

The role of governance in realising the transition towards sustainable societies

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abstract

It is widely known that governance is central to the successful implementation of sustainable development policies and measures. Yet, there is a paucity of research which explore the links between governance and

sustainability. This paper attempts to address this research need by providing an analysis of the role of governance in enabling and to some extent fostering a transition towards sustainable societies. A set of indicators for assessing the capacity for and willingness and commitment to transition to a more sustainable society is presented, enabling identification of direction of change. This paper presents the results of a study, in the context of which sustainability governance has been comparatively investigated in a sample of European countries with, by methodological purpose, very different economic, environmental, political and social conditions (Denmark, Finland, Germany, Latvia, Lithuania and Poland). Lessons learnt and examples of good practice which may be replicable elsewhere are outlined. For instance, it is discussed that limited knowledge about sustainable development amongst municipal development planners and decision-makers, deficiencies in policy integration, intersectoral cooperation, municipality and stakeholder cooperation and urban management practices are major reasons for weak governance practices in sustainable development. Furthermore, some recommendations on the role of sustainability governance are made, so as to allow the integration of the principles of governance into sustainability practice and hence provide a more general basis upon which a transition towards sustainable societies may become a reality in different types of European countries and societies. The scientific value of this paper lies in identifying opportunities for integrating principles of governance into sustainability practice, as well as outlining the basis for sustainability transitions, providing a general picture of required policy measures. The paper offers a unique comparative analysis of sustainability governance in the Baltic Sea countries, outlining some of the challenges in sustainability governance in the Baltic Sea region.

1. Introduction

Sustainable societies are characterized by a cautious approach and careful use of their natural resources, as opposed to favouring material abundance and overconsumption. It is often seen that, in many countries which have been

ability is an important factor in transitions towards sustainable societies (Grin et al., 2010; Meadowcroft, 2007; Tukker and Butter, 2007).

Sustainability governance may be defined as a modality of governance which takes into account the principles of sustainable development. In other words a governance system where the integration of sustainability into the business and management model is used, providing added value to citizens as shareholders.

The importance of governance for sustainable development has been discussed widely (e.g. Berkes and Folke, 1998; Berkes et al., 2003; Carlsson and Sandstrom, 2008). Governance for sustainable development links the traditional activities of government and other processes that regulate societal interactions with the particular objective of promoting sustainable development (Meadowcroft, 1997 in Meadowcroft et al., 2005). It is concerned with the design and implementation of government policy, collective processes of monitoring, reflection, debate and decision that establish the orientation for policy (Meadowcroft et al., 2005). Effective sustainable development governance at all levels is key to the realization of the goals of sustainable development (Anaedu and Engfeldt, 2002; United Nations, 2012). Mylan (2015) defends the view that sustainable consumption and practice are interrelated, whereas Tukker and Tischner (2006) outlined the links between products and services. However, as argued in this paper, sustainability transitions are hampered when policy and/or economic priorities contradict with principles of sustainable development, and trust in governance structures lacks (i.e., there is no institutional equilibrium).

The aim of the paper is, based on relevant indicators for sustainability governance, to make a comparative analysis of sustainability governance in the Baltic Sea countries, to outline good practices and lessons learned, as well as to identify opportunities for improving sustainability governance in particular countries and region as a whole. This is a timely contribution, since the conclusions from the UN Conference on Sustainable Development (UNCSD) held in Rio de Janeiro, Brazil in 2012 calls for a new emphasis on sustainable development (Leal Filho et al., 2015).

Six EU member countries from the Baltic Region were selected for this analysis (Denmark, Finland, Germany, Latvia, Lithuania and Poland), due to the

successful and have what could be called “sustainable societies”, sustainability is also based on principles of governance (e.g., climate policy (Janicke, 2012) and sustainable consumption patterns (Lorek and Fuchs, 2013; Tukker et al., 2008), while governance for sustainability is an important factor in transitions towards sustainable societies.

fact that this region is facing many common sustainability challenges regarding the conservation of the Baltic Sea, and all geopolitical issues associated with it. The countries were selected as they include more advanced economies as well as “new” EU member states with still facing an institutional inheritance from the Socialist system. The working hypothesis is that sustainability governance is a condition for transition to a more sustainable society, where indicators are instrumental in assessing the capacity, willingness and commitment to pursue it, and identify directions of change in sustainability governance.

After an elaboration on sustainability governance, study design and methods, indicators of good governance and an institutional equilibrium are presented in the context of challenges in sustainability transitions. The indicators are applied to all countries studies. Afterwards, more specific country studies are presented. In the conclusion, the authors reflect on the opportunities for countries with a lower level of good governance and a low trust in the functioning of sustainability governance (Latvia, Lithuania, Poland) to learn from and mimic good practice from the countries exemplified by a high level of good governance and high trust (Scandinavian countries).

2. Sustainability governance definition and indicators

Sustainability governance is a complex issue that requires transformation of the current governance approach as well as institutional innovation and participation of non-state actors at international, national and local levels. It is a broader concept than so-called (socio-) political governance (Kooiman, 1999; Panchanan, 2008) where effectiveness and efficiency of policy making and implementation of administrative units are elementary. The concept of ‘governance’ focuses on the complex of interacting organizations and systems of government, business and civil society (Dorcey, 2004), where order is created with the aim of reducing conflicts (Williamson, 1998). Governance for sustainability demands the meaningful and accountable participation and solutions from people (Kanie et al., 2011). It addresses the key issues of globalization, democracy, and sustainability (Bosselmann et al., 2008). Governance for sustainability concerns society's steering capability (Stiftung,

2014) as well as its capacity for integrated policy making (Clark, 2012) and to determine its own path of sustainable development (Platje, 2011).

The functioning of governance for sustainability depends on political, social, economic, environmental and socio-spatial aspects and priorities, and is highly dependent on local knowledge (Kovacs and Varjú, 2009) as well as local stakeholder participation (Disterheft et al., 2014). For instance, Pita et al. (2012) illustrated how participatory issues in fisheries governance in Europe lead to greater efficiency.

However, the formal system of sustainability governance cannot support transitions to a more sustainable society without an institutional equilibrium where informal rules, norms, values, etc. support the formal framework (see Furubotn and Richter, 1997, 23). Important elements of such an institutional equilibrium are priorities supporting goals of sustainable development (increasing the willingness and commitment to change) and trust in different elements of sustainability governance e also including grassroots (Smith et al., 2014; Martina and Upham, 2015) strengthens the capacity to change (Acemoglu, 2003; Platje, 2008; Greif and Kingston, 2011). In the ideal situation, people will be induced to behave in a way that supports sustainability transitions, as there is less questioning of decision-makers and the rules as such, but also the problem of lying and cheating is reduced as a situation exists where rules are mutually beneficial and self-enforcing. An efficient sustainability governance structure exists when “this structure motivates each individual to follow a regularity of behaviour in that social situation and to act in a manner contributing to the perpetuation of the structure (Greif and Kingston, 2011, 25).”

Some of the indicators which may be used to measure sustainability governance are:

- i. existence of socially just and ethically accepted values
- ii. equal emphasis to economic and ecological value of natural resources
- iii. degree of acceptance by the stakeholders (citizens)

Also, the definition of targets and commitments in the sustainability area is also a good indicator of sustainability governance.

As private economic activity in markets does not necessarily lead to either environmental sustainability (Rao, 2000) or social and economic sustainability (Castells, 1996), there is a task for public governance to support sustainability. However, the current situation gives evidence that public governance, alone, has failed to address the problem of sustainability. This, among other things, depends on its executive capacity, executive accountability and policy performance (Stiftung, 2014), discussed later in this paper. As a response to its inadequacies, private sustainability governance has emerged. Today, it is considered as an essential component of global sustainability governance (Abbott, 2012). Among achievements of this approach are establishment of numerous organizations to address climate change, e.g. the International Emissions Trading Association, World Business Council for Sustainable Development (WBCSD), the Global Sustainable Electricity Partnership, the Forest Stewardship Council, voluntarily commitments of many business firms to reduce their carbon footprints and adopt good environmental practices, and business for civil society collaborations e.g. the Greenhouse Gas Protocol developed by the World Resources Institute and WBCSD (Abbott, 2012).

The links between the definition of the concept of sustainability governance and its operationalization are strong and can be visualised by means of the integration of sustainable management policies and systems throughout the country, city or even a company, and by ascertaining the extent to which a governance system has been used towards the implementation of sustainability strategies.

The greater involvement of civil society and local forms of governance are crucial for the successful implementation of sustainability norms into the broader EU institutional framework (Bosselmann et al., 2008). Non-governmental actors can help deliver on sustainability even where countries

and intergovernmental organizations cannot. Shared transition to a more sustainable society requires shared responsibility among governments, intergovernmental organizations, and the non-governmental organizations (Jacob, 2012). Organisations such as the Global Agenda Council on Governance for Sustainability stimulate wider debate by examining ways to articulate a new kind of possible global architecture for sustainability governance that reflects multilateral and multidimensional attributes (World Economic Forum, 2014).

3. Study design and methods used

A set of indicators were chosen, based on the applicability and functionality in allowing an overview of the extent to which the sampled countries see and regards governance. The indicators relevant for sustainability governance are based on the European Union's and World Bank's principles of good governance (Kaufmann et al., 2009a,b), and extended with the notion of an institutional equilibrium (Furubotn and Richter, 1997; Platje, 2008; Greif and Kingston, 2011). The concept of governance is embedded in the research question here being pursued, namely “to which extent do Baltic countries pursue and implement sustainability governance”. While the indicators are rather broad constructs requiring deeper analysis of each individual indicator, they provide a more general picture enabling the identification of directions of change in the architecture for sustainability governance, including better integration and improved institutions and decision making mechanisms (Earth System Governance Hakone Vision Factory, 2011). Proposals for the required transformative changes in the architecture of governance for sustainability can be assessed using the indicators presented.

Good governance concerns stakeholder participation, accountability, effectiveness and policy coherence, facilitating sustainability transitions. An institutional equilibrium exists when peoples' value systems, worldviews, mental models, etc. support the formal rules. Peoples' priorities should be directed towards sustainability, which in combination with good governance empowers them to identify synergy effects and trade-offs in transitions to a more sustainable society and prevents strong economic stakeholders to push through policies and investments in contradiction with principles of sustainable development (Platje, 2011). The bottom line may be access to reliable information and information technologies, including social media, accompanied by clear rules and identification of responsibilities, making stakeholders in sustainability governance more responsible and accountable for their actions. This is related to the need for authority and leadership for efficient sustainability transitions (Kanie et al., 2011), while developing mechanisms that enable meaningful involvement of other actors, including highly respected persons or organizations, cities, communities and social movements in governance for sustainability (Kanie et al., 2011). This may stimulate and support transboundary communication and deliberation (Kanie et al., 2011).

The data used for assessing sustainability governance was drawn from the World Bank's World Wide Governance Indicators (WGI), the Bertelsmann Foundation, the OECD, Eurostat, national statistical offices, and additional literature. These databases represent the publicly available data sources for international comparisons in the wide area of sustainable development. All these available measurements of indicators have their specific strengths and limitations.¹ However, the authors have tried to combine the used measurements in a complementary way, and supplemented it by qualitative assessment in order to reflect country-specific issues, trying to compensate for specific limitations of single indicator and measurements as far as possible.

First, WGI uses a wide range of sources in order to compare a wide range of countries and topics. As a consequence, small differences between countries should not be overestimated. Second, WGI as well as OECD, Eurostat and national statistical offices provide longitudinal data, which allow tracking specific indicators over a certain period of time. This possibility of longitudinal

comparisons implies standardization and simplification of indicators. Third, to cope with these limitations to a certain degree, Bertelsmann Foundation focuses more on assessments of several regional experts which are validated with aggregated statistical data.

For example, the sustainability governance indicators from the Bertelsmann Foundation (2011) concern OECD countries, where statistical data are assessed for each country by two experts from different backgrounds. While more qualitative expert opinion may provide information and insider knowledge not captured by the official statistical data, and provides a broader perspective, it creates the limitation of subjective perceptions.

In terms of the analysed European countries, the sampled Baltic States (Denmark, Finland, Germany, Latvia, Lithuania and Poland) have been chosen based on a common history, very close geographical and political integration, and the fact that they belong to various regional bodies. Despite their geo-political similarities these countries are quite different in various areas. For instance, the size of their population is quite different. According to Eurostat on 1 January 2013 it was about 80.5 million in Germany, compared to 38.5 million in Poland, 5.6 million in Denmark, 5.4 million in Finland, almost 3 million in Lithuania and around 2 million in Latvia. This creates very different, but in the perspective of this paper also interesting challenges for sustainability governance. Quantitative and qualitative indicators have been used in this paper in an integrated way, since, they provide general information which can be useful for identifying factors hampering or supporting transformations towards a more sustainable society and governance over a certain period of time. A quantitative approach is thus supplemented by a qualitative assessment, in order to obtain a more balanced picture.

In terms of content, WGI consists of voice and accountability,² political stability and absence of violence/terrorism,³ government effectiveness,⁴ regulatory quality, rule of law and control of corruption⁵ (Kaufmann et al., 2009a,b). As voice and accountability are supported by public participation, we also consider voter turnout in national parliamentary elections and voter turnout in EU parliamentary elections (Commission, 2005). Additionally, indicators of science and education are added. Specifically in our context expenditure on R&D, environmentally-related R&D (Spangenberg et al., 2002, 65) and expenditure on education as a share of GDP as well as the number of patents on eco-efficient production technologies show the willingness and effort in single countries to deal with sustainability issues. Furthermore, education and science facilitate improvements in sustainability governance and better understanding of the need for change towards a more sustainable society.

The Bertelsmann Foundation Sustainability Governance Index (SGI) (Stiftung, 2014) with its focus on policy performance, democracy and governance helps to provide a better picture of sustainability issues. SGI is useful in identifying good practice. While WGI rather focus on elements of good governance influencing the capacity for sustainability governance, SGI consider what societies do in reality by assessing policy performance regarding achieving social, economic and environmental goals and contributing to sustainability on a global scale. Economic policies embrace labour issues, research and innovation, markets, taxes and the global financial system. Social policies contain education, social inclusion, health, families, pensions, integration, safe living and global inequalities. Environmental policies concern environment and global environmental protection. Democracy is not only related to participation and creation of capabilities for citizens, but also to enhancing support for policies, i.e., the creation of an institutional equilibrium. This indicator includes elements of the WGI, such as rule of law, but emphasises the importance of access to information and different civil rights and political liberties. The authors add a measurement of access to information proposed by Spangenberg et al. (2002): the number of newspapers circulating or number of Internet subscribers or people with Internet access. The governance pillar of the index examines “executive

capacity”, the public sector’s capacity to deal with sustainability issues as well as ‘executive accountability” where in participatory processes citizens and Non-Governmental Organizations (NGOs) can make government officials accountable.

In order to provide a picture of the level of institutional equilibrium in the different analysed European countries, indicators of trust are also used and discussed in this paper. First of all, the level of general trust, the trust in people we do not know (OECD, 2011), is important in this context. Together with trust in law making, policy making and executive institutions, such as parliament, the government, the police, local authorities and the judiciary/national legal system, it shows potential frictions in transitions to a more sustainable society. The Gini coefficient, showing income differences, provides some relevant information on social cohesion for our comparative study. A lack of trust in the press may lead to increased difficulties regarding access to information as well as accountability of officials. When information becomes public this information is more likely to be questioned.

Finally, political and societal priorities are discussed based on the adequate balance between formal government, civil society and individual respectively firm-specific engagement of single citizens. This aspect is a crucial criterion for the Bertelsmann Foundation for sustainable governance (Stiftung, 2014). While the SGI include focus on sustainability issues, when the priority remains fast and strong economic growth, this is a serious boundary constraint for effective transitions to a more sustainable society, as sustainability aims may be easily sacrificed for the aim of growth (Platje, 2011).

4. Findings from the sustainable governance study: good governance and the institutional equilibrium in Baltic countries

In this section, an overview and analysis of the results is provided, along with the indicators of good governance and an institutional equilibrium seen, hence providing a picture of the capacity, willingness and commitment facilitating sustainability transitions. Some particularly important country-specific issues are dealt with in Section 5.

Table 1 summarizes the six for this paper applied World Bank indicators of good governance.

Each individual indicator can range from 2.5 (weak) to 6.25 (strong). Finland and Denmark can be assessed to have strong governance, Germany is a bit weaker, while Poland and the two Baltic States with a positive score can be portrayed having medium levels of governance. Although the indicators of good governance are in general below the values Germany and the Scandinavian countries, it should not be forgotten that there is a huge difference between Poland and the Baltic States and neighbouring former Soviet Republics Russia, Ukraine and Belarus, which for all elements of good governance obtain negative marks. There may be two important explanatory factors for this difference. First of all, after the fall of communism the economic and political power was

Table 1
Indicators of good governance in Baltic Countries.

	Denmark	Finland	Germany	Poland	Lithuania	Latvia
Voice and accountability						
1996	1.58	1.56	1.33	1.01	0.94	0.63
2004	1.83	1.81	1.47	1.00	0.88	0.69
2012	1.69	1.62	1.38	1.06	0.91	0.74
Political stability and absence of violence/terrorism						
1996	1.36	1.33	1.21	0.72	0.38	0.44
2004	1.05	1.59	0.63	0.11	0.72	0.60

2012	0.90	1.38	0.77	1.03	0.75	0.43
Government effectiveness						
1996	1.91	1.84	1.84	0.78	0.32	0.19
2004	2.34	2.21	1.53	0.49	0.75	0.65
2012	1.97	2.21	1.57	0.66	0.83	0.83
Regulatory quality						
1996	1.79	1.48	1.38	0.65	1.17	0.99
2004	1.78	1.81	1.49	0.81	1.14	0.99
2012	1.79	1.82	1.53	0.96	1.10	1.00
Rule of law						
1996	1.79	1.88	1.57	0.67	0.36	0.03
2004	1.95	1.97	1.63	0.40	0.58	0.58
2012	1.85	1.94	1.64	0.74	0.81	0.76
Control of corruption						
1996	2.37	2.36	1.99	0.54		0.82
2004	2.51	2.53	1.86	0.11	0.06	0.32
2012	2.39	2.22	1.78	0.59	0.31	0.15

disconnected in Poland and the Baltic States, preventing the development of oligarchic structures, being able to influence the legal and administrative system in their own advantage. Secondly, the aspiration of joining the European Union may have provided incentives for strengthening of the institutional and administrative system, as well as sectors such as energy (Plumb and Zamfir, 2009).

Of course, this is only a general picture, and for policy purposes each indicator needs deeper study related to the country's specific institutional context. However, the fact that some countries with stronger governance, and a higher level of institutional equilibrium as shown later, are supposed to have more capacity for sustainability transitions than other countries, indicates challenges when transnational solutions are needed.

The data on the six indicators of good governance presented in Table 1 allow for the following observations: While Finland and Denmark have remained at a stable, high level of good governance between 1996 and 2012, Germany remained at a medium high level. However, political stability seems to have slightly decreased in all three countries.

The level of good governance in the Baltic republics and Poland is lower than elsewhere in the region. These countries have experienced some improvement, in particular in the field of government effectiveness, control of corruption and rule of law. Poland, after a deterioration of marks between 1996 and 2004 (due to a decline in perceived political stability and government effectiveness), improved its marks by 2012. Over the whole period, the regulatory quality improved a little.

Voter turnout for European Parliament elections was in 2009 almost 60% in Denmark, over 50% in Latvia and over 40% in Finland and Germany. Poland (under 25%) and Lithuania (about 21%) rank below the 43% EU average (European Parliament, 2014). According to Eurostat data, also in national elections Danes (87.7% in 2011) were very active, followed by Germany (71.5% in 2013) and Finland (67.4% in 2011). While voter activity in Poland (58% in 2011) and Latvia (59.5% in 2011) is not impressive, the situation in Lithuania (35.9% in 2012) confirms the low participation observed for the EU elections.

In Denmark, at the moment 63 civil society organizations are active in the field of sustainable development (<http://www.bu.dk/pages/396.asp>). There are 15 national and 54 local newspapers (<http://mediavejviseren.dk/aviser/danske-aviser-danmark.htm>). Finland had in 2012 in total 183 newspapers (OSF, 2012). Latvia has 56 newspapers in Latvian language, 13 in Russian language, while about 10 NGOs are involved in protecting social and environmental rights. However, these NGOs have usually 5 to 20 members.⁶ Compared to Scandinavia, similar

⁶ For information on Latvian NGOs in the field of the environment and sustainable development, see <http://www.ngolatvia.lv/en/organizacijas-3>.

⁷ In 2011, about 62% of the Latvian population was of Latvian nationality; about 27% is of Russian origin (Latvijas Statistika, 2012). Almost 70% of the Estonian population is Estonian,

to Poland and Lithuania, access to information provided by mass and niche media is rather poor, but improving, while bureaucratic barriers still exist in establishing civil society organizations (Huber, 2011). Internet use is the highest in Denmark and Finland (about 90% of the population uses the internet at least once per week), followed by Germany (80%), while in Poland and the Baltic States a significant part of the population never use the Internet.

Political stability and absence of violence/terrorism is generally related to the rather broad, and only partly operationalized, peace principle of sustainable development. Regularly changing governments, as has been for example observed in Poland, is unlikely to support policy coherence, long-term learning processes and creation of an efficient administration, while explaining the decline in political stability (European Commission, 2012; O'Riordan and Voisey, 2013). Another issue, which is of particular importance in Latvia and Estonia, is the large number of stateless inhabitants of Russian origin with neither Latvian/Estonian nor Russian citizenship,⁷ which is not only in contradiction with the principle of participation, but also related to Russia as a dangerous stakeholder in Latvian and Estonian politics. In Latvia a number of political parties are based on the ethnic/language principles, while some extremist groups exist. Since 2014 the threat of a military invasion risk is increasing, while social cohesion is reduced due to large income inequalities (higher Gini coefficient see Table 4).

The high but declining political stability in Denmark may be related to a reduction of the welfare state and increasing youth unemployment, leading to strong reduction in support for the social democratic party. Furthermore, while the majority of the Danish voters seem to be clearly "contra EU", all major parties (except the "Danish People Party") are still generally "pro EU", also during the EURO crisis (e.g., De Sio et al., 2014).

In Germany, a reason for declining marks may also be the structural welfare system problems (in policy fields such as health care, pension system, primary and secondary education), and voters seeming to have big problems in understanding why the "political class" in Germany is still supporting the EU very much in the course of the crisis in the Euro-zone. Also, problems with immigrants/minorities in large cities, seems to contribute towards creates instability (e.g., De Sio et al., 2014).

Denmark and Finland have a very efficient government and public services and very high public service levels (e.g., a fully tax-financed health care system, education support for all students independent from parents' income) as well as high standards for recruitment of government personnel. This is followed by Germany whose standards are also rather high.

In the Baltic republics and Poland, government effectiveness is limited and bureaucratic delays are quite common, while the rate of governmental personal turnover is high due to a low level of salaries. Qualification and competence of governmental personal often is low (often, still informal connections are needed to get a job in the governmental sector) (World Bank, 2013, 16e18). The healthcare system is in a permanent reform process and, while being formally free of payment, for a part of population not accessible. In Poland, many private health care and private higher education institutes exist, due to the lack of capacity of the statefunded system (e.g., Boulhol, et al., 2012). An efficient and sustainable health care system is assessed as one of the public core services in most of the reviewed sustainable governance surveys and reports (e.g. Commission of the European Communities, 2005; Stiftung, 2014).

Regarding science and education, government expenditure on education as a percentage of GDP is the highest in Denmark, followed by Finland and Germany. The Baltic republics spend the highest percentage of national income on environmental protection (but their GDP per capita is significantly lower than in Scandinavia). With Finland as the leader, also Denmark, Germany and Estonia spend a significant share of their national income on R&D (Table 2).

However, the Government's ability to provide services and ensure high quality is not only directly related to the size of

Table 2

while over 25% is of Russian origin. Lithuania has a 6% Russian and a 6% Polish minority. Towards the end of the first decennium of the 21st century, about 18% of the Estonian and 13% of the Latvian population was stateless (Aptekar, 2009, 510).

Government expenditure on education and environmental protection as % of GDP.

Country	Education			Environmental Protection (2012)		R&D
	2007	2009	2012	Total	Research and Development	2012
Denmark	6.75	7.97	7.88	0.40	0.02	2.99
Finland	5.75	6.58	6.35	0.25	0.03	3.55
Germany	3.94	4.40	4.34	0.58	0.05	2.92
Latvia	5.85	6.78	5.48	0.74	0.00	0.66
Lithuania	5.17	6.83	5.60	0.90	0.00	0.90
Poland	5.67	5.58	5.46	0.56	e	0.90
Total EU 27	5.07	5.55	5.26	0.82 ^a	0.02	2.06 (EU28)

^a Leaders in government expenditure on environmental protection as a percentage of GDP are The Netherlands (1.68%), The Czech Republic (1.36%) and France (1.10%). Source: http://epp.eurostat.ec.europa.eu/statistics_explained/images/3/33/Evolution_of_general_government_expenditure_on_education_by_country%2C_2006-2012_V2.png; http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Government_expenditure_on_environmental_affairs; http://epp.eurostat.ec.europa.eu/statistics_explained/images/2/2a/Gross_domestic_expenditure_on_R%26D%2C_2000-2010_%28%25_share_of_GDP%29.png.

Government spending, but also to the capacity to use the funds efficiently, which is an issue in Latvia, Lithuania and Poland.

Finnish public schools are high quality in teaching processes (e.g. Global PISA Benchmark, 2012, Finland's position number 12). Danish public schools are currently in a fundamental organizational and pedagogical restructuring process, with the aim to significantly improve the students' learning conditions and competencies in general, but also specifically from a sustainable development perspective (e.g., [the Danish Government, 2013b](#)).

While people in the former socialist countries are formally well educated, education and science is less practice oriented. Under the old system, social sciences were heavily influenced by ideology, while the educational system focused on the reproduction of facts and theories, and not on practical application and use. As a consequence, lack of operationalization of theories of sustainability and sustainability governance reduces society's capacity to solve problems and support sustainability transitions. This deepens the problem of the lack of knowledge about sustainable development both in society and amongst stakeholders as indicated by several surveys ([Klavins and Pelneņa, 2010](#)). Since sustainable development is a general idea that must be adapted to specific local social, cultural and political conditions and must be understood and accepted by a large part of society, education on sustainability issues is one of the key factors, to promote integration of the concept into everyday life and policy. In Latvia there exists political commitment to integrate education for sustainable development into the national educational system as it is stated in the Environmental Protection Law of the Republic of Latvia ([Saeima, 2006](#)), article 42 (3): "All higher school and college teacher-training programs include courses on sustainable development." However, real progress has not been observed ([Klavins and Pelneņa, 2010](#)) and issues concerning sustainable development are minimally considered in the education process.

Regarding eco-innovation, Finland is ranked 1st, Denmark 2nd and Germany 4th among the 28 EU countries, while the so-called "catching-up" countries Latvia, Poland and Lithuania were ranked 24th, 27th and 28th respectively in 2012 ([EIO, 2013b](#), 19). In Denmark, about 660 eco-efficiency related patents were registered in 2010, in particular in the field of wind energy technology, energy and material efficiency technologies, waste treatment and closed loop recycling & re-use; drinking water quality, public transportation ([Danish Energy Agency et al., 2012](#)). In Finland, the total number of patents in 2012 amounted to 835, but it is not possible to categorise them according to eco-efficient production technologies.

Together with a strong emphasis on education, Finland's innovative capacity may strongly support socio-technological sustainability transitions. According to Eco-Innovation observatory ([EIO, 2013a](#)):

"Finland is one of the most innovative EU Member States. The Finnish national innovation system is an extensive entity, based on education, research, product development as well as knowledge-intensive business and industry. The innovation policy is bound to science and technology policies, which together aim at ensuring balanced development and extensive cooperation within the innovation system. Eco-efficiency and environmental approach has traditionally been a baseline of Finnish production technology."

However, the incentives for eco-innovation seem to be economic, related to improving material efficiency in energy and material intensive industries (pulp, paper, base metal, and chemicals). Finland is one of the most material intensive countries, with efficiency gains which are relatively small compared to Latvia and Poland, where due to the replacement of outdated physical capital efficiency gains may be more easily obtained ([EIO, 2013b](#), 23e24). The Finnish government strongly supports eco-innovation in the context of a national innovation system, while implementing many environmental policies.

In regulatory quality, regarding environmental considerations in decisions on investment and development, also Denmark and Finland take the lead ([The Danish Government, 2013a](#)). While Poland, Latvia and Lithuania perform seemingly poorly in this aspect, the last two countries' environmental policy is assessed at a similar level as the Scandinavian countries ([Table 3](#)), which may be explained by stronger co-operation with these Scandinavian countries than in the case of Poland.

When considering the level of sustainability governance ([Table 3](#)), the picture is similar as for good governance. However, while the Scandinavian countries have an advantage regarding overall social and economic policies, for environmental policy Denmark and Finland rank below the other countries (with the exception of Poland). One possible explanation for this difference could be that (especially) Germany and the Baltic countries focused on developing their clean tech (domestic as well as export) industries in the last year. This policy was not only driven by environmental, but also by straight-forward economic consideration (e.g., [Frondelet et al., 2010](#); [Klessmann et al., 2011](#)). Furthermore, Germany has a higher rank in governance due to its executive accountability than Poland and the Baltic States.

According to the data in [Tables 4 and 5](#), Denmark and Finland, being pluralistic, liberal and transparent societies, can be considered high trust countries, Germany a medium-trust country and Poland and the Baltic States low-trust countries. The low level of generalized trust may have its roots in the socialist system. In what [Rose \(1995\)](#) called the hour-glass society, at the highest level the so-called nomenklatura divided the leading positions, while at the lowest level family and friends needed each other to manage daily life (e.g., the acquisition of food and consumer goods in the shortage economy). While there was no real interaction between these groups, the relations within the groups were based on primary trust (between family and friends) and process-based trust (trust created based on repeated interaction between people) ([Raiser et al., 2001](#)). This, in turn, may reduce transparency and participation due to the creation of closed groups in sustainability governance.

Together with the rather declarative commitment to sustainability issues (see [Section 5](#)), this creates serious challenges for the last group of countries, as such an institutional disequilibrium

Table 3
Sustainability governance indicators 2014.

	Economic policies	Social policies	Environmental policies	Policy performance	Democracy	Executive capacity	Executive accountability	Governance
Finland	7.85	7.82	7.00	7.56	9.10	8.56	8.12	8.34
Denmark	7.31	7.58	7.34	7.41	8.95	8.36	8.21	8.28
Germany	7.32	6.86	7.60	7.26	8.64	6.87	7.47	7.17
Lithuania	5.96	6.54	7.46	6.66	8.12	7.12	5.51	6.32
Poland	5.56	6.15	5.86	5.86	8.37	7.19	6.23	6.71
Latvia	5.75	5.29	7.47	6.17	8.07	7.42	5.03	6.22

Minimum score e 1; maximum score e 10. Source: Bertelsmann, 2014, 15e16.

Table 4
Level of generalized trust and Gini-coefficient.

Country	Percentage of people expressing high level of trust in others (2008)	Gini coefficient	
		2005	2012
Denmark	89	0.239	0.281
Finland	86	0.26	0.259
Germany	61	0.261	0.283
OECD	59	na	na
Poland	47	0.356	0.305
Latvia	na	0.362	0.357
Lithuania	na	0.362	0.32
EU27	na	0.306	0.306

Source: OECD, 2011, based on ESS (European Social Survey) and ISSP (International Social Survey Programme). Gini coefficient: Eurostat. <http://cpi.eurostat.ec.europa.eu/tgm/table.do?tab%table&language=en&pcode%tessi190>.

Creates a basis for disobedience of existing formal rules and new policy measures. Also a mentality of nationalism in these countries, low acceptance of existing rules and a tradition of bending rules (Morawska, 1984) hampers sustainability governance. Social cohesion represented by income inequalities (the lower the Gini coefficient, the lower the income inequalities) seems to go in pair with a high level of generalized trust (i.e., trust in people we do not know personally).

Summarizing, the six EU member countries in the Baltic Sea region studied in this paper can be divided into three groups:

1. The Scandinavian countries (Denmark, Finland) with the highest level of real

Country	Parliament (2012)	Government (2012)	The press (2013)	Regional/local authorities (2013)	The police (2010)	Justice/national legal system (2010)
Denmark	63	42 (55.4)	52	71	89	84
Finland	66	62 (62.0)	68	65	91	77
Germany	46	41 (44.8)	46	65	77	60
Latvia	13	17	46	48	45	36
Lithuania	13	21	40	34	44	22
Poland	20	23 (30.5)	48	47	55	38
Sweden	68	59 (65.3)	49	61	82	73

Source of data in brackets for trust in the government: OECD, 2011, based on ESS (European Social Survey) and ISSP (International Social Survey Programme). Source: Eurobarometer (2013).

GDP per capita and the lowest inequalities (Eurostat data), supporting social cohesion. These countries are featured by a high level of good governance, a high level of trust and significant scientific and innovative efforts. While this should support sustainability transitions and the creation of good practice which may be mimicked by the other countries, they have the finance to deal with many locally-specific environmental problems as their level of

Table 5
Level of trust e % of population that tends to trust.

- development has allowed for satisfying many socio-economic demands.
- Germany is featured by relatively high level of good governance, while trust is at a medium level. The level of real GDP per capita is lower than in the Scandinavian countries and income distribution is a bit less equal. Another issue is the administrative structure. The Eastern part (the former German Democratic Republic) has undergone a transformative process after the unification in 1990. While due to huge investments and financial transfers from the western part of the countries the developmental differences have decreased, differences in GDP per capita and unemployment are still significant (for example, Tabellini, 2010).
 - Former socialist countries appear in our comparative analysis with relative low indicators of good governance, lower real GDP per capita, higher unemployment levels and higher income inequalities, reducing social cohesion (for example, Tabellini, 2010). A significant problem is the emigration of labour, which is relatively well educated, to Western Europe due to high wage differentials as well as the level of social security (Jonczyk and Rokita Poskart, 2013). In 2011, more than 2 million Poles (over 5% of the population) had emigrated, an increase of 1.2 million compared to 2002 (GUS, 2013, 88), of which more than 1.5 million stayed more than 12 months abroad (GUS, 2013, 91). Eurostat data show an outflow of Lithuanian and Latvian citizens to other EU countries. This has serious demographic consequences and creates imbalances on the labour market.

5. Baltic Sea countries' challenges in sustainability governance

In order to allow a better understanding of the emphasis Baltic Sea countries give to sustainability governance, this section of the paper outlines particular challenges at country level.

5.1. Finland and Denmark

In addition to its very stable democracy and 'good social and environmental governance' related to a very high degree of economic equality and trust (European Commission, 2012; Jensen, 2003), Finland as well as Denmark have a strong tradition of political and administrative transparency as well as of direct participation of citizens in political and administrative decision making (for example in environmental impact assessment [EIA] process, Danish citizens can participate in approval procedures for infrastructure projects, and become board members in public institutions and companies).

In Denmark, a number of pioneering environmental regulations and policies date back to the 1960s and 70s. The Danish government was one of the very first

governments worldwide to systematically support research and development as well as public and private power consumption in the area of renewable energy, with focus on wind energy. Another example of good practice is a law passed by the Danish parliament on CSR reporting for its companies, mandating that companies disclose their CSR activities. Denmark encourages the use of the GRI G3 guidelines and the UN Global Compact Communication on Progress (Institute of Directors in Southern Africa (2009)).

Although Denmark still has the reputation of an environmental, social, and political role model in the EU and worldwide (Danish Energy Agency et al., 2012; European Commission, 2012), currently it is facing some serious governance challenges related to its national and the related European and international transition goals towards a sustainable society (results of Rio and post Rio meeting/s, 1992 etc., EU Lisbon Strategy e European Parliament, 2000, Renewed EU Sustainable Development Strategy e CEU, 2006). The following examples are only short illustrations for challenges in complex transition processes.

- (i) To reach its ambitious '100% renewable energy by 2050' climate goals (The Danish Government, 2013a), Denmark needs to supplement its strong wind energy sector with additional internationally competitive industries (for example, bio energy or energy efficiency technology, as e.g. 'smart metering', waste and waste water technology). At the moment many of the SMEs in these industries are still suffering from the negative effects of the recent global financial crisis.
- (ii) Like in Finland, despite the fact that the financial situation of the Danish state and municipalities is very stable, there are severe cut-backs in the welfare state and social service levels (e.g. unemployment and pension benefits, education support and facilities etc.) in the last years and these cut-backs are supposed to continue in the coming years.
- (iii) Danish Citizens' trust in central political institutions (national parliament, members of parliament, 'politicians' in general, but also specifically the EU and its political and economic institutions) has decreased since 2007 (European Commission, 2012). Furthermore, the current parliament plans to reduce direct participation of citizens in political and administrative processes in the coming years. One example for this trend, amongst others, is a new 'publicity law' (valid from January 1st 2014), which restricts citizens' access regarding political and administrative records.

All in all, Finland and Denmark are currently relatively well prepared for the forthcoming transition process towards governance for sustainable development, compared to many other countries in Europe and worldwide. The Scandinavian countries, in the framework of the Nordic Council of Ministers, have already developed and implemented a method and indicators for the monitoring of a number of basic policy outcomes with respect to sustainability (Norden, 2013). However, the 'erosion' of the welfare state and the diminishing political trust this brings about (EspingAndersen, 1996), could be a serious barrier for mobilizing additional civil society resources as support for the countries ambitious sustainability goals. In particularly for young people currently face quite mixed future perspectives with a more demanding education system and labour market on the one hand and a shrinking welfare state of the other. In this sense, the transition process to a sustainable society must ensure a sufficient number of new jobs for younger people with different education levels to be successful. This educational and labour-market-related challenge for sustainable development and governance in the long run should be reflected in the institutional equilibrium of the Danish political system as well as in the long-term innovation policy of the Danish state.

5.2. Germany

Sustainable development is seen, perceived and treated as a matter of great interest in Germany. In 1996 the NGOs BUND and Misereor published a study entitled "Sustainable Germany", which initiated a broader public debate

on sustainable development (BUND/Misereor, 1996). The debate became so intense that the government decided to act and produce a national strategy specifically related to sustainable development for the country.

The National Sustainability Strategy was approved in 2002 and has since then determined the course for sustainable development in Germany. It holds the title "Perspectives for Germany e Our strategy for sustainable development" and entails specific goals and tasks. In the centre of the National Sustainability Strategy are intergenerational equity, quality of life, social cohesion and international responsibility. On this basis the German government conducts a sustainability audit for each project. The most important challenges sustainable policies currently face are healthy public budgets, sustainable economic activity, climate protection and the expansion of renewable energy sources (Federal Government of Germany, 2002). The latter has been the subject of new legislation following the Fukushima disaster, whereby the German government decided to phase out nuclear power stations, and to focus more on renewable energy and energy efficiency. The combination of legislative efforts, creation of new funding streams and generous subsidies programmes, as well as the interest from citizens, have led what is called the "energy transition" ("Energiewende" in German). During this process, Germany intends to become totally independent from atomic power as energy source, and hence become less vulnerable to incidents such as what happened in Fukushima.

The National Sustainability Strategy is continuously updated, and the German government publishes regular progress reports. Indicator reports contain details on how the core areas of sustainable politics have been further developed, which strengthens the capacity for sustainability transitions.

Germany has also a specific organisation, namely the "German Council for Sustainable Development" (GCSDD) which oversees matters related to sustainable development goals and policies in the country. The Council consists of 15 public figures. Its tasks comprise developing contributions to implement the National Sustainability Strategy, specifying concrete areas for action and projects, as well as making sustainability an important public issue. Federal Chancellor Angela Merkel is active in implementing the national Sustainability Strategy. The whole system of sustainability governance in Germany is based on four pillars:

1. Policy integration: the national strategy used in Germany gives consideration to environmental, economic and social concerns in integrated approaches;
2. Intergenerational timeframe: sustainability in Germany should adopt long-term time frames, which enable the inclusion of intergenerational principles and indicators and take into account the commitments towards future generations;
3. Informed analysis and assessments: scientific valid tools and methods should be used to identify the environmental, economic and social costs and benefits of policy and strategy options;
4. Co-ordination among public and private institutions: Federal agencies, especially ministries, but also the private sector, should work consistently with the goals of the national strategy. It is of little use if only public agencies are active, and the private sector does not support the national strategy.

An example of good practice may be the relatively successful German climate-protection strategy. This strategy could serve as a model for the broader strategy for sustainable development. Its key elements are high-level political commitment for the formulation and implementation of ambitious goals, integration of environmental policy objectives into other sectors, voluntary agreements, pioneer activities of local communities and broad public participation (OECD, 2002).

Another example is, at the corporate level, in terms of the German Commercial Code, that management reports must include non-financial performance indicators. In addition, companies should demonstrate that their decisions have taken corporate social responsibility (CSR) into account in an effective way (Institute of Directors in Southern Africa, 2009).

5.3. Latvia, Lithuania and Poland

Formally, Sustainable development is a political target in Latvia, Lithuania and Poland. It is declared in the Polish constitution, in the countries' national planning documents and strategies for sustainable development (e.g., Saïma, 2010; Resolution No. 1160, 2003). The economic and social reforms after the drastic political changes at the turn of the 1990s and the movement towards democracy and a market economy offered a unique opportunity of fundamental reforms towards a sustainable society, and to start governance capacity building, taking an advantage of experiences from OECD countries (Ciegis et al., 2009). This process was strengthened by the European Union's Lisbon Strategy and the Renewed EU Sustainable Development Strategy (CEU, 2006).

The responsibility for the elaboration of the National Development Plan and monitoring of the Sustainable Development Plan of Latvia until 2030 is allocated to the Cross Sectorial Coordination Centre under supervision of the Prime Minister of Republic of Latvia. The planning and control process takes place at the level of Ministry departments. Like in the other two countries, sustainability governance is not a cross-cutting process in Latvia (e.g., Kern, 2011). Progress towards sustainability has largely been declarative, not translated into practical measures and outcomes (there is no consistent system of sustainability indicators (Borys, 2005)). For example, impacts of the restructuring of the economy and the recent recession arising from the economic crisis resulted in a major decrease of GDP in the Baltic countries, but also in a reduction in the emission of greenhouse gases and the use of fertilizers, and depopulation of the country due to the earlier mentioned massive emigration. These trends are mistakenly considered as progress with respect to sustainable development.

A focus seems to be on economic growth, energy independence and transport, while large problems exist with, e.g., the pension and health care system. In Lithuania, the mind setting is to achieve the current average level of economic development of the EU by 2020, and to support the harmonized interaction between economic sectors and the country's regions. The State Progress Council established in 2010, an initiative of Lithuania's Prime Minister, aims to mobilize communities in mapping Lithuania's route into the near future and building its vision "Lithuania 2030" (State Progress Council, 2011). In Poland, energy policy focuses on the use of the existing hard coal and brown coal resources in the country, while there are plans to develop nuclear energy plants. Although Eurostat data show the share of renewable energy is growing, policy aims at large energy projects, leaving unused opportunities for small scale initiatives.

Nevertheless, there have been marked achievements in the governance of sustainable development. For example, in Latvia remarkable progress has been made in promoting a sustainable energy policy. Despite various challenges, a sustainable restructuring of the energy system has occurred as indicated by a significant reduction in energy use in the highest consuming production branches due to major restructuring of the entire production system, a major increase in the use renewable energy sources (a target of 40% of renewable energy sources until 2020 is quite realistic), as well as improved energy production and saving technologies. A key role in this process is the need to diversify energy sources, to achieve energy independence, to strengthen the national economy by increasing production of biomass energy and biofuels and advance energy production and saving technologies (Rasmussen, 2003).

Amongst other factors hampering the integration of the sustainable development concept into education, governance processes, etc., is the maturity of the governance system itself and a number of associated barriers: traditions of cooperation, political traditions (tensions between different political interest groups and political parties, groups of stakeholders (Zilans, 2013)). Added to this, there is a bureaucratic way of thinking related to the idea that administrators can solve problems, while there is still a lack of self-organization. The government regulates a large number of areas of public life and the majority of the citizens are accustomed to expect that it will resolve all their problems and answer all the questions. For example, only 33% of the Lithuanian population think that there is too much government interference in their lives, being one of the lowest indicators in the European Union where the average is 58% (Eurobarometer,

2008). Along with growing civic maturity, the government should reduce areas of intervention, thus enabling citizens and communities to take responsibility into their hands.

On the local municipal level it has been demonstrated that besides limited knowledge about sustainable development amongst municipal development planners and decision-makers, deficiencies in policy integration, intersectoral cooperation, municipality and stakeholder cooperation and urban management practices are major reasons for governance practice being weakly supportive of sustainable development (Zilans, 2008).

While progress can be observed, an example of lack of application of principles of sustainability is transport (Paradowska, 2014), where emphasis is on improvements of road infrastructure, making road cargo and passenger transport more attractive, adding to the increasing problems of congestion and pollution in many cities.

6. Conclusions

The scientific value of this paper includes not only the comparative analysis of sustainability governance in the Baltic Sea countries in an unprecedented way, outlining some of the challenges in sustainability governance in the Baltic region. Along with opportunities for integrating principles of governance into sustainability practice, the paper has identified the basis for sustainability transitions, which may prove useful in assisting Baltic nations to pursue sustainability paths. Analysis of sustainability governance is instrumental in providing a general picture of policy measures required for sustainability transitions. The countries studied (Denmark, Finland, Germany, Latvia, Lithuania and Poland) are characterized by different levels of assessed functioning of governance. Ineffective and inefficient governance is likely to hamper transitions for sustainable development within a country, while differences between countries in this field increase the challenges in dealing with trans-boundary and global issues requiring co-operative solutions.

For the new EU member states in particular (i.e. Latvia, Lithuania and Poland), the European integration may be a stimulus for improving governance, as they do not only have to comply with EU law, but also may mimic institutional innovations from good performing member states. Furthermore, these better performing countries (e.g. Scandinavia, Germany) may have an interest in supporting good governance in the new member states, as this is elementary for achieving their developmental and sustainability goals, as these are to a large extent of a trans-boundary nature. However, it should not be forgotten that also "bad practice" may be copied from other countries as well.

The Scandinavian countries may provide good practice for the Baltic States and Poland. However, solutions functioning in the first group of countries may not be directly transposable to the second group. While policy implementation is hampered due to governance problems, also a change in governance structure and practice following Scandinavian experience may be difficult due to the existing institutional disequilibrium. Although improvement has been observed by the authors, commitment to sustainable development seems to remain declarative. The lack of generalized trust increases the transaction costs and may lead to different governance structures than was the intention. This adds up to bureaucratization of procedures and less clear identification of competencies in administrative structures accompanied by influential interest groups as well as quickly changing laws and regulations creating uncertainty. These differences also hamper sustainability transitions on a transnational scale in the Baltic Sea region. A lesson may be that the most important action for transitions to sustainable development is the improvement of governance practice as a condition for sustainability governance. However, as with policy itself, the lack of generalized trust and existence of interest groups featured by high primary- and process based trust hampers the mimicry of good Scandinavian practice. As socio-economic development remains behind, policy for supporting eco-innovation should go in pair with development and job creation, as this may in turn support social cohesion facilitating sustainability transitions.

This study has three main limitations: first of all, the sample of countries is too small to be representative for trends in Europe. The nature of the research and the findings mean that they can be applied to the Baltic Sea Region, but not

elsewhere. In addition, the study has not been complemented by surveys or other data collection means from stakeholders. This would be very useful -perhaps in further studies-to ascertain their views on how their countries handle sustainability governance. Furthermore, there could be no deeper statistical inferences from the sample, since the work performed was of a qualitative nature.

Nevertheless, this unique study does offer food for thought in respect of the needs to be met in shaping the future of sustainability governance in the Baltic Sea region. One of the main messages of this paper is that, in order to develop sustainability governance, an increase in participation and transparency is needed in Latvia, Lithuania and Poland. This is not only consistent with what the OECD (2006) identified in a multi-country study of approaches to sustainability creates the basis for accountability of agents in sustainability governance, and may support an increase in general trust, while reducing the importance of closed networks as interest groups. Furthermore, a reduction in bureaucratic and legal barriers for establishing civic society associations could support the development of self-organization. This should go hand in hand with a more practice oriented education, creating the basis for improving the governance for sustainability to create more capacity, willingness and commitment, hence paving the way for the transition to a more sustainable society.

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