a Labor party spokesman", as well as for sub-organizations of parties (e.g., Junge Sozialisten). Note that the same person may be coded differently according to the way in which her or his position is described: e.g., Bundeskanzler Schröder is coded as government, Mitglied des Bundestages Schröder is coded as legislative, SPD-Parteivorsitzender Schröder is coded as political party
14	state executive agencies
	Bundesumweltamt, Landesämter für Umwelt, WHO, IPCC, WMO, Aufsichtsbehörden, e.g. European Food Safety Agency (EFSA), Bundesamt für Gesundheit (BAG/ Switzerland), Bundesinstitut für Risikobewertung (BfR/ Germany) Bundesamt für Verbraucherschutz und Lebensmittelsicherheit (BVL/Germany), Food Standards Agency (FSA/ UK), Food and Drug Administration (FDA/ USA), Centers for Disease Control, Eidgenössische Kommission für Konsumentenfragen, Health Protection Agency (HPA), Nationalparkverwaltung, ambassadors
15	judiciary
	e.g., European Court of Justice, individual judges, juries
16	police/internal security agencies/military
	E.g., police, marechaussee, Bundesgrenzschutz, secret service, Verfassungsschutz, Europol., Bundeswehr, NATO
	Note: the Police Union is coded as a union
17	central bank
	e.g. IWF, Weltbank
18	whole countries, whole economies, federal states, local communities
	e.g., 'the EU', 'the UN', 'Britain', if used not to refer to the government or any other specific institution, but to the polity as a whole; also federal states (Bundesländer) like Bavaria, California and local community units such as cities or city districts.
	Note that 'the Europeans', 'the British', etc. are coded in 52: general public

	19	Direct-democratic /popular initiative (referendum committee)	
		Initiators of a referendum, e.g., Volksinitiative / Komitee der Volksinitiative / Volksbegehren. Note: Usual citizens' initiatives and action groups are coded as non-profit actors of civil society.	
20	**Socioeconomic pressure groups** *(economic power)*		
	21	unions and employees	
		includes the general categories "workers" and "employees" *e.g. Bundesverband Beruflicher Naturschutz (BBN) e.V., Public Employees for Environmental Responsibility*	
	22	employer's organizations/ trade and professional associations	
		e.g., Bundesverband der deutschen Industrie (BDI),. Verband der chemischen Industrie , Deutscher Bauernverband, _Deutsche Landwirtschafts-Gesellschaft (DLG), Bio Suisse, Bioland, Bundesverband Erneuerbare Energie, Eco Swiss, Eco Sense, Naturland, Öbu, UnternehmensGrün (Bundesverband der grünen Wirtschaft), Demeter-Verband, Naturland – Verband für ökologischen Landbau, National Farmers Union (NFU), National Chicken Council, Verband Thurgauer Landwirtschaft, Wasser Agenda 21, Bundesdeutscher Arbeitskreis für Umweltbewusstes Management (B.A.U.M), Schweizerischer Wasserwirtschaftsverband, American Veterinary Medical Association	
	23	firms and companies *e.g. Alliance CO2, Carbon Footprint, Climate Change Capital, CO2-Bank, CO2 Sense, Eco Securities, Neosys AG, TFS Green, Urenco, Carbon Trust, Compensate, GreenFinder*	
		Code all firms and companies not fitting into the subcategories here, e.g. assurances, banks, industry consultants.	
		231	Agricultural firms and companies *(e.g., farmers)*
		232	Food industry *(e.g., food companies like Nestlé, Unilever, Kraft, Dr. Oetker, Kühne)*
		233	Health business *(e.g., pharmaceutical industry, health insurances, hospital groups)*
		234	Gastronomy *(e.g., restaurants, catering)*
		235	Retailers *(e.g., Sainsbury's, Edeka, Real, Safeway, Trader Joe´s)*
30	**Non-profit actors of civil society** *(social power)*		
	31	Environmental movements/organizations and groups, incl. animal protection *(e.g., Greenpeace, BUND (Germany), PETA - People for the Ethical Treatment of Animals International, WWF, Humane Society of the US, Alliance to Save our Antibiotics, Compassion in World Farming (CIWF), Friends of the Earth – foe, Umweltschützer, environmentalists)*	

	32	Food movements and groups *(e.g., Foodwatch, Genfood campaigns, Soil Association, aid infodienst, Meine Landwirtschaft.de, slowfood, Center for Science in the Public Interest (cspinet.org), Sustain/sustainweb.de, Center for Food Safety (CFS), Food & Water Watch, Not in My Food, Gen-ethisches Netzwerk e.V. (GeN), Deutsche Gesellschaft für Ernährung e. V., Vegetarierbund Deutschland, food activists, International Livestock Research Institute)*	
	33	Health associations and groups *(e.g., Allergiebund, PEW Health Group (USA), Healthy Schools Campaign, Physicians Committee for Responsible Medicine, Chartered Institute of Environmental Health (CIEH))*	
	34	Solidarity/ human rights/ peace movement organizations and groups *This includes only private organizations such as Pro Asyl, Anti-Racist Alliance, Amnesty International, Terre des Hommes, médecins sans frontières, Alliance Sud, Erklärung von Bern, Germanwatch, Gesellschaft für bedrohte Völker, Oxfam, Welthungerhilfe, Brot für die Welt, Population Connection, Südwind Institut etc.*	
	35	welfare organizations *E.g. Red Cross, Arbeiterwohlfahrt, not state welfare agencies (these are coded as state executive agencies).*	
	36	Experts / scientists	
		361	Scientific and research professionals and institutions *(e.g., research institutes, universities, scientific associations, die Wissenschaftler, die Forscher)*
		362	Health experts *(not being scientists, e.g., doctors, nurses, hospitals etc.)*
		363	Civil society bloggers *(e.g. Anthony Watts of "wattsupwiththat.com")*
		364	Other experts *(e.g., think tanks, Club of Rome)*
	37	Churches and religious organizations and groups	
	38	consumer organizations and groups *Verbraucherzentrale, Verbraucherzentrale Bundesverband e.V. (vzbv), VERBRAUCHER INITIATIVE e. V., Die Verbraucher Initiative, Stiftung Warentest, Bund der Energieverbraucher, Verbraucher fürs Klima, Consumers Union, Which?, consumerfocus, National Consumer Council, Consumer Federation of America, Organic Consumer Association, konsumentenschutz.ch, konsum.ch, „consumers", consumer advocates, consumer activists*	
	39	Other civil society organizations and groups *These groups are formed by members who share a common trait or attribute, including not already mentioned social categories such as 'youth', 'the unemployed', 'children', 'food allergy sufferers', 'parents of allergic kids', 'alarmists', 'sceptics'etc.*	

40	media and journalists *(media power)*		
	including filmmakers; online news platforms e.g. Business Green, klimawandel.de, klimaretter.info, Green Wise, Earth Times, Carbon Future News, Physorg.com, Verbraucher-Papst.de – Das Magazin der Verbraucher, Der Beobachter, Cropchoice.com, consumeraffairs.com		
50	citizens		
	51	Single private persons/ citizens	
		Single persons or citizens on the street, in the supermarket, etc. Also relatives of politicians (e.g. "first lady") belong here, if they do not appear in another official function. Do NOT code freelancers or one-person enterprises here. These belong into the "firms and companies" categories.	
	52	the general public	
		'die Öffentlichkeit', 'the electorate', 'the Germans', 'the population', 'taxpayers', 'we', 'you', 'families'	
99		Other actor	

Scope of MIP [ACTSC]

Note: The notion of "scope" refers to the organizational extension of the organization or institution. In the case of non-organized collective actors (e.g., 'farmers', 'protesters') it refers to the scope of mobilization. I.e., if the report mentions 'farmers from different countries', the scope is 'supranational/not global/other'.

Note on the scope of multinational companies: Business firms are coded as they are qualified in the article .If the article says, "the American automobile manufacturer Ford", it is coded as national, USA, if it says "the multinational company Ford", it is coded as global.

Journalist as MIP: please code as scope "national" → 200

If a person and their organization is mentioned, the scope of the organization is coded.

You might have to google organizations to determine their scope, if it is not clear from the text. Most organizations have an "about us" page. If the scope is not explicitly mentioned in the text, we code the scope corresponding to the self description of the organization on its webpage.

Example: Greenpeace writes on its webpage that it is an international organization. Thus, we code 114. However, if the text is clearly about Greenpeace Switzerland, then, we code a national scope. Other example: If BMW calls itself a German automobile company, we code 200. However, we code 114, if it presents itself as a multinational firm.

If both national and global self descriptions are found on the internet, please code the global scope.

Only if the scope cannot be determined this way, we code 999.

News agency: We code the scope 130 for all news agencies

Single persons (e.g. a blogger): We code the scope 200 (national) for all single persons

General public: If a larger group such as "the consumers" is quoted or addressed in a newspaper or other media, code the scope (and country) of the media outlet, e.g., national, US if this MIP is quoted in the NYT.

100	Supranational		
	110	global	
		111	IPCC
		112	WHO
		113	FAO
		114	UN *also: all UN institutions like UNESCO, UNHCR, UN security council*
		115	Other *E.g. ILO, WTO, IMF, World Bank, CAC, Amnesty International, Greenpeace International, International Council of Voluntary Associations, medecins sans frontières, Attac, Club of Rome* *Companies acting globally – such as McDonalds, Nestlé, etc. – are also coded in this category.*
	120	not global	
		121	EU *European Commission, Council of the European Union (Ministerrat), European Parliament, European Court of Justice (Europäischer Gerichtshof), EU citizens, most EU states,* *NOT: Council of Europe (Europarat) and European Court of Human Rights (Europäischer Gerichtshof für Menschenrechte); those belong to 130.*
		122	G8/G20
		123	OECD
		124	NAFTA
		125	Mercosur
		126	African Union
		127	ASEAN
		128	Arabische Liga
		129	specific regions of the world *Specific geographical regions of the world or groups of states, ,E.g.: Africa, Europe, emerging economies (Schwellenländer), Third World, most Mediterranean states → continue with* **[ACTCOUNTRY]**

	130	Other
		federations of countries, bilateral
		E.g., GermanAmerican Trade Association, German-French summit, Deutsch-Polnischer Freundschaftsverein, Europarat, Europäischer Gerichtshof für Menschenrechte, all news agencies
200		National/regional/local → continue with **[ACTCOUNTRY]**
		E.g., national political parties, Bundesverfassungsgericht, Deutscher Gewerkschaftsbund, national media (incl. local papers in name with national scope such as NZZ, FAZ), Deutsche Telekom, Zentralrat der Juden in Deutschland
		Landesregierungen, Landesversorgungsamt, Norddeutscher Rundfunk, Bund türkischer Einwanderer in Berlin-Brandenburg, Flüchtlingsrat Niedersachsen, purely regional political parties (e.g. Frisian National Party), regional branches of national parties (e.g., Hessian SPD)
		local governments, local parties and party branches, Braunschweiger Zeitung, Jüdische Gemeinde Berlin, Fürther Komitee gegen Rechtsradikalismus
		If cities are mentioned where you don't know the country, please google it and code the country the city belongs to.
999		Unspecified, not identifiable

Filter: If ACTSC= 129 or 200

Country of the actor [ACTCOUNTRY]

The country of an actor is where the actor is permanently resident, i.e., not necessarily corresponds to the actor's nationality.

see list of countries

Filter: If ACTG=31 or 36

Actor [ACT, für Bern drin]

see actors list

Please note: If you do not find an actor on the actors list, please note the name separately.

Filter: If ACTG=11, 12, or 13

Party affiliation of the actor [ACTPA]

We code the party affiliation of an actor, if it is explicitly mentioned in the text. Otherwise just leave this variable blank.

Note: This list contains all parties, which are represented in the national or European parliament or have gained more than 2% of the votes in the last elections on national or European level. If the actor belongs to another party, please use the "Other" categories.

GERMANY	
101	CDU/CSU
102	FDP
103	SPD
104	B'90/Die Grünen
105	Die LINKE
106	Piratenpartei
107	Other German party
SWITZERLAND	
201	Schweizerische Volkspartei (SVP)
202	Sozialdemokratische Partei der Schweiz (SP)
203	Christlichdemokratische Volkspartei (CVP)
204	FDP.Die Liberalen (FDP)
205	Grüne Partei der Schweiz (GPS)
206	Grünliberale Partei (GLP)
207	Bürgerlich Demokratische Partei (BDP)
208	Evangelische Volkspartei (EVP)
209	Lega dei Ticinesi
210	Christlichsoziale Partei (CSP)
211	Mouvement Citoyens Romands/Genevois
212	Other Swiss party
UK	
301	Conservative Party
302	Labour Party
303	Liberal Democrats
304	Democratic Unionist Party
305	Scottish National Party

306	Sinn Féin
307	Plaid Cymru
308	Social Democratic and Labour Party
309	Green Party of England and Wales
310	Alliance Party of Northern Ireland
311	United Kingdom Independence Party (UKIP)
312	British National Party
313	Other UK party
USA	
401	Republican Party
402	Democratic Party
403	Other US parties
Political groups of the European parliament	
501	EVP – Fraktion der Europäischen Volkspartei (Christdemokraten)
502	S&D – Fraktion der Progressiven Allianz der Sozialisten und Demokraten im Europäischen Parlament
503	ALDE - Fraktion der Allianz der Liberalen und Demokraten für Europa
504	ECR – Europäische Konservative und Reformisten
505	Grüne/EFA – Fraktion der Grünen / Europäische Freie Allianz
506	KVEL/NGL – Konföderale Fraktion der Vereinigten Europäischen Linken/Nordische Grüne Linke
507	EFD - Fraktion Europa der Freiheit und der Demokratie
508	NI - Fraktionslose

END OF FILTER: ALL DOCUMENTS

How prominent is the opinion of the MIP in the whole document (only with regard to climate change, nur Bern)? [PROM] (cf. Matthes, 2009)

1	the opinion of the MIP is the dominant, central perspective in the whole document (e.g. number of words/lines/space) or no other competing opinions are mentioned in the document
	Note: If there is only one MIP in a document, his opinion is the dominant one
2	the opinion of the MIP is not the dominant, central perspective

Is there an addressee the actor addresses with criticism or demands? [ADDREL]

The MIP directly addresses another clearly identifiable actor with demands or criticism. This is the case if the following conditions are met: (a) The demand or criticism should be as specific/ explicit as possible; (b) the addressee can be clearly identified as an institution, a private person, or a specific group of people (e.g., "consumers").

It is thus not enough if a MIP states the "we should do something about climate/food saftety" as both the addressee ("we") and the content of the demand are too unspecific.

If several addressees are mentioned we only code the first one.

0	no addressee mentioned
1	addressee is criticized
	The MIP makes explicit that he/she does not agree with what another actor thinks, says, or does. This may have the form of polite disagreement, but also overt attacks or offenses.
	- "...said the Physicians Committee's test was "disingenuous," given that it identified only 57 questionable samples out of about 42 million pounds of ready-to-cook chicken products in grocery stores every day."
	- "I'm very surprised that a manufacturer would really show a disregard for what is safe," LeBlanc said."
	- "It's just a shame that an activist with an agenda can really degrade the safety of our food supply," said David Theno, an industry consultant who has advised BPI.
	- "The purpose of regulation, of course, is to protect the public. If the Republicans and the chamber don't like that,they can suck a deregulated egg."
2	demands are made on the addressee-
	The MIP calls another actor to do or leave something concerning food safety/climate change. Demands can also be suggestions, recommendations, proposals, etc. as long as their content is explicitly stated by the MIP.
	- "Germany calls on the U.S. to sign the Kyoto Protocol" → the U.S. are the addressee, and demands are made on them by Germany
	- "Führende Wissenschaftler fordern das IPCC auf, mehr Transparenz herzustellen" → Here, scientists make a demand vis-à-vis the IPCC regarding transparency
	- „Die Grüne Partei schlägt dem Schweizer Bundesrat vor, eine Öko-Steuer einzuführen" → Here, the Green Party makes a demand to the Swiss Federal Government about an eco tax.
	- "The FDA warned vulnerable consumers like the elderly to hard-boil eggs to cut the risk of food poisoning." → Here, the FDA wants a specific group of consumers to change their behaviour.
3	both aspects are mentioned (criticism and demands)

FILTER: ADDREL = 1,2 or 3

If an addressee is mentioned by the actor, we also code the following variables. Remember: If several addressees are mentioned, we only code the first one.

To which group does the addressee belong? [ADDG]
(same as ACTG)

Scope of the addressee [ADDSC]
(same as ACTSC)

Country of the addressee [ADDCTR]
(same as ACTCTR)

Party affiliation [ADDPA]
(same as ACTPA)

Actor [ADDACT]
(same as ACT]

FILTER: If scientific institutions, scientists or experts are mentioned as addressee (ADDG=36)

How is the scientist/the scientific institution/the expert evaluated concerning credibility (nur Bern)? [CSC_CRED]

1	low credibility
2	high credibility
99	no evaluation of credibility

FILTER: Only coded if a reference to science or reference to everyday experience is made by the MIP

Reference to science (e.g. scientific results, scientific methods, measurements, models...) in the context of reporting on climate change (cf. Anderson, 2005; Antilla, 2005; Sowka et al., 2011)

Note: The scientific sector encompasses the academic sphere (university) as well as the non-academic scientific sphere (e.g., private research institutes, Think Tanks, ...).

Sometimes not the studies itself are cited by the MIP but scientists as persons (who conduct scientific studies). E.g. "I think there are a substantial number of scientists who have manipulated data so that they will have dollars running into their projects. And I think we are seeing almost weekly scientists are coming forward and questioning the idea that man-made global warming is what is causing climate change." → *the actor does not talk about scientific studies directly, but about scientists who manipulated data etc..*
→ *this cases are coded as well.*

Also relevant for the coding are "reports", e.g. the World Energy Review, IPCC report etc.

Is everyday experience mentioned or are studies mentioned as example for climate change (e.g. for causes, effects, ...) by the MIP? [CINDCAS]

1	only every experience/individual cases are mentioned
	e.g. this winter is especially cold, farmer David has to face severe economic problems due to warmer temperatures
2	individual cases as well as scientific studies are mentioned
3	only scientific studies mentioned

FILTER: If scientific studies are mentioned (CINDCAS=2 or 3)

Which type of study is mentioned/cited by the MIP? [CTYPSTU1-3]

Please code for each study mentioned if the results support or contradict anthropogenic climate change. We code up to three studies. If more than three studies are mentioned, please code the first three ones.

1	studies/results which support **anthropogenic** climate change
2	studies/results which contradict **anthropogenic** climate change (and support for example natural causes)
99	other, not applicable

Shares the MIP the same position as the study? [CPOSSTU1-3]

If the actor cites his own study, we usually code 1 "MIP shares the same position". Exception: The actor explicitly mentions that he has changed his opinion, now has new results, …

1	MIP shares the same position
2	MIP has other position
99	not identifiable, not applicable

Assessment of the scientific quality of the studies [CASSTU1-3]

10		low quality *„die Studien lügen"*
	11	used research design, methods, models, … are not adequate/incorrect *e.g. „Wärmeinseln der Städte wurden nicht berücksichtigt", „es wird nur an kalten/warmen Stellen die Temperatur gemessen, das verfälscht die Ergebnisse", „previous studies only had a couple of observations"*
	12	data is intentionally manipulated *e.g. „Manipulation von Messreihen"*
20		Ambivalent
30		high quality used research design, methods, models, … are adequate/correct/good,…
99		no assessment

PART 2: Codebook for the analysis of frames in online documents and newspaper articles

In an actor-frame sequence the MIP gives at least a definition of the issue climate change [CPROBDEF]. Furthermore he can mention causes, consequences, evaluations and/or solutions to the problem. One actor-frame sequence does not have to contain all these frame elements, but at least a problem definition has to be given.

The arguments can refer to current climate change or to climate change happening in the past.

Problem definition: How is the issue climate change defined by the actor? Which aspects of the issue are most prominent?

Expresses the actor the opinion that climate change occurs ? [CLIMCH]

1	yes → *continue with variable CPROB* *z.B. „seit fünfzig Jahren erleben wir einen erheblichen Temperaturanstieg", „Erhöhung der Globaltemperatur", „as global warming continues", „der Klimaschutz bleibt dennoch ein drängendes Problem", „Initiative für ein gesundes Klima"* *Also if someone only mentions the consequences of climate change, e.g. "climate change is increasing the chances of floods"*
2	no, he denies the occurrence of climate change → *continue with variable CPROBDEF* *e.g. "one really warm year is not global warming", "global warming is just a hoax", "there is inadequate evidence for global warming"* *Also if someone says that he/she is a skeptic, e.g. "I didn't become a skeptic overnight" or if someone only cites scientists who question the man-made climate change/man-made global warming*
3	both positions are discussed equally by the actor → *continue with variable CPROBDEF*
99	not identifiable → *continue with variable CPROBDEF*

If "yes", is climate change seen as problem? [CPROB]

Here we code whether the actor acknowledges or denies that climate change is a problem.

1	yes
	note: code "yes" also when the author mentions negative effects of climate change/global warming as problematic
2	No
3	both positions are discussed equally by the actor
99	not identifiable

What perspective on climate change is taken by the actor? [CPROBDEF] (cf. Heinrichs & Peters, 2003)

It is a specific view or opinion the actor has about the issue. This view is expressed through the emphasis of certain issue aspects or a specific perspective on the issue. Of course several actors can have the same problem definition of the issue. The definition of the issue by an actor has not to be the main topic of the article.

The problem definition has to be coded for each actor, missings are not allowed!

In some cases an actor may express several problem definitions. In that case that problem definition has to be coded that is expressed most extensively. If two problem definitions are expressed equally that one that is mentioned first has to be coded.

10	Aspects of climate change	
	11	causes of climate change
		causes of climate change (man-made vs. natural causes, ...)
	12	consequences of climate change
		effects and consequences of climate change (change of temperature, extreme weather events, expulsion of species, shift of vegetation zones, ...)
	13	climate protection (mitigation)
		protection of the climate in general, possibilities to avoid or to mitigate climate change. Mentioning of national or international political activities (e.g. Kyoto-Protocol), of social innovations (e.g. Agenda21, change of lifestyle)
	14	adaption at climate change
		possible adaptions at climate change to avoid negative consequences (flood protection measures, civil protection, change of agriculture, change of technical infrastructure,...)
	15	financial aspects of climate change/climate protection
		e.g. costs of the climate change/climate protection measures, research funding, ...
	16	technologies/technical innovations (e.g. energy generation, energy saving, ...)

	17	climate change (in general)
		e.g. (non-)existence of climate change/global warming, inadequate evidence, amplitude of climate change, pace of climate change
20		Science
	21	methodological discussion of scientific methods/models
		e.g. reliability of methods, quality of the models, "wrong" measurements *Note: methodological aspects, not content-based discussion*
	22	science policy discussions
		e.g. selection of the authors for the IPCC report
30		Role of specific actors
	31	role of environmental organizations/social movements/protests
	32	role of science/conflicts between scientists
	33	role of the media
	34	role of politics
		z.B. Politikversagen

Causes: Which causes of climate change/global warming are mentioned by the actor? (cf. Peters & Heinrichs, 2003; Maurer, 2011)

We code all causes for climate change mentioned explicitly by the MIP. For each mentioned cause we code, if it is mentioned or denied as cause, or if it is described explicitly as unclear if that fact is really a cause for climate change (identifiable by phrases like „scientists do not agree whether …", „studies show contradictory results"…).

We code also causes, which are causes of consequences of climate change. For example: "Carbon pollution thresholds appear to have been reached whereby the Greenland ice sheet will begin to fully melt, raising sea levels by as much as 7 meters". → Carbon pollution is mentioned as a cause for the melting of the Greenland ice sheet, not as a cause of climate change itself. But as the melting of the ice is a consequence of climate change, we code the carbon pollution as cause.

NATURAL CAUSES

Natural climate fluctuations **natürliche Klimaschwankungen [CNC_FLU]**	
	1 as cause of climate change mentioned *e.g. "is just part of natural cycle", "global warming comes from all the heat at the Earth's core", "Temperaturwechsel sind total natürlich"*
	2 as cause of climate change denied
	3 is described explicitely as unclear
Solar activity/sunspots/cosmic radiation **Sonnenaktivität/Sonnenflecken/kosmische Strahlung [CNC_SOL]**	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitely as unclear
Movement of the axis of the earth **Erdachsenverschiebung [CNC_AX]**	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitely as unclear

Natural increase of CO2-emissions [CNC_INC] natürlicher Anstieg der CO2-Emissionen	
e.g. caused by volcanism, the respiration of animals/humans	
Note: *this value is only coded when the MIP mentions this explicitly as natural cause of climate change. If intensive mass animal farming is mentioned as cause of climate change this is coded as anthropogenic cause (CAC5)*	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear
Weather is made by god [CNC_GO] Wetter ist gottgemacht, gottgewollt	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear
Natural causes in general [CNC_G]	
Is only coded when general and not specified natural causes are mentioned.	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear

ANTHROPOGENIC CAUSES

Combustion process for the generation of energy/fossil fuel use Verbrennungsprozess zur Energiegewinnung, Nutzung fossiler Energieträger [CAC_EN]	
	1 as cause of climate change mentioned
	z.B. „fossile Energieträger sind verantwortlich für zwei Drittel der Erderwärmung" „the global increases in carbon dioxide concentration are due primarily to fossil fuel use"
	2 as cause of climate change denied
	3 is described explicitly as unclear
Emissions caused by traffic/industrial activities Emissionen verursacht durch Verkehr, Industrie [CAC_TRAFF]	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear

General increase of CO2 emissions caused by humans [CAC_EMGEN]	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitely as unclear
Changes in land surface properties **Veränderungen in der Oberflächenstruktur [CAC_LAN]** *Deforestation*	
	1 as cause of climate change mentioned *e.g. : „Die Zerstörung der tropischen Regenwälder verursacht rund 15 bis 20 Prozent der globalen CO²-Emissionen"*
	2 as cause of climate change denied
	3 is described explicitely as unclear
Electric power consumption **Stromverbrauch [CAC_EPOW]**	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitely as unclear
Meat production/keeping of animals/agriculture **Massentierhaltung, Fleischerzeugung, Landwirtschaft [CAC_AGR]**	
	1 as cause of climate change mentioned *z.B. „it is very likely that the observed increase in methane concentration is due to anthropogenic activities, predominantly agriculture"*
	2 as cause of climate change denied
	3 is described explicitely as unclear
Anthropogenic causes in general [CAC_G] *Is only coded when general and not specified anthropogenic causes are mentioned.*	
	1 as cause of climate change mentioned *is also coded when the expression "anthropogenic climate change" or "menschgemachter Klimawandel" is used*
	2 as cause of climate change denied *z.B. "der Klimawandel ist nicht menschgemacht", „I have not found a single shred of evidence supporting man-made global warming"*
	3 is described explicitely as unclear

OTHER CAUSES

CO2 in general [COC_G]	
Is only coded when CO2 is generally mentioned as cause of climate change → wenn nicht klar ist, ob menschenverursachte CO2-Emissionen gemeint sind oder natürliche	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear

POLITICAL CAUSES

missing/wrong political action [CPC_ACT]	
z.B. „der Klimawandel liegt an der Unfähigkeit der Politik eine Lösung zu finden", „die fehlende Kohärenz in der umwelt- und klimapolitischen Strategie der Weltbank", „das neue Gesetz ist schlecht fürs Klima"	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear
climate change is due to a conspiracy/climate change phobia Klimawandel als Verschwörung/Klimawandel-Hysterie [CPC_CONS]	
z.B. "bestimmte Länder behaupten den Klimawandel nur deswegen, dass sie mit dem Emissionshandel Geld verdienen können", "es gibt eine Verschwörung gegen valide wissenschaftliche Erkenntnisse, die darauf hindeuten, dass der Klimawandel nicht stattfindet", "global warming is just a hoax perpetrated by environmental extremists who want an excuse for more big government", "I think there are a substantial number of scientists who have manipulated their data so that they will have dollars rolling into their projects"	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear
Political causes in general [CPC_G]	
Is only coded when general and not specified political causes are mentioned.	
	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear

If the actor mentions an important cause not mentioned in the list, please enter it in the variable **'other cause' [CCAU99, string variable]**

	1 as cause of climate change mentioned
	2 as cause of climate change denied
	3 is described explicitly as unclear

Consequences: Which consequences of climate change are mentioned by the actor? (cf. Peters & Heinrichs, 2003; Maurer, 2011)

We code all consequences the actor attributes to climate change. For each mentioned consequence please decide first if the actor considers it as a positive or a negative effect. Then it has to be checked for each consequence if the MIP really presents the effect as a consequence of climate change, denies that the effect is due to the problem in question, or explicitly argues that it is uncertain if the facts can be considered as a consequence of climate change.

Change of temperature
Temperaturänderung [CEFF_TEMP]
Happened or estimated change in climate, e.g. global warming / global cooling / greenhouse effect

e.g. "Putting a price on carbon is the world´s best hope at staving off runaway global warming" or "...have long talked about a warming-induced global sea level rise"

Also: *Effects of climate change on diurnal temperatures, decrease in diurnal temperature change*
Also: *Effects of climate change on water temperature, e.g. the temperature of the water rises and therefore ...*
Note: *Not included are extreme weather events, e.g. a heat wave is coded in CEFF_WEATH: „extreme weather events"*

Positive: z.B. "es ist schön, dass es bei uns wärmer/kühler wird", „so haben wir mehr Sonnentage"

Extreme weather events/natural desasters
extreme Wettereignisse/Naturkatastrophen [CEFF_WEATH]
Natural desasters, extreme weather events like storms, draughts and precipitation (heavy rain, hail), floods, heat waves

Note: *negative effects of extreme weather events are not coded here*
Note: *if floods are mentioned in the context of deglaciation or sea-level rise, this is coded in CEFF-WAT1*

Deglaciation/sea-level rise/flooding of islands
Abschmelzen der Gletscher/Anstieg des Meeresspiegels/Überflutung von Inseln [CEFF_WAT1]
melting of ice and glaciers, sea-level rise due to higher temperatures

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Water as resource
Wasser als Ressource [CEFF_WAT2]
Negative: shortage of drinking water, not enough water for agriculture

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Ecological consequences [CEFF_ECOL]
Negative: Damage of ecological systems, decrease of vegetation zones, expulsion of species, forest death, increase of the atmospheric water vapour content, increase of ocean salinity, unfreezing of permafrost grounds, increased precipitation, coastal erosion, ocean acidification

Positive: New cultivable land, increase in diversity of species, plants need CO_2

Economical/financial consequences [CEFF_ECON]   *Negative: damages of infrastructure, damage of buildings, crop failure, economic losses*   *e.g. where extreme weather events become more intense and/or more frequent, the*   *economic costs of those events will increase, costs for specific actions*   *Positive: Higher profits for the tourism industry*
Social consequences / consequences for the people [CEFF_SOC]   *Negative: Deaths, damage caused to people's health, poverty, dissemination of deseases,*   *migration caused by climate change, (civil) war about resources, malnutrition,*   *contamination of drinking water*   *e.g. "increase of heat-related mortality in Europe"*   *Positive: Decrease of death due to frostbite, easier access to resources*
Political consequences [CEFF_POL]   *Consequences for internal political processes (elections, political positions, …)*
Discussion of "climate justice" [CEFF_CLIM]   *e.g ethical questions: who is allowed to emit how many? "he identifies poorer nations as*   *more victimized by global warming than the wealthier nations because the former are less*   *able to adapt" or intergenerational questions e.g. "It is a matter of morality - a matter of*   *intergenerational justice."*
Unspecified consequences [CEFF_UNSP]   *Is only coded when general and not specified positive or negative consequences are*   *mentioned.*   *e.g. «climate change has severe negative consequences », "der Klimawandel ist*   *schädlich/gefährlich"*

If the actor mentions an important consequence not mentioned in the list, please enter it in the variable **'other consequence' [CEFF99, string].**

Assessment of the effect [CEFF_ASS]

For each mentioned effect we code its assessment by the speaker.

1	Positive
2	denied, that the effect is positive
3	Negative
4	denied, that the effect is negative
5	mentions the effect as positive as well as negative
6	mentioned without assessment, neutral
7	is described explicitly as unclear
8	denied as consequence

Treatment recommendation: What has to be done? Call for certain actions; proposition of solutions; aims (cf. Peters & Heinrichs, 2003; Maurer, 2011)

We code all mentioned solutions for the problem climate change, which are mentioned positively/which the actor supports.

"Hints" for treatment recommendations are for example the expressions: we/you/they should (e.g. " we should simply put a price on carbon"), we/you/they need (e.g. "they need to cutback on fossil fuels and use less energy"), we/you/they want, we/you/they must (e.g. "families must continue to save water", unless we stop …

If a treatment recommendation is mentioned, please check if it is also possible to code a cause of climate change:

e.g. "…who speaks on behalf of the least developed nations who want far tougher cuts in greenhouse gas emissions to limit temperature rises to less than 1.5 C" → the actor mentions as treatment recommendation to cut the greenhouse gas emissions → this means that he also believes that the greenhouse gas emissions are a cause of climate change (otherwise they would not need to be limited) → code also as cause "greenhouse gas emissions" (CAC_EMGEN).

e.g. "xy said all the world´s major greenhouse gas emitters must agree to forge a new climate treaty before 2020 or risk disastrous climate consequences." → the mentioned treatment recommendation is CM_POL. Also mentioned is a cause of climate change "the major greenhouse gas emitters" → CAC_EMGEN.

MITIGATION (Abschwächung/Milderung des Klimawandels)

**Energy supply/energy efficiency
Energieversorgung/Energieeffizienz [CM_ES]**

e.g. save energy, use of green electricity, extension of renewable energy sources, extension of nuclear power, no building of new coal-fired power stations, less carbon consumption, reduction of fossil fuel subsidies, taxes or carbon charges on fossil fuels, carbon tax, renewable energy obligations, new energy infrastructure investments

"we should simply put a price on carbon", "they need to cutback on fossil fuels and use less energy", "to force fossil fuel companies to pay the price"

**Buildings/facilities [CM_BI]
Gebäude/Anlagen**

e.g. build low energy houses, building codes and certifications

"however, many older, inefficient facilities remain in both industrialized and developing countries. Upgrading these facilities can deliver significant emission reductions."

"energy efficient buildings could considerably reduce CO2 emissions with net economic benefit"

Mobility (behaviour)/transport **Mobilitätsverhalten/Transport [CM_MOB]** *e.g. go less by plane, drive less by car, cars with low carbon emissions, speed limit on highways, CO^2 standards for road transport, taxes on vehicle purchase, investment in attractive public transport facilities, biofuel, modal shifts from road to rail, non-motorized transport*
New technologies/innovations/research **Neue Technologien/Innovationen/Forschung[CM_NEWT]** *Also: technology improvement* *e.g. "we need to find ways to create energy that would perhaps help to replenish water and air"*
Agriculture **Landwirtschaft [CM_AGR]** *e.g. financial incentives and regulations for improved land management, maintaining soil carbon content, efficient use of fertilizers and irrigation, stop of intensive mass animal farming, change of eating behaviour*
Waste management **Abfallmanagement, Abfallentsorgung [CM_WAST]** *e.g. financial incentives for improved waste and wastewater management, waste management regulations* *"waste minimization and recycling provide important indirect mitigation benefits through the conservation of energy and materials"*
(strengthening of) natural carbon storage capacities **(Ausbau) natürliche(r) Kohlenstoffspeicher [CM_NAT]** *e.g. carbon capturing and storage, moor recultivation, expansion of natural CO^2 reservoirs, carbon leakage, carbon sequestration*
New treaties/binding agreements/(political) cooperation **Neue Verträge/Abkommen/(politische) Kooperation [CM_POL]** *Prolongation of the Kyoto Protocol, adherence to the Kyoto Protocol, politics has to find a solution* *e.g. "they must agree to forge a new climate treaty", "delegates must also reach a consensus on how to operate the Green Climate Fund"*
Education/better information/training programmes [CM_ED] *Also: "advertising campaign selling the carbon tax"*
Stabilization/reduction of CO^2 emissions in general [CM_STAB] *Is only coded when the actor generally calls for the reduction of CO2 emissions.* *e.g. "he argues for reduction in greenhouse gases", "who want far tougher cuts in greenhouse gas emissions"*

Mitigation measures in general [CM_GE]

Is only coded when general and not specified mitigation measures are mentioned.

e.g. "He renews calls for urgent measures to avoid global ecosystem collapse"

ADAPTATION (Anpassung an den Klimawandel)

Change of agriculture
Änderungen in der Landwirtschaft [CA_AGR]

Cultivation of other products, new breedings, new cultivation methods

Change of infrastructure/better protection against natural desasters
Änderung der Infrastruktur/besserer Schutz gegen Naturkatastrohpen [CA_INF]

Construction of higher dykes, …

Adaption measures in general [CA_GEN]

CALL FOR ACTION: OTHER

Geoengineering [CO_GEO]

Technical interventions, geochemical processes to stop global warming

e.g. air filtering, fertilization of the oceans with low carbon steel or phosphor, manipulation of the solar irradiation, blocking sunlight

No action required [CO_NO]

e.g. „nothing has to be done"

General call for action [CO_GEN]

e.g. "wir dürfen keine Option ausschließen, um den Klimawandel aufzuhalten", "without a global campaign to curb climate change …"

If the actor mentions an important treatment not mentioned in the list, please enter it in the variable **'other treatment' [CAT99].**

How is the treatment recommendation mentioned?

For each mentioned treatment recommendation we code how it is mentioned.

1 obligatory policy rule
e.g. taxes, charges, regulations, standards
Note: Wenn Volksinitiativen etwas fordern, wird dies immer hier codiert.
2 voluntary agreement
zwischen den Akteuren selbst
3 fundings, subsidies, financial incentives, tradable permits
vom Staat aus, bspw. Subventionen oder auch Emissionshandel
4 mentioned but not specified