

# (Lack of) Problematization of Water Supply Use and Abuse of Environmental Discourses and Natural Resource Related Claims in German, Austrian, Slovenian and Italian Media

Franziska Weder<sup>1</sup>, Denise Voci<sup>1</sup> & Nadja Christin Vogl<sup>1</sup>

<sup>1</sup> Department of Media and Communication Studies, Alpen-Adria University Klagenfurt, Klagenfurt, Austria

Correspondence: Franziska Weder, Department of Media and Communication Studies, Alpen-Adria University Klagenfurt, Klagenfurt, Austria. E-mail: Franziska.Weder@aau.at

Received: December 10, 2018

Accepted: January 12, 2019

Online Published: January 31, 2019

doi:10.5539/jsd.v12n1p39

URL: <https://doi.org/10.5539/jsd.v12n1p39>

## Abstract

The paper aims to trace back the environmental discourse on water supply and the risk of scarcity and to learn about media dealing with information about natural resources we cannot live without. Therefore, it presents a theoretical concept to identify the degree of problematization of resource related issues in the media and works out regularities of environmental discourses.

**Design:** The presented data of a quantitative as well as qualitative media content analysis (Nvivo) of newspaper articles (n = 1745) published in Central Europe (Italy, Slovenia, Austria and Germany) focuses on the arguments and frames used in relation to the issue of water supply. Based on a theoretical model of public debates and discourses on CSR, sustainability and environmental issues (Bourdieu, 1991; May et al., 2007; Weder, 2012a, 2012b; Castello et al., 2013; Weder, 2015a), the underlying assumption is that only a high degree of problematization (variety and counter activeness of arguments) in the media represents a public discourse.

**Findings:** The results show that the main water supply related sub issues debated in the media are water privatization and management. Media discourses about water as a natural resource are dominated by economic frames, in particular arguments of corporations (particularly in Italy) and political actors (particularly in Austria). Accordingly, the lack of controversy and counterarguments as well as the homogeneity of frames show that the issue of water allocation and the risk of scarcity is not problematized in the media.

**Implications:** Working with the theoretical assumption of a high degree of problematization as condition for public discourses, the qualitative evaluation shows a non-existence of an environmental discourse on resources and sustainable ways of water allocation and usage. This puts the phenomenon of politicization, when environmental discourses are drawn to and used by another (i.e. the political) field, up for discussion with an “abuse” of environmental claims for specific political and economic interests as worst-case scenario.

**Keywords:** environmental communication, environmental claims, discourse theory, water supply, media content analysis, frame analysis, Nvivo

## 1. Introduction

The aim of the increasing scientific debate dealing with the phenomena of environmental communication is to explore the relationship between sustainability as principle, responsible corporative and individual action and communication. Reality shows, that in today's information society, the terms ‘sustainability’ and ‘sustainable’ substitute the term ‘environmental’ and are communicated in heterogeneous contexts and increasingly used as ‘word pods’ or master frames for individual and corporate activities. Politicians communicate their sustainability strategies, small and medium-sized businesses proclaim their sustainable way to operate and responsibility towards their stakeholder, and global players frame themselves as ‘green’, social, and environment as well as future oriented ‘in a sustainable way’. Key values like ‘innovation’ or ‘security’ are being replaced by ‘sustainability’; therefore, increased business awareness, knowledge and communication as well as a growing public and scientific interest in social and environmental sustainability can be identified.

The here presented study seeks to identify a public discourse on a sustainability related issue, the issue of water supply and the risk of scarcity. This particular discourse was singled out as a sub-discourse that is embedded in

the sustainability context as well as related to existing environmental claims describing natural resources like water, air and soil as resources that we cannot live without. Environmental communication research in general focuses on its social and environmental impact (Cox, 2013, Cox & Depoe, 2015). In this paper, we go beyond Davis et al. (2018) who say that communicating about sustainability is treated as a sub-field of environmental communication research or Godemann & Michelsen (2011) identifying sustainability communication as interdisciplinary field of research. The purpose is to use the example of water to identify regularities of sustainability related discourses and learn about environmental communication in the media and discuss consequences for corporate communication.

Hence, the study examines *how* the media represent the water issue, in particular, how arguments are mounted and who stands behind heterogeneous and homogenous arguments. Therefore, an innovative theoretical framework is introduced: based on Bourdieu's concept of discourses stretched from argument to counterargument (Bourdieu, 1991; Roper, 1996; Weder, 2012a, 2015a), we define a discourse as highly visible if there is a high degree of problematization, represented by variety as well as counteractiveness of arguments. This implies vice versa that if there are dominant or homogenous arguments and claims, we can identify a low degree of problematization or the dominance of specific actors/communicators in the background (Weder, 2018).

By means of both a qualitative and quantitative media content analysis a lack of problematization and therefore a lack of a public discourse on water allocation and the risk of scarcity can be stated. The data allows to show that the issue of water supply is drawn to a political discourse; the so-called *politicization* refers up to the phenomenon of use as well as abuse of environmental claims for political purposes which is put up for discussion in particular from a corporate communication perspective in the end (Roper et al., 2016).

### *1.1 Background: Water Supply as Future Environmental Issue*

Today's societies are dependent on access to clean water. By 2025 for an estimated two-thirds of the world population there won't be sufficient (drinking) water available to meet their own needs. Water supply and water scarcity are complex, sometimes abstract, global as well as local and regional problems, which often have invisible symptoms and require long-term solutions. Today, not only in Australia or the southern parts of the US but as well in Europe, in particular in Spain, Italy or Bulgaria, water scarcity is already highly visible and an experienced reality (<http://ec.europa.eu/environment/water/water-framework/>). In other areas, in particular in Germany, Switzerland, Austria or Slovenia, an apparent abundance of water masks underlying allocation and sustainable supply problems. Here, the 'invisibility' of the water issue could have several reasons: a non-existent general sustainability discourse, lack of public awareness and/or knowledge, economic interests behind it or rather an abnegation of arguments for sustainable solutions in water allocation by the political and economic system (Rahaman et al, 2007; Hrasky, 2012).

This paper aims to trace back the environmental discourse on water supply and the risk of scarcity and to learn about media dealing – or not dealing – with information about natural resources we cannot live without and about reasons for the 'invisibility' of the issue in Central Europe. Therefore, it presents a theoretical concept to identify the degree of problematization of resource related issues in the media with a new concept of framing – because frames matter

For public engagement (Nisbet, 2009). With this, we work out regularities of environmental discourses. Therefore, in the following section, we explain communication that condenses related to a specific problem in claims and arguments that are related to a broader context like sustainability or the environment with Bourdieu's concept of discourses as issue fields.

### *1.2 Theoretical Approach: Problematization as Condition for Public Discourses*

There are two different approaches to the concept of environmental discourses in the literature: The first approach corresponds with the traditional meaning in the sense of textual and spoken interactions about the environment. The second approach deals with environmental discourses as group worldviews towards the environment. Dealing with a complex issue like the quantity of water, we seek to specify the simplistic calculation, which can be found in recent political communication studies: environmental discourse = environmental issue + environmental ideology (Novikau, 2016). In particular, we understand environmental 'ideology' in a broader sense as "an ensemble of ideas, concepts, and categorizations" (Hajer, 1995, p. 44; see also Litfin, 1994; Dryzek, 1997) with sustainability as core value (Weder, 2012a). Accordingly, discourses go beyond the traditional understanding as simply being forms of textual and/or spoken interactions about the environment (Potter & Wetherell, 1987). We're interested in what stands behind these interactions and scripts, in the assumptions, judgements and contentions (Dryzek, 1997) or "discursive formations". Thus, working on a theoretical concept to capture environmental discourses like the one on water supply and the risk of scarcity we

seek for a) an explanation of the *linkage* between environmental issues and environmental ideology, as in the calculation above; and b), we want to understand the *dynamic* of public discourses, influencing their 'life cycle'.

- a) *The linkage: Frames as structural manifestation of environmental issues:* The linkage between an issue and a broader context is not clearly described in the literature. But we do find various explanations that support a new concept of frames as structural component of public discourses. In early concepts of public issues (Downs, 1972) it is already described that the life cycle of an issue depends on the possibilities to be connected to broader public discourses (Snow et al., 1986) or ideologies (van Dijk, 1998, 2006). Recent theoretical considerations in CSR and sustainability communication explain this kind of connection as *linkage* between an *event* and a specific *frame* that connects the event with a broader context (Weder, 2012a, 2012b). If discourses are taken as scripts or stories built from specific kinds of structural elements (Dryzek, 1997), as stated in the introduction of this section, then frames as specific way of interpretation can be described as those structural elements (Novikau, 2016). Following this argumentation, frames can be classified as "invaluable tools for presenting relatively complex issues" (Scheufele & Tewksbury 2007: 12); thus, frame concepts seem to be useful to understand public discourses on complex issues like natural resources and related risks.

Frames are therefore perceived as "organizing ideas" of discourses (Gamson & Modigliani, 1989; van Gorp, 2007, p. 64). Basically, starting from the standard works on framing research (de Vreese, 2005, Entman, 1993, 2004; Semetko & Valkenburg, 2000; Gamson et al., 1992; Iyengar, 1991; Tankard et al., 1991; Gamson & Modigliani, 1989; Gitlin, 1980; Goffman, 1977/1980), frames are selection principles (Entman, 1993); some aspects of a perceived reality is selected and made more salient in such a way as to promote a particular problem definition (like water supply), causal interpretation, moral evaluation and/or treatment recommendation (ibid, p. 56). Framing studies mostly focus on the mechanisms of visuals or verbal effects in isolation (Powell et al., 2015; Schmuck & Matthes, 2017); further studies working with a media learning approach have examined how production factors influence memory for visuals and verbal input (Lang et al., 1999). Here, we define text frames as framing devices (e.g., statements, characterisations, metaphors) and reasoning devices (e.g., problem definition, causal interpretation, treatment recommendation) manifest in the words of an article (Powell et al., 2018). Every topic is communicated through different patterns of interpretation (Shah et al., 2002) which is the link to the analysis of different arguments in a discourse. In other words, different interests in a controversy may use competing frames in their attempts to influence public discourses (Cox, 2013, 67). For example, looking at the water issue, there are issue-specific arguments like "privatization of water rises water costs" which are directly related to the "moral evaluation" (Entman, 1993) of "water is a public good" and should not cost anything (Hertog & McLeod 2001, Jasperson et al. 1998, Davis 1995). Such arguments, related to a frame, can be understood as *discourse-drivers* (Van Gorp, 2007). However, how is the discourse 'driven'?

- b) *The dynamic: Environmental discourses in the media as circulation of arguments and counterarguments.* As we discussed above, discourses function to "circulate a coherent set of meanings about an important topic" (Fiske, 1987, p. 14). Media put various frames or arguments and counterarguments in a common framework; but here comes the crack point:

On the one hand, literature shows that media try to articulate a coherent view of nature, resources and our relationship to both, as said. When this kind of discourse gains a broad or even taken-for-granted status in a culture or when its meanings supports the legitimatization of certain practices, it can be said to be a *dominant discourse* (Cox, 2013, p. 68) with hegemonic arguments (Weder, 2015a).

On the other hand, *polarization* is described as dynamic of public discourses, as a stimulus to increase public issue life cycles (Buchholtz, 1988, Post, 1978). As well, in well-known media theory frames characterize an event or situation as "problematic" in terms of "controversial" (c.f. news values research, exemplary Price & Tewksbury, 1997; Galtung & Ruge, 1965) and to explain that "public decisions are needed" (Melkote, 2009, p. 549).

In environmental communication research, framing has to be reconsidered (Newman & Nisbet, 2015); a new concept of critical discourses is needed to explain both, polarization as basic dynamic of public discourses as well as the phenomenon of dominant discourses and hegemonic frames. Therefore, we would like to introduce Bourdieu's field theory to explain and further explore a public discourse as field, defined via position *and* opposite position, via argument *and* counterargument (Bourdieu 1991, p. 171; Bourdieu, 1996; Bourdieu et al. 2001). All the frames and arguments used in the media related to a

specific issue like water supply define the discourse (Bourdieu, 1991; Roper, 1996). This allows the assumption that the further they are situated apart and, thus, the stronger the polarization of the arguments, the more intense is the discourse. Here, Bourdieu's field theory goes beyond existing frame theory, working with dualistic frame models (negative vs. positive frame, or diagnostic and prognostic frames, Snow & Benford, 1988, p. 189f., pro/contra, Miller/Riechert, 2001). With Bourdieu, we are able to describe a discourse as space, defined via argument and opposite argument with a neutral core in the centre. Furthermore, we have to consider the *dynamic* that keeps the discourse "alive", here described as *problematization*. Problematization is similar to "controversy", a term that is well known in news value research as well (Fallows, 1996; Garrison, 1990); a controversy can be described as difference or dissonance between how something should be and actually is (Festinger, 1978); following this argumentation, a discourse is the constant alignment between various positions and frames, frames and counter-frames (Powell et al., 2018), the more controversial up to counteractive they are, the more intense is the discourse.

These theoretical considerations lead to the structure of the media content analysis which is presented in the following section; it investigates certain quantitative elements (number of media reports over a certain period etc.) to trace back an issue life cycle and identify key events as well as sub issues. Whereas recent studies dealing with framing and water conservation mostly focus on effects and influence of frames on public engagement (Liang et al., 2018a, 2018b; Thaker et al., 2018; Hopke, 2012), we ask for qualitative characteristics of the water related discourse by identifying the degree of *problematization*, described via the two characteristics derived from the theoretical considerations above:

- a) *variety* of issues (the higher the variety, the higher the density of the discourse), and
- b) the opposite nature of the frames and therefore the degree of controversy, polarization, counteractive quality, conceptualized as *problematization*.

We perceive *problematization* as condition for a lively discourse. In the opposite, a lack of *problematization* shows either the non-existence of a discourse or a hegemonic discourse with dominant voices – and voices that are not heard or stay invisible. Again, Bourdieu's fields can be described as configuration or constellation, which contains a special macrostructure, organizational contexts, agents and their interests as well as their strategies to reach their goals (Bourdieu 1991). Bourdieu's fields are both, a space of differences and a bunch of interactions and relations (Bourdieu & Wacquant, 1992). Thus, on the one hand Bourdieu defines multiple societal fields with distinct discourses; on the other hand, he describes the possibility of a shift of discourses from one field to another. So 'politicizing' for instance means the discursive attachment of an issue to the political field. This shift as a dynamic moment is labelled as 'trajectoire' (Anheier et al., 1995), which will be important for the final discussion from a corporative communication point of view.

## 2. Research Design

As indicated above, a public discourse can be traced back with a media content analysis by identifying issues, sub-issues, frames and arguments as well as the voices behind the arguments. According to this, a content-centric approach is pursued (Scheufele, 2003, p. 47), linked to a specific theoretical approach to understand public discourses (see above). The identification of frames is a key element of the here presented research. Thus, for the empirical research a combination of a deductive (identification of issue aspects) and an inductive approach (frame analysis) was chosen. The quantitative research interest focused on the issue cycle "water supply and scarcity risks" in 2012/2013. Additionally, the more critical research interest lays on individual statements and on the degree of *problematization* in statements and of arguments. We assume that different perspectives, interests and legitimating ideologies (van Dijk, 1998) are represented in public discourses related to water supply and scarcity risks; we ask the following research questions:

*RQ1. [How] do the media construct water supply as a problem?*

*RQ2. How is water supply framed in the media (representation)?*

A discourse analysis focusing on frames and arguments enables the identification of communicators behind the arguments; that's why we ask as well:

*RQ3. Whose voices are heard, and whose agenda dominates regarding water allocation?*

The assumption is that a lack of *problematization* enables actors to "use" a discourse; in other words, heterogeneous frames can be interpreted as dominant communicator in the background or that an issue is drawn from one discourse to another ('trajectoire', politicization, see above).

## 2.1 Data Sample

For the media content analysis on water supply and scarcity risks, articles of 17 newspapers in four countries (Germany, Austria, Italy, Slovenia) were selected. The selection was based on the specific criteria of each national media system and in order to provide on the one side a wide range concerning the range of the newspapers in terms of geographical coverage (national & regional), and circulation, as well as on the other side concerning their editorial policy and reputation. Since the topic of water supply has an “European component”, in particular the European Commission’s privatization policy, the data sample was extended by two European newspapers.

The quantitative and qualitative media content analysis compares the print media news coverage about water supply and scarcity risks covering the period between December 2012 and June 2013. The reason behind this timeframe was a critical report on the European Union's plan to soften the regulations for privatization of water in German TV (ARD Monitor “GeheimoperationWasser”, <https://www.youtube.com/watch?v=Xq4ncp-iNNA>). At the same time, one of the most successful EU citizens’ initiatives was started and proceeded, the “European Water Initiative” against the privatization of water, which was concluded on September 9<sup>th</sup>, 2013, with 1,884,790 signatures (<http://www.right2water.eu/>). Both, the planned EU directive itself but also the citizens’ initiative, are perceived as key events for an issue life cycle about water allocation, the risk of scarcity, water management as well as privatization. Additional, in Austria this issue was taken up in the national election campaign with questionable media partnerships (Weder, 2015b). Accordingly, newspaper articles that were published between December, the 1<sup>st</sup> 2012, and June, the 31<sup>st</sup> 2013, in one of the chosen national and regional media in Italy, Slovenia, Austria, Germany and EU were selected for to the final data sample of n = 1516 articles (see tab. 1). For this, we used the keyword search option in the online archives for each newspapers, searching for the keyword “water” in the respective languages (“Wasser” for Austria and Germany, “acqua” for Italy and “voda” for Slovenia). Subsequently, only those articles were included in the empirical analysis, which covered at least to an extent of 70% issues of water supply and scarcity risks.

Table 1. Sample of newspaper articles

Italy		Slovenia		Austria		Germany		Europe	
Media	articles	Media	articles	Media	articles	Media	articles	Media	articles
Il Corriere del Mezzogiorno	17	Delo	55	Der Standard	57	Berliner Zeitung	74	European Voice	9
Il Messaggero Veneto	77	Dnevnik	70	Kleine Zeitung	97	Frankfurter Allgemeine Zeitung	161	New Europe	43
La Nazione	21	PrimorskeNovice	39	Kronen Zeitung	185	Münchener Merkur	126		
La Repubblica	113	Žurnal 24	29	Salzburger Nachrichten	119	Passauer Neue Presse	158		
						Süddeutsche Zeitung	66		
	$\Sigma 228$		$\Sigma 193$		$\Sigma 458$		$\Sigma 585$		$\Sigma 52$
								$\Sigma$ Total	<u>1516</u>

For the combination of a quantitative and qualitative media content analysis the software Nvivo® was selected; this software enables the management and organization of unstructured text and audio-visual data and can be used for qualitative, interpretative analyses. Thus, the individual source (newspaper article) was classified first by number, medium, title, type, month, year, word count, language, keywords (water, privatization and sustainability), as well as by editorial section and author. This was followed by the qualitative analysis of each article seeking to follow issues and identify arguments and frames. Therefore, each article was classified by



also the danger of the “green” energy supply method is discussed; here, we find the first example of pro and contra arguments.

- (2) *Participatory involvement, civic engagement and mobilization*: actions and demonstrations against the EU water framework directive are reported; but the arguments are mainly dominated by politicians and related to the upcoming elections, which will be further elaborated in the discussion.
- b) In Germany, the water discourse had the following focal points:
- (1) *Privatization*: the issue is strongly discussed relating to the EU in general and in particular related to the new water framework directive; the reporting showed a high local reference (e. g. “Our water has to remain in Bavarian hands”).
  - (2) *Fracking*: the new technology trend and method is discussed related to possible environmental problems and problematized in favour of waterbodies’ protection; this topic shows a high degree of politicization; it opens up various questions that are discussed i.e. by Metze & Dodge (2016).
  - (3) *Water costs and management*: discussions about water industry and water management, particularly in terms of an extension of water supply systems, increasing water price and water disposal costs could be found in the articles.
- c) In Italy, the media coverage presents these 3 focal points:
- (1) *Water management*: especially the already happened return of water management in public ownerships is discussed or reported; but there is no general debate on political decision making or water as ‘public good’. The representation of the issue is very specific and focused on single events.
  - (2) *Privatisation*: In 2011, there was a referendum where Italian people clearly voted “no” to the possibility to privatize water. Yet, there is still a public debate about whether it would be an advantage to privatize water. As seen with water management, the issue of privatization is not embedded in a national or EU or even global context. There is no reference to the EU water management policy, unlike Slovenia, Germany and Austria, where the privatization debate is always embedded in the European context, thus, media representation of the water issue has a strong local focus in Italy.
- d) Slovenia:
- (1) *Privatisation*: in comparison to Italian media, the water issue and the sub issue of privatization in particular is not a local issue at all; instead, the reporting is quite formal and abstract, is discussed in relation to the EU water management directives and policy, which will be further discussed when we talk about the frames that are used.
  - (2) *Protection of water bodies*: this issue was discussed on two different levels, on the one hand natural water resources are a public good and have to be protected, on the other hand, water resources should be protected from the EU’s privatization plans; the issue of privatization in general is highly politicized in Slovenia, which can be related to the socialist past being a former part of the Republic of Yugoslavia.
- e) Europe:
- (1) *Access to clean water*: this discourse was embedded in a global context, the access to clean water is presented as a human right that has to be guaranteed to all people around the world; here, the news coverage is full of ‘moralization’.
  - (2) *Water management* was discussed in terms of privatization and possible concession models and processes; but most articles had an informative character.

The results show a low degree of issue variety; water supply as well as the risk of scarcity can’t be compared to conflictual issues like fracking (Metze & Dodge, 2016). So the first condition for a public discourse, developed in the theoretical section, the variety of issues, is not given in the analysed text corpus.

### 3.2 Who Says What about Water Supply?

The analysis of water supply related issues has shown that water management and privatization were the core topics of the articles that were selected for the analysis. This is supported by the results, presented in figure 2,

explaining that privatization is a political or, in other words, a highly politicized issue.

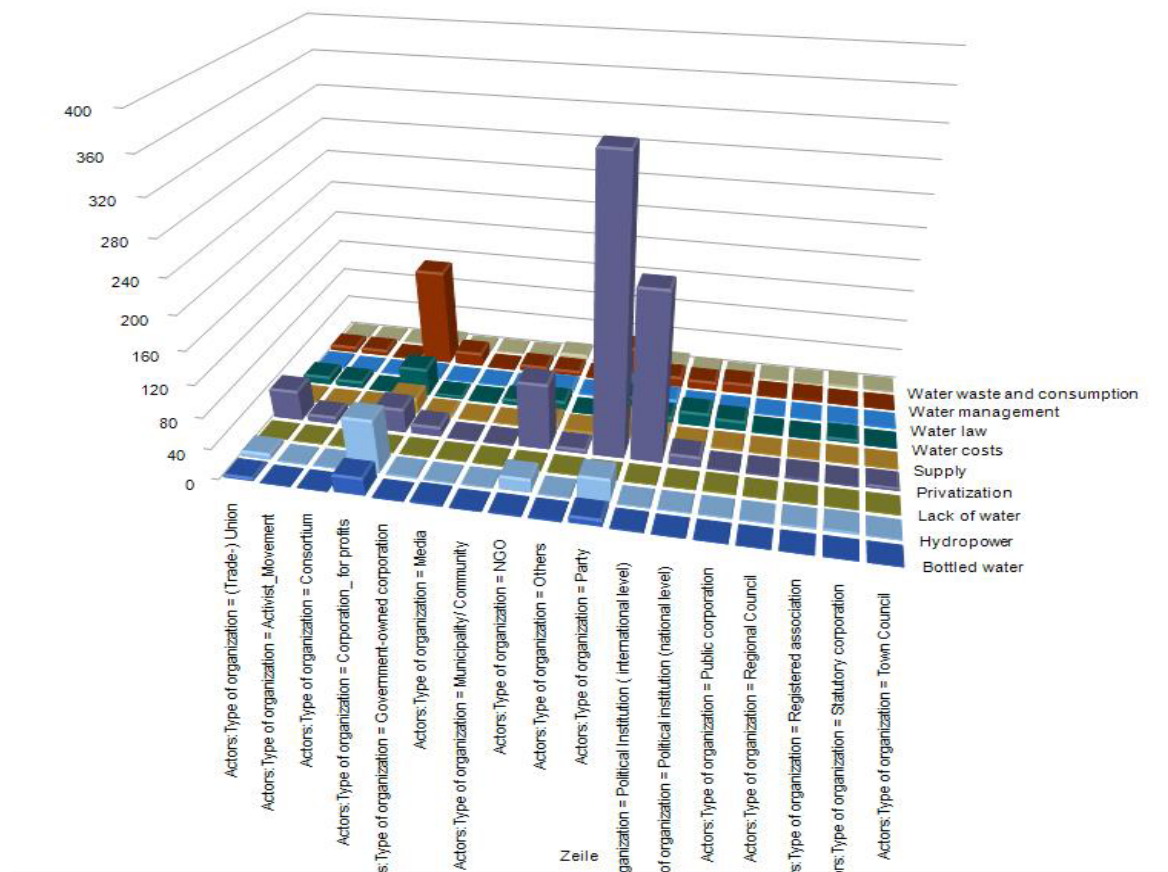


Figure 2. Matrix between actors and selected topics

Privatization in the context of the European water framework directive is mainly discussed by political parties and political institutions, both on an international and national level. Also non-governmental organisations (NGOs) play an increasingly important role in the privatization debate. By contrast, profit-oriented companies (named as “corporation for profits”, see fig. 2) show less interest about the privatization issue; however, corporations are frequently linked to the topic of related costs (“water costs”, fig. 2).

Even if the political decision making on privatization happens on a European level, the debate takes place almost exclusively on a national level in the analysed countries; the debates are linked to the European debate in Germany, Austria and Slovenia, but rather detached from it in Italy. Only few articles deal with the discussions exclusively at an EU level.

### 3.3 Water – a Local Issue!

The results presented so far can be supported by a total of 49.7% of the analysed newspaper articles with a relation to a local and regional context or event (see tab. 2). However, there are differences between the analysed countries: the issue is discussed in Italy and Germany with a very strong local focus, whereas in Austria and Slovenia the water issue is mainly debated on a national level.



Table 2. Point of reference in the articles, differentiated by countries

	<i>Local</i>	<i>Regional</i>	<i>National</i>	<i>EU</i>	<i>International</i>
<b>Austria</b>	6,7%	5,2%	10,0%	5,7%	2,2%
<b>Germany</b>	17,5%	3,5%	9,1%	4,5%	4,2%
<b>European</b>	0,0%	0,0%	0,0%	1,5%	2,0%
<b>Italy</b>	8,9%	2,8%	1,9%	0,3%	1,3%
<b>Slovenia</b>	1,2%	3,7%	4,5%	2,5%	0,5%
<b>Total</b>	34,4%	15,3%	25,6%	14,5%	10,3%

Additionally, it seems to be noteworthy, that again a dominance of political actors from all levels (local, national or EU) could be observed in the analysed material. Here, political parties as well as political institutions at a national and international level could be identified as central communicators. The high degree of politicization of the issue of water supply in Germany and Austria was mentioned above; again, arguments were led by political parties mainly in the mentioned countries whereas in Italy corporations dominate the public debate. Non-governmental organizations (NGOs) only play a minor role in all countries.

As announced above, Nvivo allows the categorization of not only an article as a whole but paragraphs, phrases and keywords as well; they are given one or more so called ‘Nodes’ which is an important research step of any discourse analysis. Thus, we were able to combine the deductive, quantitative research approach with an inductive, qualitative analysis, looking for arguments and frames and their counter activeness.

### *3.4 Framing: Problematization of Privatization, not of Water Supply as “Sustainability Issue”*

As shown above, privatization is the mostly discussed issue related to water supply and the risk of scarcity; here, media coverage is full of arguments and partly full of moral statements but with a lack of contextualization in the sense of an argumentative connection to a general debate on other natural resources, water related issues, sustainability or even climate change. As conceptualized in the theory section of this paper, frames were taken as structural manifestation of arguments in the text. Within the organizing and analysing process with Nvivo which functions as text management system and analytical tool by the same time, we started with Entman’s frames of problem definition, causal interpretation, moral evaluation and/or treatment recommendation (1993); but in the analysed text corpus we were confronted with specific aspects of environmental discourses: information load and scientific data as well as various arguments of attributing responsibility to institutions, organizations and individuals. Thus, the qualitative analysis of the selected articles led to extended categories for the arguments and frames found in the text. The result were the following six items by which the newspaper articles could be classified:

- (1) Attribution of responsibility/Taking responsibility;
- (2) Engagement/Activation;
- (3) Evaluation/Judgement;
- (4) Information;
- (5) Justification/Reasoning;
- (6) Remedy promotion/Stimulation proposal.

As we already stated in the first, quantitative research phase, the debate on privatization as well as water management takes place mostly on an informative level, see fig. 3.

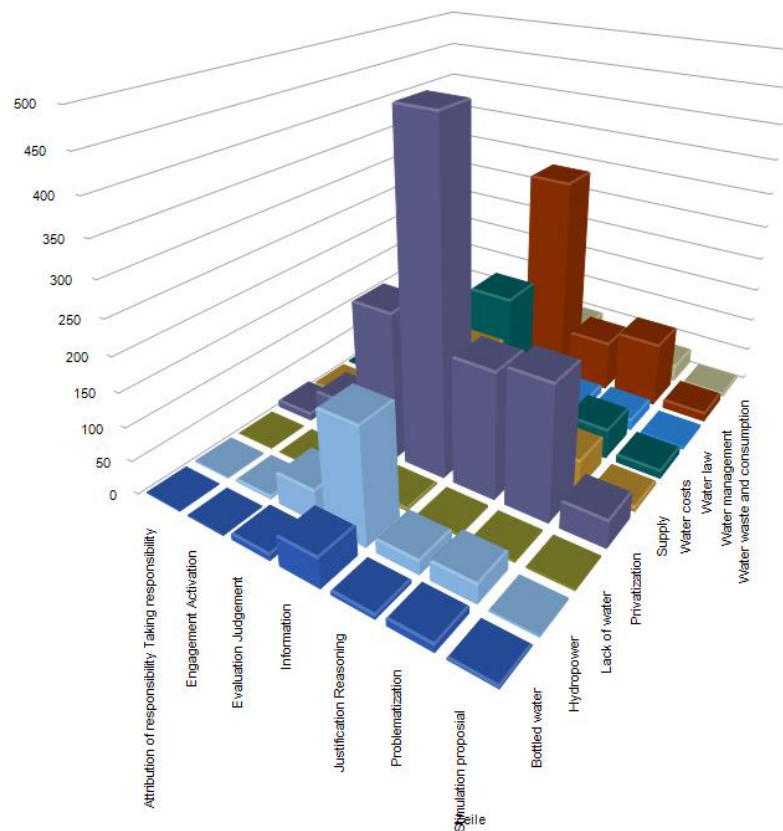


Figure 3. Matrix between selected topics and frames

In the articles analysed in the project, the privatization debate takes place predominantly on an informative level (see Fig. 3). As well, there is a large number of articles that contain information about water management and only few arguments that justify or reason related activities. Also the topics hydropower, water supply and water costs are presented by facts rather than put up for discussion or evaluation. Furthermore, we couldn't identify any "activating potential" in the media; the frames "remedy promotion / stimulation proposal" as well as "engagement / activation" couldn't hardly be detected in the investigated material. Even though, privatization was the issue around which we could detect arguments that justify related activities and problematize the given information, in particular the planned activities of the European Union to soften the legal framework for privatization. According to the theoretical framework and introduced concept of problematization through polarization, controversy and a high variety of frames, we were able to detect only a low level of problematization. Some text fragments and categorizations will be shown in tab. 3.

Table 3. Discourse analysis, degree of problematization

Text fragment	Categorization/	frame(s)	degree of problematization
Wer hat Recht? Die Antwort: beide. Barnier sagt zu Recht, dass seine Regeln keine Gemeinde zwingen, Wasser zu privatisieren. Trotzdem warnen Aktivisten zu Recht, dass viele deutsche Städte und Gemeinden die Versorgungskonzessionen für Wasser wohl bald ausschreiben müssten. Das liegt aber nicht an der Privatisierungswut der EU, sondern an den vielerorts recht kommerziellen deutschen Versorgungsstrukturen/	EU strategy for privatization Problems in existing structures for water supply EU in conflict with activists	Attribution of responsibility (existing structures for water supply, commercial orientation) Evaluation (by saying that both sides are “right”) Reasoning & Information (background information for EUs and activists goals)	middle
<i>Translation: Who’s right? The answer: both. Barnier is right by not forcing every community to privatize water. Activists are right to give the warning that many German cities and communities announce their water concessions. But this is not the EU’s fault but rather the consequence of commercial structures of water supply in Germany.</i>			
The EU should, clearly, commit more of its aid to this area. It should also integrate water and sanitation into all areas of development co-operation. Universal access to water and sanitation would help progress on health, hunger, education, gender equality and economic development. At a time when budgets are being squeezed, targeting these two areas offers better value for money. To put it another way, water is just the beginning.	EU strategy for privatization EU’s longterm development strategy EU under financial pressure	Attribution of responsibility (for a sustainable water policy in the future) Judgement (EU is not doing their job, moralization)	low

One of the most interesting results was that moralization is not a problematization per se; instead, the lack of counterarguments shows a lack of a real controversy. Thus, overall, we can see a lack of problematization that supports our assumption of that there is no public discourse on water supply and the risk of scarcity in the Central European Media.

With the articles selected for the analysis we can show that talking about natural resources like water and the risk of scarcity is more consensual and depoliticized like climate change related discourses in general (Pepermans & Maesele, 2014). At least, we were able to conceptualize problematization as the dynamic of (environmental) discourses as well as the lack of problematization as a phenomena of environmental and natural resource related discourses in particular. What does this imply for future research and business practices?

**4. Limitations and Discussion**

Environmental issues, as well as many other social problems, usually do not represent themselves as distinct, well-defined issues. For instance, even though air pollution, global climate change, deforestation, and biodiversity loss can be discussed as separate issues, in their ecological consequences, they are extremely interconnected. Within the field of media and communication research, numerous media analyses were carried out on climate change (for an overview see Schmidt et al., 2013). Evidently, there are a lot of studies on climate

change as an overarching phenomenon, but, however, fewer analysis about natural resources as a single public discourse. Media analyses also focus mostly to leading national media; regional and local aspects of the environmental debates receive less attention.

The current study attempts to overcome this gap by analyzing local and regional media just as opinion-leading national media. Vice versa, this is the limitation of the study; the sample does only partly cover where people actually get their information from; further research is needed to enhance the understanding of processes influencing the manifestation of environmental issues on the public agenda with respect to the present high choice media landscape. Additionally, the project presented above aims to extrapolate the findings to international comparisons and to a broader range of key environmental and sustainability related issues.

In our study, we assumed that water supply, the risk of scarcity and related issues like privatization are contextualized and connected to climate change and sustainability and are detectable as (mediated) discourses with heterogeneous arguments and frames. Discourse analyses in social sciences seek to identify regularities of discourses and changes, in other words transformations in discourses. Furthermore, discourse analyses aim to identify social and institutional relations and the organizing principles behind the arguments. With the Nvivo-supported quantitative as well as qualitative analysis of newspaper articles in the issue field of water allocation we were able to identify the context of the text (author, medium, key event etc.) as well as the general structure of the article. Beyond this, we were able to work with the content itself, with the arguments and the represented image of natural resources and their use and abuse.

With our research questions we tried to answer the overall question of if the media construct water supply and the risk of scarcity as a problem; the first question of *[how] do the media construct water supply as a problem?* can be answered with “no”, they don’t construct water supply as a problem. The analysed newspapers cover the European Commissions’ plans to open up water for privatization but mostly quote politicians with their either pro- or con-arguments. The issues of privatization and water management are visible but not embedded in a broader context of resource sustainability, global policies, ethical considerations or the debate about climate change in general.

We can see the dominance of a meaning of privatization to legitimize certain political and economic practices; the question of *whose voices are heard, and whose agenda dominates regarding water allocation?* can be answered with “not many”; the results show, that some politicians or political parties dominate the national discourse, non-profit organizations are not heard. Thus, we assume, that alternative ways of speaking, writing and portraying water as a natural resource we cannot live without, and with it a critical discourse, is rather invisible. It seems like the discourse on privatization is drawn to the political discourse (‘trajectoire’ in Bourdieu’s sense, Anheier et al., 1995, p. 860), which makes water as a resource that might be scarce at one point similar to climate change a “politicised issue, which politically polarized print media pick up on and reflect” (Painter, 2011). Even if there are heterogeneous views on privatization they are not reflected in the media – which seems to be “normal” studying a climate change and sustainability related issue (Collins & Nerlich, 2015).

The second research question was the following: *How is water supply framed in the media (representation)?*

Related to the presented example of water supply and equitable water allocation as human right, we couldn’t identify a high variety of issues and the frames were embedded in only one line of argumentation: water is a public good. This leads to the following conclusion that we want to put up for further discussion and research in the field of corporate communication:

The here presented study indicates two possible scenarios:

- (1) Positive scenario: sustainability is a “structure of meaning”, a common sense belief (Weder, 2015a) of today’s information and communication society. Events as well as sub-issues like privatization of natural resources or water mater management can be linked to the metastructure of meaning with heterogeneous arguments and opposing positions for example the argumentation that privatization is a sustainable way to prevent water scarcity risks.
- (2) Negative scenario: sustainability related issues like water supply serve as “vehicle” for strategic communications. The corresponding research result which could indicate this fact is the homogeneity of the arguments as well as the dominant voices in public communication (esp. political voices) and the dominance of an “economic rhetoric” which underlines the trend of preservation of the economic system.

Looking at both scenarios, we would like to point out that media reporting on sustainability-related issues like water supply do not represent a public discourse, characterized by variety and counter activeness of the

arguments; much more, dominant voices are presented in the media; different, controversial arguments and appeals for individual or corporate engagement do not exist. Hence, companies should perceive sustainability and related sub-discourses such as on water, air, biodiversity, diversity and gender, etc. as a thematic network structure of today's information and communication society and, therefore, consider the following two recommendations for action: First, beware of media-constructed risks! Instead of reactive communicative behaviour, the context of sustainability offers opportunities for an active communication design. Secondly, information does not stimulate stakeholders' involvement and engagement. Companies should break up the argument's homogeneity – which means dominant (i.e. political) voices and arguments in the public communication. A real debate arises only due to “new” and counter-arguments.

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