



Open Access Repository

www.ssoar.info

Co-producing sustainability indicators for the port of Antwerp: how sustainability reporting creates new discursive spaces for concern and mobilisation

Bergmans, Anne; Vandermoere, Frédéric; Loots, Ilse

Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Bergmans, A., Vandermoere, F., & Loots, I. (2014). Co-producing sustainability indicators for the port of Antwerp: how sustainability reporting creates new discursive spaces for concern and mobilisation. *ESSACHESS - Journal for Communication Studies*, 7(1), 107-123. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-407253>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY-NC Lizenz (Namensnennung-Nicht-kommerziell) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier: <https://creativecommons.org/licenses/by-nc/4.0/deed.de>

Terms of use:

This document is made available under a CC BY-NC Licence (Attribution-NonCommercial). For more information see: <https://creativecommons.org/licenses/by-nc/4.0>

Co-producing sustainability indicators for the port of
Antwerp: How sustainability reporting creates new
discursive spaces for concern and mobilisation

Senior researcher Anne BERGMANS
University of Antwerp
BELGIUM
anne.bergmans@uantwerpen.be

Assistant Professor Frédéric VANDERMOERE
University of Antwerp
BELGIUM
frederic.vandermoere@uantwerpen.be

Professor Ilse LOOTS
University of Antwerp
BELGIUM
ilse.loots@uantwerpen.be

Abstract: In this article we discuss the port of Antwerp's sustainability reporting initiative, reporting on the joint performance of the harbour community, as a process of co-production. By means of 'stakeholder elicitation' and in interaction with the port's sustainability reporting initiative we investigated potentially meaningful indicators (mainly qualitative in nature) for environmental nuisance and citizen participation as aspects of responsible care. Reflecting on this work, we argue that such initiatives not only produce new sustainability indicators and standards, but also encourage dialogue through which identities are formed and a sense of (port) community is established.

Keywords: sustainability reporting, port community, stakeholder dialogue, perception research, sustainability indicators (SIs)

Coproduire des indicateurs de sustainability pour le port d'Anvers. Comment le rapportage de la sustainability peut-il créer de nouveaux espaces discursifs d'investissement et de mobilisation ?

Résumé : Dans cet article nous analyserons l'initiative du port d'Anvers de rapportage de la sustainability, c'est-à-dire de faire des rapports sur la performance globale de la communauté portuaire, en tant processus de coproduction. Nous avons examiné les indicateurs pertinents pour les nuisances environnementales dans ce rapport de sustainability. Un ensemble d'indicateurs potentiels (de nature principalement qualitative) portant sur la prise en compte de la perception des nuisances et de la participation citoyenne comme aspects de l'approche responsable a été développé par le biais de la « sollicitation des parties intéressées » et en interaction avec l'initiative du port en matière de rapportage de la sustainability. Nous avons estimé non seulement que de telles initiatives produisent de nouveaux indicateurs et standards de sustainability, mais également que grâce au dialogue des identités se créent et un sentiment de communauté (portuaire) naît.

Mots-clés : rapportage de la sustainability, communauté portuaire, dialogue entre parties prenantes, étude de la perception, indicateurs de sustainability

Introduction

In recent decades, both public and private port authorities in Europe have begun to adopt new management styles and governance practices. Verhoeven (Verhoeven, 2010) and Parola et al. (Parola et al., 2013) associated this tendency with a growing need to address external challenges (such as environmental and security issues and emerging technologies), the growing complexity and interdependency of public-private interactions in transport chains, and a general trend towards new public governance which embraces a multi-actor perspective. While the core task of a port authority remains the efficient management of the area and the logistic chain, the content of this task has changed over the last decade. Reasons for this change include the ever-expanding flow and variety of goods being shipped and the growing importance attributed to social and environmental concerns (de Deckere, Bernaers, Vandendriessche, Van de Putte & Vanfraechem, 2012). De Langen (De Langen, 2004) and Parola et al. (Parola et al., 2013) have pointed out the emergence of port

authorities' new role as community manager, in addition to their traditional roles of landlord, regulator and operator¹.

As a result of growing stakeholder pressure from market players, public bodies, a diverse range of social interest groups, and individual citizens, port authorities are paying increasing attention to environmental, sustainability and security issues. This has led to a stronger emphasis on corporate social responsibility, but also, as Parola et al. (Parola et al., 2013) argue, to changes in communication strategies and the disclosure of broader ranges of data. Content analysis carried out in 2010 on annual reports and related documents from 38 port authorities worldwide did indeed highlight a shift towards providing more economic and financial data, as well as shareholder information and information on issues related to corporate social responsibility (Parola, Satta, Penco & Profumo, 2013).

A clear example of this shift is the growing phenomenon of port authorities issuing sustainability reports (e.g. Sidney, Los Angeles, Vancouver, Antwerp, Hamburg, Gothenburg). Sustainability reporting has become an institutionalised means of communicating a company's performance on economic, environmental and social issues. If taken seriously, the development of such a report entails an interactive governance approach, as recommended in sustainability reporting in general (www.globalreporting.org).

This paper examines sustainability reporting in the port of Antwerp as a joint initiative of the port authorities and the port industry. Given the context of sustainability reporting, as well as the search for both new sustainability indicators (SIs) and opportunities for stronger community participation, we discuss the sustainability reporting initiative in the port of Antwerp as a process of co-production (Nowotny, Scott, Gibbons, 2001; Jasanoff, 2004). As noted by Jasanoff (Jasanoff, 2003), policy-makers need to engage citizens not just as active agents with particular values, but also as sources of knowledge, insight and memory. Specifically, we describe how communication with stakeholders has been a prominent feature of the preparation and evaluation of the two sustainability reports produced so far, though some critical reflection should be made on the final inclusiveness of the effort. By exploring discourses on nuisance and other externalities relating to the activities in the Antwerp harbour, we identify potential indicators for nuisance perception and experience as well as key elements for further enhancing citizen participation in the port and its activities. Furthermore, we show

¹ The World Association for Waterborne Transport Infrastructure's (PIANC) working group on sustainable ports (WG150) lists 11 roles potentially fulfilled by a port authority: (1) manager of the port area, (2) estate owner, (3) economic developer, (4) facilitator of the logistic chain, (5) administrator, (6) regulator, (7) developer and manager of infrastructure, (8) operator, (9) central point of knowledge, (10) driver for innovation, (11) partner in the community (PIANC – WG150, 2013, p. 15-17).

how a network has been formed among the public authorities, market players and civil society actors, and argue that a diverse range of communication activities conducted around a sustainability report can contribute to the development of a sense of community between a port and its stakeholders/neighbours, thus leading to new opportunities for interaction, negotiation, decision-making and conflict management.

This paper builds on findings produced by a recent research project commissioned by the Antwerp Port Authority (GHA) (Deforche, Loots, Bergmans & Vandermoere, 2013). In what follows, we first describe the methodology used for our case study.

1. Methodology

In order to explore the embodied, emplaced experience of environmental nuisance in the port area and the discourses that accompany it, we opted for a qualitative study design. The study was not meant to provide a representative view of the occurrence of nuisance (statistics on public opinion) or of objectified information about it (what measurements or monitoring tell us). Instead, we aimed to capture how the notion of environmental nuisance is socially constructed, how it is defined in terms of how people experience it and what they know or believe about the impacts of the problem. A methodological disadvantage is the impossibility of generalising conclusions for the harbour area. However, 22 in-depth interviews with key actors from civil society (in the first stage) and focus group discussions with citizens (in the second stage) allowed us to gain a better understanding of the factors behind the constructions in question: do parties trust each other, do they believe there is a fair distribution of positives and negatives, what roles are attributed to various actors, and so on.

The interviewees represented a diverse range of actors from the harbour area (i.e. market players, public actors, social interest groups and environmental NGOs). The interviews were semi-structured and followed a protocol of conversation topics. The order to be respected was: from easy to more complex topics; from neutral to controversial or delicate topics; and from factual behaviour to emotions. The interviews offered both broad and subtle insights into the perceptions of individuals from the surrounding municipalities, the port authorities, the Flemish authority, industry, trade unions, local farming communities, residents' associations and NGOs.

In order to avoid a merely 'sectoral' view of local activities and respondents linked to well-known stakes and concerns, focus group discussions were organised with members of local associations and randomly selected citizens living in different locations in and around the port area. This provided us with the opportunity to

achieve a more holistic naming and framing of harbour activities and nuisance. In total, 50 people participated, spread across seven focus groups. Five of the groups consisted of randomly selected inhabitants. In composing these groups, attention was paid to a number of suspected cleavages, such as living distance from the actual port activity, living on the left or the right bank of the river, and so on. In addition, a mix was ensured by consulting basic demographic variables and information on whether or not people (had) ever worked in the harbour area. The remaining two focus groups were held with members of local associations active in the port area (e.g. sports clubs, nature conservation groups, etc.). A balance was sought here between harbour-related associations (water recreation, history and nature guides) and other activities. Trade unions, commercial entities, professional organisations and local politicians were excluded from these groups.

All meetings took place in March and April 2013. Participants were invited to discuss their experiences of the harbour: the images they have of the area, the activities and actors they link to the harbour, and the role they see for public participation in port activity-related decision-making. During the research period, a number of decisions were taken with regard to the harbour area which stirred some debate in the media, but we did not notice any impact on the responses gathered. However, inhabitants of the left bank, where some decisive location decisions had been taken, seemed somewhat easier to recruit for participation in the focus group.

Complementary analysis was carried out by consulting policy documents and position papers. Field work involved attending meetings organised by three key players: (i) the community relations groups of leading companies, where harbour industry engages with its neighbours; (ii) the Port of Antwerp's environmental platform, which is composed of harbour authorities, companies, municipalities and an environmental NGO; and (iii) the steering group of the port's sustainability reporting initiative.

Finally, our research activities was overseen by a temporary steering committee composed of representatives of the relevant municipalities, representatives of companies in the harbour area (via VOKA - the general association of enterprises, and Alfaport - the association of port companies), and the Antwerp Port Authority as commissioner. This committee had three advisory tasks: to follow up on the various steps of the research, to provide feedback on the output, and to advise on useful local information and networks.

In the sections that follow, we further contextualise the process of sustainability reporting at the port of Antwerp, one of the largest ports in Europe. Specific attention is paid to the attempts of the Antwerp Port Authority to develop an integrative approach to sustainability reporting. We discuss the range of actors involved in this process, the ways in which the circle has widened in recent years

and how this evolved alongside increasing attention to new concerns about environmental nuisance and public engagement. Next, we discuss the socially constructed nature of environmental nuisance, based on the coming together of both congruent and conflicting experiences, perceptions and discourses from a range of actors. To conclude, we discuss how the process of developing new environmental sustainability indicators is interconnected with the underlying need to develop a shared sense of (port) community.

2. Sustainability reporting at the port of Antwerp

“In recent years, public and private partners in the port of Antwerp have been working to develop a close collaboration in the framework of the Total Plan. Under the motto 'Strong through Collaboration', we addressed the crisis and most importantly developed a vision for the future of the port. Sustainability was and is the unifying theme in this. After all, the port is the place where the roles of the 3 P's, People, Planet and Profit, find their full expression in an international context.” (Port of Antwerp, 2014).

In the spring of 2012, the port of Antwerp published its first sustainability report following the Global Reporting Initiative's (GRI) guidelines, arguably the best known and most widely applied method for sustainability reporting worldwide. A second version was issued in the autumn of 2013. Notably, this report was not prepared and published by a single company, but as a joint venture between the public port authorities – the Antwerp Port Authority (GHA) and the Scheldt Left Bank Corporation (MLSO)² – and the private sector, represented by the federation of port companies and logistic service providers, Alfaport. Global reporting initiatives are usually situated at organisation level, in that they incorporate responsible care in the agency's management strategy. In contrast, the port of Antwerp's sustainability report covers the entire port area, thus aiming to report on the joint performance of the harbour community.

This more integrated approach was initiated a number of years prior to the sustainability reporting initiative, and led the port authorities to develop new co-operative arrangements and to start interactions with different types of stakeholder. One such arrangement is the Port's Environmental Platform (*Havenmilieuoverleg*), a platform for discussing environmental issues initiated and presided over by the

² The Antwerp harbour extends along both banks of the river Scheldt. On the right bank, the harbour area falls within the territorial boundaries of what is today the greater city of Antwerp. However, on the left bank, the harbour area is located within three different municipalities (the city of Antwerp and the municipalities of Beveren and Zwijndrecht). GHA acts as a manager for the entire port area (on both river banks), whereas MLSO only has responsibility for the industrial (i.e. non-shipping and non-transshipment) activities on the left bank.

GHA. It brings together the two port authorities, the relevant municipal authorities, a representative sample of companies active in the port area, and more recently also one environmental NGO. In and around the port area are a number of protected areas listed following the European Habitat Directive. Therefore, in recent years, initiatives have been taken to engage more actively with nature conservation groups. The idea of launching a joint sustainability report originated from this environmental platform and from a shared interest on the part of the port authorities and the private sector to collaborate in a broader sense on sustainability issues. The initiative seems to have contributed to a better understanding of the issues at stake and to a common goal definition, though (as our observations confirmed) some tension remains between the port authorities and the private entities, particularly regarding environmental performance and GHA's role as area manager.

GHA, MLSO and Alfaport pride themselves on the active engagement of various stakeholders in the process of developing the sustainability reports. As described by de Deckere et al. (2012), the initiators invited a relatively wide range of stakeholders to discuss their expectations regarding the sustainability of the port and to identify potential indicators. In the run-up to the first sustainability report, representatives from industrial and transport companies, trade unions, nature conservation groups, the agricultural sector and the relevant municipal authorities were all invited to provide input. Working groups were set up to evaluate which indicators could be quantified by which data and where such data could be found. These stakeholder groups were then asked to comment on a first draft before the actual report was issued (de Deckere et al., 2012). An additional external peer review was organised in collaboration with Kauri, a Belgian network in which sustainability-driven organisations can assess and benchmark each other's social responsibility achievements (www.kauri.be). During the preparation of the second sustainability report, the established 'stakeholder dialogue' groups were reactivated, on a somewhat lower scale of intensity, to discuss where improvements could be made. A new loop was recently (February 2014) initiated following the release of the 2013 report, again with the intention of further fine-tuning and improving the sustainability reporting.

While full inclusiveness has not yet been achieved, as some stakeholder groups remain underrepresented, the port of Antwerp initiative could be described as 'extending the peer community' (e.g. De Marchi & Ravetz, 1999). It has gained quite some recognition, even winning the 2012 Award for Best Belgian Sustainability Report³. These first achievements in sustainability reporting among

³ The award is a joint initiative of the Institute of Belgian Auditors (IBR), KAURI, a multi-stakeholder network and knowledge centre on global ethical, sustainable, intercultural, fair and transparent NGO and business practices, and Business & Society Belgium, a business network for corporate social responsibility (http://www.bestbelgiansustainabilityreport.be/nl/Prijswinnaars_2012).

the harbour community have established a network of internal and external actors and also extended the dialogue around the harbour's key issues, framed within the broad scope of the three pillars of sustainability (namely: planet, people and profit).

3. Widening the circle: new concerns raised

During the preparation of the first sustainability report, it became clear that it would not be able to cover all possible issues and that choices would have to be made. One particular issue on which no consensus was reached regarding its inclusion in the report was the question of environmental nuisance (i.e. light, noise and odour pollution). In an attempt to overcome this problem, a study was proposed to investigate meaningful indicators for addressing nuisance as socially constructed and therefore contextual, rather than univocally measurable.

Subsequently, GHA contacted our research team. During preparatory discussions with members of the port authority's environmental and communications department and the sustainability report project leader, it became clear that a broader concern existed regarding public and stakeholder engagement – not only in direct relation to the development of the sustainability report, but also concerning the port's management in general. Notwithstanding its collaboration with a leading nature conservation group active in the port area, GHA had been experiencing difficulties deciding who to engage with beyond its key economic stakeholders. Therefore, the study was intended to explore what is referred to in Dutch as '*hinderbeleving*', a notion which encompasses both the embodied, emplaced experience of environmental nuisance, as well as the discourses that accompany it. Addressing environmental nuisance and other externalities relating to the port of Antwerp and its activities in this way was seen as the first step in identifying key elements in the development of a concept and strategy for enhanced citizen participation in the port and its activities.

The research team suggested rejecting an expert opinion-based set of nuisance indicators in favour of developing, through stakeholder elicitation, a set of potential indicators (mainly qualitative in nature) for capturing the existing discourses surrounding (environmental) nuisance and citizen participation as aspects of responsible care. These indicators could then be fed into the sustainability report's 'stakeholder dialogue' as a basis for further discussion. This can be compared to the position of Turcu (Turcu, 2013, p. 16) on indicators for urban contexts, which states that sustainability indicators are not universal and "not only useful for measuring progress, but also for identifying problems, setting sustainability goals and suitable management solutions at the local level".

4. Perceptions of and experiences with environmental nuisance: A multi-actor perspective

The purpose of the scoping exercise was to sound out various perceptions of the port's activities and the extent to which these were seen as negatives, as environmental nuisance or some other kind of nuisance, and whether different discourses could be observed in organised interest groups, local associations active in the harbour area and individual inhabitants of the larger port area. As with other essentially contested concepts such as sustainable development (e.g.: Robinson, 2004), nuisance cannot be approached as an unequivocally determinable matter, but should be seen as a socially constructed reality. In our study we therefore conceptualised environmental nuisance following Berglund et al. (Berglund et al., 1999, p. 32), who defined annoyance in relation to noise pollution in their report for the WHO as "a feeling of displeasure associated with any agent or condition, known or believed by an individual or group to adversely affect them". We therefore understand environmental nuisance to be determined by how people experience it and what they know or believe to be the impacts of the problem. If it were not 'felt' or in any other way known or believed to have an impact, nuisance would arguably not exist.

The most substantial list of themes associated with the port resulted from interviews with key actors. In spite of the open character of the questions, many themes were touched upon by a range of respondents, though not always with the same appreciation. Light, air and noise pollution, traffic and mobility, and administrative complexity were most explicitly seen as negative. The focus group discussions provided similar items, but also added a number of problematic items such as drug trafficking, crime, corruption and migration. However, the fact that these were not seen as continuously present tended to make them acceptable for inhabitants of the surrounding communities. Land use and local zoning issues⁴ were perceived very differently by the respondents. On the one hand, the port authorities and industry took a positive stance, referring to the way in which clear planning today can put an end to years of contestation. Civil society representatives and the citizens from the focus groups, on the other hand, stressed the negative effects of villages having to make way for the harbour and the possibility of properties being expropriated. Respondents from the left bank, in particular, where the harbour continues to expand (a new lock – the largest in world – is currently being constructed and a new container terminal is being planned), expressed uncertainty that this will be the final stage in the 'incremental siting' of Europe's second largest seaport (cf. Simmons & Walker, 2004). The strongest positive associations with the

⁴ As the Flanders region is densely populated (on average the region counted 472 inhabitants/km² in 2013 - <http://www4.vlaanderen.be/sites/svr/Cijfers/Pages/Excel.aspx>), zoning issues tend to be sensitive and often emotionally charged.

harbour among these respondents were found in its role in economic development and employment, in its international character, and in its positive returns for the local community. In Table 1 we provide an overview of the most frequently mentioned themes and the way in which these were framed by respondents.

Table 1. *Inventory of the most pertinent themes associated with Antwerp harbour activity*

Theme	Framing
<i>Economic development and employment</i>	Most <i>positively perceived</i> theme across all respondents, with only a few negative connotations (e.g. tonnage and containers are not the only things that count).
<i>Traffic and mobility</i>	Strong <i>negative perception</i> across respondents
<i>Environmental nuisance: light, air and noise pollution, and illegal dumping</i>	<i>Negative perception, but</i> with general recognition of significant improvements. Pollution was seen as an occasional (but acute) problem, but also explicitly as a <i>solvable problem</i> .
<i>Administrative complexity</i>	<i>Negative perception:</i> different authorities with different competences leading to a lack of transparency, inefficient policy and control (e.g. major diversification of procedures for nuisance complaints and lack of an overview); perception of dodging responsibilities among some respondents and too much interference among others.
The port's international character	Mainly <i>positively perceived</i> by all respondents. Minor negative connotations related to drug trafficking, international crime and (illegal) migration, but these were considered to be incidental.
Returns for the local community	A <i>positive association</i> made primarily by citizens, referring to low municipal tax rates, sponsoring of local events and organisations by the port authority and industry, but also sharing of infrastructure, etc.
Place attachment and conceptions of the harbour	Perceived in a positive way as an active and dynamic place, a source of pride for the local community. Some negative associations linked to disruptions in local community life as a consequence of harbour expansions. Further negative perceptions related to a sense of

	detachment: the harbour as a distant place (people go there to work, but nothing more), but also the lack of communality between the two sides of the river Scheldt (different municipalities; harbour authority is responsible for both banks, but perceived as being part of the City of Antwerp on the right bank; and an inter-municipal utility company operating on the left bank).
Local zoning issues, land use and land claims	Quite <i>diverse responses</i> to this theme. Remains an obvious trigger for conflicts. Zoning mainly perceived positively by authorities and industry, yet strong negative perception among affected communities (remaining uncertainty about further expansion, particularly on the left bank). Nature compensation issues also lead to strongly divergent views: too little for some, too much or in the wrong place for others.
Transparency and participation	Positive perception of companies and (some) local authorities which organise community liaison activities. <i>Mixed</i> expectations were noted regarding extension of such activities. Most saw this as being necessary, but mainly those representing associations also expressed an interest in active engagement.
Uncertainty	<i>Negative associations</i> were made with uncertainty, linked to the impact of industrial activity and the Doel nuclear power plant, traffic safety, administrative complexity, and the future of certain residential areas within or bordering on the port's territory.

Taken together, the interviews and focus group discussions revealed four key issues which tend to dominate the discourse surrounding the port of Antwerp's activity (top part of Table 1): economic development and employment, problematic traffic and mobility, environmental nuisance and, finally, administrative complexity and transparency. While representatives of civil society displayed the most critical attitude towards – and to some extent the most negative perception of – these items during the interviews, the most prevalent view among the random groups of citizens in the focus groups can be summed up as 'no pain, no gain'. In their view, the port's

impact on the economy, especially the local economy, is important enough to make the negative aspects tolerable for its direct neighbours⁵.

In fact, the majority of the respondents we were able to recruit for the focus group discussions had some link with the harbour area (e.g. family or friends working there, they used the area for recreational use, etc.). This could explain why most respondents expressed a positive view of the port, referring to its employment figures and international character. Interestingly, many respondents without any direct links to the port also expressed positive views; however, their existing positive attitude towards the harbour may have been what triggered their desire to participate in the first place.

Another important finding is that there is a cleavage between place attachment on the left and right river banks. The framing of the themes listed in Table 1 seemed to be influenced mostly by which side of the river Scheldt the respondents came from. People clearly identified with either the right or left bank and focussed mainly on the activity going on in that part of the port. Consequently, few people or groups showed significant attachment to the entire area. This was not unexpected, given the long history of disconnection between the two river banks (due to the width of the river Scheldt in this area), the different municipalities involved, and both parts of the port being governed by separate administrative entities.

Furthermore, the results show that the administrative complexity of the port area (the public port authority, corporations in the public and private sectors, several municipalities of varying sizes, distinct provinces and intervening regional competences) influences citizens' perceptions in a negative way. Respondents referred to the complex administrative tangle as a nuisance and a restrictive factor in providing accessible, reliable and comprehensive information on environmental issues. From our observations of several meetings of the port's environmental platform, we can conclude that the lack of clarity regarding the distribution of environmental policy competences is a latent source of distrust and a driver of persistent conflict between the port authorities and their main industrial partners. More clarity and transparency are therefore needed with regard to the tasks and roles of the authorities involved.

One important limitation needs to be mentioned: of the 50 people who responded to our invitation to take part in the focus group discussions (out of a mailing list of 734 in total), no respondents belonged to ethnic minorities; residents from the city centre were also lacking. We acknowledge that this may have caused us to miss out

⁵ This is consistent with previous research on risk habituation, e.g. Simmons & Walker, 1999.

on additional perspectives, experiences and views. The apparent lack of interest among these groups is an important question for further research.

5. The co-production of sustainability indicators and a shared sense of (port) community

A final deliverable of our research project was a set of potential indicators for describing – mainly in an explorative and qualitative way – the harbour's relationship with citizens and local stakeholders. On the basis of this list, the sustainability report partners will further negotiate a short list, taking into account the indicators' relevance for sustainable development.

The indicators on our preliminary list can be divided into two interrelated domains. First, we have indicators relating to environmental nuisance such as preparedness to receive, register and deal with complaints. As illustrated in the previous section, a sustainable port of Antwerp may mean different things to different people, and sustainability reporting initiatives may be used for different purposes by different stakeholders. Accordingly, the complaints registered and the resulting indicators for environmental nuisance were diverse in nature, including light, noise and odour pollution but also littering and air pollution caused by fine dust. A second series of potential indicators relates to stakeholder engagement and public participation. As noted previously, we noticed during the preparatory discussions with members of the Antwerp Port Authority that a broader concern existed regarding public and stakeholder engagement – not only in direct relation to the development of the sustainability report, but also concerning the port's management in general. Apparently, the administrative complexity of the port area correlates closely to a need for more transparency. Based on the qualitative data gathered, we therefore suggested additional social indicators relating to public access to information and the transparency of procedures, as well as to the strengthening of place attachment, investments in social capital for participation, and the creation and integration of opportunities for societal reflection.

Following our analyses, opportunities for stronger community participation were identified and policy recommendations on community relations were made with the aim of extending the involvement and participation of a diverse set of actors (neighbouring communities, leisure users, private companies, and others active in the port area). While nature conservation groups have gradually become embedded in the port's community liaison activities in recent years, deliberative opportunities for residential neighbours, farmers and other local actors remain scarce (besides consultation as part of formal decision-making procedures regarding land use). Furthermore, the spectrum of actors involved in the advisory committee for the harbour's sustainability report is rather unbalanced; the focus is still on actors linked to the economic pillar. This is a situation that runs the risk of weakening the

attention paid to the two other pillars of sustainability and also threatens to undermine the social robustness of this innovative monitoring system.

On the other hand, we concluded from the focus group discussions that citizens in general are not necessarily interested in (additional) participatory initiatives, though tensions and even open conflicts regularly accompany decisions on new infrastructure in the area. With the exception of respondents involved in local associations and others who were clearly more informed about the port and its activities, several citizens we interviewed felt that dealing with the port authorities was the job of politicians. They also expressed concern that nobody cared about their input. In contrast, appreciation was expressed by citizens participating in the four community relations groups we observed. The initiating companies nevertheless reported finding it difficult to recruit new members (especially women and individuals from other ethnic and cultural backgrounds) for these initiatives. In addition, the networking character of the platforms prevailed over critical reflection, despite agendas being kept open.

The policy space for the port authorities is to a large extent limited by the major fragmentation of competences in the area. When setting up new initiatives, the authorities are largely confined by decisions made by other authorities and by the legitimacy granted to them by other actors. Nevertheless, we noticed that the dialogue surrounding the selection of indicators – carried out in full recognition of the divergent perspectives, stakes and administrative complexity of the harbour – created a sense of (port) community. The dialogue established a common understanding of the critical issues linked to the harbour area and its activities and also contributed to the incremental development of a communal ‘harbour’ identity.

Building on the concept of co-production (Jasanoff, 2004), our analyses thus illustrate that the search for order in the sustainability reporting of the Port of Antwerp was simultaneously a search for order in the identity of the port community itself. The development of sustainability indicators and the port as a community were found to be intertwined. It was an exercise in bringing society into sustainability indicators, but also of bringing sustainability indicators back into society. In other words, the port’s sustainability reporting initiative not only created new (reporting) standards and sustainability indicators, but, through dialogue, also allowed identities to be formed and a sense of (port) community to be established.

Conclusion

In this article, we discussed the port of Antwerp’s sustainability reporting initiative as a process of co-production. We established the particularity of this exercise as a form of regional sustainability reporting that is jointly initiated by public authorities and market players within the harbour community. It covers the

entire port area and reports on the joint performance of the harbour community. Two sustainability reports have been issued to date and a new iteration of stakeholder review has been launched to further define and fine-tune indicators for a third version. The collective outreach programme set up to develop these reports has broadened the network of actors involved and extended the dialogue around key environmental and sustainability issues related to the harbour's activity.

Our research team became involved in this process to investigate potentially meaningful indicators for environmental nuisance (especially light, noise and odour pollution). No agreement had been reached on this issue during the development of the first sustainability report. As environmental nuisance is related to both the 'planet' and 'people' pillars of sustainability, we sought indicators that would not only cover the measurement of e.g. decibels, but also incorporate perceived nuisance and situate this in its context. Therefore we opened up the study to nuisance in general (rather than focussing exclusively on environmental nuisance). We also approached it as a social construct, based on the coming together of the congruent or conflicting experiences, perceptions and related discourses of a diverse range of relevant parties. In addition, a broader concern was felt regarding public and stakeholder engagement – not only in direct relation to the development of the sustainability report, but also concerning the port's management in general. Following Turcu's position (Turcu, 2013) that sustainability indicators are non-universal and useful for both measuring progress and identifying problems, the research was set up to develop, through 'stakeholder elicitation', a set of potential nuisance indicators, mainly qualitative in nature. These indicators could then be fed into the sustainability report's 'stakeholder dialogue' as a basis for further discussion. Following our analyses, opportunities for stronger community participation have been identified and useful policy recommendations formulated on community relations, with the aim of extending the involvement and participation of a diverse set of actors (i.e. neighbouring communities, leisure users, private companies and others active in the port area).

Reflecting on our research outcomes and our interaction with the port of Antwerp's sustainability reporting initiative, we conclude that such initiatives not only create new discursive spaces for concern and mobilisation, new practices and new (reporting) standards: they also contribute to the creation of community identity, instigating yet another form of societal change. Through dialogue, identities are formed and a sense of community is established, as negotiating sustainability indicators ultimately involves negotiating the desired futures of an ideal harbour community.

Acknowledgments

This article is the result of a research project commissioned by the Antwerp Port Authority (GHA). The authors wish to thank the representatives from GHA and other members of the project's steering committee for their support. We also, thank Peter Simmons (University of East Anglia) and the anonymous reviewers for their useful comments on a previous version of this article.

References

- Berglund, B., Lindvall, T., & Schwela, D.H. (2000). *Guidelines for community noise*. Geneva: World Health Organisation. Retrieved February 12, 2014, from <http://whqlibdoc.who.int/hq/1999/a68672.pdf>.
- De Deckere, E., Bernaers, G., Vandendriessche, T., Van de Putte, P., & Vanfraechem, S. (2012). Sustainability Reporting. A trigger towards sustainable development of a port. *Port Technology International*, 54, 46-48.
- Deforche, J., Loots, I., Bergmans, A., & Vandermoere, F. (2013). *Belevingsonderzoek Haven van Antwerpen*. Universiteit Antwerpen, Onderzoeksgroep Milieu & Leefomgeving. ISBN : 9789057284373.
- De Langen, P.W. (2004). Governance in seaport clusters. *Maritime Economics & Logistics*, 6(2), 141-156.
- De Marchi, B., & Ravetz, J.R. (1999). Risk Management and Governance : a Post-Normal Science Approach. *Futures*, 31(7), 743-757.
- GRI, *Global Reporting Initiative*. Retrieved January 25, 2014, from <http://www.globalreporting.org>.
- Jasanoff, S. (2003). Technologies of Humility: Citizen Participation in Governing Science. *Minerva*, 41(3), 223-244.
- Jasanoff, S. (Ed.) (2004). *States of Knowledge. The Co-Production of Science and Social Order*. New York: Routledge.
- KAURI. *Belgian meeting point for sustainability*. Retrieved January 28, 2014, from <http://www.kauri.be>.
- Nowotny, H., Scott, P., & Gibbons, M. (2001). *Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty*. Cambridge: Polity Press.
- Parola, F., Satta, K., Penco, L., & Profumo, G. (2013). Emerging Port Authority communication strategies: Assessing the determinants of disclosure in the annual report. *Research in Transportation Business & Management*. Retrieved January 20, 2014, from <http://dx.doi.org/10.1016/j.rtbm.2013.04.005>.

- PIANC – WG150. (2013). *WG150 'Sustainable Ports': A Guidance for Port Authorities*. Retrieved February 2, 2014, from http://www1.iaphworldports.org/pdf/PIANC_WG150.pdf.
- Port of Antwerp (2014) *Sustainability Report*. Retrieved February 5, 2014, from <http://www.portofantwerp.com/en/sustainability-report>.
- Robinson, J. (2004). Squaring the circle? Some thoughts on the idea of sustainable development. *Ecological Economics*, 48, 369-384.
- Simmons, P. & Walker, G. (1999). Tolerating risk: policy principles and public perceptions. *Risk, Decision and Policy*, 4(3), 179-190.
- Simmons, P. & Walker, G. (2004). Living with technological risk: industrial encroachment on sense of place. In Å. Boholm & R. Löfstedt (Eds.). *Facility Siting: Risk, Power and Identity in Land Use Planning* (p. 90-106). London: Earthscan.
- Turcu, C. (2013). Re-thinking sustainability indicators: local perspectives of urban sustainability. *Journal of Environmental Planning and Management*, 56(5), 695-719. DOI:10.1080/09640568.2012.698984.
- Verhoeven, P. (2010). A review of port authority functions: towards a renaissance? *Maritime Policy & Management*, 37(3), 247-270. DOI: 10.1080/03088831003700645.

