

*Energy, Environment and Society in Norway: new paradigm or better adjustments?
An explorative study of the prevalence of public value practices in energy transition
processes.
Case for Rogaland county.*

by

Alissa Robinskaja

Master in Energy, Environment and Society

Supervisor: Thomas Michael Sattich



Department of Media and Social Sciences

University of Stavanger

Master Thesis: Spring 2021

UNIVERSITY OF STAVANGER

MASTER DEGREE IN
Energy, Environment and
Society

MASTER THESIS

CANDIDATE NUMBER: 4809

SEMESTER: Spring 2021

AUTHOR: Alissa Robinskaja

SUPERVISOR: Thomas Michael Sattich

MASTER THESIS TITLE:

Energy, Environment and Society in Norway: new paradigm or better adjustments?
An explorative study of the prevalence of public value practices in energy transition
processes. Case for Rogaland county.

SUBJECT WORDS/KEY WORDS: Multi-level perspective, Public choice theory, Institutional theory, Municipalities, Financial performance, Sustainability performance, Sustainable development goals, Economic sustainability, Social sustainability, Environmental sustainability.

PAGE NUMBERS: 255

STAVANGER

13 June 2021

.....

DATE/YEAR

This Master thesis is built on previously submitted assignments through Inspera Assessment.

Contents

1.0 Introduction.....	8
1.1 Problem statement and research questions.....	12
2.0 Literature review of the concepts of financial and sustainability performance	16
3.0 Research strategies.....	20
3.1 Deductive, inductive, abductive, and hermeneutic research strategies	20
4.0 Ethical considerations	23
5.0 Theoretical perspective	24
5.1 MLP on sustainability transitions	24
5.1.1 The three levels of transitions	26
5.2 Public choice theory.....	28
5.3 Institutional theory.....	32
6.0 The local context in Norway: financial sustainability or culture?	35
6.1 Sustainability worldwide	35
6.2 Sustainability and SDGs in Norway	36
6.3 Norwegian municipalities and budgeting	41
6.4 Financial sustainability	43
6.5 Budgetary issues for sustainability	46
7.0 Research design and cases	49
7.1 Case study approach	50
7.2 Case study design.....	51
7.3 Case study municipalities Lund and Gjesdal: financial sustainability or culture?.....	52
8.0 Methodological approach.....	54
8.1 Criteria for selection of investigative tools	55
8.2 Methods.....	56
8.2.1 Data collection scheme	57
8.2.2 Scheme for data analysis.....	58
8.3 Quality criteria and limitations	59
9.0 Presentation of the empirical results from reports	62
9.1 Sustainability and SDGs on local level throughout the 23 municipalities in Rogaland.....	62
9.1.1 Strand municipality	62
9.1.2 Kvitsøy municipality.....	64
9.1.3 Sandnes municipality	65
9.1.4 Stavanger municipality	66
9.1.5 Haugesund municipality	69
9.1.6 Sokndal municipality	70
9.1.7 Eigersund municipality	71

9.1.8 Hå municipality.....	72
9.1.9 Klepp municipality.....	73
9.1.10 Sola municipality	74
9.1.11 Hjelmeland municipality.....	75
9.1.12 Randaberg municipality	76
9.1.13 Sauda municipality.....	77
9.1.14 Bokn municipality.....	78
9.1.15 Utsira municipality.....	79
9.1.16 Vindafjord municipality.....	80
9.1.17 Time municipality	81
9.1.18 Suldal municipality	82
9.1.19 Tysvær municipality	82
9.1.20 Karmøy municipality	83
9.1.21 Bjerkreim municipality	84
9.1.22 Lund municipality.....	85
9.1.23 Gjesdal municipality	85
9.1.1.1 Summary and discussion.....	86
9.2 Financial performance across municipalities in Rogaland county.....	95
9.2.1 The accounting variables	95
9.2.2 The financial conjuncture among Rogaland municipalities.....	98
9.2.3 The overview over municipalities financial performance.....	114
9.2.4 Discussion.....	117
9.3 Case study on Lund and Gjesdal municipalities	119
9.3.1 Lund municipality.....	120
9.3.2 Gjesdal municipality	120
9.3.3 Discussion.....	121
9.4 Challenges among Rogaland municipalities	124
9.4.1 Discussion.....	129
10.0 Summary and discussion of the main findings	131
11.0 Conclusion	138
Reference list	142
Appendices.....	188

Summary

The sustainability paradigm is widely researched on the international and national level; however, the local level should not be left behind. The emphasis of this thesis is placed on sustainable development on the local level. It investigates progress towards sustainability across Rogaland's 23 municipalities. Goal of the thesis is to exemplify if there is an association between financial (budgetary) performance and sustainability. In addition to financial performance, 'culture' is being assessed as a factor that might explain difficulties that are imperative to overcome for achieving a more sustainable Rogaland region. To study this factor, the thesis includes a double case study for Lund and Gjesdal municipalities.

The key question for this Master thesis is: *why is the sustainability performance of some municipalities higher than the one of others and what are the main challenges that need to be resolved among municipalities toward successful transition to sustainability for Rogaland region?* The findings of this study are consistent with the claims that high financial performance generally led to positive sustainability performance. The municipalities that have articulated social, economic, and environmental dimensions of sustainability tend to perform better, than those that have not emphasized the three pillars of sustainable development. Additionally, low financial performance led to negative sustainability (example of the Lund). After all, it is possible to perform financially well without sustainable practices (extreme case).

The main findings are outlined in three conclusions. Despite municipalities progress in some areas of sustainable development (goal 3, goal 11, goal 17), the other areas are still having not received a major attention (goal 5, goal 14, goal 16). The data also prove that to reach a remarkable performance for Rogaland municipalities in all three sustainability dimensions is not an easy task while simultaneously ensure the financial reward for local authorities. The competition across municipalities at the expense of other value impede a credible sustainability transition. Lund and Gjesdal example show that the cultural aspect (intervening variable), in addition to financial indicators can explain some of the variation of the sustainability performance of municipalities.

Notwithstanding, the gap between economic plans and actual performance across municipalities is evident, triggering the local governments to adopt to constant changes. Municipalities lack the practices and methods and overall framework necessary for policies implementation on the local level. As a result, there is a need to adjust along the way for successful and viable functioning of municipal economies in the long-term perspective.

Foreword

I am grateful to the University of Stavanger for the valuable Master programme in Energy, Environment and Society. The study allowed me to generate an exceptional academic expertise and apply theoretical perspective for the productive internship in Statsforvalteren i Rogaland (formerly Fylkesmannen i Rogaland) at the Department of Society, Contingency and Municipal Administration.

Furthermore, I appreciate the opportunity to thankful Nord University in Bodø for the Master programme in Energy Management: International Governance and Business. One year of study toward full degree acquisition helped me to generate a comprehensive knowledge from various disciplines and grow toward further study direction.

I would like to express my gratitude to Associate Professor Thomas Michael Sattich for the indispensable insights, contribution, comments, suggestions, and guidance during my Master thesis writing. I was able to learn more from my Master thesis and progress effectively in goal achievement.

High calibre knowledge of All Academics along my studies provided me with an opportunity to extend on own horizons and build a new level of apprehension of the social, economic, and environmental challenges that are ever being touched by humanity across the globe.

*13 June 2021
Alissa Robinskaja*

Motivation to study

By taking master's degree in Energy, Environment and Society I was fascinated by the broad spectrum of various disciplines, that allowed me to generate multiple ideas for my Master thesis topic. Initial plan was to build Master thesis around technological concept, however during my internship in Statsforvalteren i Rogaland I was able to extend on current knowledge and articulate completely new model for my thesis.

Specifically, my background in Accounting allowed me not just to strengthen my quantitative skills for successful tasks completion, but also to develop more conceptual apprehension of the Rogaland municipalities financial operation and accounting in general. I was able to see in practice how financial indicators can be converted into sustainability, thus, to reason for qualitative approach in a new mode of reality.

My internship in Statsforvalteren i Rogaland was linked deep to financial areas of Rogaland county municipalities. An emphasis was placed on municipal accounts, annual reports and follow up of innovation projects. However, I was new to knowledge about public sector processes, governance of public finances¹ in Norwegian economy and political administration in general. Internship allowed me to work on real projects and apprehend the role of theory in practice.

It was valuable to account for sustainable cities and communities (sustainable development goal 11) and identify current challenges that might affect municipalities economic sustainability on local level directly. Lack of attention to the issues of sustainable development at municipalities or an inadequate decision-making process can lead to a rapid and sharp rise in disparities characteristics of the city, total destabilization and ungovernableness of the system (Ilchenko and Lisogor 2016).

For that reason, I decided to conduct study for Rogaland municipalities and explore the prevalence of public value practices in energy transition processes. Specifically, "transitions" are seen as processes that include a shift in the prevailing "rules of the game", a transformation of entrenched technologies and societal practices, change from one dynamic equilibrium to another – embracing over generations (25 – 50 years) (Meadowcroft 2009). However, this task is not simple, since there are various institutional mechanisms in place, encompassing broad spectrum of entrenched regulations and legislature that impact the activities outcomes. In fact, most processes and practices became unpredictable and unknown to public in general.

¹ Public finance is described as the study of money-earning and money-spending activities of the state (Sarkar 2003).

1.0 Introduction

The use of energy defines us, it is not just about way of live, it is a fundamental awareness of all living planet. At the same time, we are more than ever become integrated into cycle of uncontrollable resource consumption. Our addiction on the use and not give back may cause environmental destruction on an unprecedented scale. Furthermore, energy, people and environment become closely intertwined and indivisible on the global level. The natural resource extraction, energy production and trade become new economic normal in our contemporary society. In this economic context we often forget about costs and benefits of such major impacts both on human and non-human stakeholders.

Nevertheless, global warming and climate change are the genuine concerns and threats to countries all over the world (Dietzenbacher, Kulionis, and Capurro 2020). The global leaders have agreed on goal of combating greenhouse gases (GHGs) to ensure a 2°C compatible pathway, and succeed in efforts to limit global warming to 1.5°C above pre-industrial levels by incorporating the framework for 2030 Agenda for Sustainable Development (United Nations 2015). Curtailing or nullifying anthropogenic GHG emissions is absolutely precondition for this (Dietzenbacher et al. 2020). Moreover, when compared to other environmental pressures, a typical trait of global warming is that it is essentially an energy problem (ibid.). Furthermore, the energy transition required to hinder the serious human-made global warming is substantial (Tvinnereim, Læg Reid, and Fløttum 2020). After all, the way in which energy is utilized in society and sectors of the economy is inherently a measure of socio-economic status and structure (Baynes and Müller 2016).

However, according to Meinshausen et al. (2009) emitting the carbon from all proven fossil fuel reserves (the fraction of fossil fuel resources that is economically recoverable with current technologies and prices) would greatly exceed the allowable CO₂ emission budget for staying below 2°C (ibid.). On the one hand, the conventional sources of energy remain dominant in the world area and constitute the primary energy demand. Fossil fuels take advantage from economies of scale and privileged institutional acceptance. But on the other hand, if the world is on the track to decarbonize the energy system and to achieve emissions curtailment, renewable energy targets must be articulated in the global energy mix. Equally speaking, the world is rapidly moving toward new versatile sustainable solutions that prescribed to improve our quality of lives, well-being, and access to brighter future.

Here, the concepts of “green growth”, “sustainable development”, “ecological modernization” (Bailey and Caprotti 2014) are part of a powerful discourse that neglect other genuine problems arisen across the globe, for example the gap between rich and poor, child trafficking, economic crisis, terrorism. Additionally, there are many other elements that promote sustainable practices: economic systems, cultures, political organization, and individuals (Starik and Rands 1995). Although the economic approaches are often utilized then exploring the concept of sustainable development (Edwards-Jones, Davies, and Hussain 2009), in recent years broader social factors have been regarded equally important (Cochrane 2006). For example, the cultural capital is one of the imperative ingredients in the securing of welfare that are frequently overlooked in determining the vibrancy of local economies (ibid.).

Hitherto, the sustainability is the major principle for actors internationally and nationally, in fact standard that triggered the world leaders to look through a new lens of reality. According to the 2030 Agenda for Sustainable Development, the goals and targets are integrated and indissoluble, and balance three dimensions of sustainable development: economic, social and environmental (Rosa 2017). The United Nations (UN) General Assembly necessitated development agenda for countries and stakeholders around the globe to use as a master plan for progress on three pillars of sustainability (Anderson et al. 2017).

Governments play a crucial role in promoting and implementing an effective monitoring framework for the sustainable development goals (SDGs), via a country-led process that assumes greater stakeholder engagement, is conjunctional to reporting processes, and is subject to overall national development frameworks (ibid.).

In Norway, in June 2017, the Norwegian Parliament adopted a Climate Change Act emphasizing Norway’s ambitious target of becoming a low-emission society by 2050 (Norwegian Ministry of Climate and Environment 2020). In quantitative apprehension, the target is to reach emissions reductions of 80-95 per cent compared to 1990 level and in recently submitted agreement of nationally determined contribution Norway accelerates it climate strategy towards emission reduction of the order of 90-95 per cent, through the close climate cooperation with the European Union and Iceland (ibid.).

There is a focus on the national level, both in policy and research (see e.g. Graaf and Sovacool 2020, p. 171-194). However, the significance of sustainability issues should not be underestimated within the local level context (Bass, Dalal-Clayton, and Pretty 1985). Shaped decisions and strategies adopted at the national, regional, and subnational level determine the velocity and force with which the climate change issue is being handled (Bang, Underdal, and Andresen 2015).

For that reason, it is important to understand to what degree the sustainability happens on local level context. To the extent that some municipalities are engaged in sustainability activities, while other municipalities just started to incorporate sustainable practices, while the third are committed to old practices without novelty.

The case study will fill the gap in research by examining policy implementation on municipal level and reveal the governance of public finances, thus, exemplify sustainable performance across Rogaland municipalities.

Specifically, the smart cities have largely entered this game, by setting ambitious goals for a climate-related challenges such as emission curtailment, renewable energy targets, energy efficiency, electric vehicle boom and expansion of bicycle use and infrastructure (Sareen 2020). The “car culture” is one of the examples of how cultural factors may interfere with the idea of building this new sustainable super society (see e.g. Thomas Sattich, lecture on policy frameworks).

More than 7700 local and regional authorities pledged themselves to the Covenant of Mayors², thereby committed to reaching and exceeding the EU climate and energy targets (Sareen 2020). Similarly, it would signalize that the ambitious target-setting are execution of conceit, wherein cities emulate for the most aspiring targets but not the most transformative policies, thus targets just assist politicians to pretend doing something when they are actually not (ibid.).

Rogaland county is good example to highlight the prevalence of public value practices in energy transition processes. The region is objectively dominated by oil/gas industry, which makes it a good study object, and it seems natural that some of the lock-ins that hamper the transition should be very evident. At the same time, the pressure to do something should be even stronger since Norway has aspiration to be a climate leader, and with the international/national policy this becomes a tricky situation. Therefore, it should be a good place to study the challenges for the transition that come with the structures of a fossil-fuel-based economy on the local level directly.

Rogaland region operates in agriculture, fishing and mining, even though oil and gas sector is the primary industry of the region (Schulze-Krogh and Calignano 2020). Specifically, Stavanger secured a flying start as the Norwegian oil capital when the Ekofisk field was developed (Holt-Jensen 1981). Furthermore, business and government leaders located city to

² Initiative established by the European Commission in 2008 aimed at amplification the role of cities and regions in the transitional climate policy arena (Gesing 2017).

seize the financial and administrative functions of the oil and gas industry when resources were discovered, giving Stavanger metropolis new economic and political power and gaining the major title of energy capital (Pratt, Melosi, and Brosnan 2014).

Greater engagement of region toward long oil tradition make research especially focal and novel to study, since oil and gas are two of the major bases for local municipal budget. The case will elucidate and highlight an importance towards the transition to sustainability in our turbulent time.

The purpose of the thesis is to explore all the 23 municipalities in Rogaland county obligation to SDGs targets and understand the financial capacity of public administrations towards balanced transition. Additionally, double case study for Lund and Gjesdal municipalities will be conducted for patterns matching and understanding of contrasting experiences regarding transition to sustainability. The choice of those two municipalities is induced by their diverse population, geographical location, business preferences, service provision and representation of political parties. By comparing Lund and Gjesdal municipalities I will find out how budget and culture are interplayed. Specifically, these two factors should provide better insight regarding public value practices on the local level context.

The study will contribute to academic debate about policy instruments within the local context as acknowledged by Tørnblad, Westskog, and Rose (2014), and will challenge theory in regard to local governments developments paths as addressed by Jost et al. (2020), since financial side alone is not enough toward apprehension of sustainability – there is much more steps and issues along the line of policy making cycle. The literature used have identified sustainability issues under researched and Rogaland county therefore is important to study lock-ins (such as value systems, three dimensions of sustainable development) toward local development. To clarify, the following thesis suggest an exploratory study aimed at providing better insight in relation to municipalities fulfillment of their government commitments toward the provision of social good in accordance with the law standard.

My Master thesis is structured as follows: next section introduces problem statement and research questions. Section 2.0 provides outline of the literature review. Section 3.0 specifies research strategies. Section 4.0 include ethical considerations. Section 5.0 introduce theoretical approaches for this study. Section 6.0 discuss the local context in Norway. Section 7.0 make explicit research design and cases being addressed in this study. Section 8.0 outline methodological approach. Section 9.0 present the empirical results from municipalities reports. Section 10.0 provide summary and discussion of the main findings. Section 11.0 draw on conclusion.

1.1 Problem statement and research questions

It is important to acknowledge the Norwegian goals toward value creation in society. In particular, diversification of the economy (more jobs in private sector), establish green future (green jobs and sustainability), and build the people skills (assure more people complete upper secondary education) – policy aimed to overcome crisis (coronavirus pandemic) in Norway (Royal Norwegian Ministry of Finance 2021). There is an urgent need to emphasize these long-term challenges, while simultaneously ensure petroleum revenue spending down to a sustainable level (ibid.).

Yet, when it comes to the local level context, these things become problematic. Specifically, social, economic, and environmental dimensions of sustainability are not always prioritized among local government authorities. However, the greening of society toward sustainable development and overall harmonized economy is mostly happening locally (UNDESA 2012), while contributing to the three pillars of sustainability. In fact, it is not an easy task to make policy fit each and one and make things organized to ensure viable economic development.

Additionally, at the subnational level, municipalities have very contrasting organizational context (Stephansen 2020). On the one hand, municipalities are the lowest level of public administration and local democracy (Romøren, Torjesen, and Landmark 2011). On the other hand, most economic processes occur locally, which gives this level a great weight in overseeing these activities and with regard to the implementation of national or international policies this would indicate a puzzle – namely the potentially very important role of local politics in guiding society/economy toward sustainability, yet their difficulties with playing an active role.

The Local Government Act of 1992 provided local authorities more freedom in respect to organizational design and the Chief Executive Officer (CEO) a prevailing position as the head of municipal administration (Torsteinsen and Bjørnå 2012). To clarify, municipal elections being held simultaneously in all municipalities every fourth year, with the same electoral system everywhere (Segaard and Saglie 2020). The local governments system are organized according to a council manager form of government, that assumes executive functions are in the hands of the chief administrative officer (Lockert et al. 2019). While the local government council has the overall authority over policy and determine political targets, it is bounded from involvement in administrative matters (ibid.). The CEO is by law the formal

leader of the municipal administration and can be assigned other powers by the council (Mouritzen and Svara 2002).

Furthermore, all influential political parties are represented in the executive committee, which is accountable for preparing all matters to be determined by the council and for overseeing the implementation of decisions (ibid.). However, the council can choose to delegate authority over certain matters to the executive council, those implies Norway's government system to have a collective form (ibid.).

In fact, an administrative system on the local level can diverge and deteriorate significantly across municipalities and those impact the level of public service provision (Shah 2007b). Since municipalities and county authorities are the major actors towards securing social good, it would be necessary to explore their major accomplishment on SDGs and attainment of the financial performance to outline good public practices at hand.

After all, strong emphasis on budgetary issues, rather than prioritizing culture is not so present in debate. Particularly, the decision making is organized around annual budget and a long-term economic plan, that capture the next four years and yields forecast of revenues, expenditures, and priorities in this period of time (Borge 2010), which might indicate that the other factors are being neglected when transition on the local level is being addressed. The performance budgets are connecting financial resources assigned in the budget period with necessary information about the anticipated results of policies (Bleyen et al. 2017). For that reason, an efforts of performance budgeting and political-administrative culture may explain differences that are present at local level (ibid.)

The executive board and the chief administrative officer (Rådmannen) play a pivotal role in the initial stages of the budgetary process, and the executive board accelerate proposal for the local council, that can encourage changes and to work out alternative budget propositions (Masakure, Cranfield, and Henson 2008). This triggered a period of organizational experimentation and deviation from the traditional forms and fostered growth in the number of agencies (Torsteinsen and Bjørnå 2012). Mainly, KF (municipal company), the inter-municipal company (IKS), and the limited company (AS), with contrasting degrees of disaggregation, autonomy, and contractual (or contact-like) commitments towards the municipality (ibid.).

Next, the revenue planning elaborates critical approaches to achieve an adequate financial performance in municipalities (Molobela 2016). Here, financial performance indicates the capacity of the municipalities to yield a positive net cash flow from it is operations over a given period (Masakure et al. 2008). Additionally, financial performance alternately gives municipalities capacity to provide services to it is concerned citizens (ibid.), and achieve

financial goals through optimal utilization and regular enhancement of financial resources (Fuad Kurdi 2016). The strategic aim would be to surpass accomplishments planned for the year, with the attempts of the entire workforce (Uys and Jessa 2013).

Municipalities centred on getting rid of fiscal³ deficits to adhere with national “balanced budget” requirements and raising efficiency and effectiveness to correspond with managerialized ideas of performance (Overmans 2019). Generally speaking, the financial stability and sustainability impact the autonomy of local authorities and their accomplishment of delegated obligations (Aleksandrova- Zlatanska 2019). Moreover, the greater emphasis of government is placed on quantifiable outcomes for the supply of public services and less attention placed to the achievement of cultural indicators (Johanson, Glow, and Kershaw 2014). To clarify, the participation of the local authorities in sustainability practices can no longer be measured simply by box office data (ibid.), since it may be one of the barriers for more sustainability and inclusive society. Even though the local economic capacity of municipal area should be emphasized, it can only outset with appreciation that environmental, social, and economic rights are interlinked (Nthekeleng 2014). For that reason, the importance of the association between financial performance and culture should be widely acknowledged. These two factors in one time can explain difficulties that are imperative to overcome for viable functioning of the Rogaland region.

Furthermore, the municipalities have to consider value systems that facilitate the culture of good performance (Mofolo 2012), since the short-term profits orientation is not the same course of action that is best over the long run (Laverty 1996) cultural sustainability. Culture are those customary beliefs and values that ethnic, religious, and social groups transfer rather unaltered from generation to generation (Guiso, Sapienza, and Zingales 2006). These cultural variables – thrift, hard work, tenacity, honesty, and tolerance – contrast with xenophobia, religious impatience, bureaucratic corruption, and state decrees that constrain enterprises (ibid.).

In sum, local government will have to liaise with a broad spectrum of issues that impact the financial position of municipalities before financial sustainability is reached (Brand 2016). External economic factors, coupled with poor performance, inadequate management capacity and low skills levels make it challenging to build sustainable municipalities (ibid.). For that reason, the potentially important role of local politics should be acknowledged since many of

³ External fiscal capacity is commonly referred as high revenue wealth and low spending needs, while internal fiscal capacity implies surplus internal resources (fund balance, excess employees and flexibility in spending for services) (Hendrick 2011).

the ruling party falling short to achieve the progress. Additionally, I want to know the dilemma that is present across Rogaland municipalities. On the one hand the government ambitious plans to be more sustainable is one constitute toward viable society, but on the other hand every transition to sustainability implies building strong economic growth on local level directly. However, the sustainability performance of communities differs, as well as factors that may cause these differences toward prosperous Rogaland region.

The key question for this Master thesis is: *why is the sustainability performance of some municipalities higher than the one of others and what are the main challenges that need to be resolved among municipalities toward successful transition to sustainability for Rogaland region?* It is widely acknowledged that accountability for profitable and harmful practices impinge the society and environment at whole, therefore the proper reporting disclosure should emphasize overall governance structure and triple bottom line performance (Aggarwal 2013).

The sub questions for this Master thesis are:

1. *What is the progress of municipalities toward attainment of SDGs on local level?*
2. *What do financial indicators across Rogaland county reveal about the relationship between municipalities financial and sustainability performance?*
3. *Can cultural aspect, in addition to financial indicators, explain some of the variation of the sustainability performance of municipalities?*
4. *Are the main challenges that need to be resolved among municipalities more of a financial or a cultural nature?*

I demarcated research questions that allows an exploratory study to be conducted on municipalities accomplishment on SDGs and attainment of the financial performance. Answers to these four questions allow to generate a comprehensive view on sustainable performance across Rogaland municipalities. Specifically, it important to gain a better understanding of the current social, economic, and environmental challenges, along with addressing cultural aspect on the local level.

2.0 Literature review of the concepts of financial and sustainability performance

Based on theoretical constructs I conducted literature review to explore more about studied subject. The literature review contributes to the current understanding of the field and allows to develop new knowledge about sustainability processes along with challenges on national and international level. Furthermore, the reflexive manner of the academic's debate provides author with diverse opinions on subject under research and make to look up for the contradictions that arise/do not arise within the studied context.

The scientific database Scopus, Google Scholar and Oria search engine were employed to evaluate the current state of knowledge about research theme. I have used the operator "AND" that used to cover (financial AND performance AND sustainability AND performance) AND (municipalities) that yielded 2445 results in Scopus. I have limited search to published year (mainly 2021 and 2020 to capture up-to date knowledge within the field), that resulted in 610 documents. Further inclusion criteria (method chosen, theoretical framework) were based on relevance of topic for author own research work. The role of budget versus culture in the current state of literature debate is rather limited. For that reason, I argue for the integration of those dimensions for the assessment of sustainability performance in Rogaland municipalities.

The study by Park and Krause (2021) explore the landscape of sustainability performance management systems in US local governments (ibid.). Study findings reveal that a major number of US local governments are engaged in sustainability performance assessment, but they differ in their ability to set up appropriate indicators as well as mechanisms, implying room for improvement in local sustainability performance management (ibid.). Research concludes that there is insufficient understanding of the extent to which cities accumulate necessary information about their sustainability efforts toward achievement of performance goals and what do they do with it (ibid.).

According to Oedl-Wieser et al. (2020) governance arrangements operating at the rural-urban interface are often complex (described by horizontal and vertical coordination of institutional public and private actors), allow to reap benefits and improve negative outcomes but, due to asymmetric power, rural areas are subject to experience challenge to make their voice heard within city-region (here, implementation of development policies) governance structures which can freely centered on the needs of the urban areas (ibid.). The city-region nexus has not grown to a uniform region and there are still dissonances in regard of economic performance, the allocation of decision-making power, accessibility and development opportunities, therefore an increased assistance for municipalities with less financial and

personal resources is needed, and tangible practices of inter-municipal co-operation should be established (ibid.).

Sinervo (2020) emphasize financial sustainability in the eyes of Finnish local politicians (ibid.). Financial sustainability was related with factors that are in and out of the reach of politicians (ibid.). Demographic and socioeconomic dimensions are elements that politicians had limited capacity to affect (ibid.). Furthermore, along with location and local field of economy, global changes in economic cycles are fundamental of financial sustainability (ibid.). In fact, financial sustainability in the eyes of local politicians, an issue they try to acknowledge in the decision-making when beholding the responsibilities and resources of the municipality they represent (ibid.).

Study findings by Hirschhorn et al. (2020) shows that formal frameworks, informal institutions, and key-actors cooperate in complementary, substitutive, and accommodating manner, and in order to advance transport sustainability, authorities not only need an understanding on what policies to design, but can also benefit from insights how policy-making and implementation unmask (ibid.). Financial performance goals occur as a main policy driver in public transport, obscuring sustainability concerns (ibid.).

Taamneh, Almaaitah, and Alqdha (2020) emphasize that local governments in Jordan face challenges in providing economic and social development of local services: shortage of financial resources and the lack of independence in managing local funding are the major concerns (ibid.). Next, environmental conservation is another challenge, along with lack of feedback and public participation (ibid.). In fact, guidance and arrangement of centralized technical assistance are needed to maintain environmental safeguard (ibid.). However, competency building for local employees is a prerequisite (ibid.). After all, demanding financial position of local governments needs to be acknowledged by reconsidering the share of funds distributed to local units from the public budget (ibid.).

Buendía-Carrillo et al. (2020) make explicit the factors that impact the risk of local government default that alter according to the size of the municipality (real estate taxes, vehicle taxes, financial autonomy and per capita income) (ibid.), even though the key elements are overall immigration, female immigration, female unemployment and closeness to the next elections (ibid.). Additionally, fiscal policies applied in determining revenues and expenditure should be designed in line with population size (ibid.).

Study by Santis (2020) revealed that demographic factors did not impact financial sustainability while, with respect to economic variables, there was a negative impact of financial autonomy and positive influence of the level of indebtedness in Italian local

governments (ibid.). Moreover, it is imperative to work on social policies as they serve as “lifeblood” in the public sector (ibid.). Furthermore, the public choice theory helps to reason about politicians to act in specific way: “the pressure of the competition” postulate induce politicians to act in the public interest rather of their own (to yield approval for future re-election) (ibid.). They use more than they can afford to guarantee services to hold population favor (ibid.).

Kozera, Standar, and Satoła (2020) underline local development as a long-lasting process of targeted changes affecting the economy, that require certain share of expenditure (mainly investments) to induce economic transformation (ibid.). The amount of EU funds accessed, and the operating surplus were impetus of debt levels incurred by Polish rural municipalities (ibid.). After all, factors that determine the transformation of the local economy is a decentralized supply of public goods, as well as external financial resources that can shape conditions for sustainable economic development (ibid.).

Andrews et al. (2020) examine factors that lead local governments to establish “corporatization” (entrepreneurship/companies for providing public services) (ibid.). Author conclude that governments with higher levels of grant dependence and debt dependence are more engaged in operation of companies, as are larger governments (ibid.). Furthermore, very lower, and very high managerial competencies are strongly related with more participation in profit-making companies, while local level involvement is more common in disadvantaged areas (ibid.). After all, government ownership of companies is prevailed in areas with high economic output (ibid.).

Phan, De Luca, and Iaia (2020) analyzed an Italian context for nonfinancial disclosure (sustainability, corporate responsibility, environmental, social and governance (ESG), ethics, human capital, and environmental health and safety (EH&S)) effect on companies’ performance (ibid.). The study findings conclude the absence of relationship between nonfinancial information (NFI) and financial/market performance (ibid.). However, the positive association between companies Beta factor and size and NFI is confirmed, indicating that more time is required to evaluate the advantages of an advanced regulation about NFI (ibid.).

Alcaraz-Quiles, Navarro-Galera, and Ortiz-Rodríguez (2020) assess the influence of the right to information laws on sustainability transparency in European local governments (ibid.). The quality of transparency law is related to sustainability (environmental, social, and economic), and necessitate acknowledge of legislative reforms designed to reinforce citizens access to government information that contribute to resolve to achieve the SDGs (ibid.).

Study by Mastronardi and Romagnoli (2020) emphasize an importance of a new business model (community-based cooperatives) for the development of Italian inner areas (ibid.). These novel firms may yield solid benefits to local communities: facilitate demographic decline inversion by presenting practices that curtail inequalities, strengthen social, natural, and artificial capital, and enhance the sustainable development practices (ibid.).

Navarro-Galera et al. (2020) analyse political and systemic determinants of financial risk in local governments by concluding that the lack of economics-related university studies for mayor, failure of female councillors' representation, municipal government by a party with a progressive ideology, and ideological levelling between the municipal and the regional government are all tied with financial risk (ibid.). Furthermore, an increasing national unemployment, an increased sovereign risk premium, electoral cycle, and falling economic growth are causes that inducing the risk of default (ibid.).

Catalão, Cruz, and Sarmento (2020) analyze how public management influence cost deviations and cost overruns in public projects (ibid.). The study revealed that electoral periods, institutional, legal, regulatory frameworks, and economic cycles all affect cost overruns (ibid.). Furthermore, it is imperative for project to be done on budget to ensure apprehension of the financial side of the issues but also of the consequences of the emergence of delays in such public projects (ibid.).

The above-mentioned literature covers various government practices that are present within the respective countries. Particularly, local authorities lack the overall mechanisms needed for successful apprehension of their sustainability performance, along with appropriate policy necessary for decentralized areas. The global economic cycles, failure of independence toward funding management, progressive ideology, and incompetency among employees, are the challenges that disrupt the sustainability in the long-term perspective.

The current academic studies about financial and sustainability issues left out little room to the question of interconnectedness of budget and cultural aspects. There is a failure to address the relationship that is present between the cultural aspect and robust financial performance in the municipal sector. In fact, more weights are placed on economic disputes, and not on intangible aspects, that should unlock future perspectives for the transition to sustainability. For that reason, I would like to close the gap in the literature debate regarding reasoning on important cultural virtue within the local level context.

3.0 Research strategies

This section specifies research strategies that are used to explore the 23 municipalities (Rogaland county) obligation to SDGs targets and understand a financial capacity of public administrations towards balanced transition. Specifically, plethora of various sustainability factors encourage one way or other way for the development's paths of local government for the greater social good. To answer overarching questions of this study, four research strategies are employed – deduction, induction, abduction, and hermeneutic strategy.

3.1 Deductive, inductive, abductive, and hermeneutic research strategies

There are two common approaches to reasoning which may lead in the acquisition of new knowledge – deductive and inductive reasoning (Hyde 2000). Deductive logic is about testing the prediction of data from theory, while inductive logic is preoccupied with generating theory from data (Hiles 2012). Deductive reasoning is not concerned with reliability of statements, indeed it assumes that conclusions follow in a logical way from the premises (Berth Danermark et al. 2001). In deductive logic, hypothesis assumes a conditional assertion involving the relationship between variables, guide the data that should be collected and act as a test of the theory from which it had been deduced (Cargan 2007). Researches build hypothesis from theory and test hypothesis in a series of specified steps (Bryant and Charmaz 2019). Furthermore, they do not deviate hypothesis during data collection and analysis (ibid.). An analysis ends when researchers have clear evidence that the hypotheses were not disproved or that they were (ibid.).

In contrast, inductive reasoning begins with specific observations and the conclusions are generalized, those generalizations need to be tested, some of which might be verified and some rejected (Zalaghi and Khazaei 2016). Induction starts with a collection of cases and continue with examination of their results, to allow the inference that some universal rule is operative and achieves plausibility with the multiplication of cases (Tavory and Timmermans 2014). For reflecting the inductive logic of enquiry, the researcher seeks general rules or patterns emerging from specific observations (DePoy and Gitlin 2019). Moreover, inductive approach is seen as “bottom-up” because abstraction and generalizable theory comes at the end of the process (Gregory and Muntermann 2011). Furthermore, induction can supply analytical generalizations to the whole based on in-depth observations of a sample (Heracleous and Lan 2012).

According to Peirce the greatest advances in science were neither deduction, nor induction, but instead science based on a reasoning that was not a conscious logical process, but rather an intuitive leap, which he called abductive reasoning (Taylor, Fisher, and Dufresne 2002). The abductive research strategy implies interpreting and recontextualizing individual phenomena within a set of ideas, perceiving something in a new way (new conceptual framework) and producing guidance for the interpretative process by which we assign meaning to events with respect to a larger context (Berth Danermark et al. 2001). Berth Danermark et al. (2001) took Peirce's apprehension of the concept of abduction: on the one hand, as a mode of inference with a logical form akin to induction and deduction, and on the other hand as a fundamental aspect of all perception, of observation of reality (ibid.). Yet, abduction differs from induction as it starts from the rule outlining a general pattern, and in contrast to deduction, the conclusion is not logically followed from the premise (ibid.).

According to Blaikie and Priest (2019) abduction can be utilized to answer both types of question ("what" and "why") that assumes inductive and deductive/retroductive logics of inquiry respectively (ibid.). However, abductive logic is preoccupied with understanding rather than an explanation, providing reasons rather than causes and combining meanings, lay concepts, and interpretations (ibid.). The social world perceived and experienced by social actors and the aim of the researcher is to uncover the symbolic meanings, intentions, motives and rules that forms people's actions and to discover how social actors view part of their world of interest (ibid.). The aim of abductive research strategy is to uncover social actors' constructions of reality, understand their process of conceptualizing the world and interpret their meaning making activities (Blaikie 2007). The abductive research strategy implies building theories that are generated from social actors 'language, their everyday activities, deriving categories and concepts that can serve as the basis of an understanding of the problem (Blaikie and Priest 2019), and employed by interpretivism to provide scientific accounts of social life (Malhotra 2017).

Abduction is a distinct from induction and deduction inferences, as deductive logic begins with a rule, proceeds through a case, then reach result that either proves the plausibility of the rule or falsifies it (Tavory and Timmermans 2014). Abduction is preoccupied with interpretation as it allows researchers to infer that something observable stands for something else that is unobservable, where these unobservable are various meanings (Chirkov 2015). In fact, we engaged daily with the process of interpreting signs, utterances, and symbols to apprehend their meaning (ibid.). Furthermore, interpretation is also scientific intellectual tool,

as quantitative or qualitative research results, statistical results, surveys, all that generates data in scientific research can and must be interpreted (ibid.).

In fact, deductive reasoning model that does not collaborate with inductive and abductive types of logic utilizes only a limited part of the scientific arsenal (Heracleous and Lan 2012). The employment of inductive and abductive reasoning and research approaches inspire greater attention to what the data can tell us with respect to the subject studied under investigation and generation of hypothesis (ibid.). Such approaches are not only more perceptive to institutional features than deductive studies but can offer in-depth apprehension of governance practices in specific contexts (ibid.).

The explorative study is conducted to unfold an influence of independent variable (financial performance) upon dependent variable (sustainability performance). Mainly, it would be necessary to evaluate if there is an association between high financial performance that led to positive sustainability performance and low financial performance that led to negative sustainability performance across Rogaland municipalities. For that reason, I have employed deductive logic of enquiry to assess the relationship between independent and dependent variables, and to answer “why” research question. I have chosen deductive logic as it clearly helps to track the conjuncture of financial regime for municipalities in Rogaland county. Next, in order to establish association between variables itself, the inductive research strategy is employed (Blaikie 2009), providing generalizations and reaching logical conclusion.

The abductive strategy helps to understand and explore people set of beliefs in relation to cultural aspect across Lund and Gjesdal municipalities. An abductive reasoning starts with a surprising experience that implies to build us a conjecture that, if it were correct, would make the surprising anomaly part of our normal apprehending of the world (Van de Ven 2007). A worthwhile starting point in trying to resolve divergence through abduction is to establish which component has occurred in a finding that is somehow expected, logical or in line with research (Schoonenboom and Johnson 2017). Furthermore, the abductive inference allows theory-driven research greater transparency and at the same time researcher examine unexplored findings, while seeking quality empirical outputs (Meyer and Lunnay 2013).

I have chosen an abductive logic as it allows to elucidate cultural aspect in a new mode of reality. Reasoning by abduction can create new knowledge and evolve original theory, while explaining things that were dismissed as anomalies. Here, an abduction method brings the design process in a creative level that allows designing from a “non-existing state” (via anomalies, new theoretical frameworks) to a new futures, thus consider transformation from an evolutionary to revolutionary approach (Patokorpi and Ahvenainen 2009).

After all, I have conceptualized the 23 Rogaland municipalities in accordance with hermeneutic approach. In order to understand the whole, one have to understand the parts (Seeböhm 2004). Mainly, it valuable to interpret whole Rogaland region accordingly to the 23 municipalities, that constitute the core element of study.

Each research question covers different research paradigms. For that reason, I argue for the integration of deduction, induction, and abduction research strategies, in addition to hermeneutic strategy. By deduction I test the claims with empirical data, by induction I cover different aspects of sustainability and generalize, and by abduction I will determine dissonances. After all, by hermeneutic it crucial to account for completeness at hand.

4.0 Ethical considerations

Ethics is the study of what is good, right, or virtuous courses of action (Punch 2013). Ethical challenges in research occur in all designs and at all stages of project, from the selection of research topic, through to the reporting stage, and to further uses and outcomes (ibid.). Ethical responsibility is crucial, including how participants are recruited, to how they are treated through the research process, and finally the consequences of their participation have to be admitted (Miller and Brewer 2003).

The primary objective of any research ethics system is to protect the participants, however researchers also have to be familiar that there may be situations when their own actions/circumstances need to be acknowledged within a study (Ramlal 2010). Specifically, the constrains on ethical decision making can be present (e.g. legal, methodological, political and economic considerations) (Punch 2013).

For that reason, while conducting research linked primary to financial and political aspects of municipal sector, I adhere to ethical values, and honestly report data and results. Furthermore, I do not share any political preferences in this research, that may impact study results and affect decisions in one or other way.

As researchers we all add to the research process our individual morality, which yield accumulation of understandings, feelings, positions and principles around specific issues (King and Horrocks 2010). Our moral look has been constructed by the various experiences, social and cultural locations that form our lives, therefore morality is not just about right and wrong, instead it is about moral viewpoints which not always coherent, we nonetheless feel strongly about (ibid.).

After all, as researchers we need to ethically scrutinize the framing of research question, how this is impacted upon by interested parties and what might be the further application of research framed in this way (ibid.). From this perspective, research ethics review can foster researchers, not only to enhance levels of “ethical literacy” in the research community, but to include perspective of all the possible stakeholders (Wiles and Boddy 2013). It supposes promoting the development of an attitude to research where ethical issues are foregrounded and where attention to ethical concerns is given through the process of research (ibid.).

5.0 Theoretical perspective

This section provides an overview of the theoretical approaches that are used to answer research issues and research questions such as those addressed in this study. The role of theory is crucial in conducting study. I think it is imperative that there is a connection between the researcher’s theoretical point of view and what is being investigated. An important aspect is how we apprehend the social world in terms of our ontological assumptions and what constitute the essence of knowledge. The aspiration toward theory contribution is imperative for the productive research and advancement in the current state of learning.

I take the insights from the Multi-level perspective (MLP), public choice theory and institutional theory for exploring nexus between financial regime, political organization, and local policy practices towards transition to sustainability. The interrelation of theories allows to conduct robust analysis of empirical data. Furthermore, it is imperative to explore spectrum of variables and understand the relationship that is present between financial performance and sustainability across the Rogaland’s 23 municipalities. Common features that MLP, public choice theory and institutional theory encompass it explicit element of governance structure, institutional arrangements, and diffusion of established practices, thereby fit the case for Rogaland county.

5.1 MLP on sustainability transitions

MLP is valuable analytical framework for analyzing socio-technical transitions to sustainability (Figure 1) (Geels 2011), and explaining an interaction between various levels of functional aggregation through the time: the “Landscape” (macro), “Regimes” (meso) and

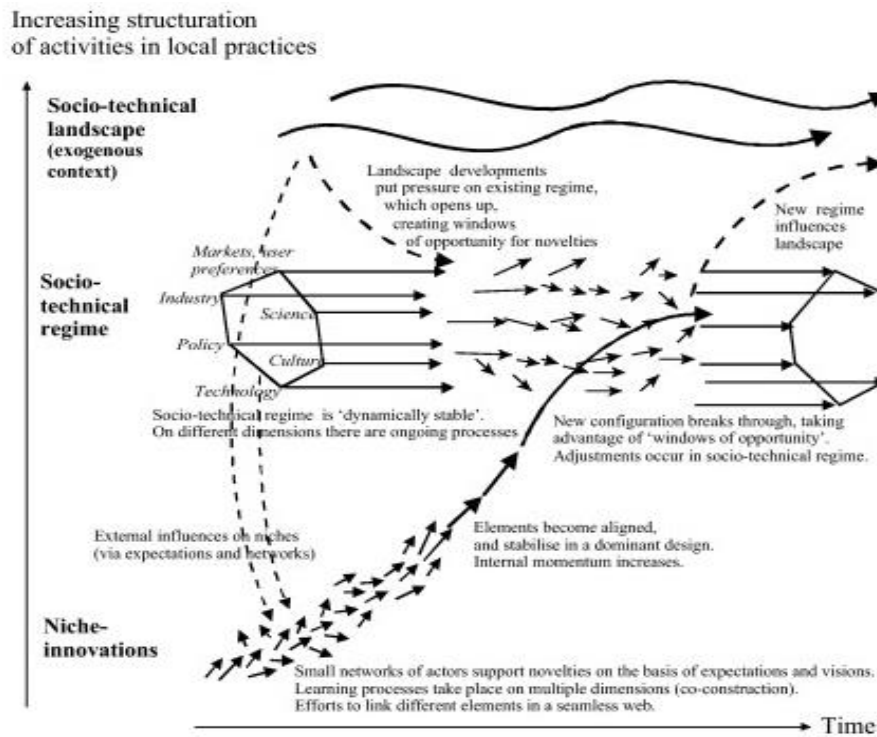
“Niches” (micro) levels (Monkelbaan 2019a). Moreover, according to Geddes and Schmidt (2020) finance conceptualized as its own regime with actors and institutions, set of norms, rules and organizational and cognitive routines that impact incumbent actors⁴ resistance to or obligation with system shift and that it can be recognized as coinciding with all other socio-technical regimes (ibid.).

In this thesis, I want to look at financial performance across municipalities in Rogaland county. The financial side for municipalities serves as link between sustainable development and low carbon society. MLP allows to shed the light on the transition that may occur on the local level, where finance should play a fundamental role. Yet, there are many factors influence in addition and assumes to be rooted deeply into existing structures, values, and norms. Culture is one of the examples of the pressures within the socio-technical regime that can evolve from social change which can yield about selection pressures on regimes (Smith, Stirling, and Berkhout 2005).

Furthermore, a massive capital investments and technological innovations are supposed to safeguard the supply of resources and energy that we reason we need (Leiss 1988). However, in our contemporary society individuals are often inspired to misinterpret the character of their needs and wishes, and as an outcome the nature of their attempts to assuage them becomes vague (ibid.). It is interesting to highlight an important feature of this analytical framework, namely the association that is present between finance, culture, and sustainability performance.

⁴ Incumbent actors are actors who have an enhanced power because of their status quo and engagement in institutional arrangements (Gehman, Lounsbury, and Greenwood 2016).

Figure 1. Multi-level perspective on sustainability transitions (Geels 2011). Adapted from (Geels 2002).



5.1.1 The three levels of transitions

Niches (Research & Development laboratories, subsidised demonstration projects, market niches) (Geels 2011) may be considered as a micro-level phenomenon and function as “incubation rooms” for radical novelties (Geels and Kemp 2007). Niche innovations are social or technical innovations that thoroughly vary from current socio-technical system and regime, but are very fruitful in concrete applications, geographical areas, or with the policy support (Geels et al. 2017). Additionally, niche is a network of identical projects performed by actors who look to challenge the incumbent socio-technical regime, such as generation using renewable energy versus a regime of centralized electricity (Patwardhan et al. 2012). However, this is not a simple task, because the current regime is maintained by lock-in mechanisms and niche projects may have a mismatch with current dimensions (lack of infrastructure, regulations) (Geels 2011). After all, niches can cluster outside of the regime and form niche-

regime⁵ interrelation, that have the power to substitute old resources by new ones and to transform the present distribution of resources (Monkelbaan 2019b).

Socio-technical regime constitutes the meso-level in the MLP and consider stability of existing socio-technical systems (Geels and Kemp 2007). Socio-technical regimes can be seen as the “deep structure” of socio-technical systems, and are performed by the social groups (Geels 2004). It specifies the set of rules that regulate and organize the activities of the social groups that redesign the numerous elements of socio-technical systems (Geels 2011). Moreover, socio-technical regime includes resources, grid infrastructure, actors such as utilities, households, formal and normative rules (Verbong and Geels 2010). Furthermore, regime rules are capabilities and expertise, user practices and regulations and because the regimes are lock-in, innovation develops with small modifications acquiring into balanced trajectories (Geels 2011). In fact, these trajectories appear not only in technology, but also in cultural, political, scientific, market and industrial dimensions (ibid.). After all, because regime prevail the societal system, an imperative condition for a transition is that regimes are either altered or replaced by new regimes (Monkelbaan 2019b).

The macro-level is constituted by the socio-technical landscape and refers to economic growth, cultural and normative values, environmental challenges and resource shortage (Geels and Kemp 2007), demographical trends, political ideologies, societal values, and macro-economic patterns (Geels 2011). The socio-technical landscape constitutes an exogenous environment beyond the direct influence of niche and regime actors (Geels and Schot 2007). Next, socio-technical landscape consist of slow-changing trends and exogenous shocks and include developments that affect the socio-technical regime over which regime actors have limited or no influence (Geels et al. 2017). Moreover, landscape comprise of different set of elements, such as access to resource availability and infrastructure, and also “soft” elements such as political aspect, societal preferences, and economic fluctuations (Patwardhan et al. 2012). Furthermore, sociotechnical landscape do not determine, but grant deep-structural “gradients of force” that make some actions easier than others (Geels and Schot 2007). After all, these external landscape developments do not mechanically effect niches and regimes but need to be comprehended and translated by actors to induce influence (ibid.).

MLP on sustainability transitions is a dominant approach for appreciating system level shifts in social, economic and technological arrangements and suggesting an inextricable

⁵ A niche-regime is a group of actors that poses transformative power, advance new structures and institutions (Monkelbaan 2019b).

linking between society and technology (McMeekin and Southerton 2012). These socio-technical systems represent the clusters of aligned elements, such as technical artefacts, knowledge, markets, regulation, cultural meaning, rules, and infrastructure (Kern 2012).

Similarly, in the MLP politics is embedded companion of socio-technical transitions, serving as context, arena, obstacle, enabler, arbiter, and manager of repercussions, and manifested on the three analytical levels: niche, regime and landscape (Meadowcroft 2011). At the niche level, the government programs can protect or unmask niches and encourage certain paths development (railroad construction, telecommunications revolution) or discourage innovations, at the regime level, regulatory initiatives support or undercut prevalent regimes; states rely upon revenues from dominating economic practices and meaningful expenditure of social revenue become essential to strengthen the sustainability transition (ibid.) At the landscape level, politics shape the economic climate and the ways the technologies are deployed (through national unification, defend) (ibid.).

Yet, MLP relates not only to national politics, indeed it applies to local level context as well. MLP looks to interpret and explain changes in complex systems along dimensions, thus to understand interrelation of processes that have uncertain boundaries and outcomes (Sorrell 2018). In fact, MLP does away simple causality in transitions, there is no single “cause” or driver, rather there are actions in multiple dimensions and at various levels which link up with, and strengthen, each other (“circular causality”) (Geels 2011).

5.2 Public choice theory

The outset point of public choice analysis is the rational individual and his/her motivations and presuppositions – even though individual action happens in a collective environment such as interest group or the state, the individual actor must be at the heart of concern (Pennington 2000). The purpose of the public choice theory in the context of this study is to uncover the social actor’s behavior regarding the decision-making processes. Particularly, author wants to know how the actions of the collective/individual impact the transition to sustainability. For example, the local government plays a crucial role in determine niche projects feasibility and decide the destiny of such innovations. In this thesis, I study the policy practices among local government apparatus. Specifically, the enactment of the programs by authorities and achievement of the public goals entail an economic impact assessment of local government (Mitchell 1992).

The public choice method uses economic analysis to examine the political arena and it studies the same subjects as political science – voter behavior, the actions of politicians and government bureaucracy, and the role of the state – but utilizes the tools of economics (Pressman 2004). In the public sector, public choice theory suggest that the democratic process can be seen as a competitive market whose agents (politicians, citizens, public officials and interest group) have selfish motivations (Ferreira, Carvalho, and Pinho 2013).

Previous studies on political behaviour views politicians as motivated by re-election, choosing set of actions to signal their types to voters (Caselli et al. 2012). In order to maximize votes, a politician can manipulate economic policies to own utility (in an agency relationship, each actor take action to benefit themselves) (Ferreira et al. 2013). Furthermore, through significant public spending, politicians can generate votes, while increases in taxation occur at the cost of such votes (ibid.). Therefore, there is a propensity, in democratic regimes, to enact budgets with deficits and for politicians to enter in political economic cycles, featured by increased public spending in the pre-election period followed by inflationary pressures and confining policies in the post-election period (ibid.).

Central government has conveyed a great deal of responsibilities linked to satisfy citizens/voters needs to municipalities (ibid.). In fact, the rapid acceleration in the urban population necessitate local governments to provide a range of social services from water and sewer infrastructure to social services and housing, that require municipalities to employ adequate revenue tools to pay for services and infrastructure (Slack 2009). This continuous reallocation of responsibility target to meet citizens/voters demands and enlarge local politicians' expertise and the mechanisms to administer public resources (Ferreira et al. 2013).

Additionally, the new governance paradigm constructs on a rich history of past thinking, shifting emphases, and integrating new elements, but rarely replacing all that has gone before (Table 1) (Salamon 2002). The outcome is new synthesis, a new paradigm, that yield contemporary realities into better focus and therefore makes more sense of the central dynamics at work (ibid.). A new governance approach assumes transformation in the “unit of analysis” in public administration from the individual agency to the distinctive tools or instruments through which public purposes are pursued (ibid.). Moreover, the multiplicity of various government programs encompasses a more limited number of instruments of action that share common futures (ibid.).

Table 1. The New Governance Paradigm (Salamon 2002).

<i>Classical Public Administration</i>	<i>New Governance</i>
Program/agency	Tool
Hierarchy	Network
Public vs. private	Public + private
Command and control	Negotiation and persuasion
Management skills	Enablement skills

Furthermore, these tools determine actors who will be part of the cast during implementation process that follows program enactment, and they define the roles that these actors will play (ibid.). To clarify, actors have own perspectives, standard operating procedures, and incentives, by defining the actors the choice of tool impact the outcome of the process (ibid.). To illustrate, the following framework (Figure 2) assess the local government actions that impact communities transition towards sustainable society and can be utilized to apprehend community development path(s) (Jost et al. 2020).

Figure 2. Assessment Framework for local government (LG) actions (adapted from the policy cycle perspective stages, Fischer, Miller, and Sidney 2007) (Jost et al. 2020).



The new governance concentration also change from hierarchic agencies to organizational networks (Salamon 2002). The determining characteristic of the most prominent and rapidly accelerating, tools, is their enactment of interdependencies between public agencies and third-party actors (local governments, hospitals, universities, industrial corporations, commercial banks), that contribute to public programs operations (ibid.). Government generates significant allies but loses the capacity to execute control over the operation of it is own programs (ibid.). A diversity of complex exchanges that are present between government agencies and public and private institutions make traditional concerns (budgetary procedures, organizational structures, and institutional dynamics) less focal to program success (ibid.).

Moreover, new governance yields a new focus to the relationship between government and the other sectors (ibid.). The blending of the public and private spheres should be recognized (Morçöl and Wolf 2010), since concern for public well-being and the capacity for public challenges acknowledgment must extend beyond government bodies if elected officials and public managers are to satisfy citizen's needs (Perry and Christensen 2015). Here, multi-organizational partnerships have the ability to enlarge the resource efficiency, making better utilization of current resources by minimizing duplication and sharing overheads and enable to add value by combining together complementary services and inducing innovation and synergy (Lowndes and Skelcher 1998).

Furthermore, collaborations are given a multiplicity of labels (consortium, alliance) and may be classified by their governance structures (network administrative agency, participant-governed, or hybrid) (Perry and Christensen 2015). To clarify, the state can make use of resources that are often needed by private, private are usually already engaged in fields that government is recently entering, thus, by empowering forces of the two, from state side (raising resources and setting societal directions), and from private (supplying services at a human scale and innovating in new fields) – crucial public leverage can be yielded (Salamon 2002).

A fourth path toward reaching public purposes in the world of third-party government is ultimately negotiation and persuasion (ibid.). Instead of enacting orders and control, public managers must constantly learn how to establish incentives for the outcomes they wish from actors over whom they have only deficient control (ibid.). It rejects privatization, because private markets cannot afford an appropriate weight to public interests over private ones without public participation (ibid.).

Finally, enablement skills in new governance world are crucial: activation skills (to mobilize the networks of actors to play their roles), orchestration skills (call for managers who can sustain them), and modulation skills (to enact rewards and penalties) – are required to

employ partners arrayed horizontally in networks, to encourage multiple stakeholders for a joint end in a situation of interdependence (ibid.).

The public choice theory allows to assess not only local authorities' actions towards sustainability transition, but also apprehend their economic decisions for social good. For example, collective, political decisions about raising property taxes to build a new road imply not only a choice between costs and benefits, but also assume the choice between time and effort and whatever is gained as a result (Butler 2012). In politics, the minority of the people cannot leave out: they are induced to accept the decision of the majority and carry whatever sacrifices that collective choice requirements (ibid.).

The public choice theory helps to reason about government decisions process, to determine issues such as self-interest of groups and the exploitation of coerced minorities, and to suggest ways of hindering these drawbacks (ibid.). After all, the city planning is one of the areas of sustainability that explains the importance of the theory. Failure to precisely identify the collective action problem and hence the suitable social capital strategy may leave the city planning approach with scarce community involvement (Rydin and Pennington 2000).

5.3 Institutional theory

The choice of institutional theory is induced by the aspiration to understand the operation of organizations within the broader context, entities that take advantage of both economic and institutional dimensions as addressed by Geels (2020). The organizations run in environments where much is taken for granted, and apprehended as powerful schema, framing the decision-making process by influencing what is or is not apprehended by decision makers (Greenwood et al. 2008). In this thesis, I focus primary on municipalities and communities' political structure. The local governments supply social, environmental and public services able of addressing various dimensions of the sustainability agenda (Ball and Craig 2010).

Moreover, an institutional theory is valuable framework to apprehend the rules, norms and belief systems that underlie all stable social systems, along with economic systems (Scott 2008). Furthermore, in institutional theory, structural influences (diffusion of practices, regulations, values, culture) constitute the core interest towards the understanding of the regime level in MLP (Fuenfschilling and Truffer 2014). The main difficulties for a transition are thus to overcome the harshness and path-dependencies of already prevailing, highly institutionalized system structures and to establish up new, more sustainable ones (ibid.). Cultural values can be one of the overlooked factors that is keeping path-dependency in place.

Therefore, it is imperative to get to know more about institutional capability of the municipalities toward sustainable development.

An institution can be widely characterized as any structure or mechanism of social order and cooperation that form the behaviour of a set of individuals within a given community (Monkelbaan 2018).⁶ In fact, most transitions assume changes in institutions and actors become embedded into meaning-making activities (Geels 2020). For that reason, the actors who adopt the innovation are subject to become heterogeneous, discourse is high and further variance of the innovation decreases (Fuenfschilling and Truffer 2014).

An important aspect toward sustainability is to accelerate major transitions in existing socio-technical regimes by aligning localised innovations with windows of opportunity that can open up, for example due to a crisis (Castán Broto and Dewberry 2016). Furthermore, the concept of windows of opportunity also lead political environments into the discussion as imperative macro element of the environment (Perry and Christensen 2015). Specifically, because much cooperation seeks to aspire complex public problems, they are subject to exist in argumentative political environments involving elected public officials, policymakers, and other stakeholders who maintain strongly held but contrasting opinions on problem formulation, solutions, and resource allocation (ibid.).

Public organizations do not, in any simple way, change and adjust, according to amendments from their environment, or from shifts in the political leadership (Christensen, Lægreid, and Røvik 2007). Institutional factors, as manifested through cultural traditions, determined rules, and socially defined conventions, limit the decisions formed within public organizations (ibid.). These factors can, as a cultural perspective will emphasize, be a result of organizations steadily having grown more complex through the evolvement of informal norms and practices (ibid.). Additionally, such elements became value-bearing with their identities and set of opinions about what the relevant challenges and possible solutions (ibid.). To clarify, the municipalities operates in already established structures and models in which they have it is own loop. Cultural “clusters” maintain shared meanings from the past, and transfer these meanings into the future, so cultural patters are often conceptualized as a power of habituation (Stephenson, Sovacool, and Inderberg 2021).

After all, the two major European figures engaged in forming sociological variants of institutional analysis were E. Durkheim and M. Weber (Scott 2013). The debate between

⁶ Examples of institutions are marriage, religion, schools, government, civil society, mass media, industry (business) and the military (Monkelbaan 2018). Institutions are one of the key objects of study in the social sciences (ibid.).

holists and individualist capture fundamental issues linked to beliefs about the nature of the individual and of society, our knowledge, and our ideals of the good community (Udehn 2002).

Durkheim emphasize the nature of the interdependence of the form and content of social institutions (Durkheim 2013), explaining their existence in terms of their functionally decisive contributions (Pope 1975). Durkheim highlight the key role played by symbolic systems, systems of belief and “collective representations” – shared cognitive frames and schemas (Scott 2013). These systems, albeit a product of human communication, are experienced by individuals as objective (ibid.). As a powerful, self-conscious entity governing the behaviour of it individual members, society can preserve the social conditions of it is own existence (Pope 1975).

On the contrary, Weber work is filled with a concern for reasoning the ways in which cultural rules – varying in nature from common mores to legally defined constitutions or rule systems – determine social structures and manage social behaviour, involving economic structures and behaviour (Scott 2013). The single individual and his action as it basic unit, as it “atom” – the only agent of meaningful behaviour (Weber 1981). Individuals do not mechanically react to impetus, they first interpret them and then define their response (Scott 2013). Particularly, understanding is reached when we know the subjective meaning that individuals ascribe to their own actions and explanation when we recognize the motives they have for acting in a specific way, thus there is no such thing as a collective personality, or actor (Udehn 2002). After all, all sectors and their constituent organizations consist of multiple, competing conceptions of rational behaviour – fluctuating institutional logics (Scott 2013).

When the government drafts a statutory law⁷ for the aim of presenting an “institution”, its implementation may have unforeseen consequences in economic, political and social contexts (Aoki et al. 2001). A major logic for unintended outcomes is the lack of “fits” between the designed plan and the existing institutional environments that rebounds a unique historical trajectory of institutional evolution (ibid.). The only institutional arrangements that are mutually coherent and/or reinforcing may be healthy and sustainable in an economy, otherwise an experimented institutional design may be highly unstable (ibid.), fatal and disruptive for everyone individually.

The institutional theory is valuable in understanding ingredients of the sustainability on local level directly. Additionally, coupled with MLP it allows to reason about structural

⁷ Statutory law comprises of laws officially enacted by the legislature or the executive branch of the government, and comprise explicit rules aimed to regulate activities and behavior (Werin 2003).

influences and diffusion of the anchored practices. An important attribute is that the institutions are already created by society. Furthermore, in any given environment individuals act within the established regulations, cultural norms, and specific boundaries. Even though change is difficult, public organizations should acknowledge an importance of the individual culture society, ethnicity, and human rights.

6.0 The local context in Norway: financial sustainability or culture?

This section highlights characteristics of sustainable development worldwide and on the local level in Norway. The concept of sustainable development is being emphasized against the different levels of governance. The role of local level government toward provision of social good is being outlined, and financial and budgetary issues accompanying sustainability are being discussed.

6.1 Sustainability worldwide

Achieving SDGs assumes harmonized policies across various policy fields at different global levels (Chaturvedi et al. 2021). The collaboration challenges can be clustered into three groups: interdependencies of policies, collective action dilemma, and detached national and global policymaking (ibid.). The scope of the SDGs is broad, inherently political, and universal in nature (Hambrey 2017). Furthermore, the agenda incorporates an abundance of distinct actors and foster the formation of novel partnerships in development cooperation, but simultaneously permit stakeholders to justify and legitimize each and every policy as supporting to such an agenda (Chaturvedi et al. 2021).

The cohesion among sectors, actors, countries, and across time frames is the key to implementing the SDGs (Stafford-Smith et al. 2017). The jurisdictions and mandates of parastatals, elected politicians, chiefs and city authorities, overlay in a processes that yields embarrassed responsibilities and facilitate weak coordination (Booth 2012). The disintegration of duties and obligations makes collective action in race of a common objective difficult to achieve (ibid.). The logic of collective action is that rational, self-interested individuals usually do not act in a common or group interests (Olson 2009). For that reason, public goods supply is subject to collective action failures yielding below the standard results, particularly the under provision of social goods (Bodenstein, Faust, and Furness 2017). Avoiding the free-rider issue

(where individuals face solid impetus to refrain from contributing to public goods while making use of gains) implies the sanctions to enhance compliance (ibid.).

The national and global level policy making are usually separated (Chaturvedi et al. 2021). At the national level, the intersections among the various goals and the idea of policy amalgamation are subject to dissimilar interpretations (Tosun and Leininger 2017). In fact, for the implementation of the SDGs it is imperative to follow path-dependency way, rather than account for interlinkages of the SDGs as acknowledged by the United Nations (ibid.). Moreover, the clear bulk of SDG indicators belongs to national performance rather than transboundary outcomes (Chaturvedi et al. 2021). Furthermore, wealthier countries grant bilateral assistance to developing countries for accomplishing the SDGs, but global and regional debates on collective action as well as discussions on local development challenges in richer countries are usually ignored (ibid.).

6.2 Sustainability and SDGs in Norway

The growing importance of sustainability as a guiding concept in Norway deserves both degree of attention and certain alertness. In Norway, the 2030 Agenda setting for Sustainable Development have been acknowledged already in 2015. The SDGs execution has been under the global governance role of the Norwegian Prime Minister Erna Solberg (Mineev et al. 2020). Furthermore, Norway was one of the key states to acknowledge a Voluntary National Review on national implementation of the 2030 Agenda in 2016, targeting at achieving political and public perception about the SDGs in the country (ibid.). After all, according to the OECD, Norway has reached 25 of the 102 indicators by the middle of 2019, and there is a consensus that the country is not far away from approaching the rest indicators as well (ibid.). Given the mostly disjointed and disintegrated landscape of global collaboration, particularly in the field of development cooperation, it is vague whether SDGs will be achieved (Chaturvedi et al. 2021). This is also true for the local level context.

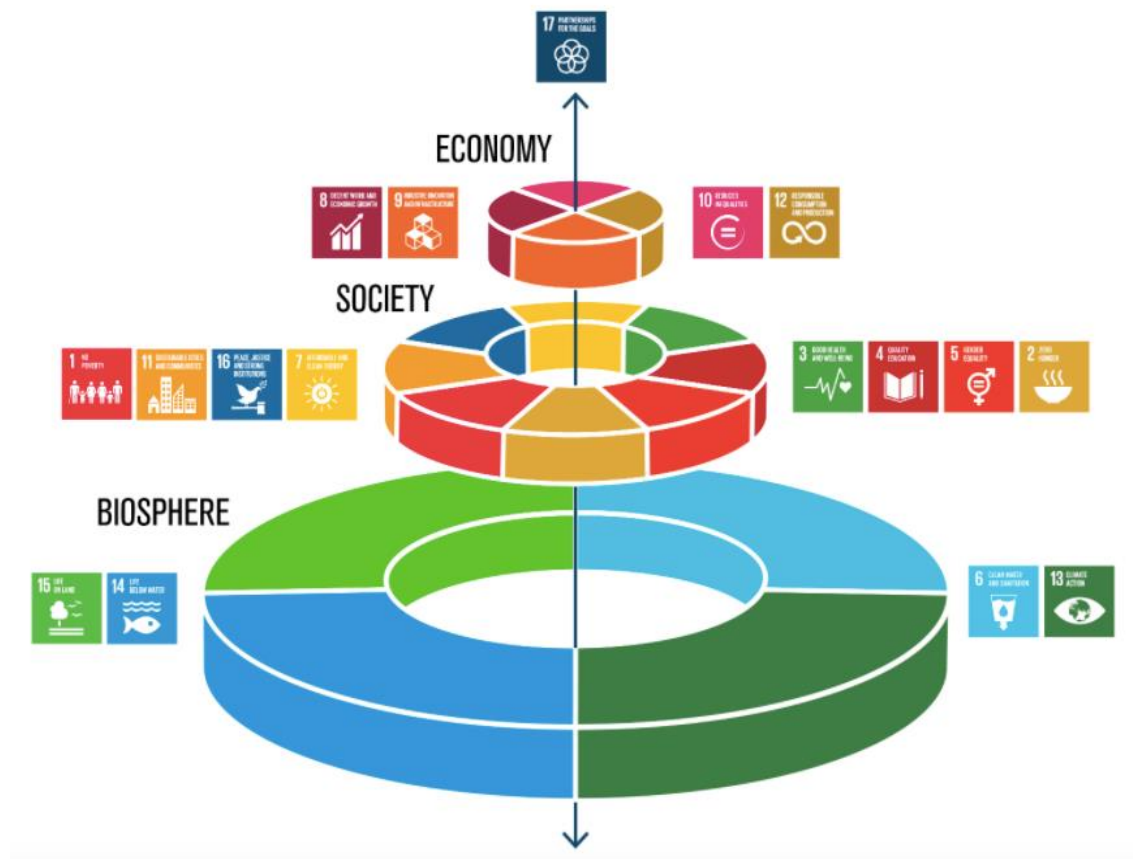
First of all, smart sustainable cities for the Arctic, that promoting a “smarter” approach to economic, social and environmental development can be decisive step towards a sustainable future in the circumpolar north (Raspotnik, Grønning, and Herrmann 2020). Secondly, sustainable urban mobility and policy developments are needed where car sharing is utilized as an element in sustainable lifestyles per se (Julsrud and Farstad 2020). Thirdly, sustainable Norwegian Salmon aquaculture industry is not exclusion as it should contribute to three pillars of sustainability: environment, economy, and society (Abualtaher and Bar 2020). Additionally,

practitioners within the fisheries foster their activities and products as sustainable and as a crucial part of a green transformation (Karlsson and Hovelsrud 2021). Fourthly, exploring sustainable experiences in tourism is another major attribute of “an experience that raises deep, meaningful emotions and memories that can encourage tourists facilitation toward sustainable experience dimensions” (Breiby et al. 2020). However, the term sustainable (“bærekraftig”) had earlier been utilized for characterizing farms where the soil is of such character and is conserved in a way that farming can be lucrative (Sverdrup 1997).

The overall paradox is that Norway is also a major fossil fuel exporter, aspect that jeopardize it full sustainability culture toward an ambitious climate strategy. Governments remain to plan on, and invest heavily in, the magnification of fossil fuel production for the aim of economic growth and revenue generation, and also as a geopolitical strategy (Piggot et al. 2020). The 2020 crash in oil prices, guided by oversupply and collapsing demand succeeding the Covid-19 pandemic, featured why betting on ongoing growth in fossil fuel demand is risky strategy (ibid.). Additionally, workers and communities in fossil fuel reliant regions can be simply left unneeded when the industry contracts, and governments who rests on fossil fuels revenues may incur crisis as their budget diminish (ibid.). In fact, there is no clear strategies, plans and actions on how to regulate/reduce emissions from industry and petroleum in Norway (Norway 2020).

Heads of State, Government and High Representatives on 25 November 2015 on behalf of the peoples they serve decided on an exhaustive, far-reaching and people-centred set of transformative goals and targets – the 2030 Agenda for Sustainable Development (United Nations and Sustainable Development 2015). The 17 UN SDGs promote action over the 2015 – 2030 period in areas of vital magnitude for humanity and the planet (Figure 3) (Schoenmaker 2018). Agenda 2030 is the world’s master plan, with goals that stimulates measures to end hunger, reach food security, good jobs, promote equality, facilitate innovation, safeguard biodiversity, grant access to clean energy, and mitigate the effects of climate change (Koilo 2020).

Figure 3. Economic, social and ecological aspects of the SDGs (Stockholm Resilience Centre 2016).



Sustainable development, albeit a widely used phrase and idea, has many various meanings and therefore cause many different responses (Hopwood, Mellor, and O’Brien 2005). Furthermore, by accounting for ambiguity and multifaceted nature, concept of sustainable development opened the room for politicians and those who hold sustainability policy instruments to exercise power in unprecedented way.

After all, humanity has the capacity to make development sustainable to safeguard that it meets the needs of the present without compromising the ability of future generations to meet their own needs (United Nations 1987). To operationalize this modern concept, three dimensions emerged to permit link to sustainable development issues, namely, society, environment and economy (Diaz-Sarachaga, Jato-Espino, and Castro-Fresno 2018).

In fact, reaching sustainable development has been hindered by trade-offs in favour of economic growth over social well-being and ecological vitality, which may also impact the SDGs adopted by the member states of the United Nations (Gupta and Vegelin 2016). Economic growth serves as double-edged sword for sustainable development (Zanten and

Tulder 2020). On the one hand, growth is crucial for enhancing living standards, good for the poor (Dollar, Kleineberg, and Kraay 2016), and has proven to be a powerful force in the fight against poverty across the world, particularly since 2000 (Pérez de la Fuente, European Commission, and Directorate-General for Economic and Financial Affairs 2016). On the other hand, rising inequality in one country can put a hinder on prospects for poverty-reducing growth, increasing inequality in the developing world can break poverty reduction (Ravallion 2001). After all, global environmental exacerbations indicate that Earth may have penetrated a new Anthropocene epoch dominating by human activity (Lewis and Maslin 2015).

Next, decisions that are being made every day, in every part of the world, will impact the physical, economic, and social settings of the world system for decades to come (Conca and Dabelko 2018), and also jeopardise the SDGs (Zanten and Tulder 2020). Economic growth and changes in consumption patterns around the world (Sharma, Nguyen, and Grote 2018) simultaneously hindering environmental goals (Spaiser et al. 2017). Lack of respect toward ecosystems and wildlife, disrupt human well-being, induce habitat fragmentation, cause illegal trade, pollution, and encourage diversification of diseases as coronavirus (The United Nations Environment Programme 2020). Such anomalous could cause the SDGs agenda to fail shortly (Zanten and Tulder 2020).

For that reason, to think as one approach is crucial for getting from agenda setting to its implementation stage on global arena. Firstly, municipalities must rank SDGs accordingly to their adaptive priorities on local level. The complexity is high; sensing, seizing, and reconfiguring is important towards understanding of the current structure systems. The systematic approach should facilitate the better apprehension of the dilemmas and possible imperfections.

Secondly, the real time monitoring on important financial indicators would improve the established practices and provide necessary information on possible implementation measures. For that reason, the acceleration in technological development and digital solutions serves as means of connection between accounting and efficient results delivery, thus reducing monitoring costs and sustainable impact.

Thirdly, municipalities must diversify their ownership portfolios based on power companies and encourage investments in new innovative projects, that would help to deliver both social and environmental benefits. Equally speaking, incumbent actors are exposed to risk

of stranded assets⁸ and imply the lock-in into existing norms and regimes. In fact, there is an enhancing need to break the status quo and give the rise to niche development in close cooperation with interested investors, stakeholders, and customers.

Cities, concentrating the enhancing part of the population, infrastructure, and economic activities, are the core scenarios for execution of the sustainable development agenda, adjustment to climate change, and evaluation of other major challenges (Hernández-Palacio 2016). Specifically, problems that are now entirely associated with sustainable development might well be problems of governance for sustainable development (Zeijl-Rozema et al. 2008), governance that essentially relies on a diversity of participating actors (Glass and Newig 2019).

For instance, multi-governance in policy formation is expected to yield better results by mutual learning (Armitage 2007), and provide gains on both sides, allow innovation, and common good orientation (Newig et al. 2018). Coordinated measures should be regularly evaluated in regard to effectiveness and, if necessary, be adjusted intact to a changing environment (Glass and Newig 2019). Additionally, contemporary governance can be described with actions as broad as managing, regulating, influencing, envisioning, policy-making, ordering, setting the parameters for, cooperating and leading (Monkelbaan 2019a). After all, it is challenging to differentiate politics from governance as governance is closely coupled with politics and state relations (ibid.).⁹

Therefore, both sustainability and transition governance¹⁰ will be required for reaching the SDGs (ibid.). In fact, on local level, county and municipal authorities are the major players to implement sustainable social development and accomplishment of the SDGs in Norway (Ministry of Local Government and modernization 2019). To clarify, sustainable cities and communities (SDG 11) are of particular interest for author study, as goal being incorporated into social dimension, thus accounting for good public practices in the long-term perspective.

⁸ Assets are recognized stranded when they were logically acquired but have lost economic value as a result of an unpredictable regulatory or legislative change specific to the industry at hand (Crew 2012). Stranded assets can be both financial assets (contracts), as well as physical assets (plants or equipment) (ibid.).

⁹ The dimension of “politics” indicates the actual process side of governance where individual and collective actors with diverging beliefs and interests interact (Monkelbaan 2019a).

¹⁰ Transitional governance yields the planning and implementation of transformational change at a societal level (ibid.).

6.3 Norwegian municipalities and budgeting

Norway is a welfare state where local authorities are institutionally, financially and politically unified in the national system of governance (Sørensen 2006). Norway is assumed to be a rather robust society with a high levels of technical capabilities and vast resources at hand, however adaptation does not currently hold remarkable position in Norwegian municipalities (Kelman 2011). For that reason, it is imperative to work across sectors and policy areas, however various sectors are guided by different sets of laws and regulations and have various prevailing disciplines (ibid.).

Moreover, planning as a tool for integrated, sustainable development, provide freedom and greater responsibility for county and municipal government to protect national and regional interests in planning (Ministry of Local Government and modernization 2019). Although plan formulation took the place, an implementation phases and evaluation pace are difficult to define on local level.

Furthermore, even though the Norwegian administration is segregated into three levels of power: central government, fylkeskommune, and kommune (Astuti et al. 2020), it might be an obstacle to yield a common national output toward determined direction. Additionally, there are various challenges on local level (e.g. decline in inhabitants' rate, fertility tendency, income inequalities, lack of competencies among personnel) that can hinder local authorities to plan for SDGs at hand.

Next, Norwegian local governments have grown in multiplicity and the services arrangements have expanded tremendously (Bjørnå and Weigård 2020). Norwegian municipalities (356 in 2020) (Statistics Norway 2020) are the multi-purpose authorities that are in charge for local infrastructure and key welfare services (childcare services, primary schools, and senior citizen care at home and in nursing institutions) of the Norwegian state (Fiva, Folke, and Sørensen 2018). They are also responsible for local planning, environment affairs, local roads, waste disposal, water suppliers, and sewers (Bjørnå and Weigård 2020). Additionally, municipalities differ significantly in their geographical features, organizational resources, and societal needs (Kvamsås et al. 2021), notwithstanding represented by the same political organization, financial arrangements (subsidies and grants) from the central government, and involvement of incumbent actors (hydropower, petroleum industry) into local activities, thereby make the results of this study generalizable to the broader context.

After all, even though the Government Pension Fund Global (GPFG)¹¹ income finance a meaningful portion of annual state budget, mainland Norway tax revenues continue the Government's substantial financing source (Royal Norwegian Ministry of Finance 2021) for sustainability in the long-term perspective. Specifically, municipal revenues in Norway shape income from three main sources: tax revenue, government grants and user charges (Geys and Sørensen 2016). These taxes can be easily allocated to the functional operation of the municipality (cover loans and long-term debts) or distributed among necessary services provision.

Taxes to local government in 2020 accounted for 203 billion Norwegian krone (NOK) (Statistics Norway 2021c), and are primary collected as a proportional payroll tax, that is an income tax (Sørensen 2007). Central government determine the minimum and maximum levels of tax rates (Norway utilize the maximum tax rates), property taxes¹² are less important, but block grants¹³ and earmarked grants¹⁴ from central government are of particular significance of the other revenues (ibid.). Exogeneous per capita revenues comprise block grants plus revenues from income and asset taxation (ibid.). The local authorities split a given pie (grants and income tax revenue) to welfare services (Kalseth and Rattsø 1998) mentioned above.

Next, user charges are imperative in kindergartens, nursing homes and for infrastructure maintaining (water supply, sewage, garbage collection and disposal, electricity distribution) (Geys and Sørensen 2016). After all, municipalities are funded by natural resource taxes (hydropower plants) (Aaberge et al. 2019) from power companies.

The distributional impact of local public services provision to households should not be underrated, since tax burden levied on population is deduction from their disposable income (ibid.). An estimated minimum expenditure for evaluating the approximate needs for public services of different target groups is subject of central government regulations, expert opinion,

¹¹ The GPFG is accountable for managing resource income, is one of the two largest in the world by asset size (Bogetic et al. 2015), and it serves as Stabilization Fund (3% of the value of the fund can be spent and the value would remain unchanged), and Intergenerational Fund (preserve for future generations).

¹² Property tax include both residential and business property (OECD and Finance 2013).

¹³ Block grants are allocated through per capita grant by transferring resources to the local public sector without distributional implications (ibid.), and are based on fixed criteria (including population size, age structure and settlement pattern), thus part of this block grant are aimed to equalize revenues across municipalities ("revenue equalization"), while another component reimburse municipalities for external factors that impact production costs ("expenditure equalization") (Geys and Sørensen 2016).

¹⁴ Earmarked grants must be spent on a particular spending program or a specific purpose (interest compensation, regional development) (OECD and Finance 2013).

and/or a consensus of local governments about how much spending the various target groups need, taken into account the budget constraint of municipalities (ibid.).

First, the recipients live in municipalities which have different economic capacity to generate public services, second, local governments have discretion in spending across service sectors, and third, the individuals who are subject for public services and who pertain to the same municipality, are treated differently by the needs adjustment (function of both cash and non-cash income) if their cash income vary (ibid.).

Municipalities encounter few regulations on the type of service delivery, and therefore are free to supply services via traditional in-house provision, municipal agencies or companies owned by local government, via outsourcing or via private companies or non-profit organizations, thus generates variation in the institutional design of Norwegian public authorities (Geys and Sørensen 2016). After all, municipal services are governed by national legislation, and the huge capacity of the municipal budget is spent on mandatory tasks to safeguard cross-national equality (Dannevig, Hovelsrud, and Husabø 2013).

It is the politician's goal to allocate resources and determine how to prioritise the different sectors, services and clients/users (Skivenes and Trygstad 2016). Accordingly, it is imperative for politicians and citizens to be aware of the outcomes of the inadequate prioritisation of resources as well as any other forms of malpractice that may harm service users and/or citizens, therefore such concerns is a prerequisite for vast and open public discussion, political elections, and valid prioritization of sectors and services (ibid.).

Sustainability requires an adequate distribution of resources which is challenging task to achieve. There may be all kinds of factors playing into this, including whether the people in community see sustainability as something imperative or not. After all, the incremental rather than radical approach to, and apprehension of, the notion of sustainable development diminished the probability of reaching a more drastic reorientation (Sverdrup 1997) in the Norwegian society.

6.4 Financial sustainability

The budgetary planning should provide sound financial sustainability on sub-national level and to yield adequate services for it is concerned citizens. The outcomes of such planning are challenging to predict, but it helps to handle municipal activities and outline the area of future opportunity. The aim of the decisions formed by local governments is primary to enhance financial and community sustainability (Caldas, Dollery, and Marques 2020). Here,

the main object of the financial system is to assign funding to its most efficient use (Schoenmaker 2018). Finance can play a pivotal role in allocating investment to sustainable companies and projects, and thus to speed up the transformation to a low-carbon, circular economy (ibid.).

Specifically, sustainable finance examines how finance (investing and lending) collaborates with economic, social, and environmental concerns, and is used in making the strategic decisions on the trade-offs between sustainable goals (ibid.). Similarly, there may be a trade-off between financial and community sustainability (Caldas et al. 2020). For instance, high-quality educational or social services and/or higher investments on infrastructure works aim to minimize standards of debt management and other financial dimensions (ibid.). In fact, as any other organizations, municipalities have to adhere to the theory of the firm: the supply of services must be cost-efficient and of high quality (Luik-Lindsaar et al. 2018). Yet, some municipalities are more agile towards management of public money than others, which indicates that these municipalities are more efficient (ibid.).

Therefore, community sustainability would encompass broader economic, political and social dimensions as opposed to the narrow financial sustainability (Caldas et al. 2020). At present time, municipalities struggle for pragmatic and tangible matters, mostly new investments, or financial resources (ibid.). However, public satisfaction, financial and investments arrangements, corruption control and clarity reinforced an objective pathway and became a credible local government assessment tool (ibid.).

For that reason, an accounting in public finance management is imperative information system that allows the accounting and managing how and where they are utilized of public resources, thus allows managers to control them more rationally within their authorization limits and accountability (Özkul and Alkan 2017). In fact, a well-structured information system allows greater accuracy, reliability, and timely provided information to managers during decision-making process while financial transparency is reached and while management conforms the responsibility of accountability (ibid.). It is about how voters can cause elected representatives answer for their policies, how legislators can investigate the actions of public servants and encourage them answerable for their mistakes, and how members of the public can seek reimbursement from government agencies and officials (Mulgan 2000).

Next, “competition” is a keyword in the neoliberal¹⁵ trend – it assumed to enhance efficiency (Bjørnå and Weigård 2020). For the municipalities, the performance assessment database on local and central government activity is of the ultimate importance (ibid.). Specifically, all reporting from municipalities and counties are generated through the information system called KOSTRA, that include comprehensive information on resource allocation, services and user requirements (Ministry of Local Government and Regional Development 2008), key indicators on the economy, education, health, culture, environment, social and technical services, and transport (Bjørnå and Weigård 2020). The information system allows the data transfer to the central government in a way that facilitate an assessment of municipalities economic situation and thereby trigger them to plan and budget in a more efficient way (OECD 2013). The system assumes a sort of quasi-competition, and is one of the essential measures in the central government’s control of municipalities, however it tells little about the quality of what is produced and whether this responds to the local people wish (Bjørnå and Weigård 2020).

After all, in Norway local governments with continuous deficits are placed in the Register for State Review and Approval of Financial Obligations (Robek), causing a great deal of attention in the local media, and anticipated to raise voter awareness of the fiscal stance of the local government (Hopland 2014). Robek system is a list of local governments that breach the balanced budget regulation by incurring continuing deficits over a period of three years or more (ibid.) As result of being registered in Robek is that the budget and decisions for establishing new loans must be permitted by the County Governor, thus requiring local governments to adapt their budgetary policy accordingly in order to be eliminated from the register (ibid.). Both the stake of votes for the incumbent’s party and the chance that the incumbent party hold in office is substantially reduced because of the local government being admitted in the register (ibid.).

In sum, sustainability transitions are impeded when policy/or economic preferences contradict with principles of sustainable development, and trust in governance structures lacks (there is no institutional equilibrium) (Leal Filho et al. 2016). The weakens of trust might be the product of a mismatch between the mutual interdependence of everything and the aspiration of many citizens for simpler problems and more truthful solutions (Perry and Christensen 2015). There is little evidence for the idea that good public administration enhances public trust

¹⁵ Neoliberalism means the enlargement of market relations and competition through society, including the domain of social interactions, and is rests on the idea of active use of freedom: to safeguard correct conditions for markets to function instead of allowing them operate freely (Tennberg et al. 2014).

in government or the administrative process (ibid.). Indeed, the public might deduce that public servants should not have applause for doing what elected officials ask and what taxpayers sacrifice to make possible (ibid.).

Despite the huge progress in technology and science that humankind has known, global governance under the sustainability paradigm does not seem to be able fully acknowledge the issues of anthropogenic changes, loss of biodiversity, in addition to income and social injustice, which are subject to accelerate with climate change and increasing globalization (Lew et al. 2016). Mainly, governing financial capital to invest more in clean energy development and low-carbon technology plays a crucial role in curtailment carbon emissions (Zhou et al. 2019).

6.5 Budgetary issues for sustainability

National budgetary processes are sophisticated political and technical exercises, and it is therefore the instrument utilized to anticipate a State's revenue and to approve its expenditure for a financial year (Hege and Brimont 2018). As we are all aware, it is the Head of Government – the President or Prime Minister – who enact the objectives of her/his administration and the vast policy directions that will be followed to reach them (OECD 2007). These targets and policies are usually proclaimed in and achieved through the government's annual budget, that pose the framework of incentives/disincentives within which businessmen, farmers and households generate decisions (ibid.). In fact, it is the minister of finance who account for the most substantial statement of policy influencing sustainable development in any specific year, and her/his claims is followed by those of the energy, agriculture, industry and other ministries – the ministers who hold the big power budgets (ibid.).

Budgeting processes can be detached into four main stages, each encompassing various actors with different roles (Shah 2007a). The executive planning stage engages the drafting of the budget by the executive, the legislative approval stage incorporates the passage of the budget law through the legislative procedures (comprising parliamentary amendments, which may account for more than one house of parliament), the executive implementation phase embraces the fiscal year to which the budget law is applicable, and the ex post accountability stage embraces a review of the final budget documents by a court of auditors, ensuring the coherency of documents with the legal authorization (ibid.).

Parliamentary voting on budgets is a form of representative democracy, as it exemplifies citizen consent to taxation and solutions taken regarding allocation (Hege and Brimont 2018). The key element of public finances is that some people spend other people's

money (Shah 2007a). Specifically, voters commit the power over public spending and taxes to elected politicians (ibid.). Two aspects of this delegation settlement – the first is voters (the principals) and politicians (the agents) (ibid.), and the second is the common pool problem of public finances (Eichengreen 2011) are of particular importance for the conduct of fiscal policy¹⁶ (Shah 2007a).

Moreover, national budgets are an imperative instrument of macro-economic policy and they depict the topmost level of political liability with respect to a country's social and economic policies (Sharp, University of South Australia, and Hawke Institute 2000). Furthermore, budgetary fluctuations can have notable and diverse impacts on both men and women and target various groups: for instance, the elimination of food subsidies can have a devastating impact on the poor, among which women and their children are over-represented (ibid.). Additionally, women's lower incomes imply their tax burdens accelerates with revenue-raising reforms that substitute ability-to-pay tenets of income taxation with the user-pays tenets of consumption taxes (ibid.). Next, diminished access to public education services can curtail the level of girl's enrolment in education in those communities that have little emphasize on female education (ibid.). Similarly, sharp declines in public sector employment can escalate men's unemployment rates, as the pressure of job shrinking encompass the largest group of the workforce, therefore various budgetary constraints such as these precepts an appraisal for their equity and efficiency implications (ibid.).

After all, the delegation of power to elected politicians purport that politicians can derive rents from being in office and disburse public moneys on projects other than those voters wish, thereby voters might try to restrict these chances by subjecting politicians to rigorous and detailed rules that enact what they can and cannot do under certain circumstances (ibid.). However, the ambiguity and multiplicity of the economic and political environment trigger the writing of such contracts infeasible (ibid.). For that reason, the principal-agent relationship implies "incomplete contract" (Amirkhanyan, Kim, and Lambright 2010), maintaining politicians with significant residual powers (Shah 2007a). The superlative these residual powers are, the greater will be contradictions between voter preferences and actual policies (ibid.).

In fact, in a budgeting processes all policies combined together, and it is therefore crossing in nature as the Agenda (Hege, Brimont, and Pagnon 2019). In Norway, a chapter on

¹⁶ Fiscal policy relates to policy regarding the use of "state treasury" or the government finances to reach the macroeconomic goals (growth, employment, stability, equity and balance of payments stability) (Dwivedi 2005).

climate change has been incorporated in the report to parliament for eleven years, while the country promoted its sustainable development indicators in 2005, with each ministry accountable for one or few SDGs (ibid.). Moreover, the Norwegian Forum for Environment and Development (network of 50 non-governmental organizations (NGOs) from various sectors¹⁷), which tracks SDG implementation, emphasize that its work could be more purposive if the government had an action plan for SDG implementation that communicates clear national goals and indicators based on the particular problems confronted by certain country (ibid.). Furthermore, public information, consultation, participation have a long lasting practices in Norway, so it was obvious for the government to call NGOs to take part in the shaping of a national policy and in the larger international process for sustainable development (Sverdrup 1997).

Budgets are about prioritization, arbitration among diverse ministries and line agencies (ibid.), tool (as addressed in the New Governance Paradigm) through which the actions of diversified actors can be transformed and integrated into specific path-dependency context to defend own projects and motivations. To illustrate, ministries utilize SDGs and the targets to defend their budget propositions and to raise for more money, and in Norway this does occur, but it continues an exception, and the SDGs are employed as one of many arguments (ibid.). However, political sympathy in, and willingness to push for a more specific and aspiring sustainable development is missing (ibid.). Furthermore, over time, budgets assume to move between balance, surplus, and deficit (Leachman et al. 2005).

Dilemma for intensifying limitations on municipal budgets also mean that a “new” challenge such as vulnerability to climate change will definitely be given little attention – or even eliminated in political discussions (Næss et al. 2006). Climate change has traditionally centered on mitigation and been outlined as an environmental issue in Norway and has thus been the feature of the Ministry of Environment, its directorates and county-level offices, along with the environmental officers at the municipal level (ibid.). However, an imperative dividing line in saturated debate over Norway’s environmental policy can be inferred between those who eager to integrate environmental safeguard into the entrenched political and economic system, and those who aspire to rank environmental concerns above all other sectors and interests (Sverdrup 1997). Albeit Norway is not an EU member, its environmental legislation

¹⁷ Primary development, environment, peace, human rights and humanitarian aid, encompassing various of the goals of the SDGs (Hege, Brimont, and Pagnon 2019).

is strongly affected by the EUs environmental policy due to its signatory affiliation to the EUs European Economic Area agreement (ibid.).

In fact, for implementing the transition, the role of local authorities towards climate neutral society becomes indispensable: first of all, as the layer of government that is closest to the citizen, local authorities can provide necessary degree of support for climate policy, secondly, local authorities are accountable for local activities that result in GHG and thirdly, they can exercise responsibility in various areas of policy that are important for climate policy formation (Coenen et al. 2002).

Additionally, the government executes power on global arena, encourages policy formation on national level, however in Norway the absence of a national policy for adaptation to climate change leaves the duty to the local government (Dannevig et al. 2013). This indicates that if the municipalities identify the need for addressing adaptation, they must themselves incorporate it in their agenda, where it has to come up at the expense with other legally binding goals (health, education, elderly) (ibid.). Furthermore, at municipal scale lack of resources and necessary background knowledge (maps and vulnerability assessments) is evident (Westskog, Hovelsrud, and Sundqvist 2017). After all, municipalities' institutional framework provides weak incentives for proactive adaptation measures at the local level (Næss et al. 2005).

In sum, the role of Norwegian governments and municipalities as the central actors is imperative to build a sustainable economy based on commonly agreed social, economic, and environmental dimensions. For Norway the sustainable transition manifested through the cost in money terms and portion of GDP prevalence, as well as for the most companies are expressed in net present value. However, the sustainable future is not about profits anymore, indeed it is about social and environmental inclusion. Norwegians will go a long way for an unblemished environment and uninterrupted nature (Norby, Jensen, and Sartori 2019). We are aware we live happily on fossil exports and we should disburse back by investing our share to help the world preserve the climate (ibid.).

7.0 Research design and cases

This section deals with case research design of this study and case study municipalities (Lund and Gjesdal). I introduce the claims that are used to assess the sustainability performance of the 23 Rogaland municipalities. Next, I provide an overview over case study approach of

this thesis. After all, the Lund and Gjesdal municipalities is being presented for understanding of contrasting experiences with budget/culture regarding transition to sustainability.

Through sustainability work is viable to minimize the consumption of carbon and natural resources, conserve biodiversity, safeguard tangible heritage artifacts, and rejuvenate intangible cultural traditions (ibid.). Yet, according to section 6, to achieve a low carbon economy, there is an indispensable need to understand the relationship between financial resources, carbon emissions and economic development as addressed by Zhou et al. (2019). To address this concern more explicit, I expect the following findings:

Claim 1: High financial performance led to positive sustainability performance¹⁸.

Claim 2: Low financial performance led to negative sustainability performance.

To clarify, I would explore if there is a correlation between high financial performance and positive sustainability performance and low financial performance and negative sustainability performance respectively. The findings of the study will contribute to the current understanding of the impact of financial performance on sustainability issues. While testing the two claims is one side of the subject at hand, the other side will be looked at in the Lund and Gjesdal case studies.

7.1 Case study approach

Case study research has built in reputation as an effective methodology to investigate and to understand complex issues in real world settings (Harrison et al. 2017), which may not be captured through experimental or survey research (Zainal 2007). It is an established research design that is used widely in a variety of disciplines, notably in the social sciences (Crowe et al. 2011), and concentrate on instances of greater complexity such as community approach to acknowledging a societal issue, a program's effectiveness, or a policy implication (Alasuutari, Bickman, and Brannen 2008). Additionally, with an exploratory research question, researcher choose cases that maximize the opportunities for elaborating hypotheses or theories that explain the social phenomenon at hand (Mills, Durepos, and Wiebe 2010).

¹⁸ I apprehend sustainability performance through the lens of economic, social and environmental dimensions given by Chardine-Baumann and Botta-Genoulaz (2014), that allow to explain differences in municipalities performance.

Moreover, case is a descriptive research document that account for a balanced, multidimensional representation of the context, participants and reality of the situation, and seek to present sufficient detail and information to draw out active analysis and interpretation by users with contrasting perspectives (Merseth 1994). Furthermore, the power of case is the ability to use all methodologies (participant observation, document analysis, surveys, questionnaires, Delphi method) within the data collection process and to match within the case and across case for research validity (Dooley 2002).

The contribution of the case study is valuable for understanding plethora factors of activities on municipal level. It allows broader contexts (historical, social, political, ideological, cultural, philosophical) (Alasuutari et al. 2008) and multiple components to be placed into real case perspective.

7.2 Case study design

The logic of design to conduct an exploratory case study is to understand broader context of municipalities (macro-level) within the Rogaland region. For that reason I have picked a sample of all the 23 municipalities in Rogaland region from 356 municipalities in Norway since the size of the sample allow to reach accuracy in the answer to the main research question of this study: *why is the sustainability performance of some municipalities higher than the one of others and what are the main challenges that need to be resolved among municipalities toward successful transition to sustainability for Rogaland region?* Furthermore, broad coverage of these multiple communities can be representative for the bigger groups of municipalities in Norway and/or abroad.

Case study research target to explore and depict a setting with a view to conquering perceiving of it (Cousin 2005), and has the ability to embrace varied cases, to grasp quantitative and qualitative data, and to embrace multiple research paradigms, thus to contribute in a holistic way to all phases of theory development (Dooley 2002).

According to Robert Yin, case study should start with a statement of propositions – answers to “how” and “why” questions – to be tested with the data gathered (Hyde 2000). The overarching question of this study is: *why is the sustainability performance of some municipalities higher than the one of others?* Cases which confirm the propositions strengthen confidence in the validity of the concepts and their relationships; cases which disprove the relationships can afford an opportunity to refine the theory (ibid.).

I implement an embedded subcases within an overall holistic case as addressed by Yin (2011). I study Rogaland region and compare all the 23 municipalities across this region. Specifically, author wants to know if there is an association between high financial performance and positive sustainability performance and low financial performance and negative sustainability performance across Rogaland municipalities. In the middle of this thesis, I look at Lund and Gjesdal case – study that fit well with what I want to find. To clarify, the cases are least similar in terms of financial capacity of local authorities and thereby sustainability performance. The comparison of two cases allows to extrapolate what is important – budget or culture toward successful transition to sustainability for Rogaland region.

To illustrate, Lund and Gjesdal communities are in Rogaland region, area that generates an economic revenue from it is oil and gas activities. Here, I use a case study for Rogaland region that continuous to be committed to petroleum practices and has proven it ambitious toward SDGs. Nevertheless, generalizations about the behaviour of political entities at the local level, it is maintained (Peterson and Peterson 1981), are pertinent for the problem of Polish rural municipalities that are largely responsible for driving local development (Kozera et al. 2020) toward viable economy.

Next, I use MLP, financial regime level to elucidate an interplay that is present between finance and culture, factors that constitute the core element of sustainability transition on local level. The policy instruments (public choice theory) initiated by politicians on local level allows to convey how decisions enacted by collective affect the common future in the whole. Additionally, the case study finds out the oil/gas and hydropower to be the main choice of the industry among Rogaland municipalities. The institutional theory unmasks the entrenched practices that are present on local level context and contribute to the overall understanding of the municipal entities.

7.3 Case study municipalities Lund and Gjesdal: financial sustainability or culture?

Lund municipality (population 3174 in 2020) (Statistics Norway 2021b) is known for it is timber and the wood products industry, which accounts for 92% of the industry's employment, and the country's largest window factory (NorDan Johs. Rasmussen AS) (Thorsnæs 2018) makeup a portion of the profit. Agriculture industry is mainly a livestock farm, comprises of cattle and sheep, as well as some poultry farming, accounting for 7% of the municipality's jobs (ibid.). Lund has also a power machine installation of 15.6 MW with an

average annual production of 56 gigawatt hours, distributed over 12 power plants (in 2016) with the main production in the Sokndal and Siravassdragene (ibid.).

Gjesdal municipality (population 12083 in 2020) (Statistics Norway 2021a) is one of the country's largest sheep municipality and has a long history tradition in the wool and textile industry (Gjesdal kommune 2020a). Municipality has a strategi (Smart Gjesdal), vision, values and goals (satisfied users, responsible and proud employees, future oriented and functional solutions, economy that provides greater room for manoeuvre) (Gjesdal kommune 2019b), all these aspects that are imperative for value creation.

Smart Gjesdal is innovative strategy towards more sustainable city development, that embrace public health, digitalisation, Lean (strategic thinking), working environment, social development (Gjesdal kommune 2020b). The increased rate of urbanization, greater demands, and expectations from public, acceleration in the technological change and increased proportion of the elderly population (ibid.) make it necessary to accommodate suitable solutions for whole society. After all, municipality is also part of innovative projects (Digi Rogaland, Digifin, inter municipal project on welfare technology, collaboration on digital competencies, smart city project) (Gjesdal kommune 2020d), that are aimed to accelerate transition to sustainability.

Next, double case study for Lund and Gjesdal allows to convey municipalities contrasting experiences. Lund municipality encounter low financial performance that led to negative sustainability performance. Contrary, Gjesdal had satisfied financial performance that led to positive sustainability performance for municipality.

Population, municipalities location, industry (mainly hydropower), education – does not explain the variation of the sustainability performance. For that reason, I incorporated intervening variable – culture that explain association of the independent variable (financial performance) upon dependent variable (sustainability performance). Intervening variable is defined a control variable that follows an independent variable but antecedents the dependent variable in a casual sequence (Frankfort-Nachmias and Leon-Guerrero 2006).

Furthermore, the role of culture become indispensable toward transition to sustainability. Cultural aspect is a multifaceted notion that include multiple dimensions along with apprehension of the world as it is and constitute the essence of knowledge. According to Schrettle et al. (2014), the sustainability challenges can be overcome by identifying relevant drivers for sustainability that firms are exposed to. Mainly, exogeneous (external forces) and endogenous drivers (internal forces): strategy, culture, and resource base (ibid.). Additionally, the World Bank has determined three types of capital to appraise each nations wealth:

produced, natural and intangible capital (Cody Fithian 2009). Produced consist of buildings, streets, roads, machinery; natural one is commonly measured as agricultural productivity (this type of capital is higher in high-income countries) and intangible capital, characterized as the knowledge, the culture, the “social capital”, and is fundamental wealth in societies, in contrary to the machines, houses and infrastructure (ibid.).

Culture is a key element toward sustainable development as it frames people’s relationships towards included natural environment and conceptualized as the possible fourth dimension of environmental, economic and social sustainability (Opoku 2015).

Build on Gratton and Jones (2004) I employed the framework for independent, dependent and intervening variables:

financial performance *affects* *culture* *affects* *sustainability performance*
(*independent variable*) (*intervening variable*) (*dependent variable*)

Specifically, it is become imperative to control intervening variable to establish the true influence of the independent variable upon the dependent (ibid.). Additionally, it is necessitated to explore the influence of the independent variable upon the intervening variable, and then the influence of the intervening variable upon the dependent variable (ibid.). By eliminating intervening variables, one may well end up with a probable relationship that does not actually exist (there may be a strong correlation between financial performance and performance in general, but it is not inevitably the case that financial performance does affect sustainability performance) (ibid.). An intervening variable must be pertinent to both the independent and the dependent variable, and it must be plausible to visualize of it as somehow a result of the independent variable that, in turn, affects the dependent variable (Gray et al. 2007).

8.0 Methodological approach

The following section describe the methodological approach that is used to meet the objective of research study and to answer individual research questions. The main question of this study is: *why is the sustainability performance of some municipalities higher than the one of others and what are the main challenges that need to be resolved among municipalities toward successful transition to sustainability for Rogaland region?* More and more attention regarding the sustainability transition is on the local level, for example when it comes to smart

cities and smart sustainable solutions. However, there is a gap in the understanding of the local level chances toward the transition to sustainability being implemented. For that reason, Norway serve as a good example to amplify the current knowledge regarding policy arrangements by local authorities. Specifically, the theoretical angle: financial regime (MLP), local policy practices (public choice theory), and political organization (institutional theory) and employed methodology allows to understand broader context when complexity is high.

8.1 Criteria for selection of investigative tools

Mixed method (document analysis, document screening, municipalities reports, statistical data) research is conducted to accommodate both qualitative and quantitative approaches. Qualitative approach explore concepts in terms of their meaning and interpretation in specific context inquiry, while quantitative examines concepts in terms of amount or frequency (Ketokivi and Choi 2014). Combining of both approaches allows both testability and context into research (Kaplan and Duchon 1988).

Qualitative researcher build theory about relationship between constructs. After all, qualitative strategies underline an interpretative approach that uses data to pose and resolve research questions (ibid.). Researchers elaborate categories and meanings from the data through an iterative process that begins by developing primary apprehension of the perspectives of those being studied (ibid.). I am as qualitative researcher is interested to cover a larger aspect of sustainability – financial performance, role of the local level, government of financial resources, and the role of culture.

Quantitative researcher when conducting study use the term variable to describe the characteristics or behaviours of those being investigated (O’Dwyer and Bernauer 2013), variables which is linked to additional fundamental elements such as concepts and constructs (Jensen 2013), that are measured numerically. Researchers is concerned with demonstrating cause-effect relationships, by setting up a hypothesis of a relationship between two variables (ibid.). I am as quantitative researcher is interested in magnitude of an attribute (mainly financial indicators across Rogaland municipalities).

After all, the power of mixed methods research is about dealing with diversity and divergence (Schoonenboom and Johnson 2017). Mixed method allows researchers to explore diverse perspectives and uncover relationships that exist between the sophisticated layers of multifaceted research questions (Shorten and Smith 2017). This type of method necessitates a purposeful mixing of methods in data collection, data analysis and interpretation of the

evidence, thus allows researchers to pursue a more panoramic view of research landscape, apprehend phenomena from different viewpoints and through diverse research lenses (ibid.).

The goal of combining both qualitative and quantitative components is to expand and enhance study's conclusions and heightened knowledge and validity (Schoonenboom and Johnson 2017). According to Bryman (2006) both qualitative and quantitative approaches allows to triangulate research findings in order that they may be mutually corroborated, uncover unexpected results and arrive to diversity of views (specifically, integrating researchers and participants perspectives through qualitative and quantitative research, and uncovering association between variables through quantitative research while also unfolding meanings among research participants through qualitative research) (ibid.).

For that reason, combining both qualitative and quantitative methods enable author to capture in depth understanding of the subject studied under theoretical constructs and account for strong evidence.

8.2 Methods

Research methods are about procedures and techniques employed in data collection, analysis and interpretation (Gelo, Braakmann, and Benetka 2008). Collecting and analysing data are the necessary steps needed for valid answers to the research questions (ibid.).

During my internship in Statsforvalteren i Rogaland (formerly Fylkesmannen i Rogaland) I was able to pilot Rogaland municipalities annual reports and accounts, thus allowed me to build a preliminary understanding of the issues at hand prior to the study.

First research question of this study is answered by analysis of municipalities archival data (strategic planning/community plans/financial plans/annual reports). Specifically, I extract the data from municipalities strategic reports to account for sustainable development across all the 23 Rogaland municipalities (report on SDGs progress and three pillars of sustainability). Additionally, I trace municipalities performance based on three dimensions of sustainability that correspond to concrete SDGs. After all, I visualize the progress on SDGs of the 23 Rogaland municipalities by presenting the graph that make explicit the share of the total municipalities toward sustainable development.

The second research question is assessed through Statistics Norway (SSB) and analysis of the academic literature for the investigation of numerical data. For accounting analysis in municipalities, I introduce the variable that are used to apprehend the financial performance of local authorities. Here, an extensive quantitative data allows to draw on graphs for analysing

the municipalities budgetary performance. Next, I provide an overview over municipalities performance based on empirical data. After all, I answer the second question of this study about the relationship between municipalities financial and sustainability performance. To clarify, I combine data based on claims of this study (H1 and H2) that are used to assess sustainable performance for the 23 Rogaland municipalities.

To answer the third research question of this study about cultural aspect - double case study for Lund and Gjesdal municipalities is employed. I analyze the data by extracting information from municipalities reports and official websites. Here, it is important to know a cultural adherence of both communities toward a local practice. Additionally, I provide an overview over financial indicators of municipalities toward sustainable development on local level directly. Both cultural and financial attributes explain some of the variation of the sustainability performance for Lund and Gjesdal.

To answer the fourth research question of this study about the 23 Rogaland municipalities challenges, I derive the necessary data from local authorities reports (strategic planning/community plans/financial plans/annual reports). This allows me to combine difficulties arisen across municipalities into group of three (social, economic, and environmental). Accordingly, I visualize the data by providing a sustainable model for development that help to reason about an important empirical data. After all, I draw on conclusion about nature of Rogaland region problems.

The main question of this study is answered by academic literature analysis, author interpretative explanations, and constructivist approach. Additionally, the four sub questions that are being addressed for this Master thesis allow to answer an overarching question of research and to account for completeness at hand.

8.2.1 Data collection scheme

I study Rogaland county municipalities and employ both quantitative and qualitative methods. Firstly, I collect the data by reviewing literature under theoretical constructs. Secondly, I process toward data collection from municipalities reports, and answer first and fourth research questions of this study. The sustainability performance and challenges aspects across municipalities reflect the qualitative method. Thirdly, I extract numerical data from SSB, necessary to answer second research question. Here, the financial side account for quantitative

approach. After all, I explore cultural aspect by academic literature analysis, municipalities reports, and official websites.

The culture corresponds to social aspect. For that reason, it is imperative to enact the constructivist or interpretivist approaches that holds the view that in order to perceive the world of meaning one must interpret it, explain the process of meaning construction and define how meanings are embodied in the everyday language and actions of actors (O'Brien 2006).

Both approaches (constructivism and interpretivism) reject the idea of “value neutral” observations and universal laws and aimed on apprehending lived experience from the point of those who hold it (Ritchie, Jane et al. 2003). The idea of social constructionism underlines the participatory role of humans and argue that reality is socially constructed (Franklin 1995).

The empirical data is collected using the secondary data. The secondary data is obtained from municipalities reports (strategic planning/community plans/financial plans/annual reports/annual accounts) and is translated from Norwegian language to English language by author. After all, journal peer-reviewed articles, government reports, and academic books are the main sources of information.

For qualitative and quantitative methods, I adhere to triangulation (multiple sources of evidence) method, that facilitate validity of data. Equally speaking, research findings must be consistent with factual data to achieve triangulation structure of enquiry. Additionally, an analysis of public documents relating to governmental strategies, financial records (given the focus on words and on existing texts), and language used over time can establish the emerging concern about sustainability issues, thus apprehend how the data extend existing theories (Easterby-Smith et al. 2018) – such as MLP, public choice theory and institutional theory.

8.2.2 Scheme for data analysis

Statistical data are employed to extract quantitative data on financial indicators and is complemented with annual reports/annual accounts of municipalities for analysis of the findings. The qualitative data is analysed in accordance with the following methodological framework:

1. Literature review under theoretical constructs.
2. Analysing documents to extract necessary data based on research questions.

3. Tentative explanation and interpretations of the financial measurements.
4. Analyses of obtained results.
5. Generalization and analysis of the findings.

After all, I test the claims (claim 1: High financial performance led to positive sustainability performance and claim 2: Low financial performance led to negative sustainability performance) by analysing municipalities strategic documents. Mainly, I extract numerical data from SSB and accompany by municipalities strategic planning/community plans/financial plans reports that account for social, economic, and environmental dimensions of sustainability.

8.3 Quality criteria and limitations

The quality criteria in research are of particular importance to establish accuracy of obtained results. Validity and reliability are core concepts in all research (McNabb 2014), because every researcher needs to conduct and contribute knowledge that is believable and trustworthy (Adekson 2004). A key aspect of validity is the scope of the variables used (Curtis and Curtis 2011). Validity is concerned with the accuracy of the test used, and asks whether it measures what it is intended to measure (Ramlaul 2010), while reliability relate to the extent that the analysis or tools utilized in measuring or assessing collected data work in the same way when applied in a similar study (ibid.), thus accounting for repeatability (Wilson 2010).

I apply Yin (2017) criteria's for judging the quality of research design: construct validity: (determining correct operational measures for the concepts being studied), external validity: (demonstrating whether and how a case study finding can be generalized), and reliability: (referring to data collection procedures, that can be repeated with the same results) (ibid.). No internal validity criteria applicable, since it for explanatory or casual studies, and not for descriptive or exploratory one (ibid.).

I study municipalities across Rogaland region by focusing on financial and sustainability performance. In respect to Rogaland municipalities (concept), I test two claims: if there is a correlation between high financial performance and positive sustainability performance and low financial performance and negative sustainability performance respectively. The relationship between independent and dependent variables (constructs) are measured by analysis of municipalities strategic reports, thus establishing construct validity.

Next, I generalize findings by answering a key question in this research. Specifically, to favour case study research with “why” question, theoretical propositions and by collecting the additional data, external validity test is established (ibid.).

The data collection procedures can be repeated with the same results by obtaining municipalities official reports from their respective websites, thus accounting for reliability at hand. For example, an accountants and bookkeepers are familiar that any calculations are subject of being audited, so that an auditor could in principle repeat the procedures and arrive at the same results (ibid.). Hence, to minimize errors and biases, the researcher should account for the case study in a way, that another investigator can repeat the procedures and arrive at the same conclusion (Hahn 2015).

For the evidence to be strong, the data obtained must be reliable and valid. The data must be applicable and suitable for chosen methodology. Therefore, validity and reliability criteria are established in this case study through multiple research techniques in data collection and research design itself. The quality of design improved by mean of random sample (include a greater number of municipalities) to generalize from the study and to show unbiased estimates. The quality of this study is also reached by reference list, which enclose a bibliography from newly years.

After all, it is imperative to build the convincing and trustworthiness research for the reader. According to Lincoln and Guba (1985) the trustworthiness criteria can be formed by incorporating credibility, transferability, dependability, and confirmability strategies (Lemon and Hayes 2020).

Credibility implies confidence one can have in the truth of the findings, that can be reached by multiple methods (Bowen 2005), including accurate understanding of context (Watkins 2012). In fact, reality exists in the minds of respondents and their context, which implies the degree of “match” between respondents’ constructions and researchers’ representation respectively (Halldórsson and Aastrup 2003). Mixed method (multiple sources of evidence) is incorporated in my research. Similarly, I am as researcher become aware of own reflexivity and subjectivity.

Next, transferability refers to the findings that are transferable to other similar settings, involving thick description of the context, people, events (Yilmaz 2013). Here, it is imperative to have underlying theory and ensure that research findings are underpinned conceptually, thus allowing people to make judgement about transferability to other, similar situations (Cao 2007). The combination of theories (MLP, public choice theory and institutional theory) is employed for exploring nexus between financial regime, political organization, and local policy

practices towards transition to sustainability. Additionally, this study rests on constructionist position and interpretative explanations to apprehend context, people and meaning making activities.

The study holds dependability (reliability) criteria if the process of applying and justifying research strategies, methods are assessed by the researcher and confirmed by an auditor (Yilmaz 2013), including the attempt to scrutinize to what extent the findings may have been influenced by the researchers bias (Cao 2007).

Confirmability is reached by explaining the links between the results and the data collected (Clissett 2008). Research must be reflective, including the researcher self-critical approach about how one's own prejudice affect the study and unfolding results (Thomas and Magilvy 2011).

The aim of the study is to uncover new perspectives on Rogaland municipalities activities, understand people perceptions in construction of reality, and elicit interrelationship of financial performance (independent variable) upon sustainability performance (dependent) through the lens of social, economic, and environmental dimensions. After all, an intervening variable – culture is incorporated that explain association of the independent variable (financial performance) upon dependent variable (sustainability performance).

The limitations are about potential weaknesses that are usually out of the researchers control (Theofanidis and Fountouki 2019). For example, in quantitative studies, sample would not have been representative, and in qualitative research, data saturation would not have been achieved (ibid.). Regarding measurements and testing, the research tool may be a limiting factor by supplying “narrow results” (ibid.).

According to Sovacool, Aksen, and Sorrell (2018) there are limitations that might occur during data collection process, since documents are limited to the perspective, agenda and biases of those who produced the documents (ibid.). An important aspect is that we are differ in our ontological beliefs, methodological approaches and reflexive apprehension of the world and the degree of knowledge involved.

Case study is limited to Norway country and focused primary on Rogaland municipalities. The level of financial and sustainability performance across counties and municipalities might differ significantly, therefore might account for differences in study results.

9.0 Presentation of the empirical results from reports

This section deals with four sustainability research questions of this study. Next section provides an overview over municipalities sustainability and contributes to answer to the first research question: *what is the progress of municipalities toward attainment of SDGs on local level?* Inspired by Bartakhanova (2020) operationalization of climate policy organization in regard to GHG emissions reduction on a local level in Rogaland county, I utilize suggested framework to identify municipalities compliance toward their government commitments in respect to SDGs policy implementation (Table 2 of Appendix A). Additionally, an understanding of the challenges among municipalities toward successful transition to sustainability (Table 4 of Appendix C) are outlined.

Section 9.2 answer second question of this study: *what do financial indicators across Rogaland county reveal about the relationship between municipalities financial and sustainability performance?* Section 9.3 explore cultural aspect and answer the third research question: *can cultural aspect, in addition to financial indicators, explain some of the variation of the sustainability performance of municipalities?* Section 9.4 articulates the answer to the fourth question: *are the main challenges that need to be resolved among municipalities more of a financial or a cultural nature?*

9.1 Sustainability and SDGs on local level throughout the 23 municipalities in Rogaland

This section provides an overview over municipalities sustainability and SDGs. The various challenges that need to be resolved among municipalities are outlined toward successful transition to sustainable development for Rogaland region.

9.1.1 Strand municipality

Strand municipality have articulated economic, social, and environmental dimensions of sustainability performance. However, it is challenging to define how SDGs are integrated into overall frame of sustainability. In fact, the measurement parameters are missing.

There are several challenges that need to be resolved for Strand municipality toward successful transition to sustainability. Mainly corona pandemic brought difficulties for local and regional business opportunities and further efforts for relocation to the region. The climate

change dictates weather disturbances (landslides and floods) that affect important sectors of economy – agriculture and aquaculture. Same apply for municipality buildings in areas that are subject to rising sea levels, that in turn create challenges in already developed areas. Additionally, both society and municipality are not aware of the outcomes of own consumption on climate change and which measures are most adequate in curtailing GHG emissions.

Moreover, the municipal economy experience difficulties since municipality has chosen an aggressive investment plan (schools, sport, culture). Increasing debt ratio (due to high investment needs) make municipality to be exposed to an interest rate risk. The decline in taxes, and low self-financing are another concern. Economic recession that impacted region in 2014 created unemployment and fragile population growth. Furthermore, state oblige municipality toward more responsibilities to meet user's prospects for service provision, even though state funding does not reflect user preferences and tasks assigned to the municipality. In fact, municipal sector confronted with a gap between inhabitants' expectations and municipality ability to provide necessary services. To clarify, easing and refining service delivery from a user perspective has not been a first concern. However, services must be adapted to the individual user preferences where standardization does not become new normal.

After all, decline in population growth towards 2040 will create further obstacle for service commitments and greater priorities (net immigration diminished last years that cause unsteady population growth). Additionally, net influx facilitates weaker attachment to the community, threaten established values, stance and accelerate chances of disagreements and social issues. Same is true for the number of children in kindergartens, that projected to decline, as well as school age people is an issue. In fact, population advancement would rely on how many children are born, how long we live and the annual immigration in general.

Since people become older supply of health and care services should be changed drastically. Moreover, statutory individual rights will gain momentum. Strand does a lot for good public health work but does not aware of own achievement criteria in this area. Furthermore, public health challenges are summarized into categories of coping, income inequality, and inclusion. Finally, shortage in staff for a care service needs (skilled workers, health staff) would be significant.

Jobs prospects and housing construction is another challenge. Next, trading industry is exposed to rivalry from online shopping, Stavanger region and Ryfast (sub-sea tunnel) may speed up the trade outflow. Also, cultural life aspect become susceptible after Ryfast opened. Furthermore, all schools have just few amount teaching hours to ensure good education, and it is ambiguous whether the schools will be able to meet the standard for teacher density with

budgeted funds. The budget proposal for 2021 expect the cut of 1 million in the cultural school's budget framework, that in turn could result in fewer concerts and performances arrangements.

Greater Stavanger (project-based organization) will be closed at the end of the year, that will result in a fewer joint development initiative in the region. In fact, Strand municipality in budget 2021 with financial and action plan 2021 – 2024 report place significant emphasis on budget cuts across various sectors of economy.

9.1.2 Kvitsøy municipality

Kvitsøy municipality have articulated social, environmental, and economic dimensions of sustainability performance. However, no indicators to measure performance found place.

There are several challenges that need to be resolved for Kvitsøy municipality toward successful transition to sustainability. Municipality is dependent on immigration, aging and declining population (as well as decrease in number of apprentices at the school and children in kindergarten in 2020), and accelerating inequality in people health are of major concerns.

An increasing loan debt make municipality sensitive to future interest rate. Growth in unrestricted income is low and accepted investments are high. Municipality has chosen an aggressive investment activity (municipal council has privileged high investments during financial plan period, thus political freedom of action is limited). Wage costs, encompassing pensions and employer contribution are the major expenditure in the municipal budget. Year 2019 made substantial expenditure on social assistance. Profit margins are low in 2019. Moreover, municipality have large partnerships and thereby the costs associated with these agreements will be high.

Fees and charges in 2021 will increase, same is for the kindergarten payment, and an increase in the prices for mooring to NOK 9,000 per year is expected. An administrative expense distributed per inhabitant will be high (considering costs associated with resources and procurement services). High costs associated with temporary staff (for school department) and the need for resources for special education. Furthermore, municipal dwellings (also with high energy consumption) require repair and thus greater investment expenses. After all, prevention of illegal construction is needed.

9.1.3 Sandnes municipality

Sandnes municipality have articulated very clear social, environmental, and economic dimensions of sustainability performance. However, not yet implementation phase took the place, along with measures.

There are several challenges that need to be resolved for Sandnes municipality toward successful transition to sustainability. Particularly, inclusion of areas by municipality where cultivated land is used for residential and commercial buildings would not be further accepted.

Next, municipality areas that are away from central face challenge of emigration, aging population (that in turn will require improved health and care services), immigration, mental illnesses are of greater concern. Moreover, it will be necessary to account for onsite home service provision (health and care) instead of offers with round-the-clock staffing.

Further urbanization brings necessity for development of more houses in central parts of municipality. Moreover, several population groups experience difficulties to enter housing market due to a high price and need for own capital. Yet, young generation in Sandnes are not fully satisfied with their local environment.

Climate change created challenges (precipitation, and risk of flood increase). Municipality indirect emissions exceed the direct emissions. The safeguard of land, and water areas should go in hand with both tourism and aquaculture. There is also a need for better analysis of biodiversity to preserve valuable species. Some watercourses and river stretch in Sandnes municipality require attention.

Pandemic have created disturbances for local businesses, while stock market continues to be unstable. Furthermore, the socio-economic differences in mortality rate and sickness have accelerated. There is also an increasing number of children living in low-income families, therefore an affordable access for necessary resources would differ significantly. Dropping upper secondary school among young generation, as well as level of immigrants is high, and only few numbers of minority speaking language children go to kindergarten. Reduced settlement of refugees diminishes income opportunities in the form of integration grants. Rising rate of unemployment, social assistance and benefits create future challenges.

An interesting aspect relates to Sandnes operating activity as municipality. Even though municipality's income been reduced in 2019, it still reached an effective result. Further projected taxes have decreased from originally adopted budget (oil demand and oil prices are

one explanation). High investment expenses, long-term debt, weak growth in unrestricted income, higher expenditure on pensions, nursing and care services is also creates difficulties.

Moreover, new savings on services (schools, kindergartens, health, culture and industry, urban development, organization) have been emphasized, thus would impact the quality of future service provision. Job monitoring, reduced travel activities, and consultants' services are measures to prevent further unnecessary expenses. Furthermore, lack of qualified kindergarten teachers to meet new educational standard as well as recruit nurses, men employees and IT and other technical positions with the private sector is another concern. Sandnes municipality posed also one of the lowest adjusted free disposable income in 2019 (NOK 4,798 less per person than the national average).

Additionally, it is difficult to rate to what extent municipality serve to be inclusive and represents diversity as an employer and social actor. Municipality also experience issues to accept apprentices because of staffing norms both in schools and kindergartens.

Procurement should happen in a transparent way when dealing with competitions for service contracts and building and construction contracts provision (social dumping and work crime must be hindered). Certain large investment projects are deferred that do not create financial benefits in the operating account, thus in turn would create future challenges and uncertainty in the long-term perspective. The threat of cyberattack is present. In fact, there is no overall framework for processes and guidelines for service areas in Sandnes municipality.

After all, in the new Municipal Act, the responsibility for proper internal control (municipality as employer, finances, resources that the municipality has on it disposal as well as the municipality's responsibilities as a community developer) is assigned to the CEO (rådmannen) (Sandnes kommune 2020a). Additionally, new Municipalities Act comprise a statutory obligation to utilize financial target figures as a tool for long-term management of the municipality's finances, however, the new Local Government Act does not contain any clear guidelines about target figures that may be of importance, therefore municipality must define own financial indicators, which can contribute to making financial priorities visible in a simple and understandable way (ibid.).

9.1.4 Stavanger municipality

Stavanger municipality have articulated social, environmental, and economic dimensions of sustainability performance. Even though social part is operationalized as part of

the UN's sustainability goals, there are still uncertainties related to clear operationalization of both economic and environmental dimensions. No implementation and evaluation of SDGs took the place. Priority however is given to SDG 17.

There are several challenges that need to be resolved for Stavanger municipality toward successful transition to sustainability. Mainly, business cycle dependent and low diversified business opportunities in the future. Climate, and environmental adaptation, living standard, individual adaptation (including health inequality and cancer illness) and exclusion should be emphasized. More people and businesses will require an uninterrupted access to service provision, thus higher expenses are expected along with long-term financial difficulties. Hitherto, there are a contrasting experience in income inequality. The number of homeless has grown. Lay off, costs associated with social assistance, acceleration in older people, decrease in birth rates and decrease in overall immigration, net domestic emigration is another concern.

Obstacle to recruit qualified personnel in upbringing service, GP doctors, nurses, engineers, ICT, and construction. Number of housing must be increased (in health service) and number of unnecessary investments that do not yields profits should be eliminated. Folk with mental/intoxication problems need attention. Data security, privacy policy and pandemic bring the further course challenge. Risk of violence/inappropriate behaviour is still present at work. Inaccuracy that prevailed after shift to a new multidose supplier induced the use of more resources.

Moreover, intensified number of children raising in low-income families and more young people are subject to alienation and experience depression (Ungdata survey). Young adults strive to the central areas of cities and towns. Ombo and Sjernerøyene islands facing a decline in the number of children/growing age population. Additionally, community protrudes both as resource and challenge and thus impact young generation future life potential and capacity. Youngest do not complete upper secondary school at time. In fact, they are not physically active in their life (also overweight issues). Next, young people who are often placed in an institution (barnevern) often do not receive the vital support.

Furthermore, there are an increasing number of people preferring a pension as a source of income rather than to be at work with high income provision. Future challenges – no advancement in the number of children, more older people, as well as jobs opportunities in the business sector is uncertain, therefore change requires enough resources.

Petroleum revenues are expected to decrease for the nation in general and further revenues are subject to diminish. For Finnøy is imperative to prioritize own business priorities. Further metropolitan and district challenges for New Stavanger (few inhabitants from Finnøy

and Rennesøy working in Stavanger, transport connection). More productive cooperation is needed across urban areas to strengthen management of common areas and infrastructure. Relocation of the people from Finnøy and Rennesøy islands to the city (housing market). In Finnøy and Rennesøy there is a lack of developed infrastructure for conducting leisure activities and not enough public transport opportunities. In fact, absence of necessary infrastructure can prevent from basic needs for both municipality and population in the long-term perspective. Shift in consumption patterns requires constant changes in level of goods provision. Storhaug area defined as overcrowded for living.

The tourism opportunities must be maintained continuously. There is also an enhancing need to resolve disputes about sea areas to make use of natural resources and contribute to biodiversity. This goes in conflict between exploiting the potential of sea areas and at the same time ensure biodiversity (risk of collision of SDGs).

Municipality (in exception of Ombo) has few forest and green areas for relaxation. Moreover, density and further expansion encourage competition for meaningful areas and land use, thus degree of sustainability diminish. Even though agriculture and the utilization of chemical pesticides jeopardize biodiversity several habitat and species are still reliant on the farming to sustain.

Not active member participation in the municipal elections in the former Stavanger municipality. Major deprivations of electricity and further electronic communication are of greatest concern for Stavanger.

Weather changes (sea level rise, storm, increased precipitation) are of particular importance, as well as drainage system must be adapted well to cope with increased water level. Climate change bring further threat to agriculture (precipitation and droughts). Road traffic, shipping, agriculture is among the highest contributors to GHG emission (heating, industry, mobile combustion makes proportion as well). Moreover, there are greater uncertainties associated with overall climate budget. Furthermore, Stavanger is in charge for emissions in Sandnes, Randaberg and Sola municipalities. After all, lack of methodology does not allow to account for the utilization of shore-side electricity in ports.

In respect to financial sustainability – the investment level is relatively high. Long term debt increases (due to borrowing, as well as debt on behalf of municipal enterprises for lending), capital expenditure increase, as well as increase in operating expenses due to a large service provision diminish economic flexibility in the long-term perspective. Drop in tax revenue for 2020 is expected largely locally than nationally. Municipality disburse more money on nursing and care services and less on the school provision and is one of the municipalities

that allocate great number of resources on political governance. High expenses within the culture and sports, the child welfare service, as well as within the water, sewage, renovation, and churches operation. Even though Stavanger have high operating expenses within the kindergartens, it does not necessary produce desired outcomes. Additionally, Stavanger municipality execution of power are bounded by government laws and regulations.

The lack of proper accounting rules and necessary requirements toward current activities of municipal enterprises/subsidiary encourage untransparent procedure in general. After all, the framework of the municipality's property management has been put on political agenda discussion for a long-time.

9.1.5 Haugesund municipality

Haugesund municipality have articulated social, environmental, and economic dimensions of sustainability performance. However, there are still challenges associated with three pillars of sustainability. Municipality has entered U4SSC initiative and will utilize key performance indicators for sustainability at hand. No measures found place.

There are several challenges that need to be resolved for Haugesund municipality toward successful transition to sustainability. Municipality face challenge due to reduced export activity for the businesses (pandemic issue). At the same time, there is a need to promote better living conditions in city centre (infrastructure and social inclusion). Lower yields for shopping areas in city centre. Need for more housing in city areas (a lot of old buildings that require maintenance), as well as transport connection between islands. Different target groups will require different services (kindergartens, leisure activities, health and care services, housing).

The number of older people projected to increase, low population development. Lack and need for qualified personnel in health and care services is evident. Low employment rate among women. Additionally, more older people and people with disabilities will require housing facilities. Families with little earnings, people with chronic diseases/mental problems/young disables, better achievements at school is another concern. Resolving of social inequalities must be prioritized. More young people face alienation and absence of active lifestyle position. An increasing number of people/youngest in social assistance need (unemployment). Withdraw from sport activities is high among young people. High education level must be considered as a vital element in municipality development. Additionally, people

with expertise is something that lack in municipal sector. Sick leave must be diminished. An increasing need for ICT specialists, nurses' personnel.

Debt increase due to a massive investment activity (future interest costs and instalments will continue to growth). Refinancing the loan in the future is another challenge. Low growth in tax revenues. Loan debt per inhabitant has increased in the last three years (60 078 NOK in 31.12.2019). No law that account for specific financial key indicators at hand – economic policy dictates it is own “rules of the game” (municipality has the freedom to choose own indicators).

GHG emissions from shipping, road traffic and heating pose a challenge for Haugesund municipality.

9.1.6 Sokndal municipality

Sokndal municipality have not articulated social, environmental, and economic dimensions of sustainability performance, apart from financial sustainability that must be prioritized. SDGs are not mentioned at all. However, municipality-initiated goals metrics.

There are several challenges that need to be resolved for Sokndal municipality toward successful transition to sustainability. Low population growth, low births rates, more older people that require nursing homes. Moreover, young generation withdraw education in upper secondary school and move out from municipality and do not return. Additionally, bullying/obesity problems/mental health is another concern among youngest. Furthermore, drug use among young generation pose further challenge. After all, more children are placed in child institutions.

Need for educated people and labour in Sokndal municipality is another difficulty. Large amount of workload and goals assigned to municipality require both competency and finance. Large number of people on disability benefits, as well as huge expenditure associated with social assistance (NAV). Additionally, more people without permanent housing. New jobs opportunities are imperative for successful development of municipality.

Unpredictable weather conditions (precipitation, landslide flood), and risk of pollution for local areas. Upgrade of pipe network is needed (water and sewage), as well as there is a lag in the maintenance of municipal buildings and fulfilment of the projects.

Municipality financial sustainability is in priority in the long-term perspective. Loan debt increases and amounts per inhabitant for 75 000 NOK. Diminished taxes revenues. Since

demand for quality products accelerating among citizens, there is a challenge to find right balance between political preferences, infrastructure development and qualified labour force.

9.1.7 Eigersund municipality

Eigersund municipality have articulated social, economic dimensions of sustainability performance. Measurement indicators have been identified as the social part of the municipal plan (indexes that should be utilized to create value in the community in the long-term perspective). Financial goals and strategies are prioritized. However, environmental dimension does not appear to be conceptualized.

There are several challenges that need to be resolved for Eigersund municipality toward successful transition to sustainability. Demographic and health priorities must be taken into consideration (more older people, decrease in the number of folk, people with mental problems, sick leave, relocation), as well as high unemployment rate and low proportion of people working in knowledge comprehensive industries. Even though pressure to deliver high quality services increasing, municipality do not receive adequate financial resources from the state. The Coordination Reform brings the new obstacles in relation to health and care service provision, as well as an estimated expenditure continue to growth. Further public-private partnership with risk sharing should be established. Digitalization and acceleration in technology bring new unemployed group of people. Challenge to supply personnel within nurses, doctors, and engineers (lack of educated people). Quality in education must be enhanced. Violence against workers is another concern. Lag in the maintenance of buildings, roads, green areas, and facilities. Unpredictability in the construction market.

Weather challenges (more precipitation and flood). Transformation in businesses is needed, however centralization and reorganization within the businesses prevalent due to economic situation. Lower engagement of municipality in patent practices and formation of new initiations.

High debt (due to investment activity and payments to 3rd parties) jeopardizes reduced earnings in the future (no reimbursement from government for certain projects), pension expenditure (low provision in 2019 and further shrinking) and high expenses in general. Some services however might be reduced. Permit of start-up loans (Husbanken) yield associated risks. High operating costs per children (within the kindergartens). Tax estimates for 2021 diverge between the state and KS (municipalities with offshore shipyards and the residual tax

affect the numbers). Since host municipality subsidy diminished, Eigersund community is also affected by financial insecurity. Liquidity of municipality is at risk. Municipality self-control should be prioritized. Difficulties to yield profits (within the culture and upbringing department and child welfare service). For well-functioning social policy good link between politics and economics should be established, that creates future political room for manoeuvre.

9.1.8 Hå municipality

Hå municipality have articulated social, environmental, and economic dimensions of sustainability performance. Six SDGs (goal number 3,4,9,11,13,17) are outlined for future priority.

There are several challenges that need to be resolved for Hå municipality toward successful transition to sustainability. Projected population growth and growth in housing building is low. Unemployment (large proportion of unemployed immigrants), growth in the number of older people. People and elderly will demand an improved service. Young generation with low income and high debt relocate to community (both income and expense for municipality). Social health/mental diseases/use of cannabis among youngest, low motivation and engagement in sport activity. Overcrowd in some kindergartens, while deficit in others. Competencies among schools and kindergartens staff must be improved dramatically. Moreover, families with low income and immigrant children is another concern. Harassment in schools. Difficulties in reading and English apprehension among schoolers. Several workplace environments confront with violence and threats problems.

Rural towns (six of them, including Stokkalandsmarka) pose challenge for Hå municipality regarding service provision, partly due to increasing financial liability. Clear delineation between urban (housing construction) and agriculture is prioritized. Lag in the maintenance of the municipal buildings. Staff hired from agency for medical service provision, no GPs doctor available in 2019 in Hå, Nærbø instead had no space available.

Municipality ambitious investing activity within the new constructions/interest/instalments pose further challenge. High debt (due to a high borrowing from banks) implies debt per capita is NOK 65 360 in 2022. Taxes and grants do not go in hand with government and inhabitant's anticipation. Wage costs are high. Social system is not perfect (for example cut in social benefits due to prevalence of child benefit). Additionally,

local parties are financed by government grants, as well as local benefits for parties are foreseen.

Unpredictable weather conditions. GHG emissions from agriculture, diesel vehicles and road traffic are prevalent.

9.1.9 Klepp municipality

Klepp municipality have articulated social, environmental, and economic dimensions of sustainability performance. Five SDGs (goal number 3,4,10,11,15) are of particular importance for municipality planning and action. However, action/financial plan for 2021-2024, as well as annual report does not account for SDGs at hand.

There are several challenges that need to be resolved for Klepp municipality toward successful transition to sustainability. Low birth rate, an increased number of older people/need for hospital spaces and high rate of death occasions. Peoples mental health/antibiotics use/obesity/low involvement of young people in sport activities/cannabis use/alcohol/smoking habits/suicide. Net redeployment is low. Young generation withdraws the upper secondary school/crime among youngest. Difficulties with reading among schoolers (5 trinn)/more adaptation within the school atmosphere is important. Employees are needed within the agriculture and construction sectors of economy/educated people within health and technical specialization.

Single people with children do not have adequate income, as well as low income families. More people on social help. Sick leave is high. An increased number of messages to child welfare services. Foster homes and institutions depend on further resources (child welfare service). Unemployment among foreigners. Diversification of workplaces is important (low number of jobs within the public sector). Shift in labour market require high competences among adults, greater experience, and knowledge of the Norwegian language. Greater social participation of people is needed in day-to-day activities.

Increasing net loan debt. High debt is prevalent among households. Great investment activity. Only certain amount of people will have an opportunity to receive quality service in the future. Private partnership become relevant to deliver necessary services to inhabitants. The balance between people who can provide service and who will receive the services will be the challenge. There is a difference between people wishes and municipality money possession.

Municipality has been assigned more tasks from state. Better management of construction industry is needed to prevent illegitimate cases.

Climate change (rainfall, drought, flood) pose the challenge. Agriculture, road traffic, shipping and heating are the biggest contributors to GHG emissions in Klepp municipality. Preservation of biodiversity is needed. Curtail food waste and adequate consumption are imperative tasks for sustainable development. Greening of living spaces and development of municipality infrastructure. Rules for land area use will affect animal husbandry. Environmental issues are odour related to agriculture industry, as well as associated noise/traffic noise. Accidents on water (beach areas) is an issue.

9.1.10 Sola municipality

Sola municipality have articulated social, environmental, economic dimensions of sustainability performance, in addition to cultural aspect. All 17 SDGs are emphasized for value creation in society. Evaluation part is not present.

There are several challenges that need to be resolved for Sola municipality toward successful transition to sustainability. Number of older people will increase dramatically, therefore only minority will be at work, in addition to a smaller number of young generations. Rising unemployment rate. Obesity/mental health/drug use/withdraw from school among young people is the challenge. Chronic illnesses among inhabitants. Income inequality between different groups of people.

Inhabitants preferences are changing that require municipality adapt the services and goods in the-long term perspective. Additionally, improved working methods are needed to ensure successful development for community. Moreover, the state desire to transfer the control to bigger and more solid municipalities that are eager to execute sustainability in the long-term perspective.

The number of children placed in institution (barnevern) is increasing. However, child welfare specialists need more time to practice their professional skills. Additionally, The European Court of Human Rights in Strasbourg convicted Norway for break of human rights in respect to child welfare cases.

Lack of qualified personnel with expertise – health and care service, schools, as well as few educated people in the future who can provide adequate help for other people in need. More developed public connection is needed, along with stable electricity supply. Future

electronic communication is under threat. Risk of various accidents increasing. Relocation among population within the municipality.

In respect to financial sustainability – the future resource capabilities are limited. Taxes projected to decrease. Municipality debt increases. Overconsumption of resources across various service areas. High investment activity.

In respect to environmental sustainability – diminish of valuable plants and animal species, as well as polluted water is the challenge. The largest emitters of GHG emissions are shipping, aviation, and heating. Additionally, waste and construction, industry, oil/gas, mobile combustion, agriculture, and road traffic contribute to pollution of the air. Climate change pose the further risk of storms and landslide.

9.1.11 Hjelmeland municipality

Hjelmeland municipality have articulated social, environmental, and economic dimensions of sustainability performance. SDGs are not mentioned.

There are several challenges that need to be resolved for Hjelmeland municipality toward successful transition to sustainability. Missing power supply infrastructure (power goes abroad and to Australia). An increasing number of elderly, as well as lack of people proportion/scarcity in the number of children. Obesity/heart diseases/mental health. Poor dental health among youngest and people in general. Enjoyment of school time among young generation is a challenge/more time spent in internet. People in disability is another concern.

Relocation and further emigration within municipality. Income inequalities. Immigrant social adaptation (culture and language)/refugees experience challenge to find a work. Resources are needed for housing development and upgrade of existing sport recreations/school buildings and facilities. Public transport connection is not developed good enough to meet societal needs. Few socializing places. Qualified teaching/health and care personnel is needed. Absences from kindergartens/health care during pandemic. Child welfare reform impose further costs and responsibilities.

The green transformation for municipality is difficult because of inadequate infrastructure development. Often state disregard the fact that local adaptation might be good enough. Lack in the maintenance of the municipal buildings. Several people do not have an installed water meter.

In relation to financial sustainability of municipality – high debt ratio. More people who pay taxes on pension income, rather than those who can work. Costs increased in 2019 for labour, primary school operation, kindergartens, health, and care, planning and construction matter, culture, and sports services. Tax revenue in 2020 projected to decrease.

The environmental challenges – certain municipality areas have radon level prevalence. Emergency situations that require further attention (fire, flood).

9.1.12 Randaberg municipality

Randaberg municipality have articulated social, environmental, and economic dimensions of sustainability performance. Additionally, municipality have prioritized all SDGs apart from goals number 2,5, and 16.

There are several challenges that need to be resolved for Randaberg municipality toward successful transition to sustainability. Mental health/withdraw from upper-secondary school among youngest. More elderly, less children, and workpeople. Income inequality. Unemployment rate. Young generation enjoy social security benefits from NAV/do not finish upper-secondary school/psychological issues among pupil. High proportion of the children under child welfare service.

Diversified job places are needed. An improved Norwegian language expertise among foreigners is important. Accelerate public transport connection and necessary facilities to create sustainability. Greater pace of technological acceleration and increased urbanization challenge the existing cultural heritage. Prosperity of the Randaberg municipality is determined by successful business development in adjacent areas. People will require better services and goods in the future; however, municipality resources cannot afford it in the long-term perspective. Challenge to recruit nurses, health personnel, kindergarten teachers.

In respect to financial sustainability – net loan debt was lifted to NOK 90,000 per inhabitant. Municipality spent a lot on kindergartens, nursing and care, social services, and municipal health services – child welfare and primary school account for less resources. Net operating profit for 2019 is negative number (NOK -0.84 million against budgeted NOK -13.8 million). Growth in the long-term debt and the short-term debt. Inaccuracy in accounting reporting.

In respect to environmental sustainability – curtailment of GHG emissions (large emitters are shipping, agriculture, and traffic) should be considered. Additionally, certain share

of particles in the air are prevalent. Greener purchasing must be established. Climate change pose further serious threat (flood, unpredictable weather conditions). Preservation of biodiversity, clean water for everyone should be prioritized. Agriculture is especially exposed to weather changes; therefore, industry profits are expected to diminish. Land resources must be conserved. However, the large share of land is utilized for further urban purposes (risk of collision of SDGs).

9.1.13 Sauda municipality

Sauda municipality have articulated social, environmental, and economic dimensions of sustainability performance. However, social sustainability should be prioritized. Additionally, municipality have prioritized all SDGs apart from goal number 6.

There are several challenges that need to be resolved for Sauda municipality toward successful transition to sustainability. More elderly people that will require better care services, lower birth rate, weak immigration and fall in the overall rate of population. Mental issues, chronic diseases, high death rate. More young people who are not physically active in their everyday life. Social disparities.

Even though an increase in job places is needed, Rådmann can put on hold vacancies items in the budget if needed. Folk with appropriate competencies for work are needed (within schools, kindergartens), as well as educated people/also men for teaching work (high pressure on social benefits instead). Additionally, full-time employment contributes to less people at work. Sickness leave among people is an issue. Another challenge is to recruit people within health and care/planning/child welfare service/primary school/ICT/engineering/building and construction.

Human capital is important to provide necessary services in the long-term perspective. Even though dwellings construction is important in the future, it jeopardizes the price of existing one. Limited infrastructure (one road, public transport connection) – aspects that are imperative for political agenda.

After all, municipal economy has limited financial resources and high operating costs. Even though regional and inter-municipal collaboration must be prioritized, it can also jeopardize an allowed governance and overall progress. An overall diminish in revenues/power revenues is forecasted. No room for future municipality savings due to pandemic. The Centre Party and The Christian Democrats party are the leading parties that exercise the most

decisions. Budget for 2021 enters with a negative net operating profit and budgeted with deficit (not by the law standard).

Climate change pose serious threats (for example within the tourism in wintertime). The large emitter of GHG is industry. Additionally, transport, waste, construction, and other sectors contribute to overall air pollution. The attention should be given to the biodiversity conservation, as well as adequate land use should be considered.

9.1.14 Bokn municipality

Bokn municipality have not articulated clear social, environmental, and economic dimensions of sustainability performance. Additionally, SDGs are not outlined.

There are several challenges that need to be resolved for Bokn municipality toward successful transition to sustainability. More elderly/improved facilities in care homes are needed, falling rate in the number of overall populations/decreases in the childbirth. Weak relocation within municipality is an issue. Mental issues among people/drug use among young generation/obesity problems. Less number of people prefer to spend their time for volunteer work/church, more choose the leisure cabins and trips instead.

The inhabitant's expectations increase regarding service provision; however, municipality financial resources are limited. More people would prefer to receive pension provision instead of work; thus, more tax load on everyone is expected. Increase in the number of people who receive social benefits (NAV)/unemployment.

Services must be commensurate compared to other municipalities. Absence of professional atmosphere in municipalities. Social integration is the challenge. Child welfare services have risen in the number of cases; however, child services do not possess necessary knowledge (organization gain knowledge from external parties).

Rogfast project create ambiguity for Bokn municipality opportunities in the long-term perspective. The establishment of job vacancies/diversified service provision are important to accelerate sustainable development. Challenge to recruit people with knowledge and skills (within the schools, kindergartens, health, and care services). Better socializing places/developed infrastructure are needed/lack of additional water facilities in municipality. Lag in the maintenance of municipal constructions/school buildings call for health and safety measures. Inter-municipal collaboration between municipalities can jeopardize established practices within the single municipality. Cyber-attacks, security issues should be considered.

High loan debt for municipality. Growth in the costs for municipality due to a large work absence among people. Revenues from oil diminish. State play a crucial role regarding allocation of finances to municipalities. The population growth has an important effect on allocation of resources from gas-based industry between Bokn and Tysvær municipalities, as well as affect government distribution of finances. Furthermore, every year The Storting initiate new responsibilities for municipalities, however Bokn do not pose enough expertise to cope with assigned obligations. The new income system that entered into force in 2017 has diminished structure of the grants and overall municipal economic sustainability.

The larger emitters of GHG emissions for municipality are shipping, agriculture, and traffic. Additionally, climate change poses serious risk for the overall functioning of technical operation/area planning within the municipality. The number of farms in recent years has diminished in Bokn municipality. After all, agriculture industry is not coordinated politically.

9.1.15 Utsira municipality

Utsira municipality have articulated social, environmental, and economic dimensions of sustainability performance. SDGs number 9,11,17 is outlined for sustainable community.

There are several challenges that need to be resolved for Utsira municipality toward successful transition to sustainability. Growth in the number of working populations is needed/elderly generation/young people move away from municipality/mental difficulties among people. Even though municipality has limited recreation activities for young generation, an active physical participation among them is important. Furthermore, volunteers are important contributors to sustainable development.

More developed infrastructure/transport connection is important to secure sustainable emission free society in the long-term perspective. People with knowledge and skills (schools, kindergartens, health care) are required. Diversified jobs are needed. Business patterns have changed radically that require municipality to adapt to changes. The decrease in the number of people create the limited income framework for municipality environment.

Limited network connection in community. Attraction of venture capital is a major concern. Utsira is valuable fish farm region due to several challenges (in fact, health and safety measures are not in place). Lag in the maintenance of municipal facilities. Acquisition of private possessions for cabin formation is needed. Substitute old age teachers with new one (generational shift). More tasks are assigned to municipality that require further expertise. Due

to tough regulation within the construction industry, and few cases – municipality find it challenging to be up to date with knowledge (must consult with adjacent municipalities). Absences from work among people is an issue (health and care department/upbringing).

Financial sustainability of municipality is subject to Starting settlements. Municipality gets insignificant government grants based on political variables (small and basic grants). Limited financial resources. High loan debt. Premium variances (pension items) must be looked closely. Minimize employer's contribution (arbeidsgiveravgiften). Secure no control regulations for residential and commercial properties development (risk for financial manoeuvre and uncertainty). Restructuring processes in the administration is happening. The income system reform for the municipalities need to be upgraded (the last was 15 years ago)/better conditions are in place for merged municipalities. Decline in the number of people jeopardize municipalities revenues, even though municipalities are compensated through income equalization.

In respect to environmental sustainability an emphasis is placed on soil safeguarding. Safeguard cultural landscape to ensure sustainability. Promotion of new and effective production methods in agriculture is needed. Weather changes create difficulties to cope with large amount of water levels in municipality region due to increased rains.

9.1.16 Vindafjord municipality

Vindafjord municipality have articulated social, environmental, and economic dimensions of sustainability performance. SDGs number 1,2,3,4,6,8,9,10,11,12,13,17 is outlined for sustainable development.

There are several challenges that need to be resolved for Vindafjord municipality toward successful transition to sustainability. More older people/low number of people in the age 20-44 years/less pupils/mental issues/physical activity among various group targets. Growth in the number of single people/couples without children. Unemployment. Foreigner children (where Norwegian language is not the first language) need intensified pedagogical knowledge from teachers/maths subject/English is a challenge for young people. Personnel within the health/care services/kindergartens will be needed. People with expertise and knowledge/women for male profession. High standard cleaning is a prerequisite in kindergartens. Better organization among various structures is required. Economic inequalities. The technical services department experience high work assignments.

Municipality is assigned more duties and tasks to do from the government. Diversified jobs, housing space, developed infrastructure, and decentralized kindergarten to create sustainable future. Allocation of refugees create difficulties for municipality (due to a lack of accommodation and educated people). To safeguard cultural monuments and beach areas. Lag in the service of municipal housing.

Financial sustainability is an issue due to an ineffective operation within nursing and care/health/social assistance services. Investment projects diminish municipality economic freedom. Net loan debt/growth in operating expenses/liquidity/repayments is an issue. Sustainable budgeting is important to ensure growth productivity in the long-term perspective.

Climate change pose difficulties for overall planning in municipality. Heavy rains create a challenge of high-water level. Even though agriculture is important industry that require safeguarding/investments, it also large contributor to GHG emissions. Competent land use and transport frame must be initiated to curtail GHG emissions. After all, clean water will be needed. Climate adaptation is overall concern in the long-term perspective.

9.1.17 Time municipality

Time municipality have articulated social, environmental, and economic dimensions of sustainability performance. SDGs number 2,3,4,6,7,8,9,10,11,12,13,15 is outlined regarding municipality challenges.

There are several challenges that need to be resolved for Time municipality toward successful transition to sustainability. Population growth/physical activity among people/mental issues should be considered. More older people (valuable resource)/less children/folk move-out from municipality (relocation issues). Withdraw from upper-secondary schools/drug use among certain groups/young disabled/mental health. Income inequalities. More young generation on social benefits/overall unemployment. Due to growth in house prices it is difficult for young people to enter this market. Diminish car traffic and induce public transport. More people will require uninterrupted access to health and care services (qualified personnel is needed within those sectors). Personnel for kindergartens. Human rights should be prioritized. Sickness absence from work placements. Infrastructure (roads in particular) is important.

Financial sustainability is a challenge due to a high municipality debt and fluctuations in interest rate. Growth in operating expenses. Correct practices for entering premium

deviations should be established. Storting, municipal and county council elections account for certain expenses.

Agriculture is important industry that contributes to quality food production. Additionally, management of land and proper areas use should be considered. Climate change bring the challenging weather conditions (heavy rains, floods).

9.1.18 Suldal municipality

Suldal municipality have articulated social, environmental, and economic dimensions of sustainability performance. SDGs number 1,2,3,4,6,8,9,10,11,12,13,17 is outlined for municipality performance.

There are several challenges that need to be resolved for Suldal municipality toward successful transition to sustainability. Municipality would like to get young generation back to live in Suldal. More older people/fewer working/less children/sick absences from work/drug use among young generation/mental issues. Economic inequalities. Diversified job places are needed. Even though qualified personnel with knowledge (within the health sector/schools/kindergartens) is prerequisite for sustainability, municipality hire uneducated people. Recruitment of women to male jobs. Volunteers people are needed.

Foreigners are both capital that must be utilized and challenge at the same time. Better developed infrastructure (transport in particular) is needed. Lag in the maintenance of municipal housing.

In respect to financial sustainability – future revenues from power sector is of concern. Long-term debt/high investment activity due to geographical conditions and overall framework.

In respect to environmental sustainability – the largest emitters of GHG emissions are agriculture, shipping, and road traffic. Agriculture is important industry for municipality, area that require regulations to be in place. Both sea and beach areas should be safeguarded.

9.1.19 Tysvær municipality

Tysvær municipality have articulated social, environmental, and economic dimensions of sustainability performance. SDGs number 3,4,8,9, and 17 are outlined.

The are several challenges that need to be resolved for Tysvær municipality toward successful transition to sustainability. Relocation among young population/an increasing number of older people/birth rate/young disable people/obesity issues/sickness absences from work/drug use among young generation.

Diversified businesses are important and commodity acceleration is needed. More housing development and overall infrastructure within the rural areas. Network coverage must be upgraded. Private actors facilitate Tysvær municipality development. Oil/gas industry is the major provider of job places, as well as big contributor to municipality property tax and account for huge buying capacity within the goods and services (recovery of further oil fields is also important). Agriculture is another important industry, but require greater investments, as well as recruitment of skilled people.

The social system calls for revision (disadvantaged groups require better conditions). Qualified personnel within the schools/kindergartens/health and care/technical sector. Even though an increasing number of children are still under child welfare service and welfare service personnel is put under physical and mental pressure, it is imperative to be abusive in the defensive work (in accordance with the law standard).

In respect to financial sustainability – high investment activity and high loan debt. Municipality disburse more resources on services provision, than average middle-size municipalities. An increase of the wage items in the budget.

In respect to environmental sustainability – the largest emitters are oil/gas industry. Additionally, agriculture, shipping, road transport and other mobile combustion contribute to GHG emissions. Prevalence of radon in atmosphere. Cultural heritage, safeguarding of biodiversity should be considered. Access to clean drinking water is an issue.

9.1.20 Karmøy municipality

Karmøy municipality have articulated social, environmental, and economic dimensions of sustainability performance. KPIs are incorporated toward sustainability in the long-term perspective.

The are several challenges that need to be resolved for Karmøy municipality toward successful transition to sustainability. More older people/less working age population/high absence from work/low birth pace/mental challenges/drug use among young people. Income

inequalities. The fulfilment of education is an issue among young generation. The qualified personnel are a challenge (within the schools, kindergartens, health, and care).

Regarding financial sustainability – large gross operating expenses. Aggressive investment activity and high municipality debt. Municipality disburse large resources on services generation. The liquidity ratio is not robust.

Climate adaptation is required to ensure sustainable development. Access to clean water. Sewage plants/housing require further attention (lag in the maintenance). The business/industry development in district regions affect the Karmøy municipality sustainable development in the long-term perspective. The largest emitters of GHG emissions – oil/gas industry, shipping, and aviation. Maintenance and construction also contribute to GHG emissions. Sustainable transport and infrastructure development should be prioritized.

9.1.21 Bjerkreim municipality

Bjerkreim municipality have not articulated social, environmental, and economic dimensions of sustainability performance. SDGs are not mentioned.

There are several challenges that need to be resolved for Bjerkreim municipality toward successful transition to sustainability. An increase in the number of elderly (spending on health services will increase)/emigration from municipality among people, mental health is an issue across various group of people. Municipality has rather limited knowledge how to prioritize for quality services generation and overall strategy. The number of cases within the child welfare service have increased in recent years. To recruit qualified personnel is another challenge (health and care sector).

Lag in the maintenance of the municipal buildings. Better infrastructure development is a prerequisite for sustainable development. Unpredictable weather brings the challenge regarding the increased food output. Agriculture is important industry for municipality and is highly regulated politically.

Regarding financial sustainability – municipality is to a large extent rely on taxes and government grants. High municipality debt (due to investment activity), and negative net operating result in 2019.

9.1.22 Lund municipality

Lund municipality have not articulated social, environmental, and economic dimensions of sustainability performance. SDGs are not mentioned. High loan debt make municipality sensitive to future interest rate. Furthermore, financial sustainability is the challenge in the long-term perspective for Lund municipality. Additionally, Lund is highly dependent on the country revenue in general (implies a collective form). The municipality have not articulated strategy, vision, and it is challenging to define municipality position for the future in respect to economic, social, and environmental sustainability.

After all, the challenges towards transition to sustainability for municipality are low population growth/inhabitants pose an education at primary and secondary level and work to a large extent in the secondary industries and retail companies. Large lag in the provision of digital services and challenges associated with large cuts in upbringing and the cultural service.

An increase in the proportion of elderly people/mental health among people and overall health inequalities is another concern. Furthermore, an improved competencies and education are needed among people (municipality lack qualified personnel within the kindergartens/schools). The acceleration in the number of child welfare service cases is an issue. Further decentralization of the schools and kindergartens is the challenge. Diversified business opportunities are needed toward sustainability transition. Infrastructure must be constantly developed but require executing pressure on the central government. After all, Lund municipality have chosen to continue as a separate municipality but confronted to carry out the same level of service provision to it citizens. Regarding environmental sustainability, the unpredictable weather conditions create further risk of flood.

9.1.23 Gjesdal municipality

Gjesdal municipality have articulated social, environmental, and economic dimensions of sustainability performance. However, SDGs are not mentioned. Additionally, the major challenges towards transition to sustainability for Gjesdal municipality are mainly low population growth, mental health of young people, people of childbearing age is an issue, decrease in the number of children in kindergartens, more elderly people and it is assumed that the proportion of taxpayers per pensioner will be halved by 2040. Moreover, municipality's

procurements should be made through established procurement practices. The qualified personnel with proper education are another concern.

I have noticed an interesting aspect regarding taxpayers per pensioner. One would understand that the more taxpayers (ordinary people) the more one pensioner generate on people paid taxes. Furthermore, Gjesdal municipality made explicit to limit the number of customers/buyers for procurement process and proceed cooperation regarding only established practices. That is the one of the explanations why niches are not able to reach strong degree of institutionalization and overall acceptance.

Regarding economy the challenge is associated with the high loan debt, despite the solid economic situation for Gjesdal municipality. An increased lending of start-up loans is another concern. At the same time municipality economic freedom for future manoeuvre is limited. At environmental level GHG emissions in Gjesdal municipality must be curtailed sharply.

9.1.1.1 Summary and discussion

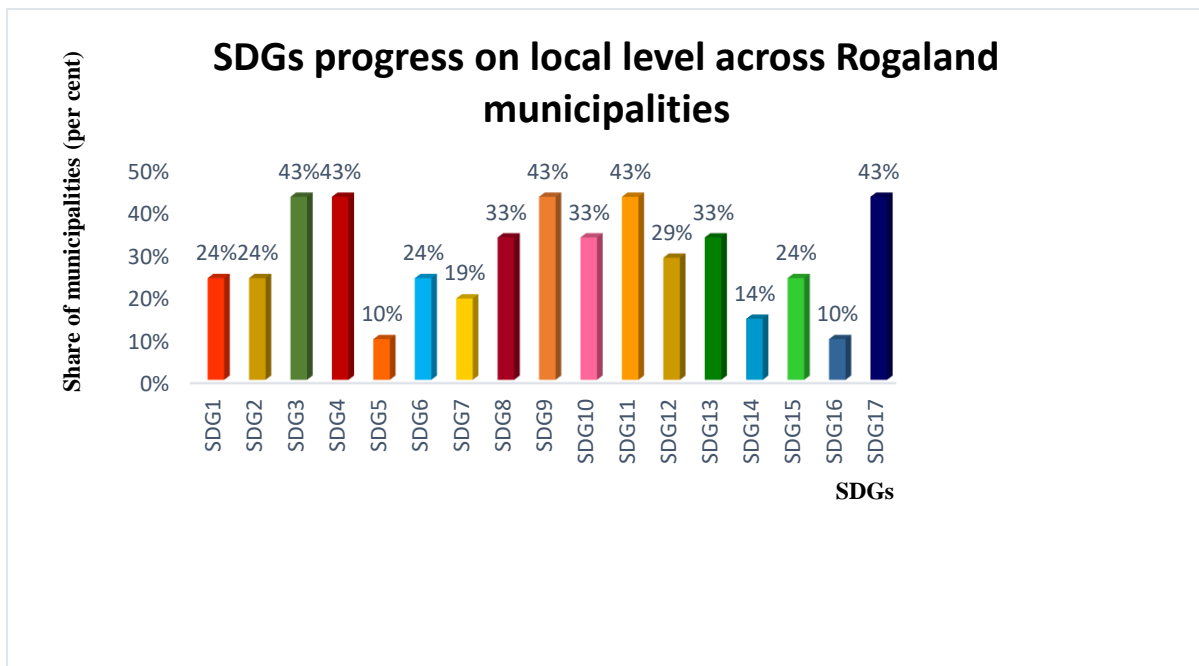
This section provides an overview over the progress of the 23 Rogaland municipalities toward attainment of SDGs on local level. I trace municipalities performance based on three dimensions of sustainability as addressed by Stockholm Resilience Centre (2016), and answer the first research question: *what is the progress of municipalities toward attainment of SDGs on local level?*

The Rogaland municipalities are on different stages toward apprehension and implementation of SDGs (Figure 4). Here, I do not consider Eigersund since municipality have identified measurement indicators for reaching municipality goals, and Karmøy that have incorporated KPIs toward sustainability measurement in the long-term perspective.

Lund, Gjesdal, Strand, Kvitsøy, Sokndal, Hjelmeland, Bokn, and Bjerkreim municipalities have not mentioned SDGs in their planning work. Sandnes have emphasized three pillars of sustainability, however, find it challenging to incorporate SDGs. Haugesund seems to implement SDGs very soon. Stavanger indeed articulated SDG number 17. Hå discussed SDGs number 3,4,9,11,13,17. Klepp have outlined goals number 3,4,10,11,15. Randaberg make emphasis on goals number 1,3,4,6,7,8,9,10,11,12,13,14,15,17. Sauda municipality have prioritized all SDGs apart from goal number 6. Utsira outlined SDGs number 9,11,17. Vindafjord articulated SDGs number 1,2,3,4,6,8,9,10,11,12,13,17. Time municipality

prioritized SDGs number 2,3,4,6,7,8,9,10,11,12,13,15. Suldal make explicit SDGs number 1,2,3,4,6,8,9,10,11,12,13,17. Tysvær account for SDGs number 3,4,8,9, and 17. Sola have emphasized all 17 SDGs.

Figure 4. Overview over municipalities progress on SDGs (Author work).



Whether the current municipal practice in Norway is correspondents with the challenges of formulating a Local Agenda in a substantial way, it would be evident that Norway is not at present facing sustainable development (Lafferty and Eckerberg 2013). On national level, Norway is among those countries with the utmost energy consumption and GHG emissions per inhabitant (ibid.), despite the opportunity of flexible hydropower conversion technology to use its potential water supplies to power industries and provide clean energy. On local level directly, the data clearly shows that Rogaland municipalities also find it difficult to react to overall sustainability paradigm.

The 5 municipalities from 23 have articulated SDG 6, 7 municipalities from 23 have articulated SDG 13, 3 municipalities from 23 articulated SDG 14, and 5 municipalities from 23 have articulated SDG 15 – goals that constitute the ecological aspect of sustainable development.

Even though local authorities have introduced the sustainable practices for a climate-related challenges as addressed by Sareen (2020), only 7 municipalities found climate action

activities to be significant on local level directly. In fact, the largest emitters of GHG emissions continue to be oil/gas industry, shipping, and aviation (Norwegian Ministry of Climate and Environment 2018), in addition to agriculture and road traffic. Additionally, the municipalities become responsible not only for direct emissions, but also for indirect one.

Norway has a national climate-change adaptation policy, although without forcing strong or mandatory demands on municipalities, which hold a great freedom of actions for interpretation and choice (Wejs et al. 2014). Furthermore, an institutional setting of climate-change adaptation in Norway is rather weak, due to dependency on resources coupled in actual institutional structures – the annual municipal budget (ibid.). Therefore, if municipalities execute climate-change adaptation actions, they must establish strong legitimacy through norms, values, and beliefs systems (ibid.). Such processes is about recognition of unawareness and the provision of knowledge (Hajer 2003).

Specifically, in the process of yielding solutions to problems, actors debate, develop and arrange new institutional rules, and build legitimacy (Wejs et al. 2014). By embodying a certain set of values, the municipality gain a character structure, a distinctive identity (Scott 2013). However, policy making happens in an “institutional void” where there are no commonly accepted rules and norms in line with which politics is to be conducted and policy measures are to be decided (Hajer 2003). For that reason, actions should be apprehended as suitable, and institutional routines are therefore adhered even when it is not in the individuals interest (Wejs et al. 2014).

Next, only 5 municipalities work with clean water and sanitation. The data indicates that municipalities experience challenges with upgrading water and sewage pipes. Supplying and management of drinking water is a duty of local governments that often believe that inhabitants apprehend provisioning of water is taken for granted (Bendz and Boholm 2020). Water policy problems are often wicked, since it implies complex interdisciplinary collaboration across various units toward a common property resource (Freeman 2000). The drinking water management system comprise raw resources, and require water works for the generation of drinking water, as well as infrastructure for delivering water to customers, all of which implies funding (Bendz and Boholm 2020). Furthermore, the energy sector is a huge consumer of water, making water capacity targets deeply rooted in SDG 6 as important ingredient for long-term energy planning (Parkinson et al. 2019). Even though the fresh water is not persistent and crucial issue in Norway compared to other contexts (Gustavsen and Hegnes 2020), its accessibility can be an issue after a while.

Only 5 municipalities see the life on land important. The sustainable development cannot happen without life on land. SDG 15 call for the preservation, restoration, and sustainable utilization of ecosystems, along with the sustainable governance of forests, mitigating desertification, halting land deterioration and halting biodiversity loss (Katila et al. 2019). Certainly, the population growth, economic progress and increased consumption will only accelerate the difficulties for the maintenance of life on land (ibid.). SDG 15 implies not only human and non-human stakeholders' life, but also the land property concerns. The land-energy nexus (Fritsche et al. 2017) should be considered when looking at the local level directly. Fossil fuel affect the land for a longer period collated to sources of renewable energy (ibid.). However, the global decarbonization initiatives by the Paris Agreement cause renewable energy to expand shortly, contributing to the huge land use allocation, while unconventional resources account for the size and access to the resource only (ibid.).

After all, only 3 municipalities consider life below water of major significance. However, over 40% of the earth's population reside within or near coastal region (Pandey et al. 2021), and local level context is not exclusion. Oceans are linked to our life existence to such an extent that with every breath we take and small drop of water we consume we are in debt to them (ibid.). As we know oceans contribute to food, create opportunities for livelihoods and facilitate global economy through trade, transport, and tourism (ibid.). Inter alia, the SDG 14 target to enhance the sustainability of capture fisheries (Atkinson and Cools 2017). From the economic perspective, fisheries add significant value to global and local economies, while providing nutrition, food security, and employment (ibid.), despite consumers and maritime industries including fisheries being a sources of major plastic waste in the sea, that enter the ocean from land-based activities (DNV GL 2019).

The 5 municipalities from 23 have articulated SDG 1, 5 municipalities from 23 have articulated SDG 2, 9 municipalities from 23 have articulated SDG 3, 9 municipalities from 23 have articulated SDG 4, 2 municipalities from 23 have articulated SDG 5, 4 municipalities from 23 have articulated SDG 7, 9 municipalities from 23 have articulated SDG 11, and 2 municipalities from 23 have articulated SDG 16 – goals that constitute the social aspect of sustainable development.

Even though an economic inequality is accelerating in Norway and create contrast in the form of child poverty (Eikeland 2019), only 5 municipalities from 23 have emphasized SDG 1 for local priorities. There are children who live-in low-income households characterized by low education, few resources, limited personal network, poor health conditions and challenging social background (ibid.). Furthermore, high levels of poverty risk indicate that the

wellbeing of the most in relation to economic situation and health issues call for consideration (Middleton et al. 2020). However, despite the enlargement of trade, increased flows of capital, goods and services, the gap between rich and poor is upturning (Dankevych et al. 2020). Here, eradicating poverty and food insecurity are crucial to enabling sustainable development for future generations (Dhahri and Omri 2020).

The food insecurity is one of the base of hunger, is relate to the fact that the volume of production per labor unit by classes of farming or forestry enterprises is declining in many regions around the world, and so is the average revenue of small-scale food producers (Leal Filho et al. 2020). This drawback of income (with which food can be purchased) and destitute agricultural harvest (with which households can be fed) accelerate the challenge and make it serious (ibid.). Additionally, the aquaculture could influence SDG 2 of zero hunger in our generation and assist a large proportion of the global population in access to healthy lives and better well-being (SDG 3) through enhanced integration in government development of food security policy (Stead 2019). However, only 5 municipalities from 23 found hunger to be a major problem on local level directly.

Furthermore, 9 municipalities from 23 apprehend the importance of good health and well-being of local people. The data shows, that the social inequality in conjunction with public health concerns (mainly mental issues) started to accelerate vary rapidly in the Norwegian society. Additionally, the other health challenges should not be overlooked. As part of achieving SDG 3, there is a necessity for good health care systems to be in place (strengthening health financing) (Owusu, Sarkodie, and Pedersen 2021). To be clear, good health and well-being will not be reached without the development of responsible consumption and production patterns (SDG 12), without gender equality (SDG 5), quality education for all (SDG 4) (Maric and Nicholls 2020).

The quality education is emphasized by 9 municipalities from 23. The data clearly indicate a large lag in the educational level of the population and knowledge skills across Rogaland municipalities. Additionally, the youngest generation drop out the secondary school education that does not contribute to sustainable development. By adding social inequality and public health – good education practices will be challenging to achieve.

Only 2 municipalities from 23 found gender equality to be of concern. However, empowerment of women and their input to economic growth is still limited in reality (Kitada and Bhirugnath-Bhookhun 2019). SDG 5 calls for gender equality by 2030, giving the importance of education, and eradication of discrimination in jobs, unpaid work, and political office in reaching the goal (Managi, Shunsuke and Kumar, Pushpam 2018).

The 4 municipalities from 23 have articulated SDG 7 on local level. The Norwegian electricity system is almost entirely based on hydropower energy (Kjærland 2007), that perceived to be sustainable and climate friendly energy source. After all, Norway has built her industrialization and economic growth based on natural resource abundance and has managed to develop a strong principles of effective management and utilization of energy resources by establishing a legal framework (Tonne 1983). Therefore, Norwegian hydropower has created new industrial opportunities and allowed to yield clean water supply for local inhabitants.

The sustainable cities and communities (SDG 11) are the core element toward sustainable and inclusive social environment. However, only 9 municipalities from 23 have articulated SDG 11 in their strategic plans. Smart and sustainable cities is not just about urban planning and technology providing solutions and plans on how to account for increasing populations in cities (Temeljotov Salaj and Lindkvist 2020), but also implies the financial sustainability of local authorities. The financial side of the municipalities along with cultural progress should facilitate sustainable development.

Peace, justice, and strong institutions are only important for 2 municipalities from 23. However, the focus must be put on ending discrepancy resulting from resource extraction and militarization that lead to relocation and human right violations (towards woman, children, unprivileged people, and religious minorities) (Radović 2019). It also about the role of women's engagement and rights in conflict prevention and peace creating (ibid.). Furthermore, strong institutions are important for SDGs implementation (Breuer, Leininger, and Tosun 2019). It is not just about indicators development for measuring the progress of the SDGs but also to evaluate the strength of the institutions charged with SDGs implementation and whether these institutions make a difference (ibid.).

The 7 municipalities from 23 have articulated SDG 8. The 9 municipalities from 23 have articulated SDG 9. The 7 municipalities from 23 have articulated SDG 10. The 6 municipalities from 23 have articulated SDG 12 – goals that constitute the economic aspect of sustainable development.

The decent work and economic growth (SDG 8) are fundamental aspects for value creation in society. It is all about life in country or region, embracing it jobs, it workers, the labor market, and other society-level features (workers right, educational involvement, and the moral reason against child labor, utilization of social dialogue and social protection) (Green 2021). Additionally, the sustainable economic growth implies the revenues generation for region and country. Both oil/gas and hydropower industries have contributed a lot to the Norwegian economy success. However, the novel coronavirus (COVID-19) challenging the

economic sectors in Norway (Gössling, Scott, and Hall 2021), opening the opportunity for both aquaculture and agriculture to win the first places in their economic drive.

Industry, innovation, and infrastructure (SDG 9) are acknowledged by 9 municipalities from 23. The role of innovation is being reconsidered as an enabler of digital revolution and automation (Chen et al. 2021). For example, it allows the nations to reach energy efficiency, either by enhancing the existing production patterns, or by supporting renewable energy solutions (ibid.). However, despite the major efforts to minimize energy consumption, energy demand is intensifying globally, while worsen the environmental quality (ibid.). Even though the technological innovation is productive in curtailing carbon emissions, it does not have a major impact on ecological footprint (Destek and Manga 2021).

The 7 municipalities have emphasized the importance to reduce inequality in their strategic reports. The data shows that inequality has started to accelerate in the Norwegian society due to differences in both educational and income level among households. Inequality creates injustice, produce disparity in living conditions, causes a deterioration in public health and yield income and health inequality at an individual level (Gustafsson et al. 2018). It is feasible for countries to acknowledge inequalities on resource distribution by enhancing income sources for poor, as well as diminishing gaps in opportunities (Atieno and Njoroge 2021), thus introducing revolutionary change.

The responsible consumption and production apprehended by 6 municipalities from 23. It is all about insufficient commitment, product prices that not matching true resource, environmental and social costs, limited product life spans, waste prevention via reuse, and the lack of sustainable alternatives (Bauer, Watson, and Gylling 2018). Shifting the production and consumption patterns of societies is crucial to hinder further irreversible damage or exhaustion of natural resources (Gíslason and Hallfreðsdóttir 2020). The sustainable management of natural resources produce not only economic growth but allow to benefit local society.

The 9 municipalities from 23 have articulated SDG 17 – goal that call for partnership toward sustainable development. It is all about multi-stakeholder collaborations, based on cooperative network, that intensify and share knowledge, expertise, technology and financial resources (Virtanen, Ristikari, and Niemelä 2020). However, this is not an easy task since it involves plethora of actors and factors that play into this. Everyone with different apprehension of problems, state of affair, and possible solution to the problem. Additionally, it involves financial resources that should be mobilized on large scale. Again, the pace and time with which sustainability will be achieved on local level is the question since it diminishes one's value of invested efforts and money.

The three sustainability dimensions assess the performance of municipalities, and thereby their progress toward attainment of SDGs on local level. Additionally, the SDG framework permit to understand the municipalities compliance with the national and local policy. However, less than half of all Rogaland municipalities apprehend the role of social, economic, and environmental sustainability to be of concern on local level directly. It is noticed that the development policy, which is continued solely based on economic beneficitation, is a crucial barrier to achieving other SDGs (Destek and Manga 2021).

The peak progress was achieved on national level in many areas of sustainability until now. For example, the great efforts were placed on affordable and clean energy for all, the climate action, quality education, industry, innovation, and infrastructure. However, the multifaceted nature of sustainability paradigm does not allow to realize a great potential in full on local level directly, especially in conjunction with novel coronavirus. Despite municipalities progress in some areas of sustainable development (partnerships for the goals, sustainable cities and communities, good health, and well-being), the other areas are still have not received a major attention (strong institutions, gender equality, life below water). For that reason, the attention should be given to the challenges that started to accelerate vary rapidly in the Norwegian society.

Particularly, the role of strong institutions (SDG 16) must be acknowledged since this goal is only emphasized by 2 municipalities from all 23 – goal that corresponds to social sustainability. Executing a global agenda locally requires an accurate choice of ministries in the lead of the process (Breuer et al. 2019). In Norway each ministry is accountable for one or more SDGs (Hege and Brimont 2018). Taken this into consideration make it challenging to define why sustainable development are still not implemented on local level directly. The answer may lay in selecting lead ministries beyond environment one in order to acknowledge the key dimensions of the 2030 Agenda (Breuer et al. 2019). The huge duty by environment ministries might accelerate synergies with the Paris Agreement, however this is not a case, since environment ministries are recognized as “weaker” one and must court the support of stronger one (ibid.). This has result to a dampening down of sustainability strategies in the past (less environment, more economics) (ibid.). The engagement of finance ministries is crucial too because SDGs will persist at the margin of state decision making if not correctly acknowledged in budgets (ibid.).

The municipalities fail to achieve gender equality (SDG 5), another goal that constitute the social aspect of sustainability. For example, the incompetence of the health sector to speed up progress on a range of health issues brings into acute focus the vital impact of gender

inequalities and restraining gender norms on health risks and behaviors (Gupta et al. 2019). The same is true regarding gender equality in education – access and participation, gender-aware educational environments, and meaningful education outcomes (Subrahmanian 2005) should be established to accelerate sustainability on local level. Even though good education was established, young generation continue to drop secondary school.

It also about women's access to markets and women decision making within households – on poverty mitigation and productivity at the individual and household level (Morrison and Morrison 2007). The enhancement in opportunities for women bring improvements in human development outcomes, poverty reduction and economic growth (ibid.). The same is about salary equalization between man and women on local level. This social aspect is somewhat disregarded by local authorities.

The life below water (SDG 14) does not appear for the major concern on municipal level. The high level of the wealth in Norway is widely accepted. The oil/gas and hydropower played a key role toward value creation in the Norwegian society. However, the life below water should be acknowledged very soon. It is all about clean water, oceans, food, and jobs. Furthermore, the exogenous shocks (like coronavirus) may reorient economy toward aquaculture industry. For that reason, the sustainable development of marine resources and prevention of litter should be strengthened.

The municipalities must accelerate their achievements in all three dimensions of sustainability, and thereby their commitment toward attainment of SDGs on local level. The more emphasis is placed on financial aspects and not on social and environmental challenges of sustainable development. The environment is usually taken for granted by all participants. Inter alia, biosphere is core element for sustainable development, where society and economy play an integral role. For that reason, the municipalities have to invest more in social and environmental performance to reach diversity performance goals (Hussain, Rigoni, and Cavezzali 2018).

Even though the municipalities across Rogaland county have started to apprehend the role of SDGs in their respective strategic plans, there are still municipalities that lag the overall integration of sustainability in their planning progress. Municipalities lack the practices and methods and overall framework necessary for policies implementation on the local level. As a result, there is a need to adjust along the way for successful and viable functioning of municipal economies in the long-term perspective.

9.2 Financial performance across municipalities in Rogaland county

This section deals with a financial performance for Rogaland municipalities (key figures from operational and balance sheet accounts), and answer the second research question: *what do financial indicators across Rogaland county reveal about the relationship between municipalities financial and sustainability performance?* Firstly, I go throughout an accounting variable. Secondly, I utilize the five years data to track the financial conjuncture among Rogaland municipalities. Thirdly, I provide an overview over municipalities financial performance based on empirical data. Lastly, I answer the second research question of this study.

9.2.1 The accounting variables

According to Mellemvik (2012) for accounting analysis in municipalities it would be relevant to look for the following accounting variables: gross/net operating profit (NOP) as a percentage of gross operating revenues, working capital (WC) as a percentage of gross operating revenues, net loan debt (NLD) as a percentage of gross operating revenues and distributable reserve (DR)¹⁹ as a percentage of gross operating revenues (ibid.) (Table 3 of Appendix B), in order to account for financial sustainability of the authorities in the long-term perspective.

WC is described as the firms short-term or current assets and current liabilities (Seidman 2005). Given the aim of financial decision making to magnify the shareholders wealth, it is important to yield enough profits (Khan 2008). The sales are crucial for acquiring profits by any business; however, sales do not transform into cash immediately, there is a time-lag involved between the sale of services and the obtaining of cash (ibid.). Consequently, adequate WC is needed to maintain sales activity (ibid.). The WC necessity of a distinct business are prone to shift over time as a outcome of changes in the business environment (McLaney 2009). For that reason, managers must recognize changes to guarantee that the level of investment in WC is correct (ibid.).

The degree of WC differs by industry and the causes for the alteration comprise the normal levels of accounts receivable, inventories, and accounts payable that are imperative to

¹⁹ I henceforth utilize definition – the other unrestricted equity.

operate (Wiersema 2006). It also circulating capital which streams and changes continually from one form to another (according to Gerstenberg – from cash to inventories, inventories to receivables, receivables into cash) (Thukaram 2007). Moreover, reserves are needed to carry accounts receivable, to obtain inventories, and to meet payroll (Spurga 2004). Furthermore, the WC is liquid in its nature (every element of it escape in the common course of business) – raw materials and inventories are absorbed in the manufacturing process, work in progress is converted into finished goods, finished products generally sold, receivables levied and become cash, bank balances, and equivalently, debts to suppliers turn outflows of cash when they are paid (Vernimmen et al. 2014). Therefore, if the production cycle is less than a year all the elements of WC at the statement date will dissolve in the course of the following year, but at the succeeding statement date, other operating assets will grab their place – that is why WC apprehended as a permanent requirement (ibid.).

The other unrestricted equity can be utilized to cover unforeseen negative effects in the economy, such as rise in interest rates or decreases in tax revenue, contribute to accelerate investment opportunities and further maintenance to stimulate local business (Kommunal- og moderniseringsdepartementet 2020). Additionally, net operating result can be allocated to other unrestricted equity (ibid.). When evaluating the level of other unrestricted equity, it is important to account for overall accounting surplus/deficit consumption, as this also affects the municipality's real financial freedom of action (ibid.). The savings come from positive net operating results that are not tied to special purposes (earmarked grants will be such a tied income) and which are not utilized to finance investments (ibid.).

The equity can be divided into four: restricted and unrestricted income and operating and investment income (ibid.). Furthermore, an accumulated accounting consumption assumes that equity related to unrestricted operating income is negative (“a negative other unrestricted equity”) (ibid.). The municipality is usually having one amount either the other unrestricted equity or accumulated accounting consumption (deficit) (ibid.). After all, accounting shortfall and other unrestricted equity reveal how large a financial buffer the municipality or the county municipality has for its ongoing operation (before accumulated accounting consumption are deducted) (ibid.). However, the new municipal law 2020 state that the coverage of negative net operating result may not be linked to the municipal council/county council adopted use of the other unrestricted equity – the county municipalities are required to cover negative result as long as there are funds in the latter (ibid.).

The “operating result” is described as the balance between operating revenues and operating expenditures plus net interest payments (Hansen, Houlberg, and Pedersen 2014). The

size of the operating result frame the economic basis for repaying loans, for enhancing the liquid assets and for generating new capital investments (ibid.). Moreover, the net surplus act as the key indicator for fiscal performance in municipalities (Geys and Sørensen 2020), and indicates how much the counties have at their disposition after working expenses, interest, and repayments are met (Magnussen, Hagen, and Kaarboe 2007), while negative net surplus indicate that the local authority would have to obtain resources from its equity²⁰, which is illegal (Geys and Sørensen 2020). Furthermore, local governments with low or negative net operating surplus necessitate to constrict their budgetary policy (Borge and Hopland 2012). After all, as budget can be leveled by utilization of rainy-day-funds, the need to constrict the budgetary policy will be less meaningful for local authorities with large funds (ibid.). In fact, if the financial health of local governments are in decline, the quality/quantity of provided public services affect the citizens quality of life, since the most welfare needs related to public services (Cuadrado-Ballesteros, Mordán, and García-Sánchez 2014).

Financial problems are usually expressed as the inability to fulfil one's obligation and are generally followed by the lack of available liquidity (Lucianelli, Lucia Fazzari, and Cavalieri 2020). The causes of "endogenous" nature can be based on various factors: accounting disorder, accounting irregularities, scarce own revenue and/or inadequate collection capacity, stable recourse to cash advance, high expenses, rigid balance sheet, overestimation of the income, underestimation of costs, poor reliability of the residues (Rasi 2018 in Lucianelli et al. 2020). The causes of an "exogeneous" nature is mainly subject of ongoing disturbances caused by the trend of the global economy (Lucianelli et al. 2020).

The NLD is defined as long-term debt, less borrowing (pending the progress of the investment project) that is unused on the account, and less loan to others (start-up loans in Husbanken or subordinated loan to companies) (Kommunal- og moderniseringsdepartementet 2020). Equally speaking, municipalities who had enlarged their activities by borrowing money had bounded their resources by paying interests and instalments, thus diminished their freedom of action (Hanssen, Pettersen, and Sandvin 2001). Most of the long-term debt linked to investments in road and hydro-electric plants and transportation systems for electricity, assuming that long-term debt is an indicator of innovation processes within the municipalities (ibid.). In fact, borrowing is fundamental for financialized economies – no economic development without credit-bounded investments and consumption (manufacture of

²⁰ Equity is defined as ownership claims on assets (Penner 2004) or amount that is deemed to be due to the shareholders/owners of the company (Crundwell 2008).

commodity and services as well as absorption of them) (Poppe, Lavik, and Borgeraas 2016). After all, modern societies have broadly become based on easy access to loans, thus created welfare by borrowing to unforeseen levels on the one hand, and featured debt challenges as a social responsibility on the other hand (ibid.).

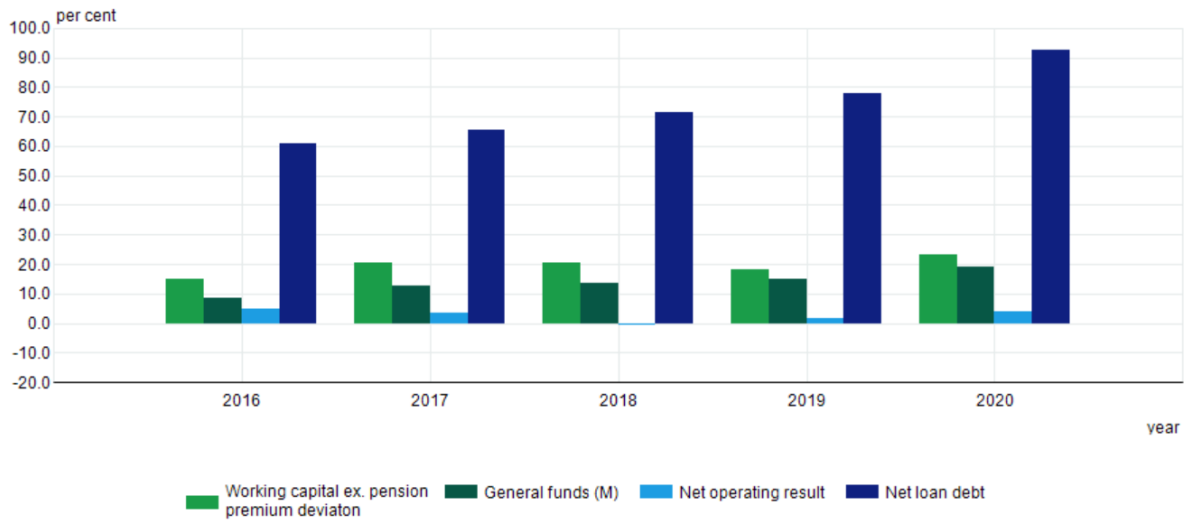
9.2.2 The financial conjuncture among Rogaland municipalities

This section deals with a financial performance of the 23 municipalities in Rogaland region. An analysis is conducted to uncover budgetary performance of local authorities.

Based on gross operating revenues as a starting point municipality should have a NOP of at least 2-3%, a DR at least 5-10%, and that they should not have a higher NLD than 75% (Gilberg B. and Gårseth-Nesbakk L. 2019 in Kommunal Økonomi 2020).

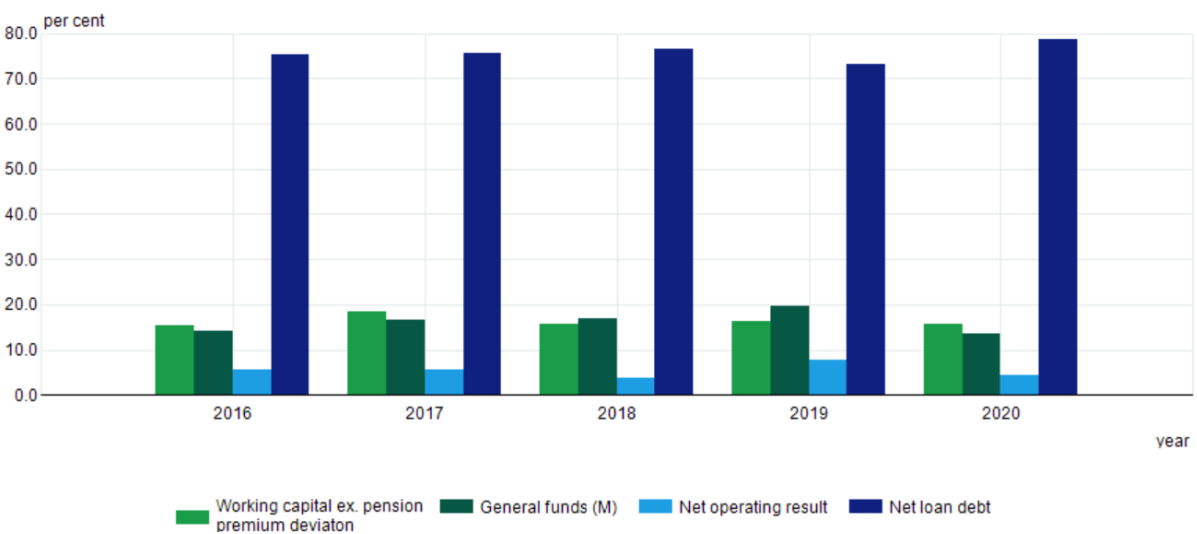
Eigersund financial performance is shown below (Figure 5). An increase in WC in 2020 compared to 2019, however variation in WC for the last five years is evident. Municipality ensure satisfactory liquidity with the combination of unused borrowed funds, fund reserves and tight management (Eigersund kommune 2019). An increase in the other unrestricted equity for the last five years and is higher than 5-10% for the last four years. NOP have increased in 2020 compared to 2019 and is higher than 2-3% in 2020, the fluctuations in conjuncture for the last five years are obvious. NLD have increased for the last five years and is higher than 75% the last two years.

Figure 5. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021c).



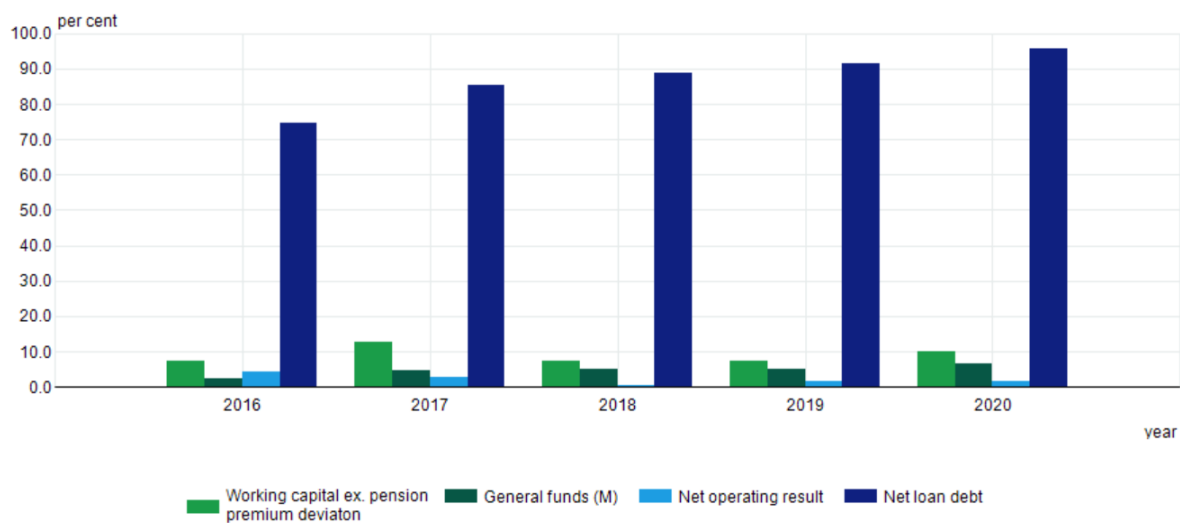
Stavanger financial performance is outlined below (Figure 6). Even though WC was reduced in 2020 compared to 2019, the variation in WC for the last five years is evident. The other unrestricted equity in 2020 was reduced compared to 2019, but still higher than 5-10% for the last five years. Even though NOP have declined in 2020 compared to 2019, it still higher than 2-3%. NLD have increased for the last five years and is higher than 75% in 2016, 2017, 2018 and 2020.

Figure 6. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021q).



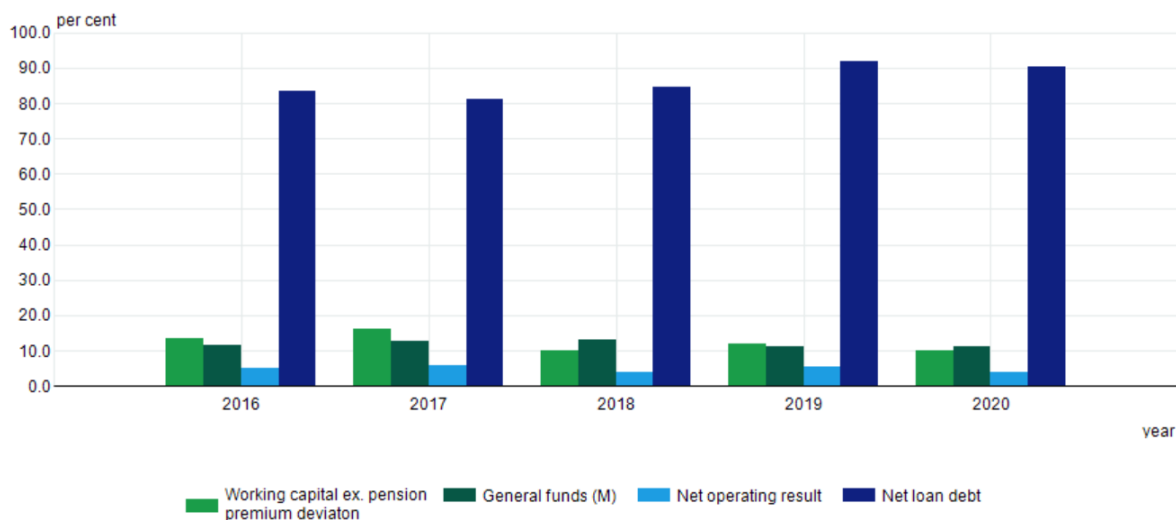
Time financial performance is given below (Figure 7). Even though an increase in WC in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity for the last five years. Municipality have other unrestricted equity within the limit 5-10% for the last three years. Even though NOP is higher in 2020, compared to 2019, it still below 2-3% the last three years. NLD have increased for the last five years and is higher than 75% the last four years.

Figure 7. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021t).



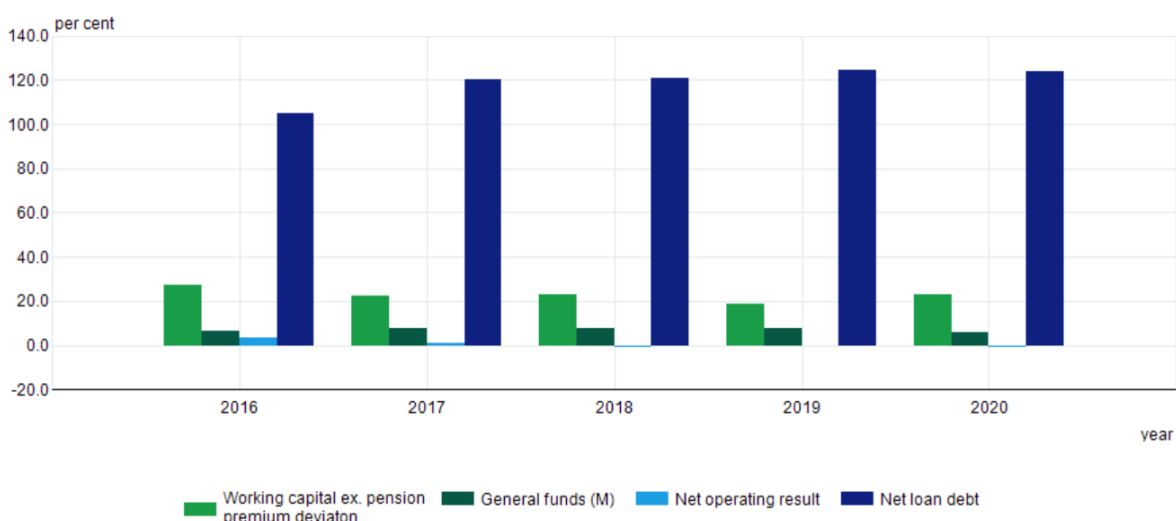
Sola financial performance is shown below (Figure 8). WC reduced in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity for the last five years and it higher than 5-10%. NOP reduced in 2020 compared to 2019. Municipality net operating result tends to fluctuate. NLD have increased for the last four years and is higher than 75%.

Figure 8. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021p).



Randaberg financial performance is outlined below (Figure 9). Even though an increase in WC in 2020 compared to 2019, variation in WC for the last five years is evident. The other unrestricted equity in 2020 was reduced compared to 2019, but it still within the limit 5-10% for the last five years. NOP is negative for the last three years. NLD have increased for the last five years and is higher than 75%.

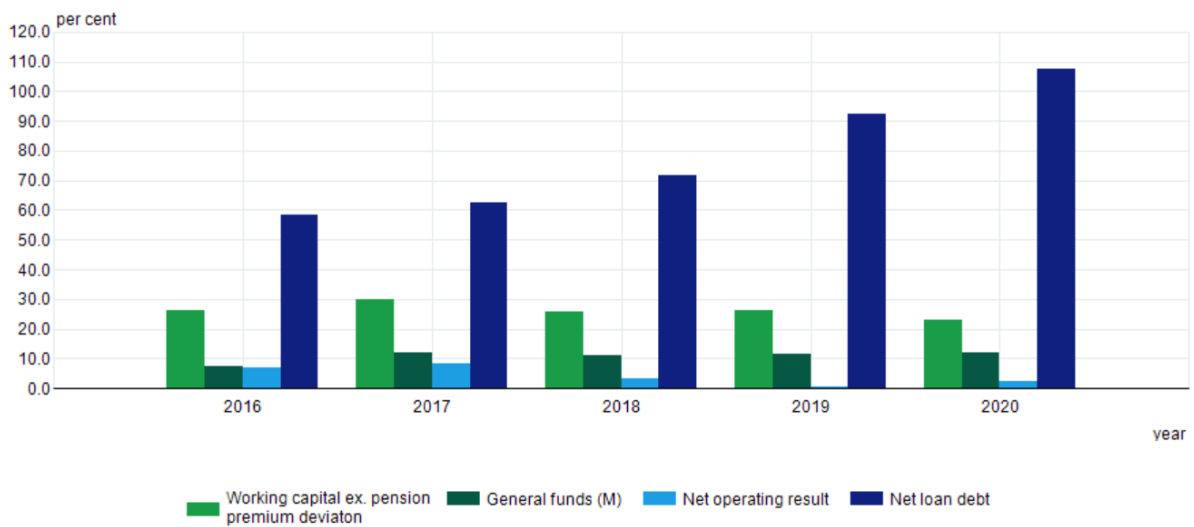
Figure 9. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021l).



Strand financial performance is given below (Figure 10). WC reduced in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other

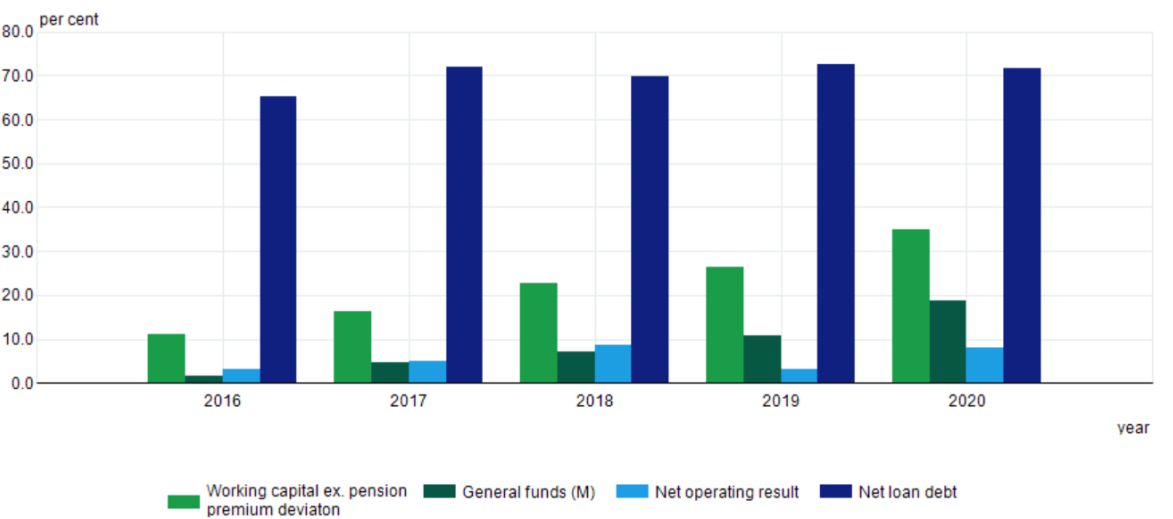
unrestricted equity in 2020 compared to 2019 and is higher than 5-10% for the last four years. Even though NOP have increased in 2020 compared to 2019, municipality net operating result tends to fluctuate. NLD have increased for the last five years and is higher than 75% the last two years.

Figure 10. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021r).



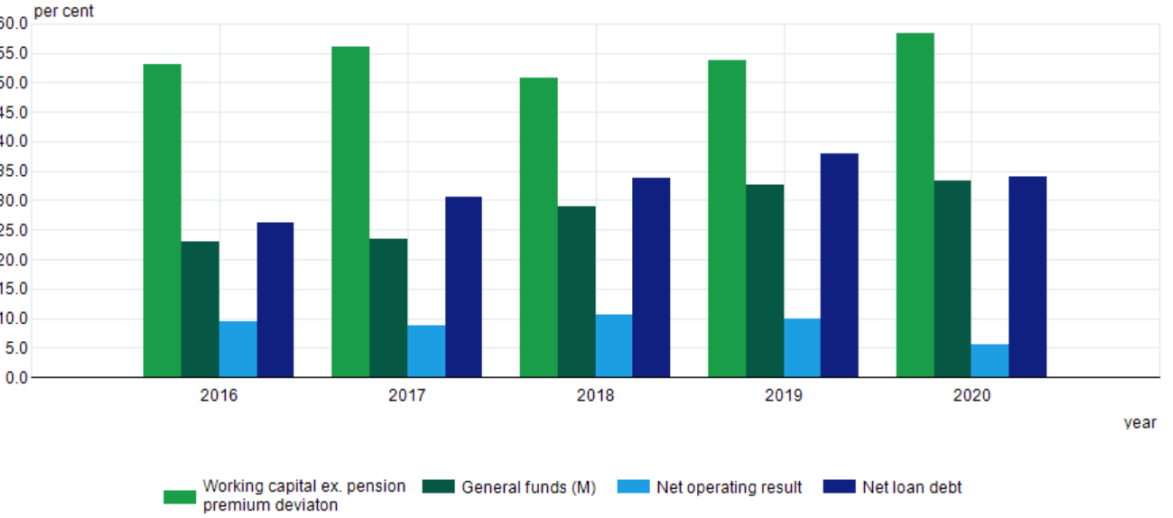
Hjelmeland financial performance is shown below (Figure 11). WC have increased the last five years. An increase in the other unrestricted equity for the last five years. Municipality have other unrestricted equity within the limit 5-10% for the last three years. Even though NOP have increased in 2020 compared to 2019, municipality net operating result tends to fluctuate. NLD have increased for the last five years, and it still below 75%.

Figure 11. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021g).



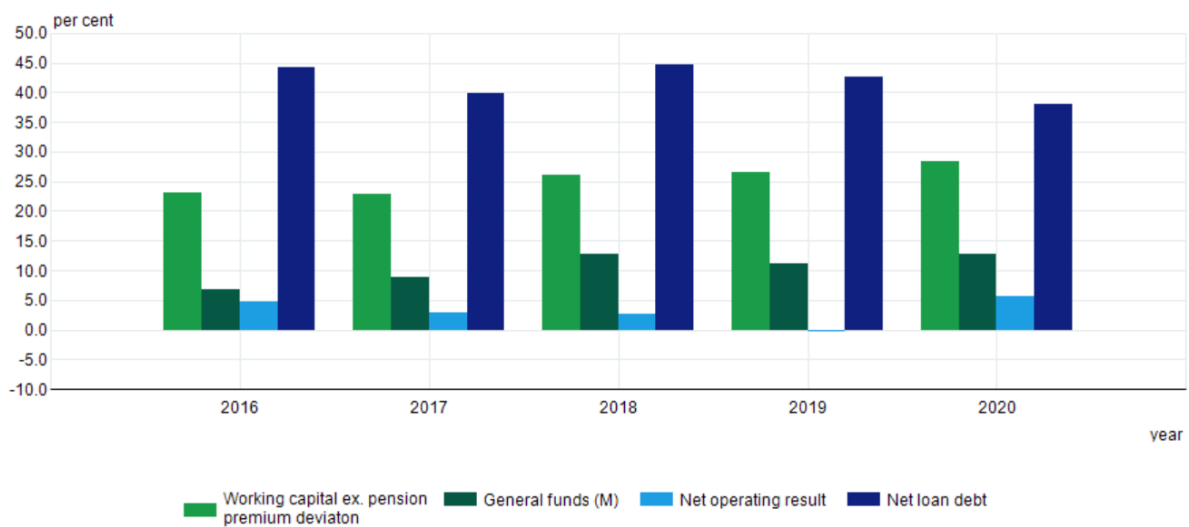
Suldal financial performance is outlined below (Figure 12). Even though an increase in WC in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity for the last five years. Municipality other unrestricted equity higher than 5-10% for the last five years. Even though NOP have declined in 2020 compared to 2019, it still higher than 2-3% for the last five years. NLD have decreased in 2020, compared to 2019 and is lower than 75% for the last five years.

Figure 12. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021s).



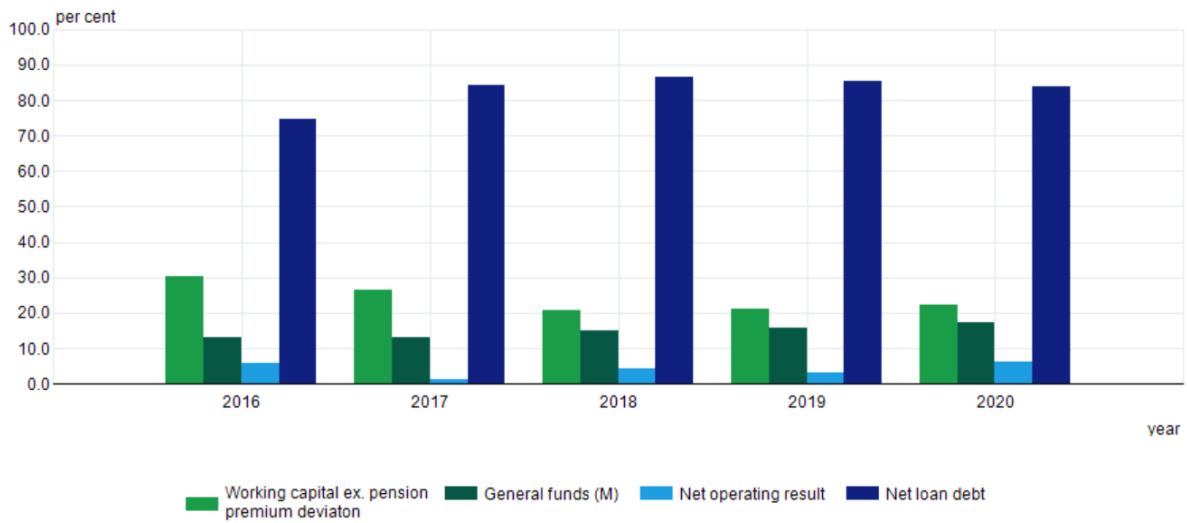
Bjerkreim financial performance is given below (Figure 13). WC have increased the last three years. An increase in the other unrestricted equity in 2020 compared to 2019. Municipality have other unrestricted equity higher than 5-10% for the last three years. Even though NOP have increased in 2020 compared to 2019, municipality net operating result tends to fluctuate. NLD have decreased for the last three years and is lower than 75% the last five years.

Figure 13. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021a).



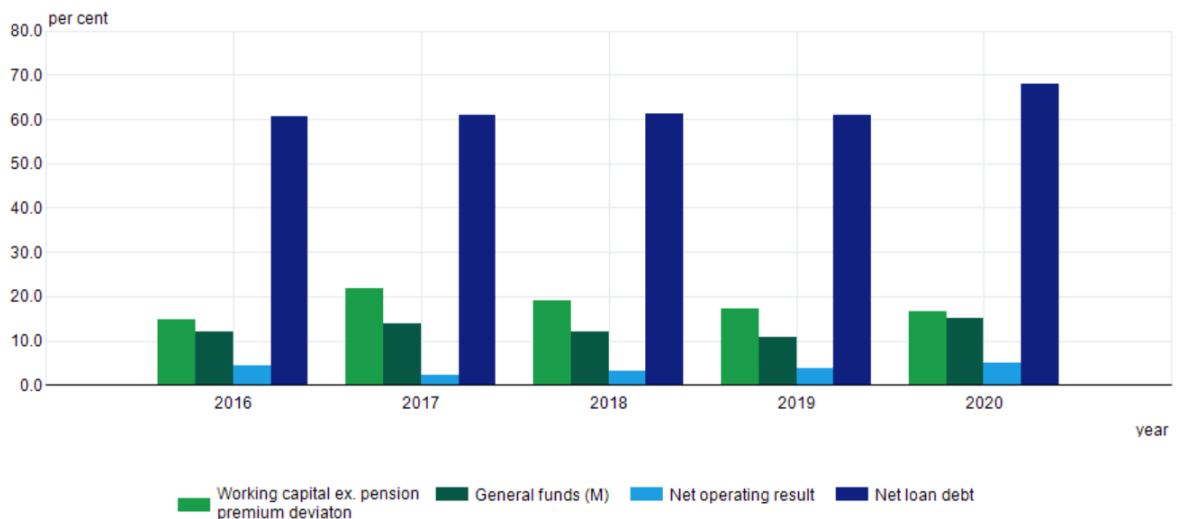
Hå financial performance is shown below (Figure 14). Even though WC have increased in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity for the last five years. Municipality other unrestricted equity higher than 5-10% for the last five years. NOP has doubled in 2020 compared to 2019, municipality net operating result tends to fluctuate. NLD have increased for the last five years and is higher than 75% the last four years.

Figure 14. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021e).



Klepp financial performance is outlined below (Figure 15). Decrease in WC the last three years and the variation in WC for the last five years is evident. An increase in the other unrestricted equity in 2020 compared to 2019. Municipality other unrestricted equity higher than 5-10% for the last five years. NOP have increased the last four years and is higher than 2-3% the last two years. Even though NLD have increased the last five years, it still below 75%.

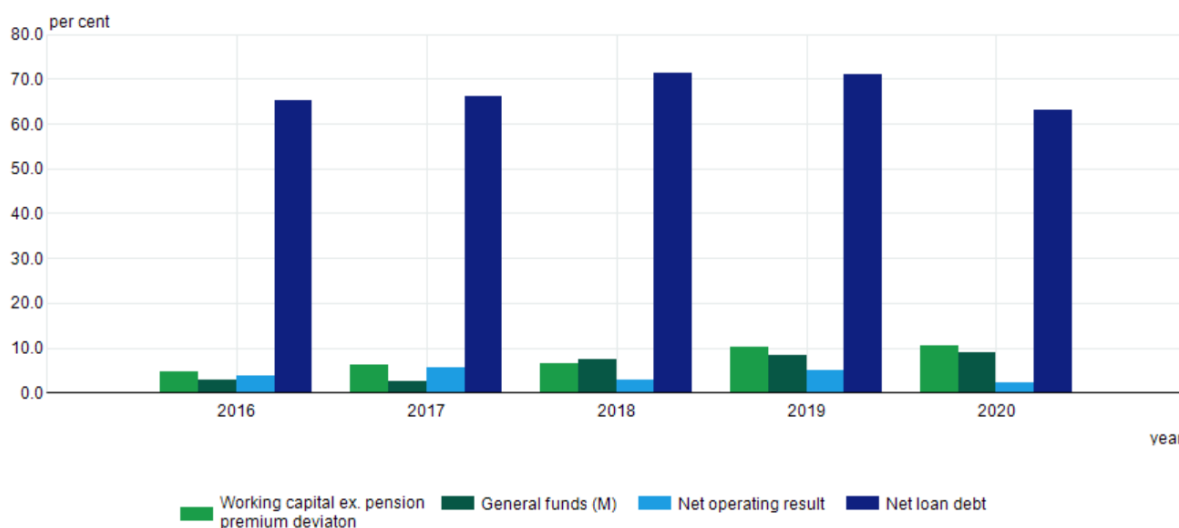
Figure 15. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021i).



Haugesund financial performance is given below (Figure 16). WC have increased the last five years. An increase in the other unrestricted equity for the last five years. Municipality

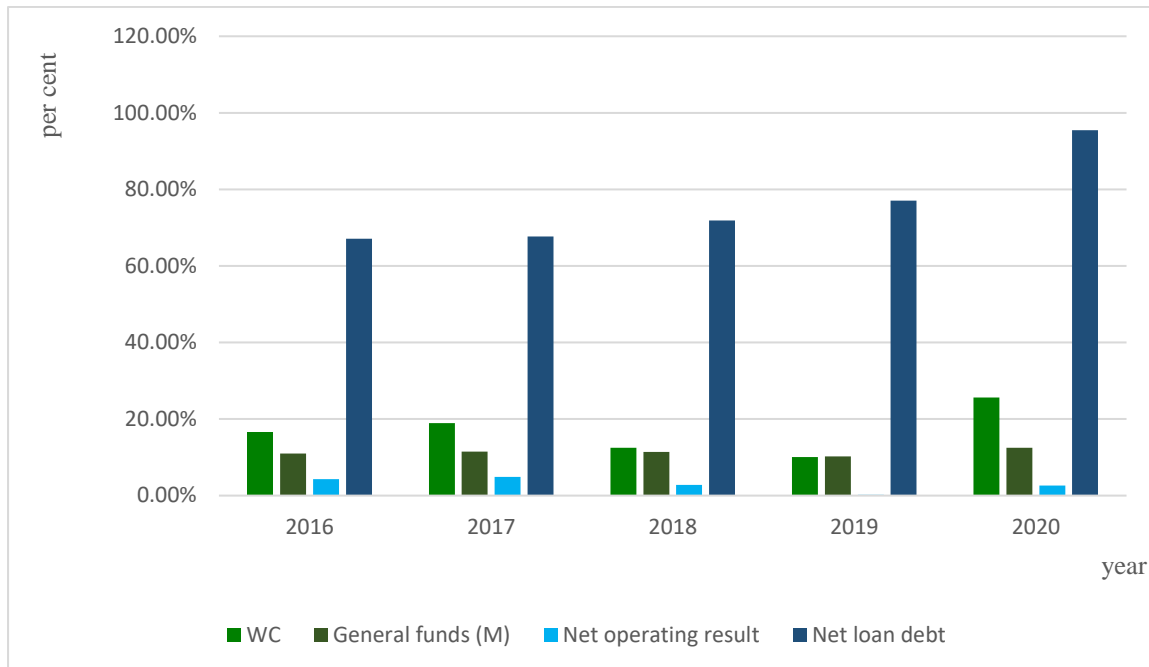
other unrestricted equity within the limit 5-10% for the last three years. Even though NOP have decreased double in 2020 compared to 2019, it still within the limit 2-3% or higher. NLD have decreased in 2020 compared to 2019 and is lower than 75% for the last five years.

Figure 16. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021f).



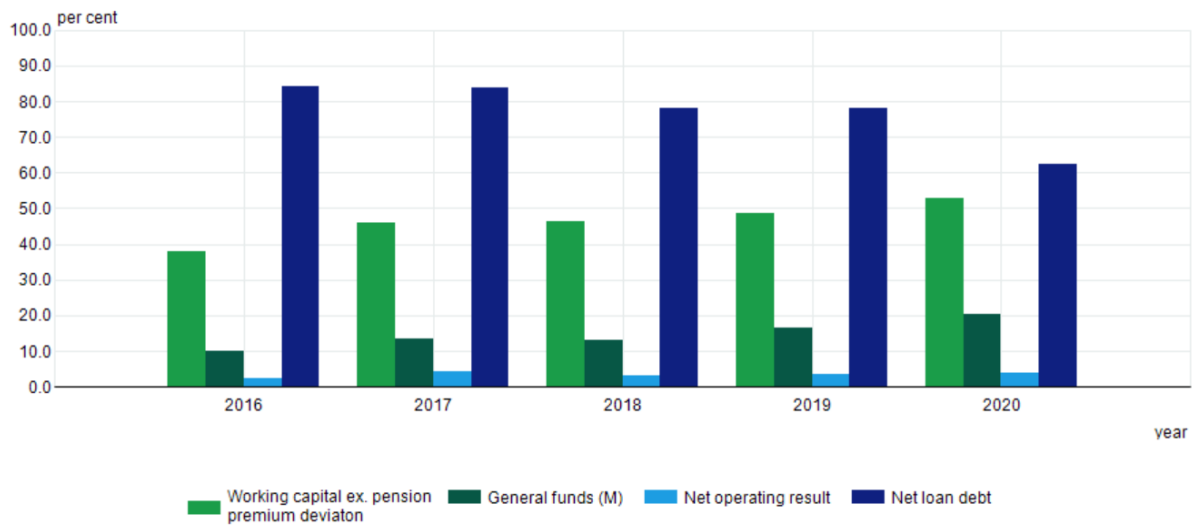
Sandnes financial performance is shown below (Figure 17). Even though WC have increased in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity in 2020 compared to 2019. Municipality have other unrestricted equity higher than 5-10% for the last five years. NOP have increased in 2020 compared to 2019 and still within the limit 2-3% in 2016, 2017, 2018 and 2020, even though accounting for 0.2% in 2019. NLD have increased for the last five years and is higher than 75%.

Figure 17. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (Sandnes kommune 2019a, 2018, 2017, SSB 2021m, Author work).



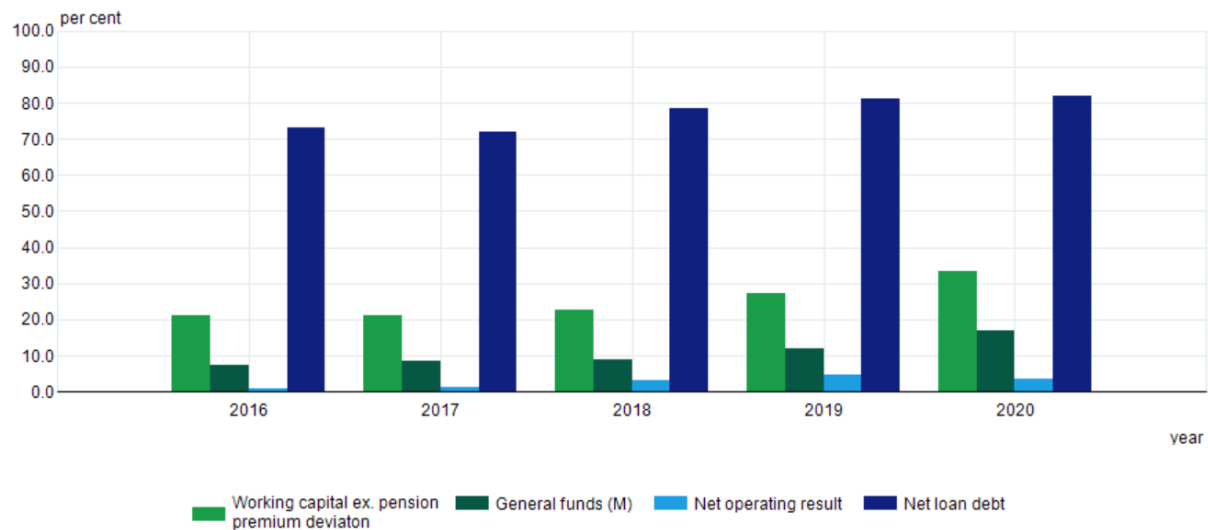
Sokndal financial performance is outlined below (Figure 18). WC have increased the last five years. An increase in the other unrestricted equity for the last five years. Municipality have other unrestricted equity higher than 5-10% for the last four years. An increase in NOP have not been substantial in 2020 compared to 2019, municipality net operating result tends to fluctuate. NLD have decreased for the last three years and is lower than 75% in 2020.

Figure 18. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021o).



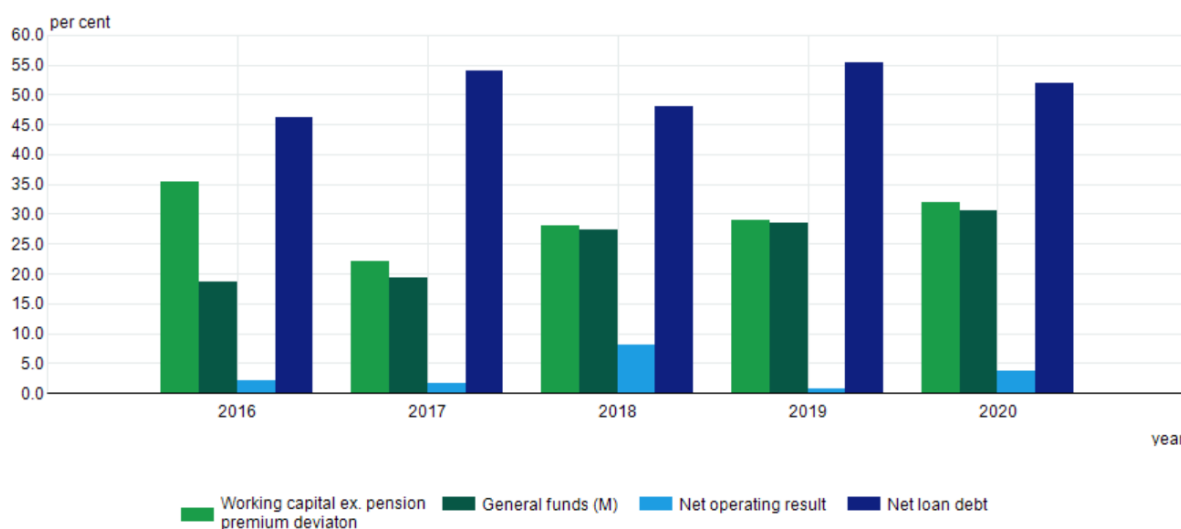
Sauda financial performance is given below (Figure 19). WC have increased the last five years. An increase in the other unrestricted equity for the last five years. Municipality have other unrestricted equity higher than 5-10% for the last five years. Even though NOP have decreased in 2020 compared to 2019, it still higher than 2-3% for the last three years. NLD have increased for the last five years and is higher than 75% for the last three years.

Figure 19. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021n).



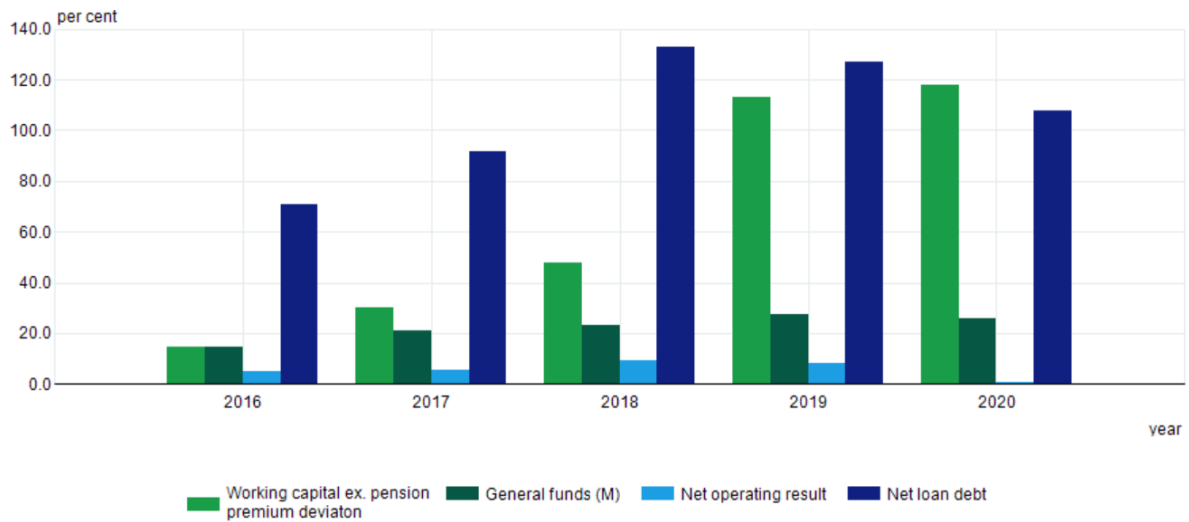
Kvitsøy financial performance is shown below (Figure 20). Even though WC have increased in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity in 2020 compared to 2019. Municipality have other unrestricted equity higher than 5-10% for the last five years. NOP have increased in 2020 compared to 2019, municipality net operating result tends to fluctuate. Even though NLD have increased in 2020 compared to 2019, it still below 75% for the last five years.

Figure 20. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021j).



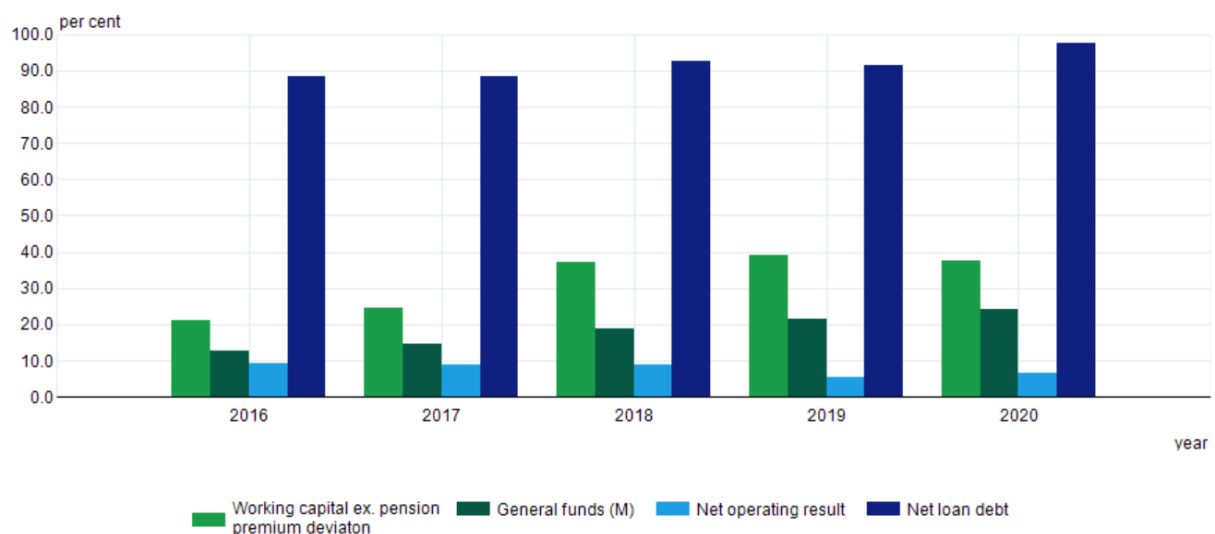
Bokn financial performance is outlined below (Figure 21). WC have increased the last five years. Even though the other unrestricted equity in 2020 was reduced compared to 2019, it still higher than 5-10% for the last five years. Decrease in NOP have been substantial in 2020 compared to 2019 and municipality yearly result ended with 0.9%, even though NOP was higher than 2-3% in 2016-2019. Even though NLD have decreased in 2020 compared to 2019, it still higher than 75% the last four years.

Figure 21. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021b).



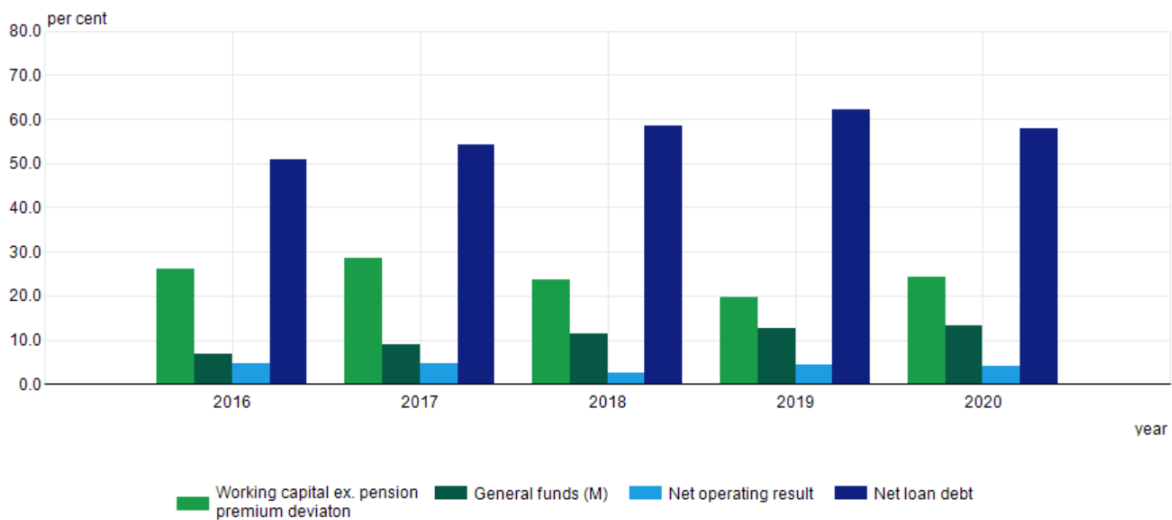
Tysvær financial performance is given below (Figure 22). Even though an increase in WC in 2016-2019, decrease in WC in 2020 compared to 2019. An increase in the other unrestricted equity for the last five years. Municipality have other unrestricted equity higher than 5-10% for the last five years. NOP have increased in 2020 compared to 2019 and is higher than 2-3% for the last five years. NLD have increased for the last five years and is higher than 75% for the last five years.

Figure 22. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021u).



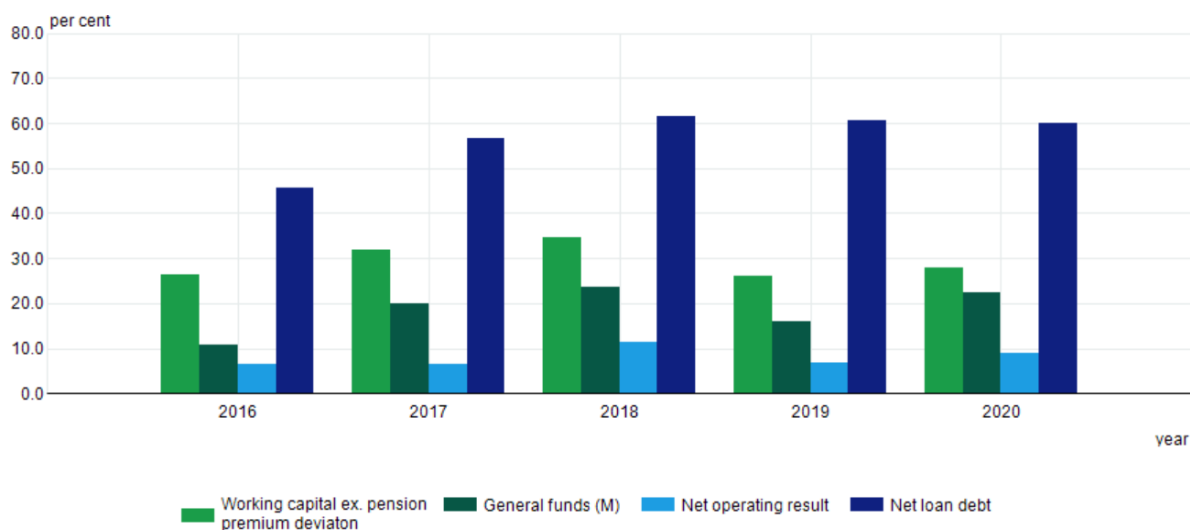
Karmøy financial performance is shown below (Figure 23). An increase in WC in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity for the last five years. Municipality have other unrestricted equity higher than 5-10% for the last five years. Even though decrease in NOP in 2020 compared to 2019, NOP is higher than 2-3% or within the limit. NLD have decreased in 2020 compared to 2019 and is below 75% for the last five years.

Figure 23. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021h).



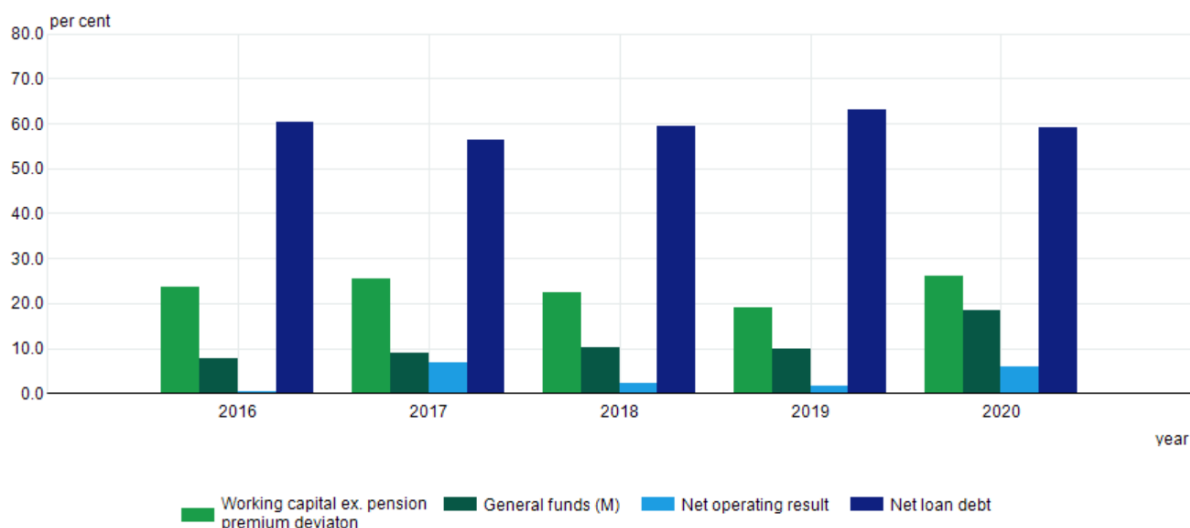
Utsira financial performance is outlined below (Figure 24). An increase in WC in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity in 2020 compared to 2019. Municipality have other unrestricted equity higher than 5-10% for the last five years. NOP have increased in 2020 compared to 2019 and is higher than 2-3% for the last five years. Even though NLD have increased in 2020 compared to 2019, it still below 75% for the last five years.

Figure 24. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021v).



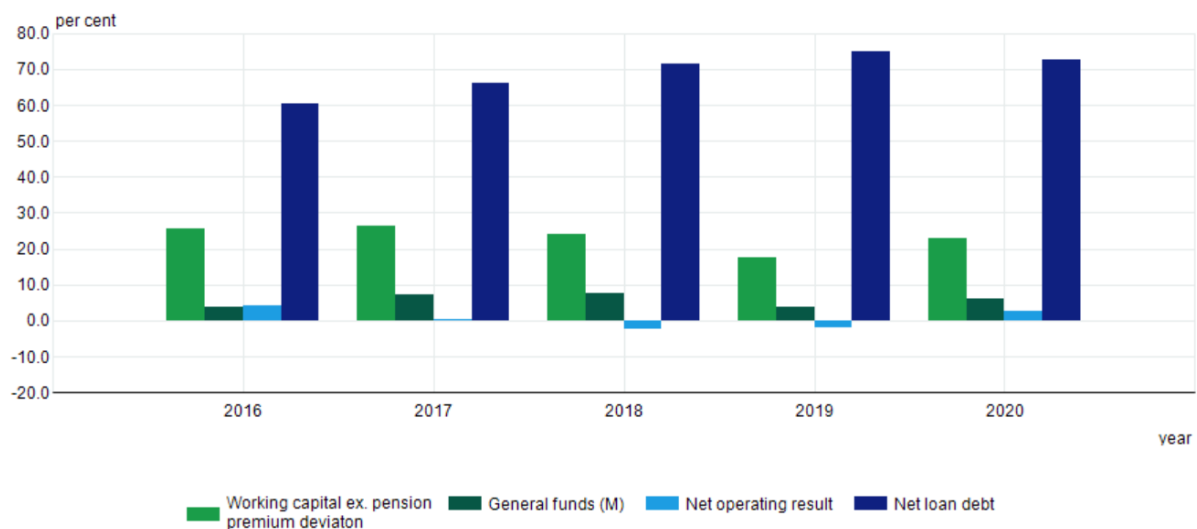
Vindafjord financial performance is given below (Figure 25). An increase in WC in 2020 compared to 2019, variation in WC for the last five years is evident. An increase in the other unrestricted equity for the last five years. Municipality have other unrestricted equity higher than 5-10% for the last five years. NOP have increased in 2020 compared to 2019, municipality net operating result tends to fluctuate. NLD have decreased in 2020 compared to 2019 and is below 75% for the last five years.

Figure 25. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021w).



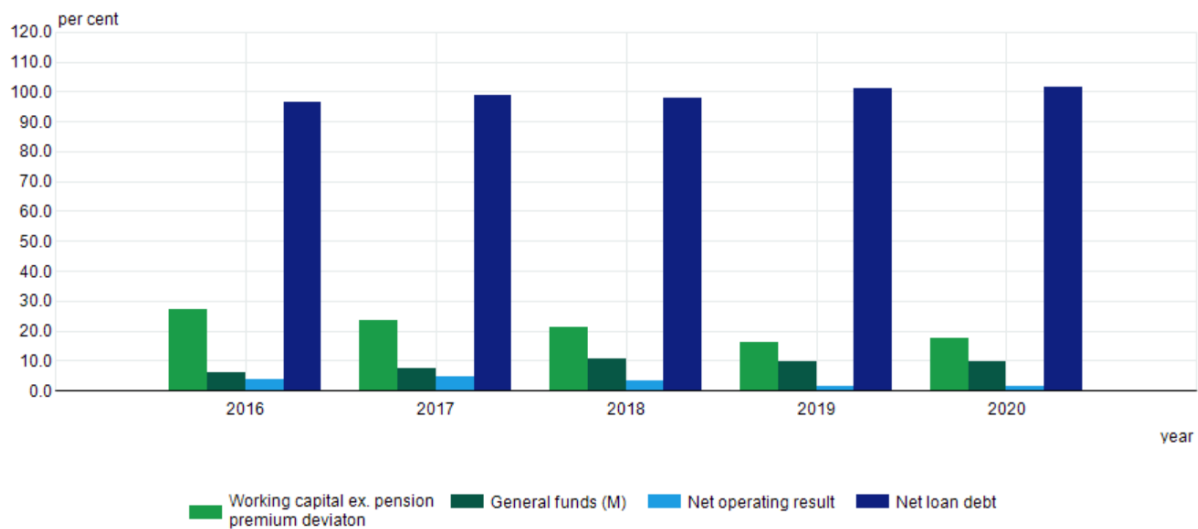
Lund financial performance is shown below (Figure 26). An increase in WC in 2020 compared to 2019, however variation in WC for the last five years is evident. An increase in the other unrestricted equity in 2020 compared to 2019. Municipality other unrestricted equity tends to fluctuate from year to year. NOP have increased in 2020 compared to 2019, municipality net operating result tends to fluctuate for the last five years. Even though NLD have increased for the last five years, it still below 75% for the last five years.

Figure 26. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021k).



Gjesdal financial performance is outlined below (Figure 27). An increase in WC in 2020 compared to 2019, however variation in WC for the last five years is evident. An increase in the other unrestricted equity in 2020 compared to 2019. Municipality have other unrestricted equity within the limit 5-10% for the last five years. Even though NOP is higher in 2020, compared to 2019, it still below 2-3% the last two years. NLD have increased for the last five years and is higher than 75% for the last five years.

Figure 27. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues, by accounting concept and year (SSB 2021d).



9.2.3 The overview over municipalities financial performance

In this section, I provide an overview over municipalities financial performance based on empirical data.

The change in working capital is a measure of the variation in the liquidity position of the firm (Commission 1976). The overall trend across Rogaland municipalities is the variation in WC from year to year, even though several municipalities (Hjelmeland, Haugesund, Sokndal, Sauda, Bokn) had increase in WC for the last five years. Bjerkreim WC had increase the last three years and Tysvær had an increase in WC in 2016-2019, even though already decrease in WC in 2020.

The goal of WC management is to assure that resources are managed effectively so as to enhance the performance of the entities (Lamptey, Frimpong, and Morrison 2017), therefore municipalities have to identify changes in WC, in order to ensure adequate liquidity. By decreasing WC investment (aggressive policies), it would unequivocally positively affect the profitability of the organization and investing deeply in WC (conservative policy) may also result in high profitability (ibid.). Specifically, the profitability effect directs to profitability in the form of revenues (accrued revenues) and profitability in the form of expenditures

(investments) (Veggeland 2019). Therefore, municipalities' activities are closely incorporated into ongoing cycle that need to be maintained and balanced all the time.

The overall tendency among Rogaland municipalities – an increase in the other unrestricted equity for the last five years. Municipalities have other unrestricted equity higher than 5-10% or within the limit 5-10%. This explains local authorities' capability toward financial robustness and healthy municipal operation in the long-term perspective. Additionally, due to economic cycles, it is important for municipalities to have sufficient reserves to meet abrupt changes in economy.

However, Stavanger and Bokn municipalities had decrease in other unrestricted equity already in 2020. An example of both large and small municipality show that financial freedom has diminished, trigger local authorities to adapt to constant changes, plan, and budget adequately. Additionally, the other unrestricted equity indicator tends to fluctuate from year to year among Randaberg, Strand, Bjerkreim, Klepp and Utsira municipalities.

No municipality can supply functioning services and perform its constitutional mandated development role without sufficient financial resources (Niekerk and Sebakamotse 2020). The sustainable income implies that municipalities must yield income by raising taxes, levies, rates, and service charges from the communities within the municipal area (ibid.). The fact, that the municipality hold financial resources does not prerequisite that responsible authorities of municipality will utilize them properly and effectively to assist the development of the administered area (Liptáková and Rigová 2020). However, human resources are vital to favourably cope with the positive and negative consequences of increased globalization (ibid.). Additionally, free financial resources are the guarantee for the evolution activities of municipality (ibid.).

The overall trend across Rogaland municipalities is the fluctuation in net operating result for the last five years. However, several municipalities (Eigersund, Time, Strand, Hjelmeland, Bjerkreim, Hå, Klepp, Sandnes, Sokndal, Kvitsøy, Tysvær, Utsira, Vindafjord) had risen in net operating result in 2020 compared to 2019. Conversely, a few municipalities (Stavanger, Sola, Suldal, Haugesund, Sauda, Bokn, Karmøy) had decline in net operating result in 2020 compared to 2019. Additionally, Randaberg had negative net operating result for the last three years.

Past performance of the municipalities may affect present financial health (Drew, Dollery, and Kortt 2016). For instance, early unsatisfied operational performance may now have become revealed as high debt loads, low capital reserves or infrastructure backlog issues (ibid.). This confirms Rogaland municipalities example regarding lag in the infrastructure

service and multiplied debt burdens. Demographic aspects are not exclusion that may impact financial sustainability, independent of communities' efficiency (ibid.). Uneven demographic factors can be traced among Rogaland municipalities, thus conform example of population decline that inter alia affect the financial sustainability of municipal entities.

The fact, that the financial condition of the municipalities is defined by the size and balanced match in time of income and expenses, the level of revenues, financial independence, the quantity of investments, the capacity to acquire extrabudgetary resources and the financial result (Dziekański 2016). Additionally, financial independence of a municipality is a fundamental prerequisite of it concordant and equalized development (ibid.). Furthermore, financial independence is a distinct institution and at the same time is the tenet of local finances (ibid.).

The overall trend across Rogaland municipalities is increase in NLD for the last five years and is higher than 75%. The fact, that a few municipalities (Hjelmeland, Klepp, Kvitsøy, Utsira) had increase in NLD for the last five years, it still below 75%. Conversely, several municipalities (Suldal, Bjerkreim, Haugesund, Karmøy, Vindafjord) NLD have decreased in 2020, compared to 2019 and is lower than 75% for the last five years. Additionally, Sokndal NLD have decreased for the last three years and is lower than 75% in 2020. Even though Bokn NLD have decreased in 2020 compared to 2019, it still higher than 75% the last four years.

Public debt is still common topic in economics, most countries globally face it management difficulties (Kozera et al. 2020). The definition of money should be elucidated widely because local governments favour in practice loans, debts, account receivables, notes, and mortgages, which are all common elements of debt (ibid.). The debt is outstanding by one party, the borrower or debtor, to a second party, the lender or creditor (ibid.). Subnational borrowing allows local government to transmit short term tax loads on to future generations (Cabasés, Pascual, and Vallés 2007), that will benefit from solid and long-lasting projects (Alm 2015).

The Rogaland municipalities have largely entered an aggressive investment game toward sustainable development. However, this generates intergenerational inequalities because consumers today are disbursing for infrastructure that will favour future users (Slack 2009). Furthermore, absence of sustainability of fiscal policies, and scarce knowledge of financial mechanisms – assume overall institutional fragility of communal fiscal governance (Bröthaler, Getzner, and Haber 2015). Additionally, the relative political vulnerability of local governments, in which party fragmentation and coalitions are more common, may further induce overborrowing (Cabasés et al. 2007). For that reason, the borrowing permit local

authorities to design facilities that more tightly indicate the demands of its citizens, thus enabling government “closer to the people” (Alm 2015). However, the overall authorities’ moral responsibility is less understood that will impact people in the long-term perspective.

The data revealed that municipalities across Rogaland county have built strong other unrestricted equity. Additionally, the variation in WC from year to year and the fluctuation in net operating result for the last five years across municipalities is apparent. The balance must be reached between operating revenues and operating expenditures, to ensure smoothly entities run. Moreover, an adequate liquidity stance and management of NLD should be considered to ensure healthy financial performance across Rogaland county. Furthermore, the great reliance on intergovernmental transfers from central authorities impinge the local government position as distinct unit. For that reason, the attention should be given to micro-foundations and micro-experiences that disentangle causal relationship between the complex components of strong states – such as governance, institutions and security – and positive economic performance (Baliki et al. 2017).

9.2.4 Discussion

In this section I answer the second research question of this study: *what do financial indicators across Rogaland county reveal about the relationship between municipalities financial and sustainability performance?*

The findings of this study indicate that high financial performance generally led to positive sustainability performance (supporting H1). The municipalities that have articulated social, economic, and environmental dimensions of sustainability performance tend to perform better, than those that have not emphasized the three pillars of sustainability. Additionally, low financial performance led to negative sustainability performance (supporting H2) (example of the Lund municipality).

Moreover, Sokndal and Bjerkreim (net operating result tends to fluctuate from year to year) had a positive financial performance in 2020, even though municipalities have not articulated economic, social, and environmental dimensions of the sustainability. This finding does not support any of the claims of this study (low correlation between financial and sustainability performance). Yet, it is possible to perform financially well without sustainable practices. Furthermore, Randaberg had a low financial performance, but have articulated the three pillars of sustainability. One of the explanations might be that municipality just recently

started to incorporate the sustainable development into municipal planning, recognizing its importance in the years to come.

In other words, the sustainability practices make good municipalities better and bad performing municipalities worse (Wagner and Blom 2011). Being care and accountable to the environment and society become crucial aspects in running the business to enhance the municipalities reputation, maximize profitability and bring benefits to the entire stakeholders (Burhan and Rahmanti 2012), as well as to change overall business paradigms (Sharma and Vredenburg 1998).

The financial indicators across Rogaland county reveal that the financial performance of municipalities has a positive impact on sustainability performance. The results show that the competition is not just about broad range of indicators as addressed by Polder and Veldhuizen (2009), but also competition in sustainability development (Lu and Taylor 2016). For that reason, municipalities should not only incorporate the SDGs into their respective strategic documents, but also implement them on local level directly. This assumes that in the long run, market forces reward municipalities that scores high in sustainability performance (ibid.). This in turn may stimulate managers to pursue sustainability performance even though the municipality may not be lucrative in the short run (ibid.).

The economic sustainability is already included in this study that assess the financial performance of Rogaland municipalities. In fact, no municipalities can provide services and products to its concerned citizens without adequate financial resources. Additionally, the critical infrastructure is important to meet societal basic needs.

The financial indicators across Rogaland county also reveal that the low financial performance led to negative sustainability performance. The Rogaland municipalities must work better on working capital to ensure adequate management of resources and thus contribute to liquidity and profitability stance. Even though municipalities across Rogaland county have built strong other unrestricted equity, the overall trend is increase in net loan debt for the last five years and is higher than 75%. The municipalities have to make better financially through the sustainability practices (Ainia P. A Kusuma and Deddy P. Koesrindartoto 2014).

The municipalities need to look at the life on land (deforestation that contribute to CO₂ emissions, diseases), life below water (water quality, pollution), and consider effects of climate change. That is why besides enhancing the profitability, the municipalities should be accountable for managing the sustainability (Burhan and Rahmanti 2012). However, the municipalities that financially underperformed should focus on enhancing their financial position first before investing in various sustainability programmes (Wagner and Blom 2011),

since such programmes involve not only “performance and time” and “setup and execution” costs, but also other costs such as “sunk” or “search” that are more concrete to the nature of certain projects (Guandalini, Sun, and Zhou 2019).

Moreover, the new sources of competitive advantage (such as culture) may enhance municipalities financial performance (Surroca, Tribó, and Waddock 2010) over its rivals (Barney 1991). This new strategy is a fundamental shift in business philosophies, value accompanied and decision processes (Sharma and Vredenburg 1998). For that reason, the financial success allows management to halt worrying about external adaptation and concentrate all its efforts on the development of internal processes, thereby building culture of high involvement, integrity, commitment and identification with core values (Surroca et al. 2010).

Furthermore, the low correlation between financial and sustainability performance might be of several reasons such as:

1. the score of sustainability which does not catch the real practices,
2. only limited number of stakeholders who are familiar with the extent of municipality’s sustainability disclosure, or
3. incoherent the level of sustainability disclosure due to the fact that municipality does not announce it routinely (Ainia P. A Kusuma and Deddy P. Koesrindartoto 2014).

After all, the data prove that to reach the remarkable performance for Rogaland municipalities in all three sustainability dimensions (economic, social, and environmental) is not an easy task while simultaneously ensure the financial reward for local authorities. More specifically, the competition across municipalities at the expense of other value impedes a credible sustainability transition. Additionally, the cultural dimension brings about the change through resource management, enhances tangible social capital (facilities and infrastructure), and reinforces economic capital by generating more out of renewable resources (Opoku 2015).

9.3 Case study on Lund and Gjesdal municipalities

The following section makes explicit a contrasting experience between two municipalities, thus answering the third research question of this study: *can cultural aspect, in*

addition to financial indicators, explain some of the variation of the sustainability performance of municipalities?

9.3.1 Lund municipality

The purpose of the municipal planning strategy is to define what planning functions the municipality should foster in order to promote the desired development needs in municipality (Ministry of Local Government and Modernisation 2013). The municipal plan should have an action part that states how the plan is to be followed (Lund kommune 2020d). Additionally, the financial plan is not just about municipality's income and expenses, but it tells, among other things, how the municipality will achieve various goals in order to provide the inhabitants with the best possible services (Lund kommune 2020a). According to Lund municipality overall goals and strategies will be discussed under the project “Attractive/smart local communities” among the other things (Lund kommune 2020d). The project will run partly at the same time as the work of revising the community plan (ibid.). Strategic business plan will also be revised after the project (ibid.).

The action part for Lund municipality can be clearly understood from annual report status for 2019. Municipality have not incorporated SDGs in the long-term perspective, apart from outline for its importance in the planning strategy report. Moreover, even in the budget for 2020 focus have been placed on 3 financial action rules and key figures (net operating result, net loan debt and other unrestricted equity) (Lund kommune 2019a) the result for 2019 ended with negative operating profit. The budget for 2019 entered into force was not in accordance with sustainability standard and general law. Furthermore, the last three years Lund has budgeted with deficit, thus resulted in a low available reserve.

9.3.2 Gjesdal municipality

According to Gjesdal municipality, the planning strategy is a guiding document for managing the desired societal development, giving the political priority to planning tasks (Gjesdal kommune 2020d). The strategy will define whether the community part of the municipal plan and the land-use part will continue to apply, or whether there is a need to make changes during the municipal council period (ibid.).

Gjesdal municipality have a clear vision, values, strategy, goals that are imperative aspects for the value creation in the long-term perspective. Municipality have communicated social aspect, economic, democratic, technological, and ecological sustainability. However, SDGs for Gjesdal municipality do not appear clearly defined. In fact, municipality states that the community part of the municipal plan for Gjesdal is not designed with special thought in mind to clarify each individual sustainability goal, but indeed the intention of the plan, and the objectives in it, is designed in a way that contributes to the achievement for 17 SDGs (Gjesdal kommune 2020c).

9.3.3 Discussion

This section answers the third research question of this study: *can cultural aspect, in addition to financial indicators, explain some of the variation of the sustainability performance of municipalities?*

Gjesdal and Lund municipalities conform it example on dominant hydropower company's regime that generates a significant proportion of the book value. Municipalities are hydropower companies' shareholders. However, Lund municipality share of ownership (13.35%) in Dalane Energi AS is not entered into accounts, since municipality have not invested further funds in the company profile, even though the energy company is subject to a great value (Lund kommune 2019b). Furthermore, the commercialization and deployment of technologies is prerogative of private-sector activity to yield market advantage, finally leading to increased profits (Graaf and Sovacool 2020).

In fact, preferences – in conjunction with technologies and government policies – actuate economic output, including prices and wages, rates of growth in output, and the allocation of incomes (Becker 1996). In other words, economy influence tastes concerning goods, leisure, and diverse activities (ibid.).

There are several factors that impact Lund and Gjesdal municipalities' sustainable development. Firstly, the financial indicators for 2019 revealed Lund municipality unsatisfied sustainability performance. The WC is the most dynamical part of resources of economic entities (Glotova, Irina, Tomilina, Elena, and Kuzmenko, Irina 2014). However, the municipality working capital weakened signaling that resources were not managed effectively to carry out the necessary activities. The level of current assets should be optimized (Anna Bieniasz and Zbigniew Gołaś 2011), and with respect to current liabilities, the

municipality is accountable for paying these obligations on a timely basis (Raheman and Nasr 2007). An example of mismanagement is reflected in poor working capital management (Kamau and Ayuo 2014). For that reason, if it cannot be maintained properly then it will affect municipalities growth and profitability (Zariyawati et al. 2009). Therefore, the “current” financial sustainability of Lund municipality is not maintained adequately. The same is true regarding the other unrestricted equity that weakened almost double in 2019 compared to 2018. The NLD continued to increase and municipality had a negative net operating result in 2019.

Secondly, not only financial indicators impact Lund sustainability performance, but also the absence of SDGs framework on local level directly. The lack of dynamic municipality position impedes further sustainable transition. Additionally, Lund have not articulated the three pillars of sustainable development, thus resulted in a negative performance for community. After all, the low financial performance led to negative sustainable development. Such local practices do not allow to extrapolate neither value for local authorities nor for society in the long-term perspective. The emphasis must be placed on culture that act as adhesive, integrity, motivator for employees and the people around (Prihantari and Astika 2019). The value system that is innate to the next generation and can be utilized as a reference for human behaviour that are adjusted towards performance results (ibid.).

Thirdly, the Lund municipality activities allow to assess social infrastructure, mainly habits, norms, cultures and values as addressed by Graaf and Sovacool (2020). For example, one of the main industry such as NorDan and Giljedoor are of great importance for the local community in Lund regarding wood tradition (Lund kommune 2017). The “wood culture” allowed to build not only strong society, but also to strengthen people’s norms and habits on local level directly. Moen Bjøllefabrikk and Eik Treskofabrikk are examples of long-lasting industry tradition (ibid.) and sense of continuity of sustainable practices (Sanz et al. 2002). The “wood culture” has an irrefutable community value, as a source of stability and dynamism, it fosters the social and economic engagement of the population (ibid.). Additionally, the people on local level may only beginning to recognize such sustainable perspectives as their own (ibid.). However, the production of firewood in Lund is impeded by heat pumps, denser housing, and cheaper electricity (Lund kommune 2017).

There are several factors that impact Gjesdal sustainable development. Firstly, the financial indicators for 2019 revealed the municipality positive sustainability performance. The WC is almost three times bigger than the Lund one. The “current” financial performance of Gjesdal municipality can be characterized as sustainable since financial resources were managed effectively. The municipality built strong other unrestricted equity that allow

municipality to react to changes in economy and prevent unforeseen circumstances. Additionally, the management efficiency is on good level. Gjesdal had a positive operational performance in 2019, even though the net result had downturn trend and NLD continued to increase.

Secondly, not only financial indicators impact Gjesdal sustainability performance, but also the SDGs framework on local level directly. Specifically, all sustainable development is embedded into community plan. The municipality has a dynamic position toward sustainability transition, mainly “Smart Gjesdal thinking”. Additionally, municipality have articulated the three pillars of sustainable development, thus resulted in a positive performance for community. After all, the high financial performance led to positive sustainable development. However, it is become challenging to understand how social, economic, and environmental dimensions are addressed without SDGs achievement. For that reason, the emphasis must be placed first on culture that should alter social actors’ perceptions and their meaning-making activities.

Thirdly, the Gjesdal municipality activities allow assess social infrastructure, mainly habits, norms, cultures and values as addressed by Graaf and Sovacool (2020). For example, the municipality has a long history in the wool and textile, even the sheep head on municipal coat of arms symbolizes this (Gjesdal kommune 2021a). Aalgaard Uldvarefabrik and DFU was for decades the important industry for the local community (Gjesdal kommune 2019a). Particularly, the “wool culture” allowed to build faithful society with their own norms, habits, and values on local level directly. However, the “Smart Gjesdal culture” turn this history. The “Smart Gjesdal thinking” corresponds to smart city concept (Gjesdal kommune 2021b). It all about self-driving busses in Ålgård, moisture measurement in municipal buildings, the library as a co-creative arena, sensor use (Gjesdal kommune 2020e). Specifically, these practices are made because of revenue base for municipality is of concern (Gjesdal kommune 2021b).

The examples above shows that the cultural aspect (intervening variable), in addition to financial indicators can explain some of the variation of the sustainability performance of municipalities. The people in Lund and Gjesdal municipalities may perceive equal transition to sustainability differently. Lund municipality is obviously committing to old tradition practices and do not apprehend the value of technology, modern transport, solar panels, or other novelty as something necessary and unique. In contrast, Gjesdal municipality have chosen dynamic investment activity into innovative solutions, that presumed to accelerate green transformation. The change toward sustainability is not difficult but require cultural dimension, expertise, and knowledge along the way.

After all, the operating model differs among Lund and Gjesdal municipalities. The Lund face the challenge to expand further toward sustainability performance. Even though the municipality had a low financial performance in 2019, the social change (culture) may happen that can yield pressure on current regime level (e.g. hydropower). In contrast, the Gjesdal may have a high operating cost that allow municipality to progress toward greater innovation, authority, and sustainability. However, budgetary performance does not equal sustainability. The people values are exposed to change, that may trigger paradigm shift. The culture may also shift over time, but it changes inherently slow – apparently, the depreciation rate on cultural capital is low due to “control mechanisms” that are not easily transformed (Becker 1996).

9.4 Challenges among Rogaland municipalities

The following section provide an overview over challenges that need to be overcome among municipalities toward successful transition to sustainability. I extract the data from municipalities reports, and answer the fourth research question of this study: *are the main challenges that need to be resolved among municipalities more of a financial or a cultural nature?*

The main challenges that need to be resolved among municipalities toward successful transition to sustainability can be summarized into group of three: social, economic, and environmental.

First, the social issue is about overall decline in the number of populations and increase in elderly one. The development of the society pattern in Norway is depicted by major transformation towards urban regions and variation in the people size is the outcome from migration between regions, international migration, and dissimilarities in fertility and mortality rate (Rattsø and Stokke 2014).

The overall tendency among municipalities is the childbearing age of folk, as well as birth rate that projected to decline. In fact, if the immigrant women would not have the children the local level fertility rate would fall by 0.05 children per women (Daniel Rauhut et al. 2008). Moreover, the longer the immigrant women reside in Norway the more they tailor to the lower fertility rate in Norway (ibid.). One the one hand, the explanation might be in the existence of strong institutions in Norway (one is child protection services) that interfere the normal lifestyles of people, encouraging them to relocate, thus prevent the parents to childbearing. On the other hand, an increasing number of single (unmarried) and older population infringe the further development toward sustainability. Both examples of institutions – the former that are

robust, and the latter that do not exist – pose the concern in relation to demographic dynamics. Maybe time to reduce dependency on institutions?

Furthermore, municipalities will experience the shortage of educated people, and overall fall among pupils from school become evident. The undersupply or oversupply of knowledgeable manpower is not welcome result from the governmental authorities perspective (Lee 2011). Undersupply will prevent Norway's transition to an expertise and technology intensive economy, while oversupply will create general skill imbalance or unemployment within the industries (ibid.). After all, the complex interplay between the person (individual), namely performance, attitudes and background, and the system (structural), comprised of families, communities – both inside school and out of school, must be appreciated when seeking to understand why young generation drop out (Bunting and Moshuus 2017).

The income inequalities among people started to accelerate very rapidly. Poverty is a concept Norwegians mostly preserve for other parts of the world or the distant past (Gustafsson and Pedersen 2018). However, poverty lines are usually greater in wealthier countries, and lower in poorer, reflecting the pertinent nature of national evaluations of who is considered poor (Dean Jolliffe and Espen Beer Prydz 2017). Generally speaking, relative poverty does not assume complete deprivation, but simply that the level of economic resources is lower than the average, which in turn also impact the health (Elstad and Pedersen 2012).

In fact, climate in common, and agricultural production in general, can be identified as causes of inequality (Modalsli 2018). Particularly, cities are perceived to yield higher income inequality than rural areas, and among labours, there is higher income inequality in regions with more manufacturing practices (ibid.).

The empirical data also shows that even though regional and inter-municipal collaboration must be prioritized, it can also jeopardize the governance and overall progress of the individual entity. Inter-municipal collaboration implies joint production with other local authorities to yield economies of scale, enhance service quality, and facilitate regional service organization, within or between countries (Lethbridge 2016). However, the personal position of the mayors may be vulnerable, political parties may be opposed to the enacted plan, and financial constraints may hinder preferred approaches (Council of Europe, United Nations Development Programme, and Local Government Initiative 2010).

The overall financial tendency is expressed in high loan debt among municipalities (due to uncontrolled investment activity and borrowing, including borrowing to the others). It is perceived as simple way of obtaining the mandatory funds for an investment project in the short-term perspective, but which inflict a burden on taxpayers in the long-term perspective

(Dafflon and Beer-Tóth 2009). Additionally, interest payments and instalments are recompensed by more grants (Dafflon 2002), even though debt costs will continue to grow. This limit the future economic and political freedom of municipalities. Furthermore, the cumulative debt of Norwegian households is at a high level, compared to other countries, thus jeopardizing financial stability (Finanstilsynet 2020).

After all, local authorities rely on taxes and government grants as the source of their revenue. Equally speaking, the coordination mismatch appearing from fallaciously designed revenue system may cause subnational governments to disburse inappropriately and jeopardize macroeconomic stability by deteriorating fiscal imbalance (Ebel and Yilmaz 2002). The financial autonomy makes also challenging yielding akin standards of local public services over country (Ladner et al. 2019). Similarly, local authorities have freedom to choose their own financial indicators for municipalities performance, thus increasing uncertainty and ambiguity.

An assessment of municipal liquidity should be considered in the short-term and long-term perspective. The liquidity value point to the capacity of the municipality to pay off it is obligations and yield finances necessary to minimize it short-term liabilities (Tomas Bata University in Zlín et al. 2019). Monitoring the formation of the value of the liquidity ratio is imperative, as an advantageous ratio can remove opportunity costs from unused current assets, impacting economic efficiency (ibid.). Additionally, the immense indebtedness may cause some challenges in settling liabilities and, therefore, in diminishing financial credibility and social trust (Gałęcka and Cyburt 2019).

The overuse of financial resources across various service areas is another challenge. The proper allocation of resources should be established to avoid others to pay for that. Anyway, further abuse of financial resources disrupts the local authority's reputation and overall sustainable development. Equally speaking, the profit received from assets can be utilized by municipal structures in spheres that are not correspond to the overall interests of the population forming the local community (Levitskaya 2021). Furthermore, the financial activities of the municipalities require rigorous scrutiny for enabling transparency among the public in general. The errors in accounting reporting are also prevalent.

The environmental concerns are about climate change that create weather disturbances (landslides and floods) and impact an important sector of economy, mainly aquaculture and agriculture. In Norway, aquaculture production is expected to expand from 1.2 million tons today to 5 million tons by 2050, assuming a fast magnification in the demand for sustainable salmon nourish alternatives to conventional resources (fish meal and fish oil) (Solberg et al. 2021). In fact, agriculture and fisheries are two renewable resource-based industries that can

take a lead position toward a green economy (Karlsson and Hovelsrud 2021). However, agriculture sector accounts for only 0.3% of the country's GDP, and projected to account for 9% of total GHG emissions (Blandford, Gaasland, and Vårdal 2014). Additionally, this sector of economy will face significant challenges due to limited soil, water resources and increasing threats from climate change (Francesco Tubiello et al. 2008).

Next, the promotion of new and effective production methods in agriculture is needed toward sustainable development. For example, the application of nanomaterials in agri-food sector (Ali et al. 2014), use of microbial inoculants and harnessing the plant microbiome in situ (Qiu et al. 2019). However, Norway has only 3.5% agricultural land, and the obligation of owners to cultivate as much as possible of the land appropriate for agriculture is declared in the Norwegian Land Act (Blankenberg and Skarbøvik 2020). Despite these, farmers only yield subsidies for land space on which they generate food, which means that buffer zones with natural vegetation serve a net deprivation for farmers (ibid.). Therefore, political coordination and regulations should be in place to facilitate a sustainable development.

Prevalence of radon in atmosphere is another concern. This phenomenon causes human health issues as absorption of the short-lived decay products of radon induce irradiation of cells lining breathing tract (Nazaroff 1992). Radon occur from soil and rock particles into the pore spaces, it itinerates as a gas dissolved in groundwater or within ground air (Ćujić et al. 2021). In isolated places (caves, homes, schools) that is not properly aired out, radon gas may grasp a level that can inflict significant health damage (ibid.).

The smaller size municipalities also face the challenges regarding insufficient infrastructure development, that impede the further green transformation. For example, power supply to the Hjelmeland municipality is a major challenge (due to a lack of supply network from the central line network) – the current goes abroad and to Australia, therefore an upgrade/new development of the pipeline network is needed (Hjelmeland kommune 2019b). The decision makers in environmental planning often face sophisticated situations where many contributing factors and various actors have legitimate political influence (Gezelius and Refsgaard 2007). Transmission lines project can be an obstacle for local acceptance and support, since it afford moderate benefits such as new jobs, profit opportunities, and local and regional tax revenue (Knudsen et al. 2015).

The land management and proper areas use should be considered. For example, energy production necessitates large amounts of land for deriving resources for generating primary energy and installing power plants and electricity installations (Schwanitz, Wierling, and Shah 2017). Food generation further require land as an input (ibid.). Additionally, the rate of food

yielded by national resources is less than 50%, and fall on yearly basis (Skog and Steinnes 2016). In fact, the transformation of farmland is recognized as threat to the future food supply; therefore, the Norwegian Government has advised that municipalities form urban settlement growth borders to enhance the avoidance of farmland around urban settlements (ibid.).

Further food waste curtails especially in industrialized countries, and adequate consumption are imperative tasks for sustainable development, namely the target 12.3 to halve food waste by 2030 at retail and consumer level (Leverenz et al. 2019). One of the key motivations to diminish household food prodigality was the desire not to waste money, along with environmental consequences (Graham-Rowe, Jessop, and Sparks 2014). However, it was noted no information impact on the financial or environmental consequences of avoidable food waste on low income households (Shaw, Smith, and Williams 2018). For that reason, healthier work-life balances, correct time management and smart food delivery have been recognized as key priorities elements toward sustainability (Amicarelli and Bux 2021).

The greener purchasing must also be established allow public authorities to take environmental considerations into account (Busu and Busu 2021). The goal is to minimize CO₂ emissions, toxic material, and contribute to human health in general (Diófási and Valkó 2014). In fact, public authorities hold the purchasing power as major consumers, and they spend roughly 19% of the EUs GDP (ibid.). Additionally, the policy driven approaches are included in the procurement process as contractual requirements, often based on legislation (Sparrevik et al. 2018). However, the latter is not perfect since there is no long-lasting perspective of any kind within the green procurement process, and decisions are mainly initiated with a short-term reactive and tactical perspective (Bratt et al. 2013).

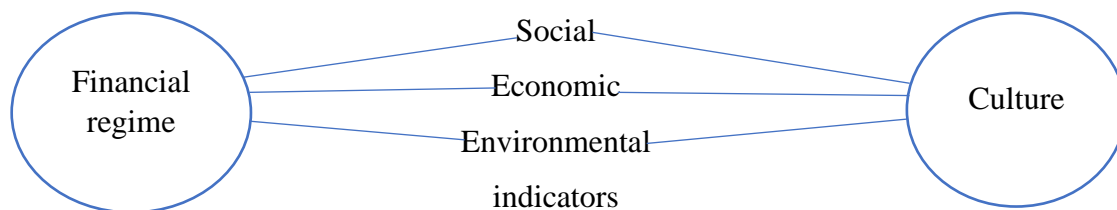
Lastly, even though Norway has a broad coverage of drinking water sources in urban areas (Wu, Wang, and Seidu 2020), the access to clean water will be an issue for the most (Amit and Sasidharan 2019). The infection risks that may be linked with the occurrence of extensive precipitation in the water source catchments may be significantly high, thus require maximization of treatment steps in the facilities (Mohammed and Seidu 2019). As a result, most of the countries around the globe are confronted with major uncertainty in the water availability that can impinge the economic development and quality of life (Tahir and Majeed 2020).

9.4.1 Discussion

This section answers the fourth research question of this study: *are the main challenges that need to be resolved among municipalities more of a financial or a cultural nature?*

The examples above show that the main challenges that need to be resolved among Rogaland municipalities both of financial and cultural nature. Culture may impact financial constructs which, in turn, do affect financial satisfaction (Çera et al. 2020) of municipalities. Here, the social, economic, and environmental dimensions of sustainability are closely intertwined and should constitute the financial regime of local authorities, indicators that serve as financial constructs for successful transition to sustainability for Rogaland region (Figure 28). Additionally, culture may serve as a separate regime through which the financial constructs coevolve and give meaning to certain change. Therefore, culture can be measured by mean of incorporating three indicators of sustainability.

Figure 28. Sustainable model for development (Author work).



These challenges should be addressed to ensure growth in community. Furthermore, the financial challenges are already the part of sustainable paradigm. These three goods (society, economy and ecology) stands, or fall, together (Bormane, Šķiltere, and Batraga 2021). Accordingly, you cannot have one without the other two elements (ibid.).

The three pillars of sustainability imply both disbursement of resources as well as cultural attributes. For example, Norway assumes to be efficient in relation of utilization of government expenditure on secondary education to reach the highest scores in quality of educational improvement (Gavurova et al. 2017), revenues that used by Norwegian municipalities to fund public schools (Herrington 2015). However, the withdraw from school institutions by young generation might be found in weak cultivation of education culture on local level directly. Specifically, the shortage of educational level among municipal personnel

and top officials serve as new normal pattern through which the other perceive it one to be the correct form of behaviour. Such entangled templates become embedded through years, thus make it challenging to make a right choice among citizens.

Another example is the high loan debt across Rogaland municipalities that assumes borrowing from banks due to a low interest rate. To enter in such “reciprocal relationships” between bank and municipality do not allow to initiate cultural progress. Yet, the local government can generate certain amount of financial resources necessary to maintain an excessive infrastructure investment that has no added value (Yilmaz and Ebel 2020). An infinite consumerism and materialism are not the engines of change (Brown and Vergragt 2016), and not the forces that lead to problem solving for Rogaland municipalities. For that reason, accepting and living by sufficiency rather than excess proposes a return to what is, culturally speaking, the human home (family, community, good work, and good life) (Alan Durning 1993).

After all, the various solutions to climate change such as renewables, energy efficiency (energy policy) by Norwegian state implies uninterrupted commodity supply. These initiatives allow to yield revenue in large scale, to enhance the geopolitical presence, and to maintain the status quo for government. When an energy source is in infant phase, the cultural values that it generates are seen as innovative and open to debate, just like cutting-edge art (Lord 2014). Once the novel energy source becomes predominant, the values that it yields with become mainstream (ibid.). With the renewable energy culture of stewardship, that process take place in our contemporary time (ibid.). The preferences once emerged and established is challenging to reconfigure. Such “culture of sustainability” (Ayestaran 2011) become complex and apprehended through the lived experience, thus the actions of local authorities affect the future of society.

It can be concluded that culture influence not only social norms but also economic conduct, such as tendency to save or to innovate, and many other economic choices such as fertility preferences, investment in education, charitable deposits, or the desire to add to public goods (Gorodnichenko and Roland 2017). The adherences to cultural values (Hajer 2003) show that various challenges may be resolved on local level, but will depend on foci in policy agendas as addressed by Hajer et al. (2003). The social, economic, and environmental concerns discussed above is of such example.

The assertion that accomplishment of sustainable patterns of economic development will demand profoundly structural changes (e.g. improved social relationships, decreased conflict among groups in the local community, skills-building for youth) in many prevalent

social values is quite threatening to many people in advanced industrialized societies (Hoff 1998). However, the communities working on sustainability initiatives must acknowledge how their economic entities help to fulfilling basic needs (housing, food, energy, health, education, and transit) and how they are harmonized with policies to facilitate local quality of life while maintaining the ecological base (ibid.).

10.0 Summary and discussion of the main findings

The following section reconciles methodological approach and theories of this study. I interpret the data by applying theoretical constructs, and integrate the answer to the main question of this study: *why is the sustainability performance of some municipalities higher than the one of others and what are the main challenges that need to be resolved among municipalities toward successful transition to sustainability for Rogaland region?*

By conducting this study, I found that Rogaland municipalities have entered the sustainable development paradigm towards ambitious transformative goals and targets. However, the local authorities' development paths are challenging to define. On the one hand, municipalities are obliged toward policy implementation (SDGs execution) on local level to create value for society. On the other hand, the financial performance competition across municipalities does not allow to realize its full potential. The communities that pursue financial targets coupled with money race strategy may be perceived as not having the legitimacy to initiate social progress (Kramer and Pfitzer 2016).

MLP helped to track the financial conjuncture among Rogaland municipalities. The findings indicate that there is an association between financial (budgetary) performance and sustainability. Additionally, low financial performance generally led to negative sustainability. After all, it is possible to perform financially well without sustainable practices (extreme case).

The data have shown that economic viability of the municipalities is to a high degree dependent on sustainable development. The municipalities that compete on sustainability tend to perform better, than those who did not apprehend the social, economic, and environmental value. Furthermore, the financial indicators revealed that municipalities have been performing relatively well, despite the management of resources could be better. The public policy should not be guided by the supposition that ever more financial innovation, market completion, and liquidity is by the exemplification good: less finance can be better than add true social value (Turner 2017).

The economic health of municipality is to an immense degree dependent on the income of inhabitants, thus allow local authorities to levy higher local taxes and charge supreme prices for the services offered (Cohen 2008). For that reason, the wealth of the county can be utilized as a guarantee of the debt's reimbursement (ibid.). However, this is not an easy task since Rogaland county invested heavily into sustainable activities that should accelerate transition on local level. Inter alia, the huge indebtedness across municipalities make it challenging to continue to exist as usual.

By analysing the causes and problems related to the growing municipal debt, distant from the financial and evolutionary issues linked to the effects of the last global economic crisis of 2007+, one should take into account changes in the global political structure and advance preferences of regional integration organizations, including the European Union (Joachim Osiński and Izabela Zawislińska 2020). One of the difficulties was to adapt and utilize technological evolution as fully as possible to enhance the social efficacy of local government (ibid.). However, the high level of innovation project does not necessary correspond to it supremacy, and thereby invested time and money. Furthermore, the certain type of technology developed in one city and force-fit them into different cities cause no effort to apprehend local realities (Kummitha 2020). The same relates to cultural characteristics of the local inhabitants and their lifestyle.

The other problem associated with increased borrowing tendency among Rogaland municipalities. The local authorities entered the race of competition that supposed to enhance the quality of provided services and products. It should be noted, that in times of high liquidity in the credit markets and low interest rates, debt financing is good potential both for enhancing the municipal investment program and for satisfying short-term current needs (Kalcheva 2020). However, the modern trends in the banking system (Dr.Ankit Jain 2020) allowed not only to raise the degree of municipalities enacted programs, but also to make society indissoluble from the local authorities' debt. Even though Rogaland municipalities have built strong other unrestricted equity that allows greater autonomy, the accumulated net loan debt comes at the expense of citizens. For that reason, the financial side of the municipalities become embedded into overall sustainability paradigm. As a result, to acquire financial profits for local government cannot happen in isolation from social, cultural, and environmental dimensions.

The public choice theory allowed to elucidate the social actor's behavior regarding the decision-making processes. Specifically, the municipalities target their strategies at executing social outcomes that mesh with public priorities, such as UNs SDGs, therefore creating no common sense – just collectively define the agenda and the actions to be initiated (Kramer and

Pfitzer 2016). The data revealed that social aspects of the SDGs are not acknowledged, for example strong institutions and gender equality. The same is true regarding ecological aspect, for example life below water. With respect to municipalities, local authorities tend to lower social and environmental progress. Here, culture is a reason why predictions often fail (Dooley 2017).

When analysing the local government actions, one should remember about the cultural characteristics on local level directly. Specifically, the collective ideology in the Norwegian society corresponds to the Law of Jante (Janteloven), which depict a negative stance towards individuality and success and positive attitude on egalitarianism and homogeneity (Mika Aaltola et al. 2016). In line with individualism index which relate to the degree of people favour their own interests or to seize responsibility to act as a member of a group, folk in low level individualism culture (collectivist culture) aggregate into a group and always acknowledge groups interests first (Zhao 2014). However, folk in high level individualism culture have few liabilities of sharing and apparently consider their interests first (ibid.). Additionally, individualism refer to the tendency of people to concentrate on individual and immediate family interests (Beekun et al. 2008).

Even though, the collective culture is very prominent in Norway, and enable decision making across various agencies, institutions, and interested parties, it still diminishing municipalities identity and power, and thereby lock the opportunity to find solution. The individualism approach is broadly missing on political arena.

Nevertheless, the cooperation opens the room to higher quality services provision at lower costs, but cooperation itself also yields along extra costs by individual local governments (Hulst et al. 2009). The empirical findings indicate that the local authorities consider global trends in sustainability. However, the progress towards SDGs attainment is merely disperse on subnational level – collective performance that disregard the vision to think as one. For that reason, the collective actions may be poorly understood by all participants that are engaged in a sustainable development policy.

According to Neo-institutional theory, institutions in society and in the economy and political domain, are one and the same thing (Serafimova, Hunt, and Vladov 2009). Institutions are subject to hierarchical system: they are created, written, and intentional, mostly take place based on prevailing informal rules which guarantee their implementation (ibid.). The new institutionalists consider actors and actions as the primary source of major change and assign a high degree of agency to them (Nitzl et al. 2020). Notably, both revolutionary and evolutionary change are apprehended by the scale and pace of transformation and adjustment

(Greenwood and Hinings 1996). While evolutionary change take place inherently slowly, revolutionary occur swiftly and touch de-facto all parts of the organization at once (ibid.).

The institutional theory unmasked the operation of Rogaland municipalities. Specifically, the local level needs no change but require better adjustment toward “culture” strategy. When analysing the causes by which transition to sustainability maybe slowed should be found at local level directly.

The delegation of budgets by local authorities is one example of the revolutionary change. Whenever decisions enter the force, the group of people are responsible for adequate allocation of resources, and thereby sustainable development. However, an inconsistent strategic fit and stretch does not allow to realize the full potential for Rogaland municipalities. Particularly, the government authorities impose projects and programmes that are not always appropriate and good. What is “blessing” for one, might be the “curse” for other.

The most traditional models of political economy combine individual behaviour with presupposition that humanity desire more wealth to less (Fuchs 1996). They also suppose that a human being will vote for a policy that would enhance the voter’s wealth (ibid.). Such practices are often become embedded in legal processes and people’s mind. Specifically, the green ideology does not necessarily coincide to the common preferences of sustainable development. The same is about oil/gas activities that yield revenues for individual jointly good and assume just sustainability.

After all, government entitlement programs and authorities policies have considerable effects on people preferences (Becker 1996). Welfare dishearten the independence and self-reliance of recipients, while social security diminishes the links that connect older parents and their children and foster retired people to think they deserve government support (ibid.).

The malpractices among top officials is another example of revolutionary change. To clarify, the lack of proper accounting rules and requirements toward current activities of municipal enterprises/subsidiary imply uncertain practices on local level. Such ambiguity may cause an overexploitation of resources, as actors are incompetent to enact long-term calculations with any degree of assurance (Bartley et al. 2008). Moreover, some actors may favour such contradiction and obscurity to carve out spaces to gain their own profit or rent-seeking goals (ibid.). Furthermore, not all are ready to report due to anxiety of reprisal, retaliation, and even life intimidation (Zakaria, Rahman, and Bustaman 2020).

The institutional and structural modernization of local government is ongoing process, not a quickie and onetime ratification and implementation of legal acts (Joachim Osiński and Izabela Zawislińska 2020). It requires to maintain pace with the dynamics of economic, social,

and political processes within the respective countries, consider the influence of the European and global environment (Osiński J. 2019 in Joachim Osiński and Izabela Zawislińska 2020). It should be emphasized the democratic political culture of society and its pursuit to define strategic development goals and the civic necessity to share in the system of realizing public authority (ibid.). However, the environments and recipients who would benefit are in place that take advantage of the current state of affairs (employees of public administration is not exclusion), and who resist the structural modernization of the system on local level directly (ibid.). Such government harsh practices discourage the cultural system, disrupt path independence, and slow the common future.

By considering all mentioned above, the sustainability performance should provide sound protection for society at whole. Sustainability performance includes development of the three distinguished capitals (social, economic, and environmental) (Zoeteman, Mommaas, and Dagevos 2016), as well as embrace the set of unique practices on local level directly. The outcome of incalculable environmental and sustainability activities and efforts have not been adequately effective in shifting unsustainable developments (Heinrichs and Schuster 2017). One of the answers to the overarching question of this study regarding differences in sustainability performance lies in cumulative aggregation of innovation across municipalities.

Specifically, the size of infrastructure stock may elucidate why efficient municipalities may not receive financial sustainability assessment (Drew et al. 2016). To illustrate, it is easier to sustain comparatively low levels of capital infrastructure (ibid.). In this case municipalities operating in a low infrastructure base may perform better regarding asset maintenance and liquidity sustainability measures (ibid.). This corresponds to municipalities that focused on modernization and urban development of the living conditions for local inhabitants, and thereby incurring additional investment costs. An increasing acceleration toward yielding economic benefits across local authorities make it challenging to shift attention toward a cultural aspect. The green innovation helps to optimize decision-making to maximize resources (Fernando, Chiappetta Jabbour, and Wah 2019), increase institutional capabilities of the municipalities, but not necessarily imply any kind of value systems.

The municipalities that adhere to business as usual without major changes in technological improvements and upgrades might encounter uninterrupted operation. Thus, the financial resources are assumed to be allocated on strategic needs, including the societal development. Such scenario implies strong reputation building from the beginning that encompass long lasting sustainable development. As a result, the growing cultural tradition promote open and coherent practises that should transform society into better way.

Additionally, the lack of financial resources usually implies to lose the status quo and opportunity to be engaged into overall sustainable paradigm. However, this is not a case. The new governance paradigm implies not only the distinctive tools or instruments through which public purposes are pursued as addressed by Salamon (2002), but also new paradigm in relation to new sources of competitive advantage (such as culture) as addressed by Surroca et al. (2010).

Next, the political parties' organization on municipal level may explain why the sustainability performance of some municipalities higher than the one of others. Here, the question is not about concrete political party, but the expertise of individual person and his/her values in a group of people to drive municipality toward higher sustainability. The strategic planning of revenues and expenditures, and knowledge of the business environment facilitate sustainable development in the long-term perspective. Again, this assumes the apprehension of the cultural norms and societal expectations on local level directly. Furthermore, the less educated people are associated with the existence of bigger municipal staffs (input excess) and may not defend for road, social and cultural infrastructures so productively (output shortfall) (da Cruz and Marques 2014). There is about distribution of roles between the sexes – is a key issue for any society that may include a range of solutions (Hofstede and Bond 1988). The female “communal” and the male “agentic” (Suh et al. 2004) behaviors can explain differences in sustainability performance across Rogaland municipalities. Whereas community is a propensity toward reciprocity, interrelationship, and the inhibition of self-interest in favor of group prosperity, agency assumes self-assertation and self-expansion (Miska, Szócs, and Schiffinger 2018).

After all, the local authorities' current decisions and actions to conquer all and everything at once from sustainable development elements may reduce municipalities performance at hand. Such ingredients include: maximize material and energy efficiency, yield value from “waste”, replace with renewable and natural processes, supply functionality, rather than ownership, adopt a stewardship role, foster sufficiency, remodel the business for society/environment, and develop scale-up solutions (Morioka et al. 2017). These patterns, however, can be criticized, as they do not pledge that the municipalities business is systematically sustainable (ibid.). Such initiatives were aimed at the tendency of a rising global population, acceleration in a global development and associated increasing resource use and environmental impacts (Bocken et al. 2014). As such, the challenges on local level directly should not be overlooked toward successful transition to sustainability for Rogaland region.

By continue to answer to the main question of this study regarding the main difficulties that need to be resolved among municipalities, it is evident that such problems reflect social,

economic, and environmental nature, in addition to financial and cultural challenges. The variation in the people size and birth rate are projected to decline. For that reason, the robust population policy should be initiated by government to accelerate transition to sustainability.

Next, the activities of the current and future generations should not be reduced to the greatest pleasure principle only. The shortage of educated people should be considered when looking ahead. The mass technology allowed not only to find innovative solutions to social problems (Gasparin et al. 2021), such as hunger, health care, sustainability and education (Scott D. Anthony 2012), but also allowed to shift attention of majority from other vital problems, such as completion of necessary education by pupils.

The emphasis should also be placed on social inequality, that started to generate injustice. Here, the question is about household that pose resources and high educational level, and household that has low income and no education. For the latter it will be challenging to adapt to constantly changing environment. Equally speaking, such “social class” can fall shortly into unprivileged category.

The budgetary responsibility is another important component toward sustainability. For that reason, the budgetary process serves what Joseph Schumpeter called “creative destruction”. Specifically, the absence of monitoring induce the production of financial services, including an increase in the arrival rate of innovations and, thus, a larger rate of creative destruction (Morales 2003). This in turn can destroy culture and diversity to fulfil creative wishes (Cowen 2009) on local level directly.

The high loan debt among municipalities (due to an aggressive investment purposes) impede successful transition to sustainable development. Such economic imbalances may create crisis effect in individual local authorities (Dafflon 2002). The loan debt secure access to a major service provision but may curtail further exploitation benefits (part of the infrastructure and products may become idle in the long run).

The excessive overconsumption of financial resources across municipal sectors is another concern. The greater engagement towards green economy and sustainable cities may drive community initiatives away from real societal needs. Additionally, the control over financial disburse should be established to manage good practices of local authorities toward sustainability. Furthermore, the people voice must not only be heard but also executed in practice to ensure sustainable development for all.

After all, the greater environmental concern is about key GHG emissions emitted by important sectors of economy (oil/gas, aviation, shipping, agriculture). To decarbonize the economy is necessary step toward value creation in society and transition to sustainability. The

life on land and below water cannot happen in isolation from sustainable local system. For that reason, one of the community initiatives must be directed toward serious and widespread problem – GHG emissions curtailment.

Furthermore, the food waste is another challenge toward sustainability. An increasing level of consumption and production allows not only economies to run but open opportunity to include unprivileged people in sustainable development. More and more people suffer from the hunger and require good food. Additionally, such high-volume production often creates unintended consequences in the form of unsustainable waste. Here, the patterns and attitudes of all must be realized to ensure new paradigm and positive environmental impact.

Lastly, the smaller size municipalities should not be left behind toward overall inclusive sustainable development. By pursuing profit opportunities people very often forget about basic infrastructure needs (for example power supply to adjacent areas). In fact, the environmental initiatives may be poorly understood by all parties involved. The major efforts toward legitimate sustainability should not be diminished to land property only but should account for social concerns on local level.

The examples above shows that the financial side alone cannot resolve all societal and environmental problems, and it is not a prerequisite for sustainable future. The other value system should be involved when looking ahead. For that reason, the culture plays a fundamental role for inclusive and healthy society, virtue that integrate people, planet, and profit.

11.0 Conclusion

The global economy is not sustainable, thus the communities become responsible for peace, stability, and justice in our contemporary time. The sustainability is continually posing challenges when it is researched juxtaposition with local level governance (Ullah, Khan, and Kuang 2021). Multiple effort has been launched to pin down the norms, values or other cultural attributes of countries in order to investigate the effect these have on political objectives, specific policies or the outputs of these (Stephenson et al. 2021). These practice is challenging to define, notably with respect to beliefs, morals, and practices of individuals and assemblage or, more shortly put, culture, which, despite attracting increasing interest, continue undervalued in sustainability (Zheng et al. 2021).

Managing sustainability does not allow to accommodate both social control and competition across Rogaland municipalities. In this respect, I have explored the prevalence of public value practices in energy transition processes. The data have proved that value creation is not just about financial reward for local authorities but also cultural practices along the sustainable journey.

This thesis makes important contributions to the literature and shows how culture can initiate a revolutionary shift and make transition to a more sustainable society. The culture is important element in all underlying sustainable systems and can evolve as a new paradigm. It can change the current situation and yield the pressures on regimes, since the practices on local level are not sustainable enough to accept a major energy transformation. Something else (e.g. value systems) should be prevalent in municipal operation to allow a “window of opportunity” as addressed by Normann (2015).

The data have shown that financial performance across Rogaland’s 23 municipalities positively or low correlate to the sustainability performance. However, the financial side of the municipalities cannot resolve all difficulties arisen on local level directly. It should be coupled with all three sustainability dimensions (social, economic, and environmental) to ensure healthy development across communities. Additionally, this study incorporated under-researched informal institutional element (culture) that play an important role in the implementation of sustainability initiatives (Horak, Arya, and Ismail 2018).

Furthermore, the various technologies, such as financial indicators and sustainability elements allowed to research sustainability paradigm in depth. Drawing on MLP, I was able to trace the financial (budgetary) performance across Rogaland’s 23 municipalities. The findings indicate that the greater reliance on budget rather than the culture does not allow to yield a full potential of local government. These two aspects in tandem tend to increase chances of sustainability being implemented on local level directly. In this respect, by abductive reasoning, the case study for Lund and Gjesdal have shown that the culture plays a fundamental role toward sustainable development for Rogaland region. The cultural aspect in addition to financial indicators has explained the variation in performance for Lund and Gjesdal municipalities. The findings suggest that Lund and Gjesdal conceptualize transition to sustainability differently. It is all about the role of culture, SDGs framework, financial sustainability, social stakeholders, and actions of individual to act in accordance with the law standard.

For Rogaland municipalities it is important to initiate agenda setting by incorporating new advantageous strategy (culture) into respective management documents. However, the

incorporation does not mean further implementation. This confirms the example of SDGs initiatives on local level directly. Drawing on public choice theory, the findings prove that Rogaland municipalities encounter challenges with the implementation of the national sustainable policy. The policy formulation should be consistent with initiated steps toward it is strategic fit. For that reason, to reach the long-term goals (SDGs) should be accompanied with short-term objectives (financial productivity). With respect to the culture structure, the objectives and means are imbalanced (Oberwittler and Karstedt 2004).

Next, the social and ecological aspects of the SDGs are not acknowledged on municipal level. Culture impacts the way people appreciate potential benefits and evaluate specific risks, as well as the way they respond to the same certain risk (Dooley 2017). For example, general inattention in ecological concerns may be followed by keen interest for the ecological impact of, say, wind power (*ibid.*). The same is about disregard of social aspect that may be accompanied by deep strive to a budget yield.

Additionally, the collective actions do not necessarily coincide with the understanding of the problem by social actors. To conquer all and everything from sustainable paradigm allow to yield high indebtedness for Rogaland municipalities but do not allow to capture clear path development for local authorities. Very often the actions of one bring the course change, thus require adjusting along the way for successful and viable functioning of municipal economies. After all, the role of man and women as the head of municipal administration may impact decision-making on local level and thereby explain the sustainability performance across municipalities. To clarify, the women are usually family oriented, sensitive to external environment, while man is more goal and result oriented.

Drawing on institutional theory, the study indicates that cultural aspect can explain the chances of sustainability transition being implemented. Cultures superior in performance orientation tend to award performance, rivalrous, and materialism, admit that individuals are in control, and have a sense of urgency (Miska et al. 2018). In societies with high performance orientation, public is expected to believe that they can influence the outside world and abuse the environment and are less to safeguard sustainability (Parboteeah, Addae, and Cullen 2012). The case for Rogaland county confirms that competition across municipalities continues to prevail on local level. This material attributes comprise degree of evolution including energy infrastructure, and nation's economic and dependence on fossil fuels (Stephenson et al. 2021).

It is about social structure (inequality of opportunity) and elements of culture (universal success goals) that disrupt the continuity of the real culture and generate anomie (Oberwittler and Karstedt 2004). The Rogaland municipalities have grown in complexity and in level of

assigned responsibility. Even though the moral responsibility of local authorities could become impetus toward successful energy transition in near future, there are still materialistic values that continue to create standardized solutions across various communities, thus limit a greater diversity and social development in the Norwegian society.

This thesis has its own limitation. These relate to the cultural aspect on local level. I have not incorporated survey method among respondents in Lund and Gjesdal municipalities due to a lack of time. The new empirical data would enhance the findings of the study. I have relied on academic literature analysis and municipal data from reports. Therefore, the future research is needed to explore whether the culture, values, and norms can induce sustainable activities in local practices. Furthermore, power as a cultural phenomenon, as well as power differentials, and social disparity are replicated by means of culture, symbols, ideologies, and imaginaries are in a way underdetermined (Blokker, Vieten, and Eranti 2021). For that reason, it would be relevant for future research to examine not only power and cultural dynamics on subnational level directly, but also to explore financial constructs that may impact culture as regime level as addressed in Figure 28.

The findings of this study provide municipalities with the useful information regarding sustainability performance. Rogaland municipalities should not stop toward enhancing their financial reserves and level of provided innovation. However, the financial capacity and reputation of a local authorities can be greatly improved by investing deeply into social (culture) and environmental capital. While many cultures may be long lasting and rather coherent, it is their capacity to adjust as a robust mechanism to changing circumstances, mainly in the era of climatic change (Stephenson et al. 2021).

In conclusion I want to say that this study has important implication on policy design. Specifically, people in community may start sooner or later realize an importance of both cultural features and made choices. These sustainable practices hereafter can reorient the development in the Norwegian society since sustainability is invariably about ideological change. The “black swan” event (e.g. coronavirus pandemic) have shown that unexpected situations could impact local budget performance, therefore policy focused on possession is not always a winner. For that reason, with respect to policy decision-makers, policy calls for greater attention to cultural indicators on local level directly.

Reference list

- Aaberge, Rolf, Lasse Eika, Audun Langørgen, and Magne Mogstad. 2019. "Local Governments, in-Kind Transfers, and Economic Inequality." *Journal of Public Economics* 180:103966. doi: 10.1016/j.jpubeco.2018.09.015.
- Abualtaher, Mohd, and Eirin Skjøndal Bar. 2020. "Review of Applying Material Flow Analysis-Based Studies for a Sustainable Norwegian Salmon Aquaculture Industry." *Journal of Applied Aquaculture* 32(1):1–15. doi: 10.1080/10454438.2019.1670769.
- Adekson, Mary. 2004. *The Yoruba Traditional Healers of Nigeria*. Routledge.
- Aggarwal, Priyanka. 2013. *Impact of Sustainability Performance of Company on Its Financial Performance: A Study of Listed Indian Companies*. SSRN Scholarly Paper. ID 3131923. Rochester, NY: Social Science Research Network.
- Ainia P. A Kusuma, and Deddy P. Koesrindartoto. 2014. "Sustainability Practices and Financial Performance : An Empirical Evidence from Indonesia." in *International Conference on Trends in Economics, Humanities and Management (ICTEHM'14) Aug 13-14, 2014 Pattaya (Thailand)*. International Centre of Economics, Humanities and Management.
- Alan Durning. 1993. "How Much Is Enough?"
- Alasuutari, Pertti, Leonard Bickman, and Julia Brannen. 2008. *The SAGE Handbook of Social Research Methods*. SAGE.
- Alcaraz-Quiles, Francisco J., Andrés Navarro-Galera, and David Ortiz-Rodríguez. 2020. "The Contribution of the Right to Information Laws in Europe to Local Government Transparency on Sustainability." *International Environmental Agreements: Politics, Law and Economics* 20(1):161–78. doi: 10.1007/s10784-019-09461-8.
- Aleksandrova- Zlatanska, Svetlana. 2019. "EVALUATING THE FACTORS FOR FISCAL STABILITY OF RURAL MUNICIPALITIES: THE CASE OF BULGARIA." *Problems of Agricultural Economics* 360(3):156–70. doi: 10.30858/zer/112131.
- Ali, Muhammad Azam, Iqra Rehman, Adnan Iqbal, Tahir Rehman Samiullah, Saira Azam, and Tayyab Husnain. 2014. "Nanotechnology: A New Frontier in Agriculture." 10.
- Alm, James. 2015. "Financing Urban Infrastructure: Knowns, Unknowns, and a Way Forward." *Journal of Economic Surveys* 29(2):230–62. doi: <https://doi.org/10.1111/joes.12045>.
- Amicarelli, Vera, and Christian Bux. 2021. "Food Waste in Italian Households during the Covid-19 Pandemic: A Self-Reporting Approach." *Food Security* 13(1):25–37. doi: 10.1007/s12571-020-01121-z.
- Amirkhanyan, Anna A., Hyun Joon Kim, and Kristina T. Lambright. 2010. "Do Relationships Matter?" *Public Performance & Management Review* 34(2):189–220. doi: 10.2753/PMR1530-9576340203.

- Amit, R. K., and Subash Sasidharan. 2019. "Measuring Affordability of Access to Clean Water: A Coping Cost Approach." *Resources, Conservation and Recycling* 141:410–17. doi: 10.1016/j.resconrec.2018.11.003.
- Anderson, Katherine, Barbara Ryan, William Sonntag, Argyro Kavvada, and Lawrence Friedl. 2017. "Earth Observation in Service of the 2030 Agenda for Sustainable Development." *Geo-Spatial Information Science* 20(2):77–96. doi: 10.1080/10095020.2017.1333230.
- Andrews, Rhys, Laurence Ferry, Chris Skelcher, and Piotr Wegorowski. 2020. "Corporatization in the Public Sector: Explaining the Growth of Local Government Companies." *Public Administration Review* 80(3):482–93. doi: <https://doi.org/10.1111/puar.13052>.
- Anna Bieniasz, Anna Bieniasz, and Zbigniew Gołaś Zbigniew Gołaś. 2011. "The Influence of Working Capital Management on the Food Industry Enterprises Profitability." *Contemporary Economics* 5(4):68. doi: 10.5709/ce.1897-9254.29.
- Aoki, Masahiko, MASAHIKO AUTOR OAKI, Avner Greif, Henri and Tomoye Takahashi Professor Economics Department Masahiko Aoki, Paul Milgrom, and Bowman Family Professor in the Humanities and Sciences Avner Greif PhD. 2001. *Toward a Comparative Institutional Analysis*. MIT Press.
- Armitage, Derek. 2007. "Governance and the Commons in a Multi-Level World." *International Journal of the Commons* 2(1):7–32. doi: 10.18352/ijc.28.
- Astuti, Mardiah, Mahyudin Ritonga, Rita Irviani, Hamid Mukhlis, and Rahul Chauhan. 2020. "Developing Regional Autonomy: Lesson Learned from Norway." *Clinical Medicine* 07(02):16.
- Atieno, Lucy, and Joseph Muiruri Njoroge. 2021. "Factors Effecting Valued-Resource Distribution." Pp. 1–11 in *Reduced Inequalities, Encyclopedia of the UN Sustainable Development Goals*, edited by W. Leal Filho, A. M. Azul, L. Brandli, A. Lange Salvia, P. G. Özuyar, and T. Wall. Cham: Springer International Publishing.
- Atkinson, Joel, and Luisa Cools. 2017. "Sustainability of Capture Fisheries and SDG 14: Life Below Water." *Asian International Studies Review* 18(1):23–50. doi: 10.1163/2667078X-01801002.
- Ayestaran, Ignacio. 2011. *Sustainable Development: Relationships to Culture, Knowledge and Ethics*. KIT Scientific Publishing.
- Bailey, Ian, and Federico Caprotti. 2014. "The Green Economy: Functional Domains and Theoretical Directions of Enquiry." *Environment and Planning A: Economy and Space* 46(8):1797–1813. doi: 10.1068/a130102p.
- Baliki, Ghassan, Tilman Brück, Neil Ferguson, and Sindu Kebede. 2017. *Micro-Foundations of Fragility: Concepts, Measurement and Application*. SSRN Scholarly Paper. ID 3088932. Rochester, NY: Social Science Research Network.

- Ball, Amanda, and Russell Craig. 2010. "Using Neo-Institutionalism to Advance Social and Environmental Accounting." *Critical Perspectives on Accounting* 21(4):283–93. doi: 10.1016/j.cpa.2009.11.006.
- Bang, Guri, Arild Underdal, and teinar Andresen. 2015. *The Domestic Politics of Global Climate Change: Key Actors in International Climate Cooperation*. Edward Elgar Publishing.
- Barney, Jay. 1991. "Firm Resources and Sustained Competitive Advantage." *Journal of Management* 17(1):99–120. doi: 10.1177/014920639101700108.
- Bartakhanova, Mariia. 2020. "Municipal Climate and Energy Planning in the County of Rogaland, Norway."
- Bartley, Tim, Krister Andersson, Pamela Jagger, and Frank Van Laerhoven. 2008. "The Contribution of Institutional Theories to Explaining Decentralization of Natural Resource Governance." *Society & Natural Resources* 21(2):160–74. doi: 10.1080/08941920701617973.
- Bass, Stephen, Barry Dalal-Clayton, and Jules Pretty. 1985. "PARTICIPATION IN STRATEGIES FOR SUSTAINABLE DEVELOPMENT." 118.
- Bauer, Bjørn, David Watson, and Anja Charlotte Gylling. 2018. *Sustainable Consumption and Production: An Analysis of Nordic Progress towards SDG12, and the Way Ahead*. Nordic Council of Ministers.
- Baynes, Timothy M., and Daniel B. Müller. 2016. "A Socio-Economic Metabolism Approach to Sustainable Development and Climate Change Mitigation." Pp. 117–35 in *Taking Stock of Industrial Ecology*, edited by R. Clift and A. Druckman. Cham: Springer International Publishing.
- Becker, Gary S. 1996. "Accounting for Tastes." 262.
- Beekun, Rafik I., Ramda Hamdy, James W. Westerman, and Hassan R. HassabElnaby. 2008. "An Exploration of Ethical Decision-Making Processes in the United States and Egypt." *Journal of Business Ethics* 82(3):587–605. doi: 10.1007/s10551-007-9578-y.
- Bendz, Anna, and Åsa Boholm. 2020. "Indispensable, yet Invisible: Drinking Water Management as a Local Political Issue in Swedish Municipalities." *Local Government Studies* 46(5):800–819. doi: 10.1080/03003930.2019.1682557.
- Berth Danermark, Mats Ekstrom, Liselotte Jakobsen, and Jan Ch. Karlsson. 2001. *Explaining Society: An Introduction to Critical Realism in the Social Sciences*. Taylor and Francis.
- Bjerkreim kommune. 2014. "Kommuneplan 2014-2026. Samfunnsdel Med Handlingsprogram." Retrieved March 13, 2021 (https://www.bjerkreim.kommune.no/_f/p1/i8c616084-c2b0-456a-968a-b322e230cd89/samfunnsdel-til-kommuneplan-2014-2026-med-handlingsdel-versj-17feb15.pdf).

- Bjerkreim kommune. 2019. "Årsrapport for Bjerkreim Kommune - 2019." Retrieved March 13, 2021 (<https://innsyn.onacos.no/bjerkreim/wfdocument.ashx?journalpostid=2020005362&dokid=219377&versjon=1&variant=P&>).
- Bjerkreim kommune. 2020a. "Forslag Til Økonomiplan 2021 - 2024 Budsjett 2021." Retrieved March 13, 2021 (https://www.bjerkreim.kommune.no/_f/p1/i17a2e833-38b8-494e-98e7-b7c769dd9c33/okonomiplan-2021-hoveddokument.pdf).
- Bjerkreim kommune. 2020b. "Planprogram for Kommuneplanens Arealdel Og Kommuneplanens Samfunnsdel – Bjerkreim Kommune." Retrieved March 14, 2021 (<https://innsyn.onacos.no/bjerkreim/wfdocument.ashx?journalpostid=2020013210&dokid=227190&versjon=1&variant=P&>).
- Bjerkreim kommune. 2020c. "Planstrategi for Bjerkreim kommune 2020 - 2023."
- Bjørnå, Hilde, and Jarle Weigård. 2020. "From Public to Private Accountability in Norwegian Local Government." *SAGE Open* 10(3):215824402095704. doi: 10.1177/2158244020957042.
- Blaikie, Norman. 2007. *Approaches to Social Enquiry: Advancing Knowledge*. Polity.
- Blaikie, Norman. 2009. *Designing Social Research: The Logic of Anticipation*. Polity.
- Blaikie, Norman, and Jan Priest. 2019. *Designing Social Research: The Logic of Anticipation*. John Wiley & Sons.
- Blandford, David, Ivar Gaasland, and Erling Vårdal. 2014. "The Trade-off between Food Production and Greenhouse Gas Mitigation in Norwegian Agriculture." *Agriculture, Ecosystems & Environment* 184:59–66. doi: 10.1016/j.agee.2013.11.025.
- Blankenberg, Anne-Grete Buseth, and Eva Skarbøvik. 2020. "Phosphorus Retention, Erosion Protection and Farmers' Perceptions of Riparian Buffer Zones with Grass and Natural Vegetation: Case Studies from South-Eastern Norway." *Ambio* 49(11):1838–49. doi: 10.1007/s13280-020-01361-5.
- Bleyen, Pieter, Daniel Klimovský, Geert Bouckaert, and Christoph Reichard. 2017. "Linking Budgeting to Results? Evidence about Performance Budgets in European Municipalities Based on a Comparative Analytical Model." *Public Management Review* 19(7):932–53. doi: 10.1080/14719037.2016.1243837.
- Blokker, Paul, Ulrike M. Vieten, and Veikko Eranti. 2021. "Power as a Cultural Phenomenon." *European Journal of Cultural and Political Sociology* 8(1):1–6. doi: 10.1080/23254823.2021.1876441.
- Bocken, N. M. P., S. W. Short, P. Rana, and S. Evans. 2014. "A Literature and Practice Review to Develop Sustainable Business Model Archetypes." *Journal of Cleaner Production* 65:42–56. doi: 10.1016/j.jclepro.2013.11.039.
- Bodenstein, Thilo, Jörg Faust, and Mark Furness. 2017. "European Union Development Policy: Collective Action in Times of Global Transformation and Domestic Crisis." *Development Policy Review* 35(4):441–53. doi: <https://doi.org/10.1111/dpr.12189>.

- Bogetic, Zeljko, Harun Onder, Anil Onal, Emilia Anna Skrok, Anita Schwarz, and Hernan Winkler. 2015. *Fiscal Policy Issues in the Aging Societies*. SSRN Scholarly Paper. ID 2587780. Rochester, NY: Social Science Research Network.
- Bokn kommune. 2019a. "Årsmelding 2019 Bokn Kommune." Retrieved March 10, 2021 (https://www.bokn.kommune.no/_f/p1/i889a3c85-9bc7-4e5a-ad13-b6dffce867a1/arsmelding-2019-bokn-kommune-pr14052020-til-nettsida.pdf).
- Bokn kommune. 2019b. "Kommuneplan Bokn kommune 2019-2031- Samfunnsdelen."
- Bokn kommune. 2020. "BUDSJETT 2021 ØKONOMIPLAN 2021 - 2024." Retrieved March 10, 2021 (https://www.bokn.kommune.no/_f/p1/i88e108f0-e47b-4c22-8094-3626ecb2c6b7/budsjett-og-okonomiplan-2021.pdf).
- Booth, David. 2012. *Development as a Collective Action Problem: Addressing the Real Challenges of African Governance*. London: Overseas Development Institute.
- Borge, Lars-Erik. 2010. "Local Government in Norway." *Local Public Sector in Transition: A Nordic Perspective*.
- Borge, Lars-Erik, and Arnt Ove Hopland. 2012. "Maintenance and Building Conditions in Norwegian Local Governments: Economic and Political Determinants." 29.
- Bormane, Santa, Daina Šķiltere, and Anda Batraga. 2021. "Sustainability: Economic, Environmental and Public Issues. Marketing Possibilities." *Regional Formation and Development Studies* 21–35. doi: 10.15181/rfds.v23i3.1582.
- Bowen, Glenn. 2005. "PREPARING A QUALITATIVE RESEARCH-BASED DISSERTATION: LESSONS LEARNED." 16.
- Brand, Dirk. 2016. *Local Government Finance: A Comparative Study*. AFRICAN SUN MEDIA.
- Bratt, Cecilia, Sophie Hallstedt, K. H. Robèrt, Göran Broman, and Jonas Oldmark. 2013. "Assessment of Criteria Development for Public Procurement from a Strategic Sustainability Perspective." *Journal of Cleaner Production* 52:309–16. doi: 10.1016/j.jclepro.2013.02.007.
- Brattbakk, Ingar, and Bengt Andersen. 2017. *Oppvekststedets Betydning for Barn Og Unge. Nabolaget Som Ressurs Og Utdanning*.
- Breiby, Monica Adele, Eva Duedahl, Hogne Øian, and Birgitta Ericsson. 2020. "Exploring Sustainable Experiences in Tourism." *Scandinavian Journal of Hospitality and Tourism* 20(4):335–51. doi: 10.1080/15022250.2020.1748706.
- Breuer, Anita, Julia Leininger, and Jale Tosun. 2019. "Integrated Policymaking: Choosing an Institutional Design for Implementing the Sustainable Development Goals (SDGs)." *Discussion Paper*. doi: 10.23661/DP14.2019.
- Bröthaler, Johann, Michael Getzner, and Gottfried Haber. 2015. "Sustainability of Local Government Debt: A Case Study of Austrian Municipalities." *Empirica* 42(3):521–46. doi: 10.1007/s10663-014-9261-3.

- Brown, Halina Szejnwald, and Philip J. Vergragt. 2016. "From Consumerism to Wellbeing: Toward a Cultural Transition?" *Journal of Cleaner Production* 132:308–17. doi: 10.1016/j.jclepro.2015.04.107.
- Bryant, Antony, and Kathy Charmaz. 2019. *The SAGE Handbook of Current Developments in Grounded Theory*. SAGE.
- Bryman, Alan. 2006. "Integrating Quantitative and Qualitative Research: How Is It Done?" *Qualitative Research* 6(1):97–113. doi: 10.1177/1468794106058877.
- Buendía-Carrillo, Dionisio, Juan Lara-Rubio, Andrés Navarro-Galera, and María Elena Gómez-Miranda. 2020. "The Impact of Population Size on the Risk of Local Government Default." *International Tax and Public Finance* 27(5):1264–86. doi: 10.1007/s10797-020-09591-9.
- Bunting, Mette, and Geir Moshuus. 2017. "Young Peoples' Own Stories about Dropping out in Norway: An Indirect Qualitative Approach." *Acta Didactica Norge* 11(2):3-sider. doi: 10.5617/adno.3182.
- Burhan, Annisa Hayatun N., and Wiwin Rahmanti. 2012. "THE IMPACT OF SUSTAINABILITY REPORTING ON COMPANY PERFORMANCE." *Journal of Economics, Business, & Accountancy Ventura* 15(2):257–72. doi: 10.14414/jebav.v15i2.79.
- Busu, Cristian, and Mihail Busu. 2021. "Research on the Factors of Competition in the Green Procurement Processes: A Case Study for the Conditions of Romania Using PLS-SEM Methodology." *Mathematics* 9(1):16. doi: 10.3390/math9010016.
- Butler, Eamonn. 2012. *Public Choice - A Primer. SSRN Scholarly Paper*. ID 2028989. Rochester, NY: Social Science Research Network.
- Cabasés, Fermín, Pedro Pascual, and Jaime Vallés. 2007. "The Effectiveness of Institutional Borrowing Restrictions: Empirical Evidence from Spanish Municipalities." *Public Choice* 131(3–4):293–313. doi: 10.1007/s11127-006-9116-y.
- Caldas, Paulo, Brian Dollery, and Rui Cunha Marques. 2020. "Measuring What Matters in Local Government: A Municipality Sustainability Index." *Policy Studies* 0(0):1–21. doi: 10.1080/01442872.2020.1726311.
- Cao, Guangming. 2007. "The Pattern-Matching Role of Systems Thinking in Improving Research Trustworthiness." *Systemic Practice and Action Research* 20(6):441–53. doi: 10.1007/s11213-007-9069-1.
- Cargan, Leonard. 2007. *Doing Social Research*. Rowman & Littlefield.
- Caselli, Francesco, Thomas Cunningham, Massimo Morelli, and Inés Moreno de Barreda. 2012. *Signalling, Incumbency Advantage, and Optimal Reelection Thresholds*. w17833. Cambridge, MA: National Bureau of Economic Research.
- Castán Broto, Vanesa, and Emma Dewberry. 2016. "Economic Crisis and Social Learning for the Provision of Public Services in Two Spanish Municipalities." *Journal of Cleaner Production* 112:3018–27. doi: 10.1016/j.jclepro.2015.09.136.

- Catalão, Francisco Pinheiro, Carlos Oliveira Cruz, and Joaquim Miranda Sarmiento. 2020. "Public Management and Cost Overruns in Public Projects." *International Public Management Journal* 0(0):1–27. doi: 10.1080/10967494.2020.1804498.
- Çera, Gentjan, Khurram Ajaz Khan, Jaroslav Belas, and Humberto Nuno Rito Ribeiro. 2020. "The Role of Financial Capability and Culture in Financial Satisfaction." *Economic Papers: A Journal of Applied Economics and Policy* 39(4):389–406. doi: <https://doi.org/10.1111/1759-3441.12299>.
- Chardine-Baumann, Emilie, and Valérie Botta-Genoulaz. 2014. "A Framework for Sustainable Performance Assessment of Supply Chain Management Practices." *Computers & Industrial Engineering* 76:138–47. doi: 10.1016/j.cie.2014.07.029.
- Chaturvedi, Sachin, Heiner Janus, Stephan Klingebiel, Xiaoyun Li, André de Mello e Souza, Elizabeth Sidiropoulos, and Dorothea Wehrmann. 2021. *The Palgrave Handbook of Development Cooperation for Achieving the 2030 Agenda: Contested Collaboration*. Springer Nature.
- Chen, Maozhi, Avik Sinha, Kexiang Hu, and Muhammad Ibrahim Shah. 2021. "Impact of Technological Innovation on Energy Efficiency in Industry 4.0 Era: Moderation of Shadow Economy in Sustainable Development." *Technological Forecasting and Social Change* 164:120521. doi: 10.1016/j.techfore.2020.120521.
- Chirkov, Valery. 2015. *Fundamentals of Research on Culture and Psychology: Theory and Methods*. Routledge.
- Christensen, Tom, Per Lægveid, and Kjell Arne Røvik. 2007. *Organization Theory and the Public Sector: Instrument, Culture and Myth*. Routledge.
- Clissett, Philip. 2008. "Evaluating Qualitative Research." *Journal of Orthopaedic Nursing* 12(2):99–105. doi: 10.1016/j.joon.2008.07.009.
- Cochrane, Phoebe. 2006. "Exploring Cultural Capital and Its Importance in Sustainable Development." *Ecological Economics* 57(2):318–30. doi: 10.1016/j.ecolecon.2005.04.012.
- Cody Fithian, Ashleigh Powell. 2009. *Cultural Aspects of Sustainable Development*.
- Coenen, Frans, M. Menkvel, Marcel Kok, M. Vermeulen, A. P. C. Faaij, and David Jager. 2002. "The Role of Local Authorities in a Transition towards a Climate-Neutral Society." *Journal of Coastal Research - J COASTAL RES* 107–25.
- Cohen, Sandra. 2008. "Identifying the Moderator Factors of Financial Performance in Greek Municipalities." *Financial Accountability & Management* 24(3):265–94. doi: <https://doi.org/10.1111/j.1468-0408.2008.00453.x>.
- Commission, United States Interstate Commerce. 1976. *Interstate Commerce Commission Reports: Reports and Decisions of the Interstate Commerce Commission of the United States*. L.K. Strouse.
- Conca, Ken, and Geoffrey D. Dabelko. 2018. *Green Planet Blues: Critical Perspectives on Global Environmental Politics*. Routledge.

- Council of Europe, United Nations Development Programme, and Local Government Initiative. 2010. "INTER-MUNICIPAL CO-OPERATION." 105.
- Cousin, Glynis. 2005. "Case Study Research." *Journal of Geography in Higher Education* 29(3):421–27. doi: 10.1080/03098260500290967.
- Cowen, Tyler. 2009. *Creative Destruction: How Globalization Is Changing the World's Cultures*. Princeton University Press.
- Crew, Michael A. 2012. *Regulation Under Increasing Competition*. Springer Science & Business Media.
- Crowe, Sarah, Kathrin Cresswell, Ann Robertson, Guro Huby, Anthony Avery, and Aziz Sheikh. 2011. "The Case Study Approach." *BMC Medical Research Methodology* 11(1):100. doi: 10.1186/1471-2288-11-100.
- Crundwell, Frank. 2008. *Finance for Engineers: Evaluation and Funding of Capital Projects*. Springer Science & Business Media.
- da Cruz, Nuno Ferreira, and Rui Cunha Marques. 2014. "Revisiting the Determinants of Local Government Performance." *Omega* 44:91–103. doi: 10.1016/j.omega.2013.09.002.
- Cuadrado-Ballesteros, Beatriz, Noemí Mordán, and Isabel-María García-Sánchez. 2014. "Is Local Financial Health Associated with Citizens' Quality of Life?" *Social Indicators Research* 119(2):559–80. doi: 10.1007/s11205-013-0533-2.
- Ćujić, Mirjana, Ljiljana Janković Mandić, Jelena Petrović, Ranko Dragović, Milan Đorđević, Mrđan Đokić, and Snežana Dragović. 2021. "Radon-222: Environmental Behavior and Impact to (Human and Non-Human) Biota." *International Journal of Biometeorology* 65(1):69–83. doi: 10.1007/s00484-020-01860-w.
- Curtis, Bruce, and Cate Curtis. 2011. *Social Research: A Practical Introduction*. SAGE.
- Dafflon, Bernard. 2002. *Local Public Finance in Europe: Balancing the Budget and Controlling Debt*. Edward Elgar Publishing.
- Dafflon, Bernard, and Krisztina Beer-Tóth. 2009. "Managing Local Public Debt in Transition Countries: An Issue of Self-Control." *Financial Accountability & Management* 25(3):305–33. doi: <https://doi.org/10.1111/j.1468-0408.2009.00479.x>.
- Daniel Rauhut, Rasmus Rasmussen, Johanna Roto, Per Francke, and Sara Östberg. 2008. "The Demographic Challenge to the Nordic Countries." Retrieved March 29, 2021 (<https://www.diva-portal.org/smash/get/diva2:700391/FULLTEXT01.pdf>).
- Dankevych, Vitalii Ye, Tetiana O. Kamenchuk, Oleksandra Ye Kononova, Iryna I. Nadochii, and Hanna M. Ohor. 2020. *Strategic Planning for Sustainable Development of States: Administration Aspect. SSRN Scholarly Paper*. ID 3601609. Rochester, NY: Social Science Research Network.

- Dannevig, Halvor, Grete K. Hovelsrud, and Idun A. Husabø. 2013. "Driving the Agenda for Climate Change Adaptation in Norwegian Municipalities." *Environment and Planning C: Government and Policy* 31(3):490–505. doi: 10.1068/c1152.
- Dean Jolliffe, and Espen Beer Prydz. 2017. "Societal Poverty A Relative and Relevant Measure." Retrieved March 30, 2021 (<https://openknowledge.worldbank.org/bitstream/handle/10986/26845/WPS8073.pdf?sequence=1>).
- DePoy, Elizabeth, and Laura N. Gitlin. 2019. *Introduction to Research E-Book: Understanding and Applying Multiple Strategies*. Elsevier Health Sciences.
- Destek, Mehmet Akif, and Muge Manga. 2021. "Technological Innovation, Financialization, and Ecological Footprint: Evidence from BEM Economies." *Environmental Science and Pollution Research* 28(17):21991–1. doi: 10.1007/s11356-020-11845-2.
- Dhahri, Sabrine, and Anis Omri. 2020. "Foreign Capital towards SDGs 1 & 2—Ending Poverty and Hunger: The Role of Agricultural Production." *Structural Change and Economic Dynamics* 53:208–21. doi: 10.1016/j.strueco.2020.02.004.
- Diaz-Sarachaga, Jose Manuel, Daniel Jato-Espino, and Daniel Castro-Fresno. 2018. "Is the Sustainable Development Goals (SDG) Index an Adequate Framework to Measure the Progress of the 2030 Agenda?" *Sustainable Development* 26(6):663–71. doi: <https://doi.org/10.1002/sd.1735>.
- Dietzenbacher, Erik, Viktoras Kulionis, and Filippo Capurro. 2020. "Measuring the Effects of Energy Transition: A Structural Decomposition Analysis of the Change in Renewable Energy Use between 2000 and 2014." *Applied Energy* 258:114040. doi: 10.1016/j.apenergy.2019.114040.
- Diófási, Orsolya, and László Valkó. 2014. "Step by Step Towards Mandatory Green Public Procurement." *Periodica Polytechnica Social and Management Sciences* 22(1):21–27. doi: 10.3311/PPso.2151.
- DNV GL. 2019. *Sustainable Blue Economy in the Norwegian Arctic*.
- Dollar, David, Tatjana Kleineberg, and Aart Kraay. 2016. "Growth Still Is Good for the Poor." *European Economic Review* 81:68–85. doi: 10.1016/j.euroecorev.2015.05.008.
- Dooley, Brendan. 2017. *Energy and Culture: Perspectives on the Power to Work*. Routledge.
- Dooley, Larry M. 2002. "Case Study Research and Theory Building." *Advances in Developing Human Resources* 20.
- Dr.Ankit Jain. 2020. "A STUDY ON CUSTOMER AWARENESS REGARDING VARIOUS DIGITAL BANKING INITIATIVES TAKEN BY BANKS."
- Drew, Joseph, Brian Dollery, and Michael A. Kortt. 2016. "Peas in a Pod: Are Efficient Municipalities Also Financially Sustainable?" *Australian Accounting Review* 26(2):122–31. doi: <https://doi.org/10.1111/auar.12098>.

- Durkheim, Emile. 2013. *Emile Durkheim on Institutional Analysis*. University of Chicago Press.
- Dwivedi, D. N. 2005. *Macroeconomics: Theory and Policy*. Tata McGraw-Hill Education.
- Dziekański, P. (П Дзеканський). 2016. “Efficiency of the municipality’s action in the context of the synthetic assessment of the financial condition on the example of the Kamienna basin municipalities.” *Наукові записки Національного університету «Острозька академія». Серія «Економіка»* (1(29)):87–94.
- Easterby-Smith, Mark, Richard Thorpe, Paul R. Jackson, and Lena J. Jaspersen. 2018. *Management and Business Research*. SAGE.
- Ebel, Robert, and Serdar Yilmaz. 2002. “On The Measurement And Impact Of Fiscal Decentralization.” doi: 10.1596/1813-9450-2809.
- Edwards-Jones, Gareth, Ben Davies, and Salman S. Hussain. 2009. *Ecological Economics: An Introduction*. John Wiley & Sons.
- Eichengreen, Barry J. 2011. *Public Debts : Nuts, Bolts and Worries*. Vol. 13. Geneva: International Center for Monetary and Banking Studies.
- Eigersund kommune. 2018. Eigersund på vei mot 2030. Kommuneplanens samfunnsdel 2018-2030. Retrieved from (<https://www.eigersund.kommune.no/kommuneplanens-samfunns-og-arealdel-2018-2030.6188912-163163.html>).
- Eigersund kommune. 2019. “Årsberetning for 2019.” Retrieved March 1, 2021 (<https://innsyn.onacos.no/eigersund/mote/wfdocument.ashx?journalpostid=2020012754&dokid=749202&versjon=1&variant=A&>).
- Eigersund kommune. 2020. Budsjett 2021 Økonomiplan 2021-2024. Retrieved from (<https://www.eigersund.kommune.no/offentliggjoring-av-innstilling-til-budsjett-2021-og-oekonomiplan-2021-2024.6349585-159080.html>).
- Eigersund kommune. 2020. Eigersund kommune Kommunal planstrategi 2020-2023 «Sammen for alle». Retrieved from (<https://www.eigersund.kommune.no/vedtatt-planstrategi-2020-2023.6339802-163163.html>).
- Eikeland, Arnt Ove. 2019. “Child Poverty and Persistent Low Income in Norway – with Special Attention on the Sámi Indigenous Minority.” Pp. 143–64 in *Recognition, Reconciliation and Restoration: Applying a Decolonized Understanding in Social Work and Healing Processes*, edited by J. E. Henriksen, I. Hydle, and B. Kramvig. Orkana Forlag.
- Elstad, Jon Ivar, and Axel West Pedersen. 2012. “The Impact of Relative Poverty on Norwegian Adolescents’ Subjective Health: A Causal Analysis with Propensity Score Matching.” *International Journal of Environmental Research and Public Health* 9(12):4715–31. doi: 10.3390/ijerph9124715.

- Fernando, Yudi, Charbel Jose Chiappetta Jabbour, and Wen-Xin Wah. 2019. "Pursuing Green Growth in Technology Firms through the Connections between Environmental Innovation and Sustainable Business Performance: Does Service Capability Matter?" *Resources, Conservation and Recycling* 141:8–20. doi: 10.1016/j.resconrec.2018.09.031.
- Ferreira, Augusta, João Carvalho, and Fátima Pinho. 2013. "Earnings Management Around Zero: A Motivation to Local Politician Signalling Competence." *Public Management Review* 15(5):657–86. doi: 10.1080/14719037.2012.707679.
- Finanstilsynet. 2020. "Finanstilsynet Proposes New Lending Regulations." *Finanstilsynet*. Retrieved March 31, 2021 (<https://www.finanstilsynet.no/>).
- Fischer, Frank, Gerald Miller, and Mara S. Sidney, eds. 2007. *Handbook of Public Policy Analysis: Theory, Politics, and Methods*. Boca Raton: CRC/Taylor & Francis.
- Fiva, Jon H., Olle Folke, and Rune J. Sørensen. 2018. "The Power of Parties: Evidence from Close Municipal Elections in Norway." *The Scandinavian Journal of Economics* 120(1):3–30. doi: <https://doi.org/10.1111/sjoe.12229>.
- Francesco Tubiello, Josef Schmidhuber, Mark Howden, Peter G. Neofotis, Sarah Park, Erick Fernandes, and Dipti Thapa. 2008. "Climate Change Response Strategies for Agriculture: Challenges and Opportunities for the 21st Century." 75.
- Frankfort-Nachmias, Chava, and Anna Leon-Guerrero. 2006. *Social Statistics for a Diverse Society*. Pine Forge Press.
- Franklin, C. 1995. "Expanding the Vision of the Social Constructionist Debates: Creating Relevance for Practitioners." *Fam. Soc.-J. Contemp. Hum. Serv.* 76(7):395–407. doi: 10.1177/104438949507600702.
- Freeman, David M. 2000. "Wicked Water Problems: Sociology and Local Water Organizations in Addressing Water Resources Policy1." *JAWRA Journal of the American Water Resources Association* 36(3):483–91. doi: <https://doi.org/10.1111/j.1752-1688.2000.tb04280.x>.
- Fritsche, Uwe R., Göran Berndes, Annette Cowie, Francis X. Johnson, Virginia Dale, Hans Langeveld, Navin Sharma, Helen Watson, and Jeremy Woods. 2017. "ENERGY AND LAND USE - GLOBAL LAND OUTLOOK WORKING PAPER." doi: 10.13140/RG.2.2.24905.44648.
- Fuad Kurdi. 2016. "Good Governance and Its Impact in Improving Administrative and Financial Performance: A Case Study of Nablus Municipality."
- Fuchs, Victor R., ed. 1996. *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long-Term Care in America*. Chicago: University of Chicago Press.
- Fuenfschilling, Lea, and Bernhard Truffer. 2014. "The Structuration of Socio-Technical Regimes—Conceptual Foundations from Institutional Theory." *Research Policy* 43(4):772–91. doi: 10.1016/j.respol.2013.10.010.

- Gałecka, Agnieszka, and Agnieszka Cyburt. 2019. "FINANCIAL LIQUIDITY MANAGEMENT IN LOCAL GOVERNMENT UNITS OF THE EASTERN POLAND MACROREGION." *Roczniki (Annals)* 2019(4). doi: 10.22004/ag.econ.302825.
- Gasparin, Marta, William Green, Simon Lilley, Martin Quinn, Mike Saren, and Christophe Schinckus. 2021. "Business as Unusual: A Business Model for Social Innovation." *Journal of Business Research* 125:698–709. doi: 10.1016/j.jbusres.2020.01.034.
- Gavurova, Beata, Kristina Kocisova, Lubomir Belas, and Vladimir Krajcik. 2017. "Relative Efficiency of Government Expenditure on Secondary Education." *Journal of International Studies* 10(2):329–43. doi: 10.14254/2071-8330.2017/10-2/23.
- Geddes, Anna, and Tobias S. Schmidt. 2020. "Integrating Finance into the Multi-Level Perspective: Technology Niche-Finance Regime Interactions and Financial Policy Interventions." *Research Policy* 49(6):103985. doi: 10.1016/j.respol.2020.103985.
- Geels, Frank W. 2002. "Technological Transitions as Evolutionary Reconfiguration Processes: A Multi-Level Perspective and a Case-Study." *Research Policy* 31(8):1257–74. doi: 10.1016/S0048-7333(02)00062-8.
- Geels, Frank W. 2004. "From Sectoral Systems of Innovation to Socio-Technical Systems." *Research Policy* 33(6–7):897–920. doi: 10.1016/j.respol.2004.01.015.
- Geels, Frank W. 2011. "The Multi-Level Perspective on Sustainability Transitions: Responses to Seven Criticisms." *Environmental Innovation and Societal Transitions* 1(1):24–40. doi: 10.1016/j.eist.2011.02.002.
- Geels, Frank W. 2020. "Micro-Foundations of the Multi-Level Perspective on Socio-Technical Transitions: Developing a Multi-Dimensional Model of Agency through Crossovers between Social Constructivism, Evolutionary Economics and Neo-Institutional Theory." *Technological Forecasting and Social Change* 152:119894. doi: 10.1016/j.techfore.2019.119894.
- Geels, Frank W., and René Kemp. 2007. "Dynamics in Socio-Technical Systems: Typology of Change Processes and Contrasting Case Studies." *Technology in Society* 29(4):441–55. doi: 10.1016/j.techsoc.2007.08.009.
- Geels, Frank W., and Johan Schot. 2007. "Typology of Sociotechnical Transition Pathways." *Research Policy* 36(3):399–417. doi: 10.1016/j.respol.2007.01.003.
- Geels, Frank W., Benjamin K. Sovacool, Tim Schwanen, and Steve Sorrell. 2017. "The Socio-Technical Dynamics of Low-Carbon Transitions." *Joule* 1(3):463–79. doi: 10.1016/j.joule.2017.09.018.
- Gehman, Joel, Michael Lounsbury, and Royston Greenwood. 2016. *How Institutions Matter!* Emerald Group Publishing.
- Gelo, Omar, Diana Braakmann, and Gerhard Benetka. 2008. "Quantitative and Qualitative Research: Beyond the Debate." *Integrative Psychological & Behavioral Science* 42(3):266–90. doi: 10.1007/s12124-008-9078-3.

- Gesing, Friederike. 2017. "The New Global Covenant of Mayors for Climate & Energy and the Politics of Municipal Climate Data."
- Geys, Benny, and Rune J. Sørensen. 2016. "Revenue Scarcity and Government Outsourcing: Empirical Evidence from Norwegian Local Governments." *Public Administration* 94(3):769–88. doi: <https://doi.org/10.1111/padm.12262>.
- Geys, Benny, and Rune J. Sørensen. 2020. "Administrative Delegation of Budgetary Powers and Fiscal Performance." *Kyklos* 73(4):477–99. doi: 10.1111/kykl.12248.
- Gezelius, Stig S., and Karen Refsgaard. 2007. "Barriers to Rational Decision-Making in Environmental Planning." *Land Use Policy* 24(2):338–48. doi: 10.1016/j.landusepol.2006.04.002.
- Gilberg B. and Gårseth-Nesbakk L. 2019 in *Kommunal Økonomi* (2020). №5 Mai 2020. Utgiver: NKKs forlag KommunalØkonomisk forlag.
- Gíslason, Stefán, and Salome Hallfreðsdóttir. 2020. *Roadmap for Sustainable Consumption and Production in Nordic Small Communities*. Nordic Council of Ministers.
- Gjesdal kommune. 2019a. "Å tiltrekke seg arbeidsplasser - Gjesdal kommune." Retrieved May 17, 2021 (<https://www.gjesdal.kommune.no/tjenester/politikk-og-administrasjon/politikk/ordforer/manedsbrev-fra-ordforer/a-tiltrekke-seg-arbeidsplasser.522153.aspx>).
- Gjesdal kommune. 2019b. "Årsmelding Og Regnskap 2019." Retrieved November 22, 2020 (https://www.gjesdal.kommune.no/_f/p21/i88918670-295c-4024-b857-10e58e9ec3da/arsmelding-2019-hoveddokument-endelig.pdf).
- Gjesdal kommune. 2019c. "Sammen for et Attraktivt Gjesdal SAMFUNNSDEL 2019 - 2030." Retrieved November 22, 2020 (https://www.gjesdal.kommune.no/_f/p21/i720de3c8-025b-4233-9e7d-c1862d812645/samfunnsdel_vedtatt170619_webfil.pdf).
- Gjesdal kommune. 2020a. "Fakta Om Gjesdal - Gjesdal Kommune." Retrieved January 31, 2021 (<https://www.gjesdal.kommune.no/tjenester/politikk-og-administrasjon/administrasjon/om-gjesdal/>).
- Gjesdal kommune. 2020b. "Hva Er Smart Gjesdal - Gjesdal Kommune." Retrieved January 31, 2021 (<https://www.gjesdal.kommune.no/tjenester/politikk-og-administrasjon/smart-gjesdal/smart-gjesdal/hva-er-smart-gjesdal/>).
- Gjesdal kommune. 2020c. "Planstrategi 2019-2023." Retrieved November 22, 2020 (https://www.gjesdal.kommune.no/_f/p21/i7220153a-50c4-48c8-9d6d-d8e236334328/planstrategi_2020_vedtatt_30032020.pdf).
- Gjesdal kommune. 2020d. "Prosjekt vi Er Med i - Gjesdal Kommune." Retrieved January 31, 2021 (<https://www.gjesdal.kommune.no/tjenester/politikk-og-administrasjon/smart-gjesdal/digitalisering/prosjekt-vi-er-med-i/>).

- Gjesdal kommune. 2020e. "Prosjekter - Gjesdal Kommune." Retrieved May 17, 2021 (<https://www.gjesdal.kommune.no/tjenester/politikk-og-administrasjon/smart-gjesdal/smart-gjesdal/prosjekt-vi-er-med-i/>).
- Gjesdal kommune. 2021a. "Fakta Om Gjesdal - Gjesdal Kommune." Retrieved May 17, 2021 (<https://www.gjesdal.kommune.no/tjenester/politikk-og-administrasjon/administrasjon/om-gjesdal/>).
- Gjesdal kommune. 2021b. "Hva Er Smart Gjesdal - Gjesdal Kommune." Retrieved May 17, 2021 (<https://www.gjesdal.kommune.no/tjenester/politikk-og-administrasjon/smart-gjesdal/smart-gjesdal/hva-er-smart-gjesdal/>).
- Glass, Lisa-Maria, and Jens Newig. 2019. "Governance for Achieving the Sustainable Development Goals: How Important Are Participation, Policy Coherence, Reflexivity, Adaptation and Democratic Institutions?" *Earth System Governance* 2:100031. doi: 10.1016/j.esg.2019.100031.
- Glotova, Irina, Tomilina, Elena, and Kuzmenko, Irina. 2014. "Modeling the Processes of Own Working Capital Reproduction in Agricultural Organizations."
- Gorodnichenko, Yuriy, and Gerard Roland. 2017. "Culture, Institutions, and the Wealth of Nations." *The Review of Economics and Statistics* 99(3):402–16. doi: 10.1162/REST_a_00599.
- Gössling, Stefan, Daniel Scott, and C. Michael Hall. 2021. "Pandemics, Tourism and Global Change: A Rapid Assessment of COVID-19." *Journal of Sustainable Tourism* 29(1):1–20. doi: 10.1080/09669582.2020.1758708.
- Graaf, Thijs Van de, and Benjamin K. Sovacool. 2020. *Global Energy Politics*. John Wiley & Sons.
- Graham-Rowe, Ella, Donna C. Jessop, and Paul Sparks. 2014. "Identifying Motivations and Barriers to Minimising Household Food Waste." *Resources, Conservation and Recycling* 84:15–23. doi: 10.1016/j.resconrec.2013.12.005.
- Gratton, Chris, and Ian Jones. 2004. *Research Methods for Sport Studies*. Psychology Press.
- Gray, Paul S., John B. Williamson, David A. Karp, and John R. Dalphin. 2007. *The Research Imagination: An Introduction to Qualitative and Quantitative Methods*. Cambridge University Press.
- Green, Francis. 2021. "Decent Work and The Quality of Work and Employment." 35.
- Greenwood, Royston, and C. R. Hinings. 1996. "Understanding Radical Organizational Change: Bringing Together the Old and the New Institutionalism." *Academy of Management Review* 21(4):1022–54. doi: 10.5465/amr.1996.9704071862.
- Greenwood, Royston, Christine Oliver, Roy Suddaby, and Kerstin Sahlin-Andersson. 2008. *The SAGE Handbook of Organizational Institutionalism*. SAGE.
- Gregory, Robert, and Jan Muntermann. 2011. "Theorizing in Design Science Research: Inductive versus Deductive Approaches." 17.

- Guandalini, Ilaria, Wenxian Sun, and Li Zhou. 2019. "Assessing the Implementation of Sustainable Development Goals through Switching Cost." *Journal of Cleaner Production* 232:1430–41. doi: 10.1016/j.jclepro.2019.06.033.
- Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2006. "Does Culture Affect Economic Outcomes?" 93.
- Gupta, Geeta Rao, Nandini Oomman, Caren Grown, Kathryn Conn, Sarah Hawkes, Yusra Ribhi Shawar, Jeremy Shiffman, Kent Buse, Rekha Mehra, Cherner A. Bah, Lori Heise, Margaret E. Greene, Ann M. Weber, Jody Heymann, Katherine Hay, Anita Raj, Sarah Henry, Jeni Klugman, and Gary L. Darmstadt. 2019. "Gender Equality and Gender Norms: Framing the Opportunities for Health." *The Lancet* 393(10190):2550–62. doi: 10.1016/S0140-6736(19)30651-8.
- Gupta, Joyeeta, and Courtney Vegelin. 2016. "Sustainable Development Goals and Inclusive Development." *International Environmental Agreements: Politics, Law and Economics* 16(3):433–48. doi: 10.1007/s10784-016-9323-z.
- Gustafsson, Björn, and Peder J. Pedersen. 2018. *Poverty and Low Income in the Nordic Countries*. Routledge.
- Gustafsson, Jessica, Helena Lohmann, Caroline Jonsson, and Jessica Gustafsson. 2018. "Health Equity in the Nordic Region – A Report from the Health Equity in the Nordic Region Conference, Stockholm 2018." 30.
- Gustavsen, Geir Wæhler, and Atle Wehn Hegnes. 2020. "Turning the Tap or Buying the Bottle? Consumers' Personality, Understanding of Risk, Trust and Conspicuous Consumption of Drinking Water in Norway." *Sustainability* 12(18):7560. doi: 10.3390/su12187560.
- Hå kommune. 2019. "Årsmelding 2019." Retrieved March 1, 2021 (https://www.ha.no/_f/p1/ic09820e2-91b6-4a47-a813-92ab4b84c408/arsmelding-2019-ha-v1.pdf).
- Hå kommune. 2020. Budsjett 2021 og økonomiplan for 2021-2024. Retrieved from (https://pub.framsikt.net/2021/hk/bm-2021-kommunestyret_sitt_vedtak_101220#/).
- Hå kommune. 2020a. "KOMMUNEPLAN 2021-2036. PLANPROGRAM." Retrieved March 1, 2021 (https://www.ha.no/_f/p1/i60088834-4959-425f-8a95-8817c9fb52b2/planprogram-ha-kommuneplan-2021-2036-hoyringsutgave-2020-12-10_01.pdf).
- Hå kommune. 2020b. "Planstrategi 2020 - 2023." Retrieved March 1, 2021 (https://www.ha.no/_f/p1/i902ec0db-1cc9-43ce-baaf-e0f734963c7a/planstrategi-ettervedtak-kpu-310320-endring-av-eigarstrategi-020620.pdf).
- Hahn, Tobias. 2015. *Cross-Industry Innovation Processes: Strategic Implications for Telecommunication Companies*. Springer.
- Hajer, Maarten. 2003. "Policy without Polity? Policy Analysis and the Institutional Void." 21.

- Hajer, Maarten, Maarten A. Hajer, Hendrik Wagenaar, Robert E. Goodin, and Brian Barry. 2003. *Deliberative Policy Analysis: Understanding Governance in the Network Society*. Cambridge University Press.
- Halldórsson, Árni, and Jesper Aastrup. 2003. "Quality Criteria for Qualitative Inquiries in Logistics." *European Journal of Operational Research* 144(2):321–32. doi: 10.1016/S0377-2217(02)00397-1.
- Hambrey, John. 2017. "The 2030 Agenda and the Sustainable Development Goals: The Challenge for Aquaculture Development and Management." 73.
- Hansen, Sune Welling, Kurt Houlberg, and Lene Holm Pedersen. 2014. "Do Municipal Mergers Improve Fiscal Outcomes?" *Scandinavian Political Studies* 37(2):196–214. doi: <https://doi.org/10.1111/1467-9477.12020>.
- Hanssen, Jan-Inge, Per Arnt Pettersen, and Johans Tveit Sandvin. 2001. "Welfare Municipalities: Economic Resources or Party Politics? Norwegian Local Government Social Programs of the 1920s." *International Journal of Social Welfare* 10(1):27–44. doi: <https://doi.org/10.1111/1468-2397.00150>.
- Harrison, Helena, Melanie Birks, Richard Franklin, and Jane Mills. 2017. "Case Study Research: Foundations and Methodological Orientations." *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* 18(1). doi: 10.17169/fqs-18.1.2655.
- Haugesund kommune. 2015. Kommuneplanens samfunnsdel for Haugesund kommune 2014-2030. Retrieved from (<https://www.haugesund.kommune.no/om-kommunen/beredskap/beredskapsplan/lokaldemokrati/kommuneplan/1357-kommuneplanens-samfunnsdel-for-haugesund-kommune-2014-2030-1>).
- Haugesund kommune. 2019. Årsregnskap og årsberetning 2019 Haugesund kommune. Retrieved from Sak/-arkivsystem ePhorte (Statsforvalteren i Rogaland 2020).
- Haugesund kommune. 2020a. "Budsjett 2021 Og Økonomiplan for 2021- 2024. Kommunedirektørens Forslag." Retrieved February 28, 2021 (http://ainnsyn.haugesund.kommune.no/innsyn_haugesund/wfdocument.ashx?journalpostid=2013028551&dokid=45735&versjon=1&variant=A&).
- Haugesund kommune. 2020b. "Kommunal Planstrategi 2019 - 2023." Retrieved February 25, 2021 (https://www.haugesund.kommune.no/images/EBY/EBY-Plan/Filer/Kommuneplaner/Planstrategi/Forslag_kommunal_planstrategi_Haugesund_kommune_2019-2023.pdf).
- Hege, Elisabeth, and Laura Brimont. 2018. "Integrating SDGs into National Budgetary Processes." 20.
- Hege, Elisabeth, Laura Brimont, and Félicien Pagnon. 2019. "Sustainable Development Goals and Indicators: Can They Be Tools to Make National Budgets More Sustainable?" *Public Sector Economics* 43(4):423–44.

- Heinrichs, Harald, and Ferdinand Schuster. 2017. "Still Some Way to Go: Institutionalisation of Sustainability in German Local Governments." *Local Environment* 22(5):536–52. doi: 10.1080/13549839.2016.1233951.
- Helse- og omsorgsdepartementet. 2009. "St.Meld. Nr. 47 (2008–2009) Samhandlingsreformen Rett Behandling – På Rett Sted – Til Rett Tid." Retrieved March 9, 2021 (<https://www.regjeringen.no/contentassets/d4f0e16ad32e4bbd8d8ab5c21445a5dc/no/pdfs/stm200820090047000dddpdfs.pdf>).
- Hendrick, Rebecca M. 2011. *Managing the Fiscal Metropolis: The Financial Policies, Practices, and Health of Suburban Municipalities*. Georgetown University Press.
- Heracleous, Loizos, and Luh Luh Lan. 2012. "Agency Theory, Institutional Sensitivity, and Inductive Reasoning: Towards a Legal Perspective." *Journal of Management Studies* 49(1):223–39. doi: <https://doi.org/10.1111/j.1467-6486.2011.01009.x>.
- Hernández-Palacio, Fabio. 2016. "The Sustainable City in Norway." 30.
- Herrington, Christopher M. 2015. "Public Education Financing, Earnings Inequality, and Intergenerational Mobility." *Review of Economic Dynamics* 18(4):822–42. doi: 10.1016/j.red.2015.07.006.
- Hiles, Dr David. 2012. "Mixed Methods and the Problem of the Logic of Inquiry." 8.
- Hirschhorn, Fabio, Didier van de Velde, Wijnand Veeneman, and Ernst ten Heuvelhof. 2020. "The Governance of Attractive Public Transport: Informal Institutions, Institutional Entrepreneurs, and Problem-Solving Know-How in Oslo and Amsterdam." *Research in Transportation Economics* 83:100829. doi: 10.1016/j.retrec.2020.100829.
- Hjelmeland kommune. 2019a. "Hjelmeland Kommune Årsmelding 2019." Retrieved March 6, 2021 (<https://innsyn.onacos.no/hjelmeland/wfdocument.ashx?journalpostid=2020006599&dokid=357145&versjon=1&variant=A&>).
- Hjelmeland kommune. 2019b. "HJELMELAND NATURLEGVIS! KOMMUNEPLAN 2019-2031 SAMFUNNSDEL." Retrieved March 6, 2021 (https://www.hjelmeland.kommune.no/_f/p24/i771a1d38-ace8-49c7-b52e-02e76f82355a/kommuneplanen-samfunnsdel_vedtatt110419.pdf).
- Hjelmeland kommune. 2020a. "Budsjett 2021 Økonomiplan 2021– 2024." Retrieved March 6, 2021 (<https://innsyn.onacos.no/hjelmeland/wfdocument.ashx?journalpostid=2020020040&dokid=382729&versjon=1&variant=A&>).
- Hjelmeland kommune. 2020b. "PLANSTRATEGI FOR HJELMELAND 2020-2023." Retrieved March 7, 2021 (<https://innsyn.onacos.no/hjelmeland/wfdocument.ashx?journalpostid=2020013445&dokid=370175&versjon=1&variant=A&>).
- Hoff, Marie. 1998. *Sustainable Community Development: Studies in Economic, Environmental, and Cultural Revitalization*. CRC Press.

- Hofstede, Geert, and Michael Harris Bond. 1988. "The Confucius Connection: From Cultural Roots to Economic Growth." *Organizational Dynamics* 16(4):5–21. doi: 10.1016/0090-2616(88)90009-5.
- Holt-Jensen, A. 1981. "The Norwegian Oil Economy." *GeoJournal* 3(1):81–92. doi: 10.1007/BF00205942.
- Hopland, Arnt O. 2014. "Voter Information and Electoral Outcomes: The Norwegian List of Shame." *Public Choice* 161(1–2):233–55. doi: 10.1007/s11127-014-0151-9.
- Hopwood, Bill, Mary Mellor, and Geoff O'Brien. 2005. "Sustainable Development: Mapping Different Approaches." *Sustainable Development* 13(1):38–52. doi: <https://doi.org/10.1002/sd.244>.
- Horak, Sven, Bindu Arya, and Kiran M. Ismail. 2018. "Organizational Sustainability Determinants in Different Cultural Settings: A Conceptual Framework." *Business Strategy and the Environment* 27(4):528–46. doi: <https://doi.org/10.1002/bse.2018>.
- Hulst, Rudie, André van Montfort, Arto Haveri, Jenni Airaksinen, and Josephine Kelly. 2009. "Institutional Shifts In Inter-Municipal Service Delivery." *Public Organization Review* 9(3):263–85. doi: 10.1007/s11115-009-0085-8.
- Hussain, Nazim, Ugo Rigoni, and Elisa Cavezzali. 2018. "Does It Pay to Be Sustainable? Looking inside the Black Box of the Relationship between Sustainability Performance and Financial Performance." *Corporate Social Responsibility and Environmental Management* 25(6):1198–1211. doi: 10.1002/csr.1631.
- Hyde, Kenneth F. 2000. "Recognising Deductive Processes in Qualitative Research." *Qualitative Market Research: An International Journal* 3(2):82–90. doi: 10.1108/13522750010322089.
- Ilichenko, Kseniia, and Anastasiia Lisogor. 2016. "SUSTAINABLE DEVELOPMENT MODELING FOR MUNICIPALITIES." *Theoretical and Empirical Researches in Urban Management* 11(1):77–85.
- Jensen, Klaus Bruhn. 2013. *A Handbook of Media and Communication Research: Qualitative and Quantitative Methodologies*. Routledge.
- Joachim Osiński, and Izabela Zawiślińska. 2020. "Financial Condition of Local Government in Poland vs Structural Reforms of Municipal Government in Scandinavian States | Przegląd Politologiczny."
- Johanson, Katya, Hilary Glow, and Anne Kershaw. 2014. "New Modes of Arts Participation and the Limits of Cultural Indicators for Local Government." *Poetics* 43:43–59. doi: 10.1016/j.poetic.2014.02.002.
- Jost, F., A. Dale, R. Newell, and J. Robinson. 2020. "Evaluating Development Path Changes Using a Novel Climate Action Assessment Framework in Three Municipalities in British Columbia, Canada." *Environmental Science & Policy* 114:410–21. doi: 10.1016/j.envsci.2020.09.007.

- Julsrud, Tom Erik, and Eivind Farstad. 2020. "Car Sharing and Transformations in Households Travel Patterns: Insights from Emerging Proto-Practices in Norway." *Energy Research & Social Science* 66:101497. doi: 10.1016/j.erss.2020.101497.
- Kalcheva, Desislava Zheleva. 2020. "THE DEBT OF MUNICIPALITIES IN BULGARIA - THREAT OR OPPORTUNITY." *Икономика и Управление* 17(1):58–67.
- Kalseth, Jorid, and Jørn Rattsø. 1998. "Political Control of Administrative Spending: The Case of Local Governments in Norway." *Economics & Politics* 10(1):63–83. doi: <https://doi.org/10.1111/1468-0343.00038>.
- Kamau, Daniel, and Amos Ayuo. 2014. "The Effects of Working Capital Management on Organizational Performance - A Survey of Manufacturing Firms in Eldoret Municipality." *Research Journal of Finance and Accounting* 9.
- Kaplan, Bonnie, and Dennis Duchon. 1988. "Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study." *MIS Quarterly* 12(4):571–86. doi: 10.2307/249133.
- Karlsson, Marianne, and Grete K. Hovelsrud. 2021. "'Everyone Comes with Their Own Shade of Green': Negotiating the Meaning of Transformation in Norway's Agriculture and Fisheries Sectors." *Journal of Rural Studies* 81:259–68. doi: 10.1016/j.jrurstud.2020.10.032.
- Karmøy kommune. 2019. "Årsregnskap 2019." Retrieved March 13, 2021 (<https://www.karmoy.kommune.no/content/uploads/2020/09/%C3%85rsregnskap-2019-20.05.2020-inkl-K.K-%C3%A5rsberetning-og-begge-rev.beretningnene.pdf>).
- Karmøy kommune. 2020a. "Handlingsprogram 2021-2024 Med Årsbudsjett Og Økonomiplan Rådmannens Forslag." Retrieved March 13, 2021 (<https://www.karmoy.kommune.no/content/uploads/2020/11/Handlingsprogram-2021-2024-Radmansens-forslag-2.pdf>).
- Karmøy kommune. 2020b. "Kommunal Planstrategi 2020-2023." Retrieved March 13, 2021 (<https://www.karmoy.kommune.no/content/uploads/2020/06/Planstrategi-2020-2023-Kommunestyret-02.06.2020.pdf>).
- Karmøy kommune. 2020c. "Planprogram Kommuneplanens Samfunnsdel 2021-2030." Retrieved March 13, 2021 (https://innsyn.karmoy.kommune.no/innsyn_karmoy/wfdocument.ashx?journalpostid=2013012580&dokid=23902&versjon=1&variant=A&).
- Katila, Pia, Carol J. Pierce Colfer, Wil de Jong, Glenn Galloway, Pablo Pacheco, and Georg Winkel, eds. 2019. *Sustainable Development Goals: Their Impacts on Forests and People*. 1st ed. Cambridge University Press.
- Kelman, Ilan. 2011. *Municipalities Addressing Climate Change: A Case Study of Norway*. New York, UNITED STATES: Nova Science Publishers, Incorporated.
- Kern, Florian. 2012. "Using the Multi-Level Perspective on Socio-Technical Transitions to Assess Innovation Policy." *Technological Forecasting and Social Change* 79(2):298–310. doi: 10.1016/j.techfore.2011.07.004.

- Ketokivi, Mikko, and Thomas Choi. 2014. "Renaissance of Case Research as a Scientific Method." *Journal of Operations Management* 32(5):232–40. doi: <https://doi.org/10.1016/j.jom.2014.03.004>.
- Khan. 2008. *Cost Accounting and Financial Management for CA Professional Competence Examination*. Tata McGraw-Hill Education.
- King, Nigel, and Christine Horrocks. 2010. *Interviews in Qualitative Research*. SAGE.
- Kitada, Momoko, and Meenaksi Bhirugnath-Bhookhun. 2019. "Beyond Business as Usual: The Role of Women Professionals in Maritime Clusters." *WMU Journal of Maritime Affairs* 18(4):639–53. doi: 10.1007/s13437-019-00178-8.
- Kjærland, Frode. 2007. "A Real Option Analysis of Investments in Hydropower—The Case of Norway." *Energy Policy* 35(11):5901–8. doi: 10.1016/j.enpol.2007.07.021.
- Klepp kommune. 2020a. "Handlings Og Økonomiplan 2021—2024 Kommunedirektøren Sitt Forslag (Foreløpig Utgave)." Retrieved March 5, 2021 (<https://www.klepp.kommune.no/contentassets/4f9a847e04524df9ae7992bc605b62a4/hop-2021-2024---kommunedirektoren-sin-innstilling---arkivversjon.pdf>).
- Klepp kommune. 2020b. "Planstrategi 2020 - 2023 ." Retrieved March 4, 2021 (<https://www.klepp.kommune.no/globalassets/planar/kommuneplan/planstrategivedteken2.pdf>).
- Klepp kommune. 2021. "Planprogram Kommuneplan for Klepp 2022–2033." Retrieved March 4, 2021 (<https://www.klepp.kommune.no/globalassets/planar/kommuneplan-2022-2033/planprogramkplvedtat.pdf>).
- Knudsen, Jørgen K., Line Camilla Wold, Øystein Aas, Jens Jacob Kielland Haug, Susana Batel, Patrick Devine-Wright, Marte Qvenild, and Gerd B. Jacobsen. 2015. "Local Perceptions of Opportunities for Engagement and Procedural Justice in Electricity Transmission Grid Projects in Norway and the UK." *Land Use Policy* 48:299–308. doi: 10.1016/j.landusepol.2015.04.031.
- Koilo, Viktoriia. 2020. "Energy Efficiency and Green Solutions in Sustainable Development: Evidence from the Norwegian Maritime Industry - ProQuest."
- Kommunal- og moderniseringsdepartementet. 2019. "Frie inntekter." *Regjeringen.no*. Retrieved February 23, 2021 (<https://www.regjeringen.no/no/tema/kommuner-og-regioner/kommuneokonomi/inntektssystemet-for-kommuner-og-fylkeskommuner/frie-inntekter/id2353954/>).
- Kommunal- og moderniseringsdepartementet. 2020. "Rapport Fra Det Tekniske Beregningsutvalg for Kommunal Og Fylkeskommunal Økonomi." Retrieved March 16, 2021 (<https://www.regjeringen.no/contentassets/7e94c055b37041a68652e488d5e78b97/rapport-fra-det-tekniske-beregningsutvalg-for-kommunal-og-fylkeskommunal-okonomi-november-2020-til-publisering.pdf>).
- Kommunal- og moderniseringsdepartementet, Ester. 2017. *Forslag til nytt inntektssystem for kommunene*.

- Kozera, Agnieszka, Aldona Standar, and Łukasz Satoła. 2020. "Managing Rural Areas in the Context of the Growing Debt of Polish Local Government Units." *Agriculture* 10(9):376. doi: 10.3390/agriculture10090376.
- Kramer, Mark R., and Marc W. Pfitzer. 2016. "The Ecosystem of Shared Value." 11.
- Kummitha, Rama Krishna Reddy. 2020. "Why Distance Matters: The Relatedness between Technology Development and Its Appropriation in Smart Cities." *Technological Forecasting and Social Change* 157:120087. doi: 10.1016/j.techfore.2020.120087.
- Kvamsås, Hanna, Simon Neby, Håvard Haarstad, Mathew Stiller-Reeve, and Jesse Schrage. 2021. "Using Collaborative Hackathons to Coproduce Knowledge on Local Climate Adaptation Governance." *Current Research in Environmental Sustainability* 3:100023. doi: 10.1016/j.crsust.2020.100023.
- Kvitsøy kommune. 2019. "Årsmelding 2019 Kvitsøy Kommune." Retrieved February 23, 2021 (https://www.kvitsoy.kommune.no/globalassets/arsmelding-og-budsjett/arsmelding/arsmelding_2019.pdf).
- Kvitsøy kommune. 2020. Budsjett 2021 Handlings- og økonomiplan 2021-2024. Retrieved from (<https://opengov.360online.com/Meetings/KVITSOY/Meetings/Details/200563?agendaItemId=200255>).
- Kvitsøy kommune. 2020. Kommunal planstrategi for Kvitsøy kommune 2020-2024. Retrieved from (<https://opengov.360online.com/Meetings/KVITSOY/Meetings/Details/200566?agendaItemId=200052>).
- Kvitsøy kommune. 2020. KOMMUNEPLAN FOR KVITSØY 2019-2030 AREALDELEN. Retrieved from (<https://opengov.360online.com/Meetings/KVITSOY/Meetings/Details/200575?agendaItemId=200296>).
- Ladner, Andreas, Nicolas Keuffer, Harald Baldersheim, Nikos Hlepas, Pawel Swianiewicz, Kristof Steyvers, and Carmen Navarro. 2019. "Financial Control." Pp. 125–50 in *Patterns of Local Autonomy in Europe, Governance and Public Management*, edited by A. Ladner, N. Keuffer, H. Baldersheim, N. Hlepas, P. Swianiewicz, K. Steyvers, and C. Navarro. Cham: Springer International Publishing.
- Lafferty, William M., and Katarina Eckerberg. 2013. *From the Earth Summit to Local Agenda 21: Working towards Sustainable Development*. Routledge.
- Lamprey, Lazarus Lanquaye, Kennedy Frimpong, and Alfred Bassaw Morrison. 2017. "Empirical Study on the Influence of Working Capital Management on Performance of SMEs in a Developing Economy." *Journal of Economics, Management and Trade* 1–10. doi: 10.9734/BJEMT/2017/33579.

- Laverty, Kevin J. 1996. "Economic 'Short-Termism': The Debate, the Unresolved Issues, and the Implications for Management Practice and Research." *Academy of Management. The Academy of Management Review* 21(3):825.
- Leachman, Lori, Alan Bester, Guillermo Rosas, and Peter Lange. 2005. "Multicointegration and Sustainability of Fiscal Practices." *Economic Inquiry* 43(2):454–66. doi: <https://doi.org/10.1093/ei/cbi031>.
- Leal Filho, Walter, Anabela Marisa Azul, Luciana Brandli, Pinar Gökçin Özuyar, and Tony Wall, eds. 2020. *Zero Hunger*. Cham: Springer International Publishing.
- Leal Filho, Walter, Joost Platje, Wolfgang Gerstlberger, Remigijus Ciegis, Juha Kääriä, Maris Klavins, and Linas Kliucininkas. 2016. "The Role of Governance in Realising the Transition towards Sustainable Societies." *Journal of Cleaner Production* 113:755–66. doi: 10.1016/j.jclepro.2015.11.060.
- Lee, Carmen Y. J. 2011. "Understanding and Alleviating Future Skilled Labor Shortage in Norway." 12.
- Leiss, William. 1988. *Limits to Satisfaction: An Essay on the Problem of Needs and Commodities*. McGill-Queen's Press - MQUP.
- Lemon, Laura L., and Jameson Hayes. 2020. "Enhancing Trustworthiness of Qualitative Findings: Using Leximancer for Qualitative Data Analysis Triangulation." 13.
- Lethbridge, Jane. 2016. "Overview of Global Megatrends Affecting Local and Regional Governments." 13.
- Leverenz, Dominik, Salua Moussawel, Claudia Maurer, Gerold Hafner, Felicitas Schneider, Thomas Schmidt, and Martin Kranert. 2019. "Quantifying the Prevention Potential of Avoidable Food Waste in Households Using a Self-Reporting Approach." *Resources, Conservation and Recycling* 150:104417. doi: 10.1016/j.resconrec.2019.104417.
- Levitskaya, N. L. 2021. "Financial Resources as a Factor of Economic Security of a Municipality." *IOP Conference Series: Earth and Environmental Science* 666(6):062113. doi: 10.1088/1755-1315/666/6/062113.
- Lew, Alan A., Pin T. Ng, Chin-cheng (Nickel) Ni, and Tsung-chiung (Emily) Wu. 2016. "Community Sustainability and Resilience: Similarities, Differences and Indicators." *Tourism Geographies* 18(1):18–27. doi: 10.1080/14616688.2015.1122664.
- Lewis, Simon L., and Mark A. Maslin. 2015. "Defining the Anthropocene." *Nature* 519(7542):171–80. doi: 10.1038/nature14258.
- Lincoln, Yvonna S., and Egon G. Guba. 1985. *Naturalistic Inquiry*. SAGE.
- Liptáková, Katarína, and Zuzana Rigová. 2020. "Possibilities of Slovak Municipalities to Participate in Regional Development in Context of Globalization" edited by T. Kliestik. *SHS Web of Conferences* 74:05013. doi: 10.1051/shsconf/20207405013.
- Lockert, Åshild Skjegstad, Hilde Bjørnå, Kristian H. Haugen, and Heidi Houlberg Salomonsen. 2019. "Reputation Reform Strategies in Local Government:

- Investigating Denmark and Norway.” *Local Government Studies* 45(4):504–25. doi: 10.1080/03003930.2018.1560270.
- Lord, Barry. 2014. *Art & Energy: How Culture Changes*. Rowman & Littlefield.
- Lowndes, Vivien, and Chris Skelcher. 1998. “The Dynamics of Multi-Organizational Partnerships: An Analysis of Changing Modes of Governance.” *Public Administration* 76(2):313–33. doi: <https://doi.org/10.1111/1467-9299.00103>.
- Lu, Wenxiang (Lucy), and Martin E. Taylor. 2016. “Which Factors Moderate the Relationship between Sustainability Performance and Financial Performance? A Meta-Analysis Study.” *Journal of International Accounting Research* 15(1):1–15. doi: 10.2308/jiar-51103.
- Lucianelli, Giovanna, Amalia Lucia Fazzari, and Matteo Cavalieri. 2020. “The Analysis of Income Statement and Final Balance Sheet in Local Governments: A Case Study for Financial Sustainability.” *International Journal of Business and Management* 15(3):80. doi: 10.5539/ijbm.v15n3p80.
- Luik-Lindsaar, H., R. Põldaru, A. Pöder, and J. Roots. 2018. “Performance Evaluation of Rural Areas: The Case of Estonian Rural Municipalities before the Administrative Reform.” 705.3Kb. doi: 10.15159/AR.18.125.
- Lund kommune. 2017. “STRATEGISK NÆRINGSPLAN FOR LUND KOMMUNE 2018 - 2028.” Retrieved May 16, 2021 (<https://www.lund.kommune.no/getfile.php/4808848.2704.zwmwiwaakzppsn/Strategisk%20N%C3%A6ringsplan%20for%20Lund%20kommune.pdf>).
- Lund kommune. 2019a. “Årsmelding. Lund kommune 2019.” Retrieved (<https://www.lund.kommune.no/getfile.php/4709837.2704.jaba7ztubq7zks/%C3%85rsmelding%2B2019%2BLund%2Bkommune%28324376%29.pdf>).
- Lund kommune. 2019b. “Regnskap.” Retrieved October 18, 2020 (<https://www.lund.kommune.no/getfile.php/4720103.2704.a7lniaszwapt7b/Lund+kommune+Regnskap+2019.pdf>).
- Lund kommune. 2020a. “Budsjett og økonomiplan - LUND KOMMUNE.” Retrieved January 31, 2021 (<https://www.lund.kommune.no/budsjett-og-oekonomiplan.532798.no.html>).
- Lund kommune. 2020b. “Lund Kommune Årsbudsjett 2021 Økonomiplan 2021 – 2024.” Retrieved March 24, 2021 (<https://www.lund.kommune.no/getfile.php/4796033.2704.7nuwulllmuptwz/Kommunestyrets%20vedtak%20til%20budsjett%20for%202021-2024%20Lund%20kommune%20vedtatt.pdf>).
- Lund kommune. 2020c. “Lund Kommune Planprogram for Rullering Av Kommuneplanens Samfunnsdel Og Arealdel 2021-2032.” Retrieved March 24, 2021 (<https://www.lund.kommune.no/getfile.php/4806922.2704.iazjiqm7zmpwj/Planprogram+h%C3%B8ringsutgave+.pdf>).

- Lund kommune. 2020d. "Planstrategi 2020-2024." Retrieved November 21, 2020 (<https://www.lund.kommune.no/getfile.php/4712129.2704.7zszwi7mijnwklz/Planstrategi+for+Lund+kommune+2020+-+2024+%289.6.%29.pdf>).
- Magnussen, Jon, Terje P. Hagen, and Oddvar M. Kaarboe. 2007. "Centralized or Decentralized? A Case Study of Norwegian Hospital Reform." *Social Science & Medicine* 64(10):2129–37. doi: 10.1016/j.socscimed.2007.02.018.
- Malhotra, Garima. 2017. "Strategies in Research." 9.
- Managi, Shunsuke, and Kumar, Pushpam. 2018. *Inclusive Wealth Report 2018: Measuring Progress Towards Sustainability*. 1st ed. Routledge.
- Maric, Filip, and David A. Nicholls. 2020. "Paradigm Shifts Are Hard to Come by: Looking Ahead of COVID-19 with the Social and Environmental Determinants of Health and the UN SDGs." *European Journal of Physiotherapy* 22(6):379–81. doi: 10.1080/21679169.2020.1826577.
- Masakure, Oliver, John Cranfield, and Spencer Henson. 2008. "The Financial Performance of Non-Farm Microenterprises in Ghana." *World Development* 36(12):2733–62. doi: 10.1016/j.worlddev.2007.12.005.
- Mastronardi, Luigi, and Luca Romagnoli. 2020. "Community-Based Cooperatives: A New Business Model for the Development of Italian Inner Areas." *Sustainability* 12(5):2082. doi: 10.3390/su12052082.
- McLaney, Eddie. 2009. *Accounting*. Pearson Education.
- McMeekin, Andrew, and Dale Southerton. 2012. "Sustainability Transitions and Final Consumption: Practices and Socio-Technical Systems." *Technology Analysis & Strategic Management* 24(4):345–61. doi: 10.1080/09537325.2012.663960.
- McNabb, David E. 2014. *Case Research in Public Management*. Routledge.
- Meadowcroft, James. 2009. "What about the Politics? Sustainable Development, Transition Management, and Long Term Energy Transitions." *Integrating Knowledge and Practice to Advance Human Dignity* 42(4):323–40. doi: 10.1007/s11077-009-9097-z.
- Meadowcroft, James. 2011. "Engaging with the Politics of Sustainability Transitions." *Environmental Innovation and Societal Transitions* 1(1):70–75. doi: 10.1016/j.eist.2011.02.003.
- Meinshausen, Malte, Nicolai Meinshausen, William Hare, Sarah C. B. Raper, Katja Frieler, Reto Knutti, David J. Frame, and Myles R. Allen. 2009. "Greenhouse-Gas Emission Targets for Limiting Global Warming to 2 °C." *Nature* 458(7242):1158–62. doi: 10.1038/nature08017.
- Mellemvik, Frode. 2012. *Regnskap Og Budsjett i Kommunesektoren : En Innføring*. Oslo: Cappelen Damm akademisk.
- Merseth, Katherine K. 1994. *Cases, Case Methods, and the Professional Development of Educators*. *ERIC Digest*.

- Meyer, Samantha B., and Belinda Lunnay. 2013. "The Application of Abductive and Retroductive Inference for the Design and Analysis of Theory-Driven Sociological Research." *Sociological Research Online* 18(1):86–96. doi: 10.5153/sro.2819.
- Middleton, Alexandra, Anders Hersinger, Andrey Bryksenkov, Andrey Mineev, Elena Dybtsyna, Erlend Bullvåg, Jaakko Simonen, Ossi Pesämaa, Peter Dahlin, and Sissel Ovesen. 2020. "Contributing Authors and Organizations." 33.
- Mika Aaltola, Kristiāns Andžāns, Māris Andžāns, Reinis Āboltiņš, Ilvija Bruģe, Tomas Janeliūnas, Kai-Olaf Lang, Wojciech Lorenz, Claudia Morsut, Henrik Praks, Gunda Reire, Kristina Rimkūnaitė, Anke Schmidt-Felzmann, Bengt Sundelius, Margarita Šešelgytė, I, Ivan Timofeev, and Viljar Veebel. 2016. *The Baltic Sea Region: Hard and Soft Security Reconsidered*.
- Miller, Robert Lee, and John D. Brewer. 2003. *The A-Z of Social Research: A Dictionary of Key Social Science Research Concepts*. SAGE.
- Mills, Albert J., Gabrielle Durepos, and Elden Wiebe. 2010. *Encyclopedia of Case Study Research*. SAGE.
- Mineev, Andrei, Konstantin Y. Timochenko, Elena Zhurova, and Alexandra Middleton. 2020. "Implementing the United Nations Sustainable Development Goals in the Norwegian Arctic: A Ready-Made Framework?"
- Ministry of Local Government and Modernisation. 2013. "Municipal Planning Strategy." *Government.No*. Retrieved November 21, 2020 (<https://www.regjeringen.no/en/topics/plan-bygg-og-eiendom/plan--og-bygningsloven/planning/engelsk-test---planning-in-norway/engelsk-test---5/id710313/>).
- Ministry of Local Government and modernization. 2019. *National Expectations Regarding Regional and Municipal Planning 2019–2023*.
- Ministry of Local Government and Regional Development. 2008. *Local Government in Norway*.
- Miska, Christof, Ilona Szócs, and Michael Schiffinger. 2018. "Culture's Effects on Corporate Sustainability Practices: A Multi-Domain and Multi-Level View." *Journal of World Business* 53(2):263–79. doi: 10.1016/j.jwb.2017.12.001.
- Mitchell, Jerry. 1992. *Public Authorities and Public Policy: The Business of Government*. ABC-CLIO.
- Modalsli, Jørgen. 2018. "The Regional Dispersion of Income Inequality in Nineteenth-Century Norway." *Explorations in Economic History* 67:62–79. doi: 10.1016/j.eeh.2017.09.001.
- Mofolo, Malefetsane. 2012. "Reinforcing a Turnaround Strategy for Municipalities to Improve Performance." *Africa's Public Service Delivery & Performance Review* 1(2):21–35. doi: 10.4102/apsdpr.v1i2.28.

- Mohammed, Hadi, and Razak Seidu. 2019. "Climate-Driven QMRA Model for Selected Water Supply Systems in Norway Accounting for Raw Water Sources and Treatment Processes." *Science of The Total Environment* 660:306–20. doi: 10.1016/j.scitotenv.2018.12.460.
- Molobela, T. T. 2016. "The Effect of Revenue Planning on Municipal Financial Performance: A Case Study of the Polokwane Local Municipality in the Limpopo Province." 8.
- Monkelbaan, Joachim. 2018. *Governance for the Sustainable Development Goals: Exploring an Integrative Framework of Theories, Tools, and Competencies*. Springer.
- Monkelbaan, Joachim. 2019a. "Conclusions: The Integrative Sustainability Governance Framework and Ways Forward." Pp. 193–214 in *Governance for the Sustainable Development Goals, Sustainable Development Goals Series*. Singapore: Springer Singapore.
- Monkelbaan, Joachim. 2019b. "Conclusions: The Integrative Sustainability Governance Framework and Ways Forward." Pp. 193–214 in *Governance for the Sustainable Development Goals, Sustainable Development Goals Series*. Singapore: Springer Singapore.
- Morales, María F. 2003. "FINANCIAL INTERMEDIATION IN A MODEL OF GROWTH THROUGH CREATIVE DESTRUCTION." *Macroeconomic Dynamics* 7(3):363–93. doi: 10.1017/S1365100502020138.
- Morçöl, Göktuğ, and James F. Wolf. 2010. "Understanding Business Improvement Districts: A New Governance Framework." *Public Administration Review* 70(6):906–13. doi: <https://doi.org/10.1111/j.1540-6210.2010.02222.x>.
- Morioka, Sandra Naomi, Ivan Bolis, Steve Evans, and Marly M. Carvalho. 2017. "Transforming Sustainability Challenges into Competitive Advantage: Multiple Case Studies Kaleidoscope Converging into Sustainable Business Models." *Journal of Cleaner Production* 167:723–38. doi: 10.1016/j.jclepro.2017.08.118.
- Morrison, Andrew, and Andrew R. Morrison. 2007. *Gender Equality, Poverty and Economic Growth*. World Bank Publications.
- Mouritzen, Poul Erik, and James H. Svara. 2002. *Leadership at the Apex: Politicians and Administrators in Western Local Governments*. University of Pittsburgh Pre.
- Mulgan, Richard. 2000. "'Accountability': An Ever-Expanding Concept?" *Public Administration* 78(3):555–73. doi: <https://doi.org/10.1111/1467-9299.00218>.
- Næss, Lars Otto, Guri Bang, Siri Eriksen, and Jonas Veatne. 2005. "Institutional Adaptation to Climate Change: Flood Responses at the Municipal Level in Norway." *Global Environmental Change* 15(2):125–38. doi: 10.1016/j.gloenvcha.2004.10.003.
- Næss, Lars Otto, Ingrid Thorsen Norland, William M. Lafferty, and Carlo Aall. 2006. "Data and Processes Linking Vulnerability Assessment to Adaptation Decision-Making on Climate Change in Norway." *Global Environmental Change* 16(2):221–33. doi: 10.1016/j.gloenvcha.2006.01.007.

- Navarro-Galera, Andrés, Juan Lara-Rubio, Dionisio Buendía-Carrillo, and Salvador Rayo-Cantón. 2020. “Analyzing Political and Systemic Determinants of Financial Risk in Local Governments.” *Transylvanian Review of Administrative Sciences* 16(59):104–23. doi: 10.24193/tras.59E.6.
- Nazaroff, William W. 1992. “Radon Transport from Soil to Air.” *Reviews of Geophysics* 30(2):137–60. doi: <https://doi.org/10.1029/92RG00055>.
- Newig, Jens, Edward Challies, Nicolas W. Jager, Elisa Kochskaemper, and Ana Adzersen. 2018. “The Environmental Performance of Participatory and Collaborative Governance: A Framework of Causal Mechanisms.” *Policy Studies Journal* 46(2):269–97. doi: <https://doi.org/10.1111/psj.12209>.
- Niekerk, Tryna van, and J. K. T. Sebakamotse. 2020. “A Few Critical Observations of Current Oversight and Accountability Challenges of Financial Management of Municipalities in the Free State Province: An Ethical Dilemma.” *Tydskrif Vir Christelike Wetenskap / Journal for Christian Scholarship* 56(3 & 4):269–93.
- Nitzl, Christian, Dennis Hilgers, Bernhard Hirsch, and David Lindermüller. 2020. “The Influence of the Organizational Structure, Environment, and Resource Provision on the Use of Accrual Accounting in Municipalities.” 28.
- Norby, Truls, Emil H. Jensen, and Sabrina Sartori. 2019. “Deep Decarbonization Efforts in Norway for Energy Sustainability.” *MRS Energy & Sustainability* 6. doi: 10.1557/mre.2019.12.
- Normann, Håkon E. 2015. “The Role of Politics in Sustainable Transitions: The Rise and Decline of Offshore Wind in Norway.” *Environmental Innovation and Societal Transitions* 15(C):180–93. doi: 10.1016/j.eist.2014.11.002.
- Norway. 2020. “Update of Norway’s Nationally Determined Contribution.” Retrieved February 18, 2021 ([https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Norway%20First/Norway_updatedNDC_2020%20\(Updated%20submission\).pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Norway%20First/Norway_updatedNDC_2020%20(Updated%20submission).pdf)).
- Norwegian Ministry of Climate and Environment. 2018. “Norway’s Seventh National Communication. Under the Framework Convention on Climate Change.” 394.
- Norwegian Ministry of Climate and Environment. 2020. “Norway’s Fourth Biennial Report - Under the Framework Convention on Climate Change.” 140.
- Nthekeleng, Linake. 2014. “An Assessment of Local Economic Development (LED) for Sustainable Development and Poverty Alleviation in Buffalo City Metropolitan Municipality.” *Africa’s Public Service Delivery & Performance Review* 2(4):151–68. doi: 10.4102/apsdpr.v2i4.71.
- Oberwittler, Dietrich, and Dr Susanne Karstedt. 2004. *Soziologie der Kriminalität*. Springer-Verlag.
- O’Brien, Jodi. 2006. *The Production of Reality: Essays and Readings on Social Interaction*. Pine Forge Press.

- O'Dwyer, Laura M., and James A. Bernauer. 2013. *Quantitative Research for the Qualitative Researcher*. SAGE Publications.
- OECD. 2007. *Institutionalising Sustainable Development*. OECD.
- OECD. 2013. *OECD Territorial Reviews: Brazil 2013*. OECD Publishing.
- OECD, and Korea Institute of Public Finance. 2013. *OECD Fiscal Federalism Studies Measuring Fiscal Decentralisation Concepts and Policies: Concepts and Policies*. OECD Publishing.
- Oedl-Wieser, Theresia, Kerstin Hausegger-Nestelberger, Thomas Dax, and Lisa Bauchinger. 2020. "Formal and Informal Governance Arrangements to Boost Sustainable and Inclusive Rural-Urban Synergies: An Analysis of the Metropolitan Area of Styria." *Sustainability* 12(24):10637. doi: 10.3390/su122410637.
- Olson, Mancur. 2009. *THE LOGIC OF COLLECTIVE ACTION*. Harvard University Press.
- Opoku, Alex. 2015. "The Role of Culture in a Sustainable Built Environment." Pp. 37–52 in *Sustainable Operations Management, Measuring Operations Performance*, edited by A. Chiarini. Cham: Springer International Publishing.
- Osiński J. (2019), New Public Governance a prawo do dobrej administracji, w: Prawo do dobrej administracji w wymiarze krajowym i europejskim, red. A. Gołębiowska, P. B. Zientarski, Kancelaria Senatu, Warszawa.
- Overmans, J. F. A. 2019. *The Austerity Paradox : How Municipalities (Can) Innovatively Cope with Fiscal Stress*. Eleven international publishing.
- Owusu, Phebe Asantewaa, Samuel Asumadu Sarkodie, and Pål Andreas Pedersen. 2021. "Relationship between Mortality and Health Care Expenditure: Sustainable Assessment of Health Care System." *PLOS ONE* 16(2):e0247413. doi: 10.1371/journal.pone.0247413.
- Özkul, Fatma, and Betül Alkan. 2017. "Financial Condition Analysis In Municipalities: A Case Of Turkey." *Öneri Dergisi* 12:153–74. doi: 10.14783/maruoneri.vi.331667.
- Pandey, Umesh Chandra, Ranjan Nayak, Krishna Roka, and Trilok Kumar Jain. 2021. *SDG14 - Life Below Water: Towards Sustainable Management of Our Oceans*. Emerald Group Publishing.
- Parboteeah, K. Praveen, Helena M. Addae, and John B. Cullen. 2012. "Propensity to Support Sustainability Initiatives: A Cross-National Model." *Journal of Business Ethics* 105(3):403–13. doi: 10.1007/s10551-011-0979-6.
- Park, Angela Y. S., and Rachel M. Krause. 2021. "Exploring the Landscape of Sustainability Performance Management Systems in U.S. Local Governments." *Journal of Environmental Management* 279:111764. doi: 10.1016/j.jenvman.2020.111764.
- Parkinson, Simon, Volker Krey, Daniel Huppmann, Taher Kahil, David McCollum, Oliver Fricko, Edward Byers, Matthew J. Gidden, Beatriz Mayor, Zarrar Khan, Catherine

- Raptis, Narasimha D. Rao, Nils Johnson, Yoshihide Wada, Ned Djilali, and Keywan Riahi. 2019. "Balancing Clean Water-Climate Change Mitigation Trade-Offs." *Environmental Research Letters* 14(1):014009. doi: 10.1088/1748-9326/aaf2a3.
- Patokorpi, Erkki, and Marko Ahvenainen. 2009. "Developing an Abduction-Based Method for Futures Research." *Futures* 41(3):126–39. doi: 10.1016/j.futures.2008.09.019.
- Patwardhan, Anand, Ines Azevedo, Tira Foran, Mahesh Patankar, Anand Rao, Rob Raven, Constantine Samaras, Adrian Smith, Geert Verbong, Rahul Walawalkar, Riddhi Panse, Saumya Ranjan, Neha Umarji, and John Weyant. 2012. "Transitions in Energy Systems." Pp. 1173–1202 in *Global Energy Assessment (GEA)*, edited by T. B. Johansson, N. Nakicenovic, A. Patwardhan, and L. Gomez-Echeverri. Cambridge: Cambridge University Press.
- Penner, Susan J. 2004. *Introduction to Health Care Economics & Financial Management: Fundamental Concepts with Practical Applications*. Lippincott Williams & Wilkins.
- Pennington, Mark. 2000. *Planning and the Political Market: Public Choice and the Politics of Government Failure*. A&C Black.
- Pérez de la Fuente, Beatriz, European Commission, and Directorate-General for Economic and Financial Affairs. 2016. *Economic Growth and Poverty Reduction in a Rapidly Changing World*.
- Perry, James L., and Robert K. Christensen. 2015. *Handbook of Public Administration*. New York, NY, UNITED STATES: John Wiley & Sons, Incorporated.
- Peterson, Paul E., and Henry Lee Shattuck Professor of Government Paul E. Peterson. 1981. *City Limits*. University of Chicago Press.
- Phan, Ho-Tan-Phat, Francesco De Luca, and Lea Iaia. 2020. "The 'Walk' towards the UN Sustainable Development Goals: Does Mandated 'Talk' through NonFinancial Disclosure Affect Companies' Financial Performance?" *Sustainability* 12(6):2324. doi: 10.3390/su12062324.
- Piggot, Georgia, Cleo Verkuijl, Harro van Asselt, and Michael Lazarus. 2020. "Curbing Fossil Fuel Supply to Achieve Climate Goals." *Climate Policy* 20(8):881–87. doi: 10.1080/14693062.2020.1804315.
- Polder, Michael, and Erik Veldhuizen. 2009. "08 Micro and Macro Indicators of Competition: Comparison and Relation with Productivity Change." 47.
- Pope, Whitney. 1975. "Durkheim as a Functionalist." *The Sociological Quarterly* 16(3):361–79. doi: 10.1111/j.1533-8525.1975.tb00954.x.
- Poppe, Christian, Randi Lavik, and Elling Borgeraas. 2016. "The Dangers of Borrowing in the Age of Financialization." *Acta Sociologica* 59(1):19–33. doi: 10.1177/0001699315608923.
- Pratt, Joseph A., Martin V. Melosi, and Kathleen A. Brosnan. 2014. *Energy Capitals: Local Impact, Global Influence*. Pittsburgh PA, UNITED STATES: University of Pittsburgh Press.

- Pressman, Steven. 2004. "What Is Wrong with Public Choice." *Journal of Post Keynesian Economics* 27(1):3–18.
- Prihantari, Gusti Ayu Putu Eka Dewi, and Ida Bagus Putra Astika. 2019. "Effect of Role Overload, Budget Participation, Environmental Uncertainty, Organizational Culture, Competence, and Compensation on Employee Performance." *International Research Journal of Management, IT and Social Sciences* 6(4):197–206. doi: 10.21744/irjmis.v6n4.682.
- Punch, Keith F. 2013. *Introduction to Social Research: Quantitative and Qualitative Approaches*. SAGE.
- Qiu, Zhiguang, Eleonora Egidi, Hongwei Liu, Simranjit Kaur, and Brajesh K. Singh. 2019. "New Frontiers in Agriculture Productivity: Optimised Microbial Inoculants and in Situ Microbiome Engineering." *Biotechnology Advances* 37(6):107371. doi: 10.1016/j.biotechadv.2019.03.010.
- Radović, Vesela. 2019. *SDG16 - Peace and Justice: Challenges, Actions and the Way Forward*. Emerald Group Publishing.
- Raheman, Abdul, and Mohamed Nasr. 2007. "Working Capital Management And Profitability – Case Of Pakistani Firms." 23.
- Ramlaul, Aarthi. 2010. *Medical Imaging and Radiotherapy Research E-Book: Skills and Strategies*. Elsevier Health Sciences.
- Randaberg kommune. 2019a. "Årsmelding Og Årsregnskap 2019." Retrieved March 7, 2021 (<https://www.randaberg.kommune.no/globalassets/dokument/arsmelding/2019/randaberg-kommune---arsregnskap-og-arsmelding-2019.pdf>).
- Randaberg kommune. 2019b. "SAMFUNNSDELEN | KOMMUNEPLAN 2018-2030." Retrieved March 7, 2021 (https://www.randaberg.kommune.no/globalassets/dokument/planer/kommuneplan-2018-2030/ferdig-dok-11-feb-2020/kommuneplan_samfunnsdelen_11-02-2020.pdf).
- Randaberg kommune. 2020a. "RANDABERG KOMMUNE BUDSJETT 2021/ØKONOMIPLAN 2021-2024 RÅDMANNENS FORSLAG." Retrieved March 7, 2021 (https://www.randaberg.kommune.no/globalassets/dokument/budsjett/2021/radmannen-sitt-forslag/bud2021_tekst_radmannen-sitt-forslag_alt.pdf).
- Randaberg kommune. 2020b. "RANDABERG KOMMUNE PLAN OG MILJØ FORSLAG TIL PLANSTRATEGI 2020-2024." Retrieved March 7, 2021 (https://www.randaberg.kommune.no/globalassets/dokument/planer/kommunal-planstrategi-2020-2024/planstrategi_2020.pdf).
- Rasi, I. (2018). *Le cause di squilibrio e i nuovi parametric deficitari*, IFEL -Fondazione ANCI.
- Raspotnik, Andreas, Ragnhild Grønning, and Victoria Herrmann. 2020. "A Tale of Three Cities: The Concept of Smart Sustainable Cities for the Arctic." *Polar Geography* 43(1):64–87. doi: 10.1080/1088937X.2020.1713546.

- Rattsø, Jørn, and Hildegunn E. Stokke. 2014. "Population Divergence and Income Convergence: Regional Distribution Dynamics for Norway." *Regional Studies* 48(11):1884–95. doi: 10.1080/00343404.2013.799842.
- Ravallion, Martin. 2001. "Growth, Inequality and Poverty: Looking Beyond Averages." *World Development* 29(11):1803–15. doi: 10.1016/S0305-750X(01)00072-9.
- Ritchie, Jane, Lewis, Jane, Nicholls, Carol, and Ormston, Rachel. 2003. "Qualitative Research Practice: A Guide for Social Science Students and Researchers." *Choice Reviews Online* 41(03):41-1319-41–1319. doi: 10.5860/CHOICE.41-1319.
- Romøren, Tor Inge, Dag Olaf Torjesen, and Brynjar Landmark. 2011. "Promoting Coordination in Norwegian Health Care." *International Journal of Integrated Care* 11(Special 10th Anniversary Edition).
- Rosa, William, ed. 2017. "Transforming Our World: The 2030 Agenda for Sustainable Development." in *A New Era in Global Health*. New York, NY: Springer Publishing Company.
- Royal Norwegian Ministry of Finance. 2021. *The National Budget 2021, A Summary*.
- Rydin, Yvonne, and Mark Pennington. 2000. "Public Participation and Local Environmental Planning: The Collective Action Problem and the Potential of Social Capital." *Local Environment* 5(2):153–69. doi: 10.1080/13549830050009328.
- Salamon, Lester M. 2002. *The Tools of Government: A Guide to the New Governance*. New York, UNITED STATES: Oxford University Press, Incorporated.
- Sandnes kommune. 2017. Årsrapport 2017. Retrieved from (<https://www.sandnes.kommune.no/politikk-og-administrasjon/styringsdokumenter-og-planer/overordnede-styringsdokumenter/eldre-arsrapporter-og-okonomiplaner/arsrapport-2017/okonomisk-resultat/hovedoversikter/>).
- Sandnes kommune. 2018. Årsrapport 2018. Retrieved from (<https://www.sandnes.kommune.no/politikk-og-administrasjon/styringsdokumenter-og-planer/overordnede-styringsdokumenter/eldre-arsrapporter-og-okonomiplaner/arsrapport-2018/okonomisk-resultat/hovedoversikter/>).
- Sandnes kommune. 2019. Årsrapport 2019. Retrieved from (<https://www.sandnes.kommune.no/politikk-og-administrasjon/styringsdokumenter-og-planer/overordnede-styringsdokumenter/arsrapport-2019/>).
- Sandnes kommune. 2019a. "Årsrapport 2019." Retrieved March 16, 2021 (<https://www.sandnes.kommune.no/politikk-og-administrasjon/styringsdokumenter-og-planer/overordnede-styringsdokumenter/arsrapport-2019/okonomisk-resultat/balansen/>).
- Sandnes kommune. 2019b. "Kommuneplan for Sandnes 2019-2035." Retrieved February 24, 2021

- (<https://www.sandnes.kommune.no/globalassets/tekniskeiendom/samfunnsplan/kommuneplan-2019-2035/endelig-vedtatt/samfunnsdel-vedtatt-av-bystyret-11.3.19.pdf>).
- Sandnes kommune. 2020a. “Årsbudsjett 2021 Og Handlings- Og Økonomiplan 2021-2024.” Retrieved February 24, 2021 (<https://www.sandnes.kommune.no/globalassets/politikkadministrasjon/styringsdokumenterplaner/okonomiplan-20201/vedlegg/handlings--og-okonomiplan-2021-2024.pdf>).
- Sandnes kommune. 2020b. “Planstrategi 2020 – 2023 Og Planprogram for Kommuneplan 2023 – 2038.” Retrieved February 24, 2021 (<https://www.sandnes.kommune.no/globalassets/tekniskeiendom/samfunnsplan/kommuneplan-2023/horing-planstrategi-og-planprogram/planstrategi--og-planprogram-horingsutkast.pdf>).
- Santis, Serena. 2020. “The Demographic and Economic Determinants of Financial Sustainability: An Analysis of Italian Local Governments.” *Sustainability* 12(18):7599. doi: 10.3390/su12187599.
- Sanz, Nuria, Council of Europe Cultural Heritage Division, Council of Europe Directorate of Culture and Cultural and Natural Heritage, and Council of Europe Directorate General IV--Education Environment Culture, Youth and Sport. 2002. *Living Wooden Culture Throughout Europe*. Council of Europe.
- Sareen, Siddharth, ed. 2020. *Enabling Sustainable Energy Transitions: Practices of Legitimation and Accountable Governance*. Cham: Springer International Publishing.
- Sarkar, K. R. 2003. *Public Finance in Ancient India*. Abhinav Publications.
- Sauda kommune. 2020a. “KOMMUNEPLANENS SAMFUNNSDEL SAUDA 2019-2030.”
- Sauda kommune. 2020b. “Økonomiplan 2021 – 2024 Budsjett 2021.” Retrieved March 9, 2021 (<https://www.sauda.kommune.no/planer-og-horinger/okonomiplan/budsjett-og-okonomiplan-2021-2024/>).
- Sauda kommune. 2020c. “PLANSTRATEGI FOR SAUDA KOMMUNE 2020-2023.”
- Sauda kommune. 2020d. “Sauda kommune Årsmelding 2019.”
- Schoenmaker, Dirk. 2018. “A Framework for Sustainable Finance.” *SSRN Electronic Journal*. doi: 10.2139/ssrn.3125351.
- Schoonenboom, Judith, and R. Burke Johnson. 2017. “How to Construct a Mixed Methods Research Design.” *Kolner Zeitschrift Fur Soziologie Und Sozialpsychologie* 69(Suppl 2):107–31. doi: 10.1007/s11577-017-0454-1.
- Schrettle, Stefan, Andreas Hinz, Maike Scherrer -Rathje, and Thomas Friedli. 2014. “Turning Sustainability into Action: Explaining Firms’ Sustainability Efforts and Their Impact on Firm Performance.” *International Journal of Production Economics* 147:73–84. doi: 10.1016/j.ijpe.2013.02.030.

- Schulze-Krogh, Ann Camilla, and Giuseppe Calignano. 2020. "How Do Firms Perceive Interactions with Researchers in Small Innovation Projects? Advantages and Barriers for Satisfactory Collaborations." *Journal of the Knowledge Economy* 11(3):908–30. doi: 10.1007/s13132-019-0581-1.
- Schwanitz, Valeria Jana, August Wierling, and Payal Shah. 2017. "Assessing the Impact of Renewable Energy on Regional Sustainability—A Comparative Study of Sogn Og Fjordane (Norway) and Okinawa (Japan)." *Sustainability* 9(11):1969. doi: 10.3390/su9111969.
- Scott D. Anthony. 2012. "The New Corporate Garage Where Today's Most Innovative—and World-Changing—Thinking Is Taking Place."
- Scott, W. Richard. 2008. "Approaching Adulthood: The Maturing of Institutional Theory." *Theory and Society* 37(5):427–42. doi: 10.1007/s11186-008-9067-z.
- Scott, W. Richard. 2013. *Institutions and Organizations: Ideas, Interests, and Identities*. SAGE Publications.
- Seebohm, Thomas M. 2004. *Hermeneutics. Method and Methodology*. Springer Science & Business Media.
- Segaard, Signe Bock, and Jo Saglie. 2020. "A Gender-Generation Gap in Political Representation? The Contingent Impact of Preference Voting in Norwegian Municipal Elections." *Local Government Studies* 0(0):1–21. doi: 10.1080/03003930.2020.1797691.
- Seidman, Karl F. 2005. *Economic Development Finance*. SAGE.
- Serafimova, Maria, Stephen Hunt, and with Vladimir Vladov. 2009. *Sociology and Law: The 150th Anniversary of Emile Durkheim (1858-1917)*. Cambridge Scholars Publishing.
- Shah, Anwar. 2007a. *Budgeting and Budgetary Institutions*. Herndon, UNITED STATES: World Bank Publications.
- Shah, Anwar, ed. 2007b. *Local Budgeting*. Washington, D.C: World Bank.
- Sharma, Rasadhika, Trung Thanh Nguyen, and Ulrike Grote. 2018. "Changing Consumption Patterns—Drivers and the Environmental Impact." *Sustainability* 10(11):4190. doi: 10.3390/su10114190.
- Sharma, Sanjay, and Harrie Vredenburg. 1998. "Proactive Corporate Environmental Strategy and the Development of Competitively Valuable Organizational Capabilities." *Strategic Management Journal* 19(8):729–53. doi: [https://doi.org/10.1002/\(SICI\)1097-0266\(199808\)19:8<729::AID-SMJ967>3.0.CO;2-4](https://doi.org/10.1002/(SICI)1097-0266(199808)19:8<729::AID-SMJ967>3.0.CO;2-4).
- Sharp, Rhonda, University of South Australia, and Hawke Institute. 2000. *The Economics and Politics of Auditing Government Budgets for Their Gender Impacts*. Magill, S. Aust.: Hawke Institute, University of South Australia.

- Shaw, Peter J., Matthew M. Smith, and Ian D. Williams. 2018. "On the Prevention of Avoidable Food Waste from Domestic Households." *Recycling* 3(2):24. doi: 10.3390/recycling3020024.
- Shorten, Allison, and Joanna Smith. 2017. "Mixed Methods Research: Expanding the Evidence Base." *Evidence-Based Nursing* 20(3):74–75. doi: 10.1136/eb-2017-102699.
- Sinervo, Lotta-Maria. 2020. "Financial Sustainability of Local Governments in the Eyes of Finnish Local Politicians." *Sustainability* 12(23):10207. doi: 10.3390/su122310207.
- Skivenes, Marit, and Sissel C. Trygstad. 2016. "Whistleblowing in Local Government: An Empirical Study of Contact Patterns and Whistleblowing in 20 Norwegian Municipalities." *Scandinavian Political Studies* 39(3):264–89. doi: <https://doi.org/10.1111/1467-9477.12066>.
- Skog, Kristine Lien, and Margrete Steinnes. 2016. "How Do Centrality, Population Growth and Urban Sprawl Impact Farmland Conversion in Norway?" *Land Use Policy* 59:185–96. doi: 10.1016/j.landusepol.2016.08.035.
- Slack, Naomi Enid. 2009. *Guide to Municipal Finance*. UN-HABITAT.
- Smith, Adrian, Andy Stirling, and Frans Berkhout. 2005. "The Governance of Sustainable Socio-Technical Transitions." *Research Policy* 34(10):1491–1510. doi: 10.1016/j.respol.2005.07.005.
- Sokndal kommune. 2012. "Kommuneplan for Sokndal Kommune 2011 – 2022." Retrieved March 1, 2021 (https://www.sokndal.kommune.no/_f/p1/i1e24f989-8bdb-4818-b26c-67923635c21c/kommuneplanens-samfunnsdel.pdf).
- Sokndal kommune. 2019. Årsberetning 2019. Retrieved from Sak/-arkivsystem ePhorte (Statsforvalteren i Rogaland 2020).
- Sokndal kommune. 2020a. "Budsjett 2021 Og Økonomiplan 2021 - 2024." Retrieved March 1, 2021 (https://www.sokndal.kommune.no/_f/p1/i3e865da0-7725-4f93-a02a-6ce83477691b/budsjett-og-okonomiplan-2021-2024.pdf).
- Sokndal kommune. 2020b. "Planstrategi for Sokndal Kommune 2020-2024." Retrieved March 1, 2021 (<https://innsyn.onacos.no/sokndal/wfdocument.ashx?journalpostid=2020006471&dokid=225812&versjon=1&variant=A&>).
- Sola kommune. 2019a. "Årsrapport 2019." Retrieved March 5, 2021 (https://www.sola.kommune.no/_f/p1/icda311bd-3e80-4ea4-a7c7-8174bee82022/%C3%85rsrapport%202019%20Sola%20komune%20med%20kommu-nale.pdf).
- Sola kommune. 2019b. "Kommuneplan for Sola 2019-2035 Samfunnsdel." Retrieved March 5, 2021 (https://www.sola.kommune.no/_f/p1/i0ad0ab33-2a84-4f2f-af68-166f0a844ec2/20200515_samfunnsdelen.pdf).

- Sola kommune. 2020. "Kommunal Planstrategi 2020-2023." Retrieved March 5, 2021 (https://www.sola.kommune.no/_f/p1/i1d2990d7-d24d-4bb1-a0e4-c6be41a88e79/planstrategi-forslag-2020-2023.pdf).
- Solberg, Birger, Alex Moiseyev, Jon Øvrum Hansen, Svein Jarle Horn, and Margareth Øverland. 2021. "Wood for Food: Economic Impacts of Sustainable Use of Forest Biomass for Salmon Feed Production in Norway." *Forest Policy and Economics* 122:102337. doi: 10.1016/j.forpol.2020.102337.
- Sørensen, Rune J. 2006. "Local Government Consolidations: The Impact of Political Transaction Costs." *Public Choice* 127(1):75–95. doi: 10.1007/s11127-006-7106-8.
- Sørensen, Rune J. 2007. "Does Dispersed Public Ownership Impair Efficiency? The Case of Refuse Collection in Norway." *Public Administration* 85(4):1045–58. doi: <https://doi.org/10.1111/j.1467-9299.2007.00681.x>.
- Sorrell, Steve. 2018. "Explaining Sociotechnical Transitions: A Critical Realist Perspective." *Research Policy* 47(7):1267–82. doi: 10.1016/j.respol.2018.04.008.
- Sovacool, Benjamin K., Jonn Axsen, and Steve Sorrell. 2018. "Promoting Novelty, Rigor, and Style in Energy Social Science: Towards Codes of Practice for Appropriate Methods and Research Design." *Energy Research & Social Science* 45:12–42. doi: 10.1016/j.erss.2018.07.007.
- Spaiser, Viktoria, Shyam Ranganathan, Ranjula Bali Swain, and David J. T. Sumpter. 2017. "The Sustainable Development Oxymoron: Quantifying and Modelling the Incompatibility of Sustainable Development Goals." *International Journal of Sustainable Development & World Ecology* 24(6):457–70. doi: 10.1080/13504509.2016.1235624.
- Sparrevik, Magnus, Helene Førsund Wangen, Annik Magerholm Fet, and Luitzen De Boer. 2018. "Green Public Procurement – A Case Study of an Innovative Building Project in Norway." *Journal of Cleaner Production* 188:879–87. doi: 10.1016/j.jclepro.2018.04.048.
- Spurga, Ronald C. 2004. *Balance Sheet Basics: Financial Management for Non-Financial Managers*. Ronald C. Spurga.
- SSB. 2021a. "12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Bjerkreim, Share of Gross Operating Revenues (per Cent).. Statbank Norway." Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021b. "12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Bokn, Share of Gross Operating Revenues (per Cent).. Statbank Norway." Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021c. "12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and

- Year. Eigersund, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/#pxcontent>).
- SSB. 2021d. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Gjesdal, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021e. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Hå, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021f. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Haugesund, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021g. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Hjelmeland, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021h. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Karmøy, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021i. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Klepp, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021j. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Kvitsøy, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021k. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Lund, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).

- SSB. 2021l. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Randaberg, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021m. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Sandnes, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021n. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Sauda, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021o. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Sokndal, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021p. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Sola, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/#pxcontent>).
- SSB. 2021q. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Stavanger, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021r. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Strand, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021s. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Suldal, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021 (<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021t. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Time, Share of Gross Operating Revenues (per Cent).. Statbank Norway.”

- Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021u. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Tysvær, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021v. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Utsira, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021w. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Accounting Concept and Year. Vindafjord, Share of Gross Operating Revenues (per Cent).. Statbank Norway.” Retrieved June 1, 2021
(<https://www.ssb.no/en/statbank/table/12143/chartViewColumn/>).
- SSB. 2021x. “12143: Financial Key Figures from the Operational and Balance Sheet Accounts as a Percentage of Gross Operating Revenues., by Region, Accounting Concept, Contents and Year. Statbank Norway.” Retrieved March 16, 2021
(<https://www.ssb.no/en/statbank/table/12143/tableViewLayout1/#pxcontent>).
- Stafford-Smith, Mark, David Griggs, Owen Gaffney, Farooq Ullah, Belinda Reyers, Norichika Kanie, Bjorn Stigson, Paul Shrivastava, Melissa Leach, and Deborah O’Connell. 2017. “Integration: The Key to Implementing the Sustainable Development Goals.” *Sustainability Science* 12(6):911–19. doi: 10.1007/s11625-016-0383-3.
- Starik, Mark, and Gordon P. Rands. 1995. “Weaving an Integrated Web: Multilevel and Multisystem Perspectives of Ecologically Sustainable Organizations.” *Academy of Management Review* 20(4):908–35. doi: 10.5465/AMR.1995.9512280025.
- Statistics Norway. 2020. “Store endringer i kommunekartet – og statistikken.” *ssb.no*. Retrieved January 25, 2021 (<https://www.ssb.no/offentlig-sektor/artikler-og-publikasjoner/store-endringer-i-kommunekartet-og-statistikken>).
- Statistics Norway. 2021a. “Kommunefakta, Gjesdal (Rogaland).” *SSB*. Retrieved January 31, 2021 (<https://www.ssb.no/kommunefakta/kommune>).
- Statistics Norway. 2021b. “Kommunefakta, Lund (Rogaland).” *SSB*. Retrieved January 31, 2021 (<https://www.ssb.no/kommunefakta/kommune>).
- Statistics Norway. 2021c. “Tax Accounts.” *Ssb.No*. Retrieved January 26, 2021
(<https://www.ssb.no/en/offentlig-sektor/statistikker/skatteregn/maaned/2021-01-19>).
- Stavanger kommune. 2019. “Årsrapport 2019.” Retrieved February 27, 2021
(<https://arsrapport2019.stavanger.kommune.no/wp->

content/uploads/sites/26/2020/04/A%CC%8Arssrapport-2019-Stavanger-kommune-v3.pdf).

Stavanger kommune. 2020. Planstrategi 2020-2023 Stavanger kommune. Retrieved from

(<http://opengov.cloudapp.net/Meetings/STAVANGER/Meetings/Details/1361173?agendaItemId=226109>).

Stavanger kommune. 2020a. “Kommunedirektørens Forslag Handlings- Og Økonomiplan 2021-2024.” Retrieved February 25, 2021

(<https://hop2021.stavanger.kommune.no/wp-content/uploads/sites/29/2020/10/Handlings-og-okonomiplan-2021-2024.pdf>).

Stavanger kommune. 2020b. “Kommuneplanens samfunnsdel 2020–2034.” 25.

Stead, Selina Marguerite. 2019. “Using Systems Thinking and Open Innovation to Strengthen Aquaculture Policy for the United Nations Sustainable Development Goals.” *Journal of Fish Biology* 94(6):837–44. doi: <https://doi.org/10.1111/jfb.13970>.

Stephansen, Anna. 2020. “Neo-Institutional Perspective on the Norwegian Coordination Reform.” *International Journal of Health Governance* 25(1):19–33. doi: 10.1108/IJHG-07-2019-0060.

Stephenson, J. R., B. K. Sovacool, and T. H. J. Inderberg. 2021. “Energy Cultures and National Decarbonisation Pathways.” *Renewable and Sustainable Energy Reviews* 137:110592. doi: 10.1016/j.rser.2020.110592.

Stockholm Resilience Centre. 2016. “Stockholm Resilience Centre - Stockholm Resilience Centre.” Retrieved January 29, 2021 (<https://www.stockholmresilience.org/>).

Stortinget. 2008. “The Storting.” *Stortinget*. Retrieved March 10, 2021 (<https://www.stortinget.no/en/In-English/About-the-Storting/>).

Strand kommune. 2019a. “Årsberetning 2019.” Retrieved February 23, 2021

(<https://innsyn.onacos.no/strand/wfdocument.ashx?journalpostid=2020012036&dokid=688773&versjon=1&variant=A&>).

Strand kommune. 2019b. “Sammen Om Trivsel Kommuneplanens Samfunnsdel 2019-2035.” Retrieved February 22, 2021 (https://www.strand.kommune.no/_f/p11/ia5514142-4910-4e23-a3e0-84b91ddce170/kommuneplanens-samfunnsdel-2019-2035.pdf).

Strand kommune. 2020a. “Budsjett 2021 Med Økonomi- Og Handlingsplan 2021 – 2024 Rådmannens Forslag.” Retrieved February 22, 2021

(<https://innsyn.onacos.no/strand/wfdocument.ashx?journalpostid=2020033219&dokid=739241&versjon=1&variant=A&>).

Strand kommune. 2020b. “Høringsutkast Planstrategi 2020-2023.” Retrieved February 22, 2021

(<https://innsyn.onacos.no/strand/wfdocument.ashx?journalpostid=2020038013&dokid=754454&versjon=1&variant=A&>).

- Subrahmanian, Ramya. 2005. "Gender Equality in Education: Definitions and Measurements." *International Journal of Educational Development* 25(4):395–407. doi: 10.1016/j.ijedudev.2005.04.003.
- Suh, Eun Jung, D. S. Moskowitz, Marc A. Fournier, and David C. Zuroff. 2004. "Gender and Relationships: Influences on Agentic and Communal Behaviors." *Personal Relationships* 11(1):41–60. doi: <https://doi.org/10.1111/j.1475-6811.2004.00070.x>.
- Suldal kommune. 2019. "Årsmelding Og Årsrekneskap 2019 Suldal Kommune." Retrieved March 13, 2021 (https://www.suldal.kommune.no/_f/p13/iab82be8c-2dd4-4a48-9505-a2f159fbc93/arsmelding-og-rekneskap-2019.pdf).
- Suldal kommune. 2020. Framlegg til Planprogram Suldal kommune Kommuneplan 2020-2030 - samfunnsdel og arealdel. Retrieved from (https://innsyn.onacos.no/suldal/wfinnsyn.ashx?response=journalpost_detaljer&journalpostid=2020021050&).
- Suldal kommune. 2020. Planstrategi og folkehelseoversikt for Vindafjord kommune - 2020-2023. Retrieved from (<https://pub.framsikt.net/2020/vindafjord/bm-2020-planstrategi/#/home>).
- Suldal kommune. 2020a. "FINANCIAL PLAN WITH ACTION PROGRAM 2021-2024." Retrieved March 13, 2021 (https://www.suldal.kommune.no/_f/p13/i45f630a7-40ae-4573-bfd5-cedbcbe14582/okonomiplan-med-handlingsprogram-21-24-kommunestyret-sitt-vedtak.pdf).
- Suldal kommune. 2020b. "Planstrategi for Suldal Kommune 2020 – 2024." Retrieved March 13, 2021 (<https://www.suldal.kommune.no/tenester/planar-hoyringar-og-styringsdokument/alle-planar/planstrategi-2020-2024/>).
- Surroca, Jordi, Josep A. Tribó, and Sandra Waddock. 2010. "Corporate Responsibility and Financial Performance: The Role of Intangible Resources: Intangibles, Corporate Responsibility, and Financial Performance." *Strategic Management Journal* 31(5):463–90. doi: 10.1002/smj.820.
- Sverdrup, Liv Astrid. 1997. "Norway's Institutional Response to Sustainable Development." *Environmental Politics* 6(1):54–82. doi: 10.1080/09644019708414311.
- Taamneh, Mohammad M., Mohammad Fathi Almaaitah, and Heba M. Alqdha. 2020. "Challenges Facing Local Government in Jordan and Strategies to Address Them." *Problems and Perspectives in Management* 18(3):402–14. doi: [http://dx.doi.org/10.21511/ppm.18\(3\).2020.33](http://dx.doi.org/10.21511/ppm.18(3).2020.33).
- Tahir, Tasmeeana, and Muhammad Tariq Majeed. 2020. "An Empirical Analysis of Safe Drinking Water and Quality of Life." *Pakistan Journal of Economic Studies* 3(1):1–23.
- Tavory, Iddo, and Stefan Timmermans. 2014. *Abductive Analysis: Theorizing Qualitative Research*. University of Chicago Press.

- Taylor, Steven S., Dalmar Fisher, and Ronald L. Dufresne. 2002. "The Aesthetics of Management Storytelling: A Key to Organizational Learning." *Management Learning* 33(3):313–30. doi: 10.1177/1350507602333002.
- Temeljotov Salaj, Alenka, and Carmel Margaret Lindkvist. 2020. "Urban Facility Management." *Facilities* 39(7/8):525–37. doi: 10.1108/F-06-2020-0078.
- Tennberg, Monica, Joonas Vola, Aileen A. Espiritu, Bjarge Schwenke Fors, Thomas Ejdemo, Larissa Riabova, Elena Korchak, Elena Tonkova, and Tatiana Nosova. 2014. "Neoliberal Governance, Sustainable Development and Local Communities in the Barents Region." 1(1):32.
- The United Nations Environment Programme. 2020. "Coronavirus Outbreak Highlights Need to Address Threats to Ecosystems and Wildlife." *UN Environment*. Retrieved January 30, 2021 (<http://www.unenvironment.org/news-and-stories/story/coronavirus-outbreak-highlights-need-address-threats-ecosystems-and-wildlife>).
- Theofanidis, Dimitrios, and Antigoni Fountouki. 2019. "LIMITATIONS AND DELIMITATIONS IN THE RESEARCH PROCESS." doi: 10.5281/ZENODO.2552022.
- Thomas, Eileen, and Joan Kathy Magilvy. 2011. "Qualitative Rigor or Research Validity in Qualitative Research." *Journal for Specialists in Pediatric Nursing* 16(2):151–55. doi: 10.1111/j.1744-6155.2011.00283.x.
- Thomas Sattich. 2019. "Sustainability Transitions and Public Policy Theories." Retrieved June 12, 2021 (<https://stavanger.instructure.com/courses/4713/files/folder/Lectures?preview=614274>).
- Thorsnæs, Geir. 2018. "Lund." *Store norske leksikon*.
- Thukaram, Rao M. E. 2007. *Management Accounting*. New Age International.
- Time kommune. 2015. "Kommuneplan for Time 2015 - 2027 Samfunnsdel." Retrieved March 13, 2021 (https://www.time.kommune.no/_f/p1/ia0156489-0975-42d2-a06e-da46e6faffba/kommuneplan-samfunnsdelen.pdf).
- Time kommune. 2019. "Årsrapport 2019." Retrieved March 13, 2021 (https://www.time.kommune.no/_f/p1/i9a04422b-5945-4326-b7e9-e5fe992051de/arsrapport-2019.pdf).
- Time kommune. 2020a. "Budsjett for 2021 Og Økonomiplan for 2021-2024." Retrieved March 13, 2021 (https://www.time.kommune.no/_f/p1/ib696274b-7389-48a2-9ad5-e076048358f3/okonomiplan-2021-2024.pdf).
- Time kommune. 2020b. "Planstrategi for Time Kommune 2019-2023." Retrieved March 13, 2021 (https://www.time.kommune.no/_f/p1/i4c149175-8f69-4c4a-b01b-2e4662cb1d37/planstrategi-for-time-kommune-2019-2023.pdf).

- Tomas Bata University in Zlín, Milana Otrusinova, Alena Kulleova, and Tomas Bata University in Zlín. 2019. "Liquidity Values in Municipal Accounting in the Czech Republic." *Journal of Competitiveness* 11(1):84–98. doi: 10.7441/joc.2019.01.06.
- Tonne, Tore. 1983. "Energy Policy: A Norwegian Perspective." 22.
- Tørnblad, S. H., H. Westskog, and L. E. Rose. 2014. "Does Location Matter? Public Acceptance of Restrictive Policy Measures at the Local Level." *Journal of Environmental Policy & Planning* 16(1):37–54. doi: 10.1080/1523908X.2013.817946.
- Torsteinsen, Harald, and Hilde Bjørnå. 2012. "Agencies and Transparency in Norwegian Local Government." *Scandinavian Journal of Public Administration* 16(1):5-25–25.
- Tosun, Jale, and Julia Leininger. 2017. "Governing the Interlinkages between the Sustainable Development Goals: Approaches to Attain Policy Integration." *Global Challenges* 1(9):1700036. doi: <https://doi.org/10.1002/gch2.201700036>.
- Turner, Adair. 2017. *Between Debt and the Devil: Money, Credit, and Fixing Global Finance*. Princeton University Press.
- Tvinnereim, Endre, Ole Martin Læg Reid, and Kjersti Fløttum. 2020. "Who Cares about Norway's Energy Transition? A Survey Experiment about Citizen Associations and Petroleum." *Energy Research & Social Science* 62:101357. doi: 10.1016/j.erss.2019.101357.
- Tysvær kommune. 2015. "KOMMUNEPLANEN 2015-2027 SAMFUNNSDELEN."
- Tysvær kommune. 2019. Årsmelding Tysvær kommune 2019. Retrieved from (https://pub.framsikt.net/2019/tysver/mr-201912-%C3%A5rsmelding_2019/#/).
- Tysvær kommune. 2020. Planstrategi Tysvær kommune 2020-2023. Retrieved from (<https://pub.framsikt.net/2020/tysver/bm-2020-planstrategi/#/>).
- Tysvær kommune. 2020. Budsjett 2021. Økonomiplan 2022 – 2024. Retrieved from (https://pub.framsikt.net/2021/tysver/bm-2021-budsjett_2021/#/).
- Udehn, Lars. 2002. "THE CHANGING FACE OF METHODOLOGICAL INDIVIDUALISM." *Annu. Rev. Sociol.* 28(1):479–507. doi: 10.1146/annurev.soc.28.110601.140938.
- Ullah, Mehfooz, Muhammad Waris Ali Khan, and Lee Chia Kuang. 2021. "Role of Project Governance in Managing Projects Sustainability: A Theoretical Perspective." Pp. 789–98 in *ICCOEE2020*. Vol. 132, *Lecture Notes in Civil Engineering*, edited by B. S. Mohammed, N. Shafiq, S. Rahman M. Kutty, H. Mohamad, and A.-L. Balogun. Singapore: Springer Singapore.

- UNDESA. 2012. *A Guidebook to the Green Economy Issue 1: Green Economy, Green Growth, and Low-Carbon Development – History, Definitions and a Guide to Recent Publications Division for Sustainable Development, UNDESA.*
- United Nations. 1987. *Report of the World Commission on Environment and Development Our Common Future.*
- United Nations. 2015. “United Nations. Adoption of the Paris Agreement, Framework Convention on Climate Change. In: Conference of the Parties.”
- United Nations and Sustainable Development. 2015. “Transforming Our World: The 2030 Agenda for Sustainable Development.” Retrieved January 29, 2021 (https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E).
- Utsira kommune. 2012. Samfunnsdel til Kommuneplan 2012-2022. Retrieved from (<https://www.utsira.kommune.no/tema/individ-og-samfunn/innbyggerrettigheter/arkiv-saksframlegg/saksframlegg-formannskap/2012/samfunnsdel-til-kommuneplan-2012-2022/view>).
- Utsira kommune. 2019. “Kommunal planstrategi – Utsira kommune 2019-2022.”
- Utsira kommune. 2019. Årsmelding Utsira kommune 2019. Retrieved from (<https://www.utsira.kommune.no/tema/individ-og-samfunn/innbyggerrettigheter/arkiv-saksframlegg/saksframlegg-formannskap/2020/Arsmelding%20Utsira%20kommune%202019.pdf/view>).
- Utsira kommune. 2020. Formannskapetets høringsforslag Økonomiplan 2021-2024. Retrieved from (<https://www.utsira.kommune.no/utsira-kommune/administrasjonen/formannskapetets-horingsforslag>).
- Uys, Frederick M., and Fakier Jessa. 2013. “A Normative Approach to Organisational Performance Management (OPM) in Municipalities.”
- Van de Ven, Andrew H. 2007. *Engaged Scholarship : A Guide for Organizational and Social Research.* Oxford: Oxford University Press.
- Veggeland, Noralv. 2019. *Democratic Governance in Scandinavia: Developments and Challenges for the Regulatory State.* Springer.
- Verbong, G. P. J., and F. W. Geels. 2010. “Exploring Sustainability Transitions in the Electricity Sector with Socio-Technical Pathways.” *Technological Forecasting and Social Change* 77(8):1214–21. doi: 10.1016/j.techfore.2010.04.008.
- Vernimmen, Pierre, Pascal Quiry, Maurizio Dallochio, Yann Le Fur, and Antonio Salvi. 2014. *Corporate Finance: Theory and Practice.* John Wiley & Sons.

- Vindafjord kommune. 2017. "KOMMUNEPLAN for Vindafjord Kommune 2017-2029 Samfunnsdelen." Retrieved March 12, 2021 (https://www.vindafjord.kommune.no/_f/p11/i780c7aed-4ab4-4938-bcf4-0936728539a1/kommuneplanen_sin_samfunnsdel_2017-2029.pdf).
- Vindafjord kommune. 2019. "Årsmelding 2019 Vindafjord Kommune." Retrieved March 12, 2021 (https://www.vindafjord.kommune.no/_f/p11/icf2cbe46-14b1-428e-a7ed-cced174e2ffb/arsmelding-2019-for-vindafjord-kommune.pdf).
- Vindafjord kommune. 2020. Budsjett 2021 og økonomiplan for 2021-2024. Retrieved from (https://pub.framsikt.net/2021/vindafjord/bm-2021-_budsjett_2021_og_%C3%B8p_2021-2024_kd-forslag/#/).
- Vindafjord kommune. 2020. Planstrategi og folkehelseoversikt for Vindafjord kommune - 2020-2023. Retrieved from (<https://pub.framsikt.net/2020/vindafjord/bm-2020-planstrategi/#/home>).
- Virtanen, Petri, Tiina Ristikari, and Mika Niemelä. 2020. "Collective Impact Partnership and Backbone Organizations as Enablers of Children's Well-Being." Pp. 1–14 in *Partnerships for the Goals, Encyclopedia of the UN Sustainable Development Goals*, edited by W. Leal Filho, A. M. Azul, L. Brandli, A. Lange Salvia, and T. Wall. Cham: Springer International Publishing.
- Wagner, Marcus, and Joris Blom. 2011. "The Reciprocal and Non-Linear Relationship of Sustainability and Financial Performance." *Business Ethics: A European Review* 20(4):418–32. doi: <https://doi.org/10.1111/j.1467-8608.2011.01622.x>.
- Watkins, Daphne C. 2012. "Qualitative Research: The Importance of Conducting Research That Doesn't 'Count.'" *Health Promotion Practice* 13(2):153–58. doi: 10.1177/1524839912437370.
- Weber, Max. 1981. "Some Categories of Interpretive Sociology." *The Sociological Quarterly* 22(2):151–80. doi: 10.1111/j.1533-8525.1981.tb00654.x.
- Wejs, Anja, Kjell Harvold, Sanne Vammen Larsen, and Inger-Lise Saglie. 2014. "Legitimacy Building in Weak Institutional Settings: Climate Change Adaptation at Local Level in Denmark and Norway." *Environmental Politics* 23(3):490–508. doi: 10.1080/09644016.2013.854967.
- Werin, Lars. 2003. *Economic Behavior and Legal Institutions: An Introductory Survey*. World Scientific.
- Westskog, Hege, Grete K. Hovelsrud, and Göran Sundqvist. 2017. "How to Make Local Context Matter in National Advice: Towards Adaptive Comanagement in Norwegian Climate Adaptation." *Weather, Climate, and Society* 9(2):267–83. doi: 10.1175/WCAS-D-16-0063.1.
- Wiersema, William. 2006. *Manufacturing, Distribution and Retail Guide*. CCH.

- Wiles, Rose, and Janet Boddy. 2013. "Introduction to the Special Issue: Research Ethics in Challenging Contexts." *Methodological Innovations Online* 8(2):1–5. doi: 10.4256/mio.2013.009.
- Wilson, Jonathan. 2010. *Essentials of Business Research: A Guide to Doing Your Research Project*. SAGE.
- Wu, Di, Hao Wang, and Razak Seidu. 2020. "Smart Data Driven Quality Prediction for Urban Water Source Management." *Future Generation Computer Systems* 107:418–32. doi: 10.1016/j.future.2020.02.022.
- Yilmaz, Kaya. 2013. "Comparison of Quantitative and Qualitative Research Traditions: Epistemological, Theoretical, and Methodological Differences." *European Journal of Education* 48(2):311–25. doi: 10.1111/ejed.12014.
- Yilmaz, Serdar, and Robert D. Ebel. 2020. "Subnational Government, Infrastructure, and the Role of Borrowing and Debt." Pp. 265–91 in *Development Studies in Regional Science*. Vol. 42, *New Frontiers in Regional Science: Asian Perspectives*, edited by Z. Chen, W. M. Bowen, and D. Whittington. Singapore: Springer Singapore.
- Yin, Robert K. 2011. *Applications of Case Study Research*. SAGE.
- Yin, Robert K. 2017. *Case Study Research and Applications: Design and Methods*. SAGE Publications.
- Zainal, Zaidah. 2007. "Case Study As a Research Method." *Jurnal Kemanusiaan* 5(1).
- Zakaria, Maheran, Rahayu Abdul Rahman, and Hasnun Anip Bustaman. 2020. "Exploring a Model of Whistle Blowing System for Malaysian Municipal Council." *International Journal of Financial Research* 11(3):62. doi: 10.5430/ijfr.v11n3p62.
- Zalaghi, Hasan, and Mahdi Khazaei. 2016. "The Role of Deductive and Inductive Reasoning in Accounting Research and Standard Setting." *Asian Journal of Finance & Accounting* 8(1):23. doi: 10.5296/ajfa.v8i1.8148.
- Zanten, Jan Anton van, and Rob van Tulder. 2020. "Towards Nexus-Based Governance: Defining Interactions between Economic Activities and Sustainable Development Goals (SDGs)." *International Journal of Sustainable Development & World Ecology* 0(0):1–17. doi: 10.1080/13504509.2020.1768452.
- Zariyawati, M. A., M. N. Annuar, H. Taufiq, and A. S. Abdul Rahim. 2009. "Working Capital Management and Corporate Performance: Case of Malaysia." 9.
- Zeijl-Rozema, Annemarie van, Ron Cörvers, René Kemp, and Pim Martens. 2008. "Governance for Sustainable Development: A Framework." *Sustainable Development* 16(6):410–21. doi: <https://doi.org/10.1002/sd.367>.
- Zhao, Dr. Lijuan. 2014. "The Influence of the Culture on Managers' Capital-Budget Decisions." *International Journal of Accounting and Taxation* 2(4). doi: 10.15640/ijat.v2n4a3.

- Zheng, Xinzhu, Ranran Wang, Arjen Y. Hoekstra, Maarten S. Krol, Yaxin Zhang, Kaidi Guo, Mukul Sanwal, Zhen Sun, Junming Zhu, Junjie Zhang, Amanda Lounsbury, Xunzhang Pan, Dabo Guan, Edgar G. Hertwich, and Can Wang. 2021. “Consideration of Culture Is Vital If We Are to Achieve the Sustainable Development Goals.” *One Earth* 4(2):307–19. doi: 10.1016/j.oneear.2021.01.012.
- Zhou, Yingying, Zhuoqing Fang, Nan Li, Xueyan Wu, Yuehan Du, and Zonghan Liu. 2019. “How Does Financial Development Affect Reductions in Carbon Emissions in High-Energy Industries?—A Perspective on Technological Progress.” *International Journal of Environmental Research and Public Health* 16(17). doi: 10.3390/ijerph16173018.
- Zoeteman, Kees, Hans Mommaas, and John Dagevos. 2016. “Are Larger Cities More Sustainable? Lessons from Integrated Sustainability Monitoring in 403 Dutch Municipalities.” *Environmental Development* 17:57–72. doi: 10.1016/j.envdev.2015.08.003.

Appendix A – SDGs on local level throughout the 23 municipalities in Rogaland

Table 2. Overview over municipalities SDGs.

	Strand municipality
Planning strategy report 2020-2023	Municipality emphasize economic, ecological and social sustainable development of society, given the SDGs at hand (Strand kommune 2020b). An imperative principle to achieve that: belief in the future and optimism that makes us dare to invest more, strengthen the power of action through overall management and holistic thinking, active and innovative approach, establish good collaboration with important actors in society (business, service recipients, volunteers), engagement through involvement and participation (ibid.). The government wants the UN's 17 sustainability goals (it must be part of the basis for community and spatial planning) to be the main political track for addressing the present challenges (ibid.).
The community part of the municipal plans 2019-2035 report	Important principles for achieving the desired development is belief in the future and optimism that makes us dare to invest more, strengthen the power of action through overall management and holistic thinking, active and innovative approach, establish good collaboration with important actors in society (business, service recipients, volunteers), engagement through involvement and participation (Strand kommune 2019b). Strand emphasize economic, ecological, and socially sustainable development of society (ibid.).
Budget 2021 with financial and action plan 2021-2024 report	SDGs are not mentioned.
Annual report 2019	Main priorities of societal development up to 2035 will be public health, sustainable economy, attractiveness and climate (all planning and activity must be based on these topics), thus to succeed in this, co-creation and innovation will be imperative methods across the

	themes (Strand kommune 2019a). Going forward, it will be important to determine measurement parameters as a basis for assessing goal achievement (ibid.).
--	---

Table 2. (continued)

	Kvitsøy municipality
Municipal planning strategy for Kvitsøy municipality 2020-2024	The planning strategy shall be based on the national expectations that the government has for regional and municipal planning to promote sustainable development (Kvitsøy kommune 2020). Norway, as one of the world's foremost welfare societies, has come a long way in the work of fulfilling several of the goals, however various demanding sustainability challenges in several areas are still present (ibid.). Kvitsøy has highlighted and made explicit the sustainability perspective through the goals and instruments in all the focus areas in the plan: social (working for security, quality of life and good living conditions for the inhabitants of the municipality), environmental (curtailing climate emissions and environmentally harmful practices) and economic (by managing total resources in order to maintain a good and predictable level of welfare over time) (ibid.). The UN's sustainability goals and the Rogfast scenario are the two key prerequisites that provide guidelines for all planning work in Kvitsøy (ibid.).
Municipal plan for Kvitsøy 2019-2030 area part	Kvitsøy's distinctive features and qualities as a sustainable and vibrant coastal community shall be preserved, and the development of society in the future shall take place with a strong degree of local management and participation (Kvitsøy kommune 2020).
Budget 2021 Action and financial plan 2021-2024 report	SDGs are not mentioned.
Annual report 2019	SDGs are not mentioned.

Table 2. (continued)

	Sandnes municipality
Planning strategy 2020-2023 and planning program for municipal plan 2023-2038	The Government emphasize the UN's 17 sustainability goals to be the main political track for tackling the greatest challenges of our time and it must be part of the basis for community and spatial planning (Sandnes kommune 2020b). Regional plans shall contribute to physical (cooperation must be strengthen), environmental (GHG emissions result in more extreme weather, land use creates biodiversity, food security), economic (the business community should adapt to a low-emission society, competence for a changing labour market) and social (society must adapt to an aging population, an increasing social differences) development in the county (ibid.). The community and area part of the municipal plan should be revised in the current period, but then under the heading further develop and strengthen (it involves adjusting and deepening the strategies that lie ahead and the implementation of the UN's sustainability goals) (ibid.). Translating dimensions of sustainability within the Sandnes context will be an important part of the plan design (ibid.).
Municipal plan for Sandnes 2019-2035 Community part	The emphasis is placed on 3 pillars of sustainability: society that provides equal opportunities for all citizens regardless of background and place of residence, municipality's goals must safeguard the municipality's financial capacity over time (resources must be managed in a good way for the benefit of current and future generations), taking care of the climate and the environment (through energy restructuring, climate adaptation and emission reduction measures) and sustainable development and the public health perspective safeguard important national and regional guidelines (Sandnes kommune 2019b). This build on three goals: Sandnes must be an inclusive and diverse society, Sandnes must be an attractive municipality and Sandnes municipality shall be a responsible and offensive community developer (ibid.).
Annual budget 2021 and Action	The emphasis is placed on three pillars of sustainability (Sandnes kommune 2020a).

and financial plan 2021-2024	
Annual report 2019	Three goals are emphasized: Sandnes must be an inclusive and diverse society, Sandnes must be an attractive municipality and Sandnes municipality shall be a responsible and offensive community developer (Sandnes kommune 2019).

Table 2. (continued)

	Stavanger municipality
Planning strategy 2020-2023 Stavanger municipality/Challenges document 2020	The Government emphasize the UN's 17 sustainability goals to be the main political track for tackling the greatest challenges of our time and it must be part of the basis for community and spatial planning (Stavanger kommune 2020). Regional plans shall contribute to physical, environmental, economic, and social development in the county (ibid.). For achieving the desired societal development three priority areas are highlighted: the regional engine (diverse local life and a strong city centre), good everyday life (everyone should be fine where they live, whether they are 4 or 80) and green initiate (we must take care of nature and become more environmentally friendly) (ibid.). The plan has goals and strategies within these areas and the social part of the municipal plan is operationalization of the UN's sustainability goals (ibid.).
The social part of the municipal plan 2020–2034	Priority areas are highlighted: regional engine, good everyday life, green initiate, and municipality and we (municipal organization, which must work in new ways to achieve the goals (Stavanger kommune 2020b). Emphasis is placed on SDG 17 (municipality role as an active community developer) and developing municipality as a good welfare society is a community project that requires various actors (private and public) to work together (ibid.).
The municipal director's proposal Action and	Three priority areas are highlighted: the regional engine, good everyday life and green initiate (Stavanger kommune 2020a).

financial plan 2021-2024	Stavanger municipality participates together with Trondheim, Ålesund, Asker and Bærum municipalities in a national UN network for sustainability with the UN organization UNECE (ibid.). Municipality will work to inform, implement, and evaluate the status of the work to achieve the SDGs (ibid.).
Annual report 2019	Three priority areas are highlighted: the regional engine, good everyday life and green initiative (Stavanger kommune 2019).

Table 2. (continued)

	Haugesund municipality
Municipal planning strategy 2019-2023	Sustainability is the foundation for Haugesund's municipal plan and the five priority areas (to live, to live, city life for all, to work/to create, to move) that make up the community part (Haugesund kommune 2020b). The community section builds on the 17 SDGs from the UN, as well as stricter national guidelines in topics such as climate and energy and age-friendly local communities (ibid.). The UN's SDGs are used as a framework in municipal plans to act locally and think globally (ibid.). Haugesund participates in the UN initiative Renewable and Smart Cities (United 4 Smart Sustainable Cities - U4SSC) project (ibid.). Municipality will use the map solution with the aim of testing a more goal-oriented and strategic method within the spatial planning (ibid.).
The community part of the municipal plan 2014-2030	Social, economic, and environmental sustainability must be a leading premise for all work in the municipality (Haugesund kommune 2015). Five priority areas are emphasized.
Budget and financial plan 2021 to 2024 Budget 2021 The municipal director's proposal	Haugesund municipality has already participated in the first analyzes to see own sustainability development up to 100 cities in Norway and abroad (Haugesund kommune 2020a). Municipality has challenges related to three dimensions of sustainability and should have a holistic and balanced approach in all decision-making processes (ibid.).

Annual accounts and annual report 2019 Haugesund municipality	SDGs are not mentioned.
--	-------------------------

Table 2. (continued)

	Sokndal municipality
Planning strategy for Sokndal municipality 2020-2024	SDGs are not mentioned.
Municipal plan for Sokndal municipality 2011-2022	SDGs are not mentioned.
Budget 2021 and financial plan 2021 - 2024	SDGs are not mentioned.
Annual report 2019	SDGs are not mentioned. However, municipality have incorporated measurement of the goals within the organization's units.

Table 2. (continued)

	Eigersund municipality
Municipal planning strategy 2020-2023 "Together for all"	All planning in Eigersund municipality must comply with the UN's SDGs – in line with the guidelines laid down by the Government for municipal planning (Eigersund kommune 2020). Socially sustainable local communities are the theme for the public health profile 2020 (ibid.).
Eigersund on it is way to 2030	Relevant measurement indicators up to 2030 will be the City Index, the Municipal Barometer (Municipal Report), business establishments (Innovation Norway), Business Index (NHO), long-term unemployment (NAV), disability (NAV), infrastructure for

The social part of the municipal plan 2018-2030	pedestrians and cyclists, completion rate in upper secondary school, age and gender context and life expectancy (National Institute of Public Health) (Eigersund kommune 2018). Goals and strategies are emphasized for value creation in society.
Budget and financial plan 2021 (2021-2024)	SDGs are not mentioned. Goals and strategies are emphasized.
Annual report 2019	SDGs are not mentioned. However, municipality have incorporated measurement of the goals within the organization's units.

Table 2. (continued)

	Hå municipality
Planning strategy 2020-2023	The municipality's finances and ability to solve tasks in interaction with the local community, neighboring municipalities and authorities are an important part of a sustainable development for the Hå community (Hå kommune 2020b). To create sustainable development, it is imperative to work in three areas: «Climate and environment», «Economy» and «Social conditions». Because sustainability measures see environment, economy and social development in the context, the follow-up of goals involves a holistic approach to future task solution at local, regional, national, and international level (ibid.). Six SDGs (goal number 3,4,9,11,13,17) stand out as the most important for Hå (ibid.).
Municipal plan 2021-2036 Plan program	Six SDGs (goal number 3,4,9,11,13,17) are emphasized (Hå kommune 2020a). Social, economic, and environmental dimensions discussed (ibid.).
Budget 2021 and financial plan for 2021-2024	Six SDGs (goal number 3,4,9,11,13,17) are emphasized (Hå kommune 2020).
Annual report 2019	SDGs are not mentioned.

Table 2. (continued)

	Klepp municipality
Plan program Municipal plan for Klepp 2022-2033	Integration of the UN's sustainability goals - new «Klepp goals» (Klepp kommune 2021). SDGs shall form the basis for the municipal plan's part of society, and 5 selected goals (goal number 3,4,10,11,15) are of particular attention (ibid.).
Planning strategy 2020-2023	SDGs articulated regarding relevance for municipality work.
Action and financial plan 2021-2024 The municipal director's proposal (preliminary edition)	SDGs are not mentioned.
Accounts and annual report 2019	SDGs are not mentioned.

Table 2. (continued)

	Sola municipality
Municipal plan for Sola 2019-2035 Community section	All development in the municipality must be sustainable – such development includes both economic sustainability, sustainability for the environment and social sustainability wherever the cultural dimension is included (Sola kommune 2019b). 4 strategies are emphasized. SDGs are not operationalized.
Municipal planning strategy 2020- 2023/Challenge picture for Sola municipality	Collaboration, social, economic, and environmental challenges are taken into account (Sola kommune 2020). All 17 SDGs are outlined in relation to municipality strategies and priorities.

Action and financial plan 2021-2024	-
Annual report 2019	4 strategies are emphasized.

Table 2. (continued)

	Hjelmeland municipality
Hjelmeland of course! Municipal plan 2019-2031 Social part	SDGs are not mentioned.
Plan Strategy for Hjelmeland 2020-2023	SDGs are not mentioned.
Budget 2021 Financial plan 2021-2024	An important objectives during the budget period are SDGs (Hjelmeland kommune 2020a).
Annual Report 2019	SDGs are not mentioned.

Table 2. (continued)

	Randaberg municipality
Municipal plan 2018-2030 Social part	Sustainable development is to consider social and economic conditions that can create a better society (Randaberg kommune 2019b).
Randaberg municipality Plan and environment Proposal for plan strategy 2020-2024	Ensure the SDGs in community and spatial planning (Randaberg kommune 2020b). Municipality have articulated SDGs number (1,3,4,6,7,8,9,10,11,12,13,14,15,17) (ibid.).
Randaberg municipality Budget 2021 Financial plan 2021-2024 Councils Proposal	SDGs are not mentioned.
Annual report and annual accounts 2019	SDGs are not mentioned.

Table 2. (continued)

	Sauda municipality
Municipal Plan's Community Part Sauda 2019-2030	Goals and strategies are outlined. SDGs are not mentioned.
Plan Strategy 2020-2023	Vision, strategies are outlined. SDGs number (1,2,3,4,5,7,8,9,10,11,12,13,14,15,16,17) discussed. Social sustainability is the challenge (Sauda kommune 2020c). Even though new national expectations and UN 17 SDGs are not explicitly anchored in Sauda's municipal plan, the sustainability perspective is the basis of the plan (ibid.).
Financial plan 2021-2024 Budget 2021	SDG number (1,2,3,4,5,7,9,10,17) articulated.
Annual Report 2019	Strategies are outlined. SDGs are not mentioned.

Table 2. (continued)

	Bokn municipality
Municipal plan Bokn municipality 2019-2031- The social part	SDGs are not mentioned.
Plan strategy for Bokn kommune 2019-2023	SDGs are not mentioned.
Budget 2021 Financial plan 2021-2024	SDGs are not mentioned.
Annual Report 2019 Bokn municipality	SDGs are not mentioned.

Table 2. (continued)

	Utsira municipality
Community part of the Municipal Plan 2012- 2022	SDGs are not mentioned.

Municipal planning strategy - Utsira municipality 2019-2022	In 2019, Utsira municipality has adopted road map (with the aim of promoting sustainable, productive, and adaptable cities and communities) and thinking by participating in innovation competition under the auspices of Doga, Nordic Edge and Innovation Norway/the aim is to resolve challenges in relation to attractiveness and job creation (SDGs number 9,11,17 are emphasized) (Utsira kommune 2019).
Financial plan 2021-2024	Participation in innovation competition under the auspices of Doga, has awakened us a little in relation to the UN SDGs and goal images in the roadmap for smart small communities (an inspiration for work further) (Utsira kommune 2020).
Annual report Utsira municipality 2019	SDGs are not mentioned.

Table 2. (continued)

	Vindafjord municipality
Municipal plan for Vindafjord municipality 2017-2029 The social part	SDGs are not mentioned.
Planning strategy for Vindafjord municipality - 2020-2023	SDGs number (1,2,3,4,6,8,9,10,11,12,13,17) is discussed (Vindafjord kommune 2020).
Budget 2021 and Financial Plan 2021-2024	Through the upcoming work on the municipal plan, we can link the UN's sustainability goals to own goals, strategies, and measures (Vindafjord kommune 2020).
Annual Report 2019 Vindafjord municipality	SDGs are not mentioned.

Table 2. (continued)

	Time municipality
Municipal Plan for Time 2015-2027 Community section	SDGs are not mentioned.
Planning strategy for Time municipality 2019-2023	Municipality wants to build community planning on the UN sustainability goals through prioritization of the most relevant sustainability measure into the municipal plan's community part (Time kommune 2020b). SDGs number 2,3,4,6,7,8,9,10,11,12,13,15 is discussed (ibid.).
Budget for 2021 and Financial Plan for 2021-2024	SDGs are not mentioned.
Annual report 2019	SDGs are not mentioned.

Table 2. (continued)

	Suldal municipality
Submission to Plan program Suldal municipality Municipal Plan 2020-2030 - community part and area part	Planning as a tool for holistic and sustainable development/ecologically sustainable society/sustainable area and transport development/cities and towns where it is good to live (Suldal kommune 2020).
Planning strategy for Suldal municipality 2020-2024/ Planning strategy and public health overview for Vindafjord municipality - 2020-2023	SDGs number 1,2,3,4,6,8,9,10,11,12,13,17 is outlined (Suldal kommune 2020).
Financial plan with Action program 2021-2024	SDGs are not mentioned.
Annual report and	SDGs are not mentioned.

annual accounts 2019	
-------------------------	--

Table 2. (continued)

	Tysvær municipality
Municipal plans 2015-2027 The society	SDGs are not mentioned.
Plan strategy Tysvær kommune 2020-2023	In the coming period, it must be looked at each individual sustainability goal and its significance for Tysvær municipality and the region (one must look at what challenges the 17 goals point to that may be relevant and one must consider what future opportunities Tysvær has to achieve them) (Tysvær kommune 2020).
Budget 2021 Financial plan 2022 - 2024	SDGs number 3,4,8,9,17 is discussed (Tysvær kommune 2020).
Annual report 2019	SDGs are not mentioned.

Table 2. (continued)

	Karmøy municipality
Plan program Municipal plan part of society 2021-2030	Governing the municipality as a community and organization in a direction that is rooted in the UN's sustainability goals (Karmøy kommune 2020c).
Municipal planning strategy 2020-2023	SDGs are not mentioned.
Action program 2021-2024	Karmøy is one of the nine municipalities that have participated in a pilot project called U4SSC (Karmøy kommune 2020a). Municipality have

With annual budget and financial plan The councillor's proposal	implemented key performance indicators (KPIs) for sustainable city development (ibid.).
Annual account 2019	SDGs are not mentioned.

Table 2. (continued)

	Bjerkreim municipality
Plan program for the municipal plan's area part and the community part of the municipal plan/Municipal Plan 2014-2026. Community part with action program	The UN's sustainability goals are at the heart of the challenges and the challenges correspond to parts of the focus areas in plan, and it will be considered when the themes are decided (Bjerkreim kommune 2020b).
Plan strategy for Bjerkreim kommune 2020-2023	SDGs are not mentioned.
Proposed Financial Plan 2021-2024 Budget 2021	SDGs are not mentioned.
Annual report 2019	SDGs are not mentioned.

Table 2. (continued)

	Lund municipality
Planning strategy 2020-2024	Municipality have recently adopted restructuring project “Attractive/smart local communities” in the process around the revision of the social part (Lund kommune 2020d). Rogaland County Municipality, Nordic Edge, and representatives from local businesses – are municipalities partners in this project (ibid.). The UN's 17 sustainability goals also provide guidelines that must be considered

	(ibid.). The status for the municipal planning strategy for 2020 is being revised (ibid.).
Plan program for rolling out the community part of the municipal plan and the land-use 2021-2032	SDGs are not incorporated.
Annual budget 2021 Financial plan 2021 - 2024	SDGs are not mentioned.
Annual report 2019	SDGs are not mentioned.

Table 2. (continued)

	Gjesdal municipality
Planning strategy 2019-2023	The community part of the municipal plan for Gjesdal is not designed with special thought in mind to clarify each individual sustainability goal (Gjesdal kommune 2020c). The intention of the plan, and the objectives in it, is nevertheless designed in a way that contributes to the achievement of 17 SDGs (ibid.). Furthermore, it will be important to ensure that 17 SDGs and the goals in the community section are followed up in the work on the new area section, financial planning and in a new thematic plans that may come during the municipal council period (ibid.). Smart Gjesdal, one of the two main strategies in the plan, is about precisely this: solving society's challenges by arranging for cooperation between various actors in the local community (ibid.).
Together for an attractive Gjesdal society 2019–2030 report	Attractive communities are new theme in the municipal plan and acts how Gjesdal manages to create growth in business, population and in visitors (Gjesdal kommune 2019c). Attractiveness means to create more growth than expected from the municipality's structural conditions (ibid.). Based on Smart Gjesdal, the municipality wants to

	strengthen consideration for the environment and contribute to increasing residential attractiveness (ibid.).
Budget 2021 Action and financial plan 2022-2024 The municipal council's decision	SDGs are not mentioned.
Annual report 2019	An attractive municipality with population growth will increase room for manoeuvre and it is important that municipality take wise steps in the future to follow up municipal plan (Gjesdal kommune 2019b). Municipality has had early intervention (is about early and right help before the challenges become too complex and it also about providing early help when incidents occur) and Smart Gjesdal thinking as a strategy for service and societal development in 2019 (ibid.). Smart Gjesdal thinking is about developing sustainable offers that stand the test of time in terms of democracy, economy, social conditions, and the environment (ibid.). In 2019, municipality received positive attention for strong development focus (ibid.) Among other things, this applies to the city centre development, culture of improvement (Lean) and the Smart Gjesdal initiative (ibid.). In 2019 municipality were nominated and received the generous award of the State Award for Building Quality (ibid.).

End of table 2.

Appendix B – Key financial indicators across Rogaland county

Table 3. Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues (SSB 2021x).

	Sum (NOK 1000)					Share of gross operating revenues (per cent)				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
1101 Eigersund										
Working capital ex. pension premium deviaton	184 511	262 181	265 931	240 336	312 878	14.8	20.6	20.5	18.3	23.1
General funds (M)	107 186	161 099	174 463	198 839	259 039	8.6	12.6	13.4	15.1	19.1
Net operating result	59 030	41 536	-3 413	23 744	55 424	4.7	3.3	-0.3	1.8	4.1
Net loan debt	756 156	837 034	927 977	1 023 250	1 254 359	60.8	65.6	71.4	77.8	92.7
1103 Stavanger										
Working capital ex. pension premium deviaton	1 569 849	1 958 665	1 726 874	1 960 441	1 932 800	15.3	18.4	15.8	16.2	15.7
General funds (M)	1 452 894	1 779 478	1 840 688	2 395 784	1 680 576	14.2	16.7	16.8	19.8	13.6
Net operating result	571 089	585 258	401 594	946 715	546 551	5.6	5.5	3.7	7.8	4.4
Net loan debt	7 718 341	8 023 273	8 387 379	8 851 693	9 703 493	75.3	75.5	76.6	73.3	78.6

Table 3. (continued)

1121 Time										
Working capital ex. pension premium deviaton	99 274	175 001	102 079	109 760	147 599	7.5	12.8	7.3	7.5	10.0
General funds (M)	29 828	61 488	73 708	75 151	96 540	2.2	4.5	5.2	5.1	6.6
Net operating result	56 708	40 219	5 558	24 565	25 032	4.3	2.9	0.4	1.7	1.7
Net loan debt	991 692	1 171 539	1 248 640	1 339 816	1 407 082	74.6	85.5	88.8	91.4	95.6
1124 Sola										
Working capital ex. pension premium deviaton	253 732	311 244	201 090	247 602	220 291	13.3	16.0	10.1	11.9	10.2
General funds (M)	217 463	250 717	258 687	229 052	243 244	11.4	12.9	13.0	11.0	11.3
Net operating result	96 291	114 550	74 848	109 081	88 719	5.1	5.9	3.8	5.3	4.1
Net loan debt	1 589 961	1 576 505	1 675 086	1 904 092	1 949 891	83.6	81.2	84.5	91.8	90.5
1127 Randaberg										
Working capital ex. pension premium deviaton	231 740	200 811	213 139	176 806	216 710	27.2	22.4	23.1	18.9	22.9
General funds (M)	52 469	70 281	68 493	71 190	57 924	6.2	7.8	7.4	7.6	6.1
Net operating result	27 318	3 202	-1 831	-199	-2 482	3.2	0.4	-0.2	0.0	-0.3
Net loan debt	897 267	1 076 938	1 114 088	1 164 440	1 173 315	105.2	120.2	120.6	124.5	124.0

Table 3. (continued)

1130 Strand										
Working capital ex. pension premium deviaton	252 234	312 630	274 619	276 116	247 450	26.2	29.9	26.0	26.3	22.9
General funds (M)	70 949	124 369	117 173	123 169	131 456	7.4	11.9	11.1	11.7	12.2
Net operating result	69 627	89 034	34 350	4 122	23 316	7.2	8.5	3.3	0.4	2.2
Net loan debt	562 856	654 554	758 948	968 785	1 159 447	58.5	62.7	71.9	92.3	107.4
1133 Hjelmeland										
Working capital ex. pension premium deviaton	35 592	53 775	79 349	91 355	124 841	11.1	16.2	22.7	26.5	35.1
General funds (M)	4 749	15 636	25 367	36 831	66 115	1.5	4.7	7.2	10.7	18.6
Net operating result	9 746	16 489	30 116	10 817	28 012	3.0	5.0	8.6	3.1	7.9
Net loan debt	209 802	238 305	244 194	250 821	254 433	65.2	71.9	69.7	72.7	71.6
1134 Suldal										
Working capital ex. pension premium deviaton	293 520	310 964	297 805	316 458	340 365	53.0	56.1	50.7	53.7	58.4
General funds (M)	126 736	130 419	170 230	192 882	194 350	22.9	23.5	29.0	32.7	33.4
Net operating result	52 472	48 385	61 699	58 184	32 456	9.5	8.7	10.5	9.9	5.6
Net loan debt	144 839	169 844	198 353	222 602	197 731	26.1	30.6	33.8	37.8	33.9

Table 3. (continued)

1114 Bjerkreim										
Working capital ex. pension premium deviaton	53 746	51 765	59 367	62 384	69 983	23.2	22.9	26.0	26.6	28.4
General funds (M)	15 709	20 162	29 081	26 121	31 167	6.8	8.9	12.8	11.2	12.7
Net operating result	10 816	6 535	6 146	-848	13 802	4.7	2.9	2.7	-0.4	5.6
Net loan debt	102 663	89 914	102 012	100 058	93 366	44.3	39.8	44.7	42.7	37.9
1119 Hå										
Working capital ex. pension premium deviaton	424 425	383 150	309 736	322 472	354 569	30.3	26.6	20.8	21.0	22.3
General funds (M)	184 919	190 433	226 100	244 171	275 638	13.2	13.2	15.2	15.9	17.3
Net operating result	79 527	19 726	63 883	46 095	98 717	5.7	1.4	4.3	3.0	6.2
Net loan debt	1 044 045	1 211 757	1 291 686	1 310 339	1 335 634	74.5	84.1	86.6	85.5	84.0
1120 Klepp										
Working capital ex. pension premium deviaton	197 759	298 493	269 864	257 344	255 249	14.7	21.7	19.1	17.3	16.6
General funds (M)	160 709	187 620	168 547	159 407	232 424	11.9	13.7	11.9	10.7	15.1
Net operating result	58 846	29 666	42 377	57 021	76 100	4.4	2.2	3.0	3.8	4.9
Net loan debt	820 063	836 285	867 047	904 267	1 050 412	60.8	60.9	61.2	61.0	68.1

Table 3. (continued)

1106 Haugesund										
Working capital ex. pension premium deviaton	126 063	180 054	188 341	321 172	337 245	4.6	6.2	6.4	10.2	10.5
General funds (M)	75 074	76 767	219 275	259 155	285 192	2.7	2.6	7.4	8.3	8.9
Net operating result	108 365	158 867	85 802	158 350	67 147	3.9	5.5	2.9	5.0	2.1
Net loan debt	1 796 426	1 922 275	2 108 406	2 224 594	2 029 948	65.1	66.1	71.3	70.9	63.0
1108 Sandnes										
Working capital ex. pension premium deviaton	.	.	.	.	1 625 695	.	.	.	.	25.6
General funds (M)	.	.	.	.	789 645	.	.	.	.	12.5
Net operating result	.	.	.	.	164 756	.	.	.	.	2.6
Net loan debt	.	.	.	.	6 053 223	.	.	.	.	95.5
1111 Sokndal										
Working capital ex. pension premium deviaton	107 084	134 054	140 511	147 157	163 299	38.0	46.0	46.3	48.8	52.7
General funds (M)	28 251	39 732	40 145	49 264	63 067	10.0	13.6	13.2	16.4	20.3
Net operating result	6 087	12 799	9 284	11 151	11 982	2.2	4.4	3.1	3.7	3.9
Net loan debt	237 638	244 316	237 125	235 366	193 434	84.3	83.9	78.2	78.1	62.4

The SSB data for Sandnes municipality is missing for period 2016-2019. For that reason, I have extracted the data from municipality annual reports.

Table 3. (continued) Financial key figures from the operational and balance sheet accounts as a percentage of gross operating revenues (Sandnes kommune 2019a, 2018, 2017).

	Sum (NOK 1000)				Share of gross operating revenues (per cent)			
	2016	2017	2018	2019	2016	2017	2018	2019
Sandnes								
Working capital ex. pension premium deviaton	840 151	1 027 636	716 954	586 861	16.5	18.9	12.5	10.1
General funds (M)	446 924	557 094	635 691	579 019	11	11.5	11.4	10.2
Net operating result	217 743	265 150	162 301	10 886	4.3	4.9	2.8	0.2
Net loan debt	3 409115	3 671042	4 113601	4 469170	67.1	67.7	71.9	77.1

Table 3. (continued)

1135 Sauda										
Working capital ex. pension premium deviaton	105 450	109 075	121 018	153 089	188 052	21.0	21.2	22.6	27.4	33.3
General funds (M)	36 835	43 077	47 733	65 809	96 189	7.3	8.4	8.9	11.8	17.0
Net operating result	4 509	5 877	17 406	25 864	20 747	0.9	1.1	3.2	4.6	3.7
Net loan debt	367 129	369 616	420 175	454 322	463 860	73.1	72.0	78.4	81.3	82.1
1144 Kvitsøy										
Working capital ex. pension premium deviaton	22 000	14 178	19 604	18 788	22 899	35.3	22.0	28.1	28.9	32.0
General funds (M)	11 560	12 508	19 070	18 540	21 804	18.6	19.4	27.3	28.5	30.5
Net operating result	1 348	1 130	5 573	515	2 622	2.2	1.7	8.0	0.8	3.7
Net loan debt	28 740	34 789	33 435	35 911	37 157	46.1	53.9	47.9	55.3	51.9
1145 Bokn										
Working capital ex. pension premium deviaton	15 524	32 609	53 178	136 678	143 363	14.8	30.1	47.8	113.2	118.0
General funds (M)	15 551	22 810	26 030	33 270	31 481	14.8	21.0	23.4	27.6	25.9
Net operating result	5 232	5 943	9 954	9 921	1 085	5.0	5.5	9.0	8.2	0.9
Net loan debt	74 232	99 485	147 805	153 153	130 887	70.6	91.7	132.9	126.9	107.7

Table 3. (continued)

1146 Tysvær										
Working capital ex. pension premium deviaton	218 389	261 120	411 888	461 178	440 402	21.3	24.6	37.3	39.0	37.4
General funds (M)	132 486	154 079	206 023	254 716	286 970	12.9	14.5	18.7	21.5	24.3
Net operating result	94 883	91 874	98 901	64 255	76 433	9.3	8.7	9.0	5.4	6.5
Net loan debt	904 529	935 789	1 023 379	1 081 552	1 150 290	88.3	88.3	92.8	91.4	97.6
1149 Karmøy										
Working capital ex. pension premium deviaton	754 495	861 335	731 971	643 986	809 354	26.0	28.6	23.5	19.7	24.2
General funds (M)	201 305	266 964	352 769	415 884	444 749	6.9	8.9	11.3	12.7	13.3
Net operating result	138 247	139 089	80 425	140 133	136 050	4.8	4.6	2.6	4.3	4.1
Net loan debt	1 478 990	1 635 937	1 822 795	2 039 222	1 933 063	50.9	54.3	58.6	62.3	57.8
1151 Utsira										
Working capital ex. pension premium deviaton	11 654	13 111	14 887	11 232	12 543	26.5	31.8	34.6	26.0	27.9
General funds (M)	4 760	8 263	10 182	6 853	10 125	10.8	20.0	23.7	15.9	22.5
Net operating result	2 899	2 628	4 912	2 950	4 083	6.6	6.4	11.4	6.8	9.1
Net loan debt	20 179	23 384	26 481	26 120	26 958	45.8	56.6	61.5	60.5	59.9

Table 3. (continued)

1160 Vindafjord										
Working capital ex. pension premium deviaton	166 519	194 964	174 765	152 262	219 114	23.6	25.4	22.5	18.9	26.1
General funds (M)	54 695	68 001	78 792	79 778	153 750	7.7	8.9	10.1	9.9	18.3
Net operating result	3 163	51 394	16 254	13 789	49 033	0.4	6.7	2.1	1.7	5.8
Net loan debt	425 761	432 610	463 384	508 355	496 871	60.3	56.5	59.5	63.2	59.2

Table 3. (continued)

	Sum (NOK 1000)					Share of gross operating revenues (per cent)				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
1112 Lund										
Working capital ex. pension premium deviaton	69 051	71 866	68 391	50 033	68 058	25.7	26.3	24.2	17.6	23.1
General funds (M)	10 381	19 537	21 292	11 102	18 275	3.9	7.2	7.5	3.9	6.2
Net operating result	10 894	800	-6 699	-5 496	8 320	4.0	0.3	-2.4	-1.9	2.8
Net loan debt	162 725	180 341	201 831	212 519	213 379	60.5	66.1	71.4	74.9	72.5
1122 Gjesdal										
Working capital ex. pension premium deviaton	237 419	216 905	195 948	156 677	172 359	27.2	23.7	21.1	16.4	17.5
General funds (M)	53 440	67 619	100 285	93 368	97 339	6.1	7.4	10.8	9.8	9.9
Net operating result	31 680	44 788	30 168	12 632	15 523	3.6	4.9	3.3	1.3	1.6
Net loan debt	844 814	903 897	908 302	967 635	999 747	96.6	98.9	97.9	101.2	101.5

End of table 3.

*Appendix C – Challenges among Rogaland municipalities**Table 4. Challenges among Rogaland municipalities.*

	Strand municipality
Planning strategy report 2020-2023	Municipality becomes more vulnerable to relocation and more dependent on being attractive for residence, due to Ryfast (sub-sea tunnel) opening that facilitate population growth and business development (Strand kommune 2020b). Corona pandemic affects local and regional business development and has an impact on both job opportunities and relocation to the region (ibid.). Climate change contributes to wetter, warmer and wilder weather and thus affects agriculture and aquaculture, as well as population via landslides and floods (ibid.). The municipal economy is under pressure – municipality has adopted an ambitious investment plan (schools, sports, culture), as well as new investments in health sector are needed due to an aging population (ibid.). Moreover, state impose more tasks on the municipal sector, users' expectations accelerates in regard of the service delivery and what the municipality will solve, but the state funding does not harmonize with both expectations and tasks assigned (ibid.). Populations projection and age composition toward 2040 challenge service delivery and priorities (ibid.). In a few years, decrease in number of children in kindergartens and school age is expected (ibid.). Ageing population will require changed needs for health and care services, an increase in statutory individual rights is obvious (ibid.).
The community part of the municipal plans 2019-2035	Net immigration has been reduced in recent years and leads to a weaker population growth (Strand kommune 2019b). At the same time high net inflow contributes to inhabitant's lesser affiliation to the municipality, which in turn influence their involvement, jeopardize traditional values, attitudes and increase the risk of friction and social challenges (ibid.). Ryfast increase commuting both ways, thus municipality is vulnerable to relocation and more dependent of being an attractive for residence (ibid.). Population growth is dependent on the growth in jobs opportunities and housing construction in municipality and region (ibid.). Trading industry is already subject to competition from both online shopping and Stavanger region and Ryfast may

further intensify the trade leakage (ibid.). Cultural life become vulnerable after Ryfast opened (ibid.). Climate change contributes to wetter, warmer and wilder weather and thus affects agriculture and aquaculture, as well as population via landslides and floods (ibid.). Strand has a good economy that is under pressure due to a large need for investment and increasing debt ratio (ibid.). Municipality tasks complexity is increasing, and more services become rights based implying recipients' expectations intensify (ibid.). The future population development is uncertain and depends, among other things, on how many children are born, how long we live and the annual immigration (ibid.). There will be decrease of school children in a few years and municipality 500 inhabitants aged 80 years plus will be twice as large towards 2040 (ibid.). Dependency ratio measured by the number of persons in age 20-65 years in relation to the number of people who are 66 and older almost will be halved (ibid.). Ageing population will require changed needs for health and care services, an increase in statutory individual rights is obvious (ibid.). Economic downturn impacted region hard in 2014, with rising unemployment and weaker population growth (ibid.). Decline in tax revenues and population growth is still weak as in the rest of the country (ibid.). The municipal sector faces a gap between what the inhabitants expect and what the municipality can deliver, it is about what the municipality can do for me as a user and not what we can achieve together (ibid.). Simplifying and improving service delivery from a user perspective has so far not been at the priority (ibid.). Services must be adapted to the individual user where standardization does not become normal (ibid.). Municipality must adapt its activities in line with uncertain population development and the expected lower income level (ibid.). Municipality also has buildings in avalanche-prone areas and areas that are subject to rising sea levels, that in turn create challenges in already developed areas, especially older housing estates, which are not well adapted for today's climate (ibid.). Society and municipality are not aware of the consequences of own consumption on climate change and which measures are most effective in curtailing their own GHG emissions (ibid.). Strand does a lot for good public health work but does not aware of own efforts in this area (ibid.). Public health challenges are grouped into categories of coping (children and young people

	<p>who face bullying and who score low on reading and arithmetic skills, complex illnesses and life situations, withdraw of high school, as well as young adults with overweight and obesity), income inequality (young people under age 30 who are not in education and unemployed, receive work clearance money or have a disability pension in conjunction with those who have been unemployed for a long time pose a risk of increased income inequality, low-income family), and inclusion (low income/psychiatry issues contributes to reduced belonging in community, as well as lack of formal and informal social meeting places (ibid.).</p>
<p>Budget 2021 with financial and action plan 2021-2024</p>	<p>The birth surplus has fallen to 0.3% in 2020 after being around 0.5%-0.6% in recent years (Strand kommune 2020a). Population growth has stagnated (ibid.). Municipality faces major financial challenges that affect municipality's financial room for maneuver in the long-term perspective (uneven population growth, aging population, high need for investment, increasing debt ratio and low self-financing of investment) (ibid.). High investment volumes without adequate equity have led to a significant increase in the municipalities' loan debt over the past decade, thus municipality is exposed to a further interest rate risk (ibid.). All schools have few teaching hours framework to provide good education, and it is also unclear whether the schools will be able to meet the norm for teacher density with budgeted funds (ibid.). The budget proposal for 2021 assumes a reduction of 1 million in the cultural school's budget framework – about 120 students will lose their offer, mainly in instrument training and school corps will be closed down, thus could result in fewer concerts and performances (ibid.). Staffing is constantly under pressure due to an increasing need for care services (ibid.). Further reduction in budget implies fewer staff during day in the dementia department, thus residents and patients must wait longer for the basic help (toilet visits, morning care, less help with showering) (ibid.). Challenge to recruit college graduates and can be demanding to recruit health care professionals in a few years (ibid.). Greater Stavanger (project-based organization) will be closed down at the end of the year and will account for fewer joint initiatives in the region, therefore Strand will require to strengthen it is own measures (further challenge in terms of finances, capacity and impact) (ibid.).</p>

Annual report 2019	There is a backlog in the implementation of investments (due to the large number of projects at the same time, where the plan basis is not sufficiently completed, and when the project is entered in the budget) (Strand kommune 2019a). Large backlog in the maintenance of the municipality's property management (ibid.). Absence due to illness in 2019 was 7.6% against 5.8% in 2018 (measures are being worked on to reduce absence and not least to prevent absence) (ibid.). There has been progress in the companies' registration of non-conformities (such as fall, wrong medication, injury, violence, technical equipment failure) (ibid.).
--------------------	---

Table 4. (continued)

	Kvitsøy municipality
Municipal planning strategy for Kvitsøy municipality 2020-2024	Dependent on immigration to maintain the population, population getting older, thus there is a need to facilitate both children, young people, families with children, and to meet the needs of the elderly (Kvitsøy kommune 2020). There is an increasing inequality in population health (low income, low level of education, health problems and social exclusion often occur together), and the problem is that it is inherited, so that the problems are passed to the rising generation without having an opportunity to influence it (ibid.).
Municipal plan for Kvitsøy 2019-2030 area part	-
Budget 2021 Action and financial plan 2021-2024	Decline in population (Kvitsøy kommune 2020). An increasing loan debt make municipality vulnerable to interest rate increases and further challenge the budget balance (ibid.). The biggest challenge is that growth in unrestricted income ²¹ is low as well as approved investments are very high (municipal council has adopted a high investment rate during the financial plan period, and the debt ratio will increase) (ibid.). Higher debt ratios affect the operating budget and with limited financial resources and low-income growth, other

²¹ Unrestricted income (consists of both tax revenues and framework grants) are income that municipalities and county municipalities can freely dispose without other guidelines from the state than current laws and regulations (Kommunal- og moderniseringsdepartementet 2019).

	<p>services and measures must give way to financial expenses when debt increases (ibid.). This diminishes the political freedom of action going forward (ibid.). Wage costs, including pensions and employer contributions, are the largest item of expenditure in the municipal budget (ibid.). Kvitsøy is also dependent on many partners and larger expenses in the budget are also linked to these agreements (ibid.). Fees and charges in 2021 will increase of 2.7%, maximum price for parental payment for kindergarten, an increase in the prices for mooring to NOK 9,000 per year (ibid.). The main challenges for the central administration are to be the part of the development, both socially and digitally, without experiencing too high administration costs associated with resources and procurement (administrative expenses distributed per inhabitant will be high) (ibid.). The number of apprentices at the school has decreased in recent years (ibid.). The school department has challenges with high temporary staff costs (due to substitutes for studies, some follow-up of students with needs and some illness), however when covering temporary expenses due to studies, ordinary wage costs are reduced accordingly (ibid.). There is an increased need for resources for special education, cf. the Education Act § 5-1 (ibid.). The number of children in Kvitsøy kindergarten decreased in 2020 (ibid.). Municipal dwellings are old (with high energy consumption), so maintaining the building stock and other facilities in operationally sound condition is challenging for the department (ibid.).</p>
Annual report 2019	<p>Even though the budget discipline is good, municipality has small profit margins in 2019 (Kvitsøy kommune 2019). In 2018, no children were born on the island (ibid.). 2019 had a sharp increase in expenditure on social assistance (ibid.). Also, year was related to objections linked to municipal plan, as well as follow-up of illegal construction measures (ibid.).</p>

Table 4. (continued)

	Sandnes municipality
Planning strategy 2020-2023	<p>As a general rule, Sandnes municipality will not approve the inclusion in the municipal plan of new areas where cultivated land is used for residential and commercial buildings (Sandnes kommune 2020b). The least central parts of</p>

<p>and planning program for municipal plan 2023 - 2038</p>	<p>the municipality experience emigration and have an aging population (ibid.). Urbanization create the need for several houses in central areas (ibid.). Through the social housing program, municipality will secure housing for groups that usually face challenges in the housing market (but price growth and requirement for capital have created "third sector") (ibid.). The youth data survey 2019 shows that young people in Sandnes to a slightly lesser extent than the country are satisfied with their local environment (ibid.). Tourism and aquaculture are the key investments, even though it creates the challenge in respect to the use and protection of land and water areas (ibid.). Strategy, areas, and regulations should be in place to recover raw materials in a sustainable way (ibid.). Epidemic have created long-term challenges for the businesses in community (stock market is plummeting, business is struggling) (ibid.). The socio-economic differences in mortality and morbidity have increased (ibid.). The living conditions survey shows that in some zones there is a high proportion of children living in low-income families (access to publicly available resources will differ for children) (ibid.). Sandnes indirect emissions (emissions that come from goods and services that are consumed, but which are produced outside the municipality) are much larger than the direct emissions (about 40 percent of the direct emissions come from road traffic) (this is because the municipality consumes more goods, services and energy from outside than the city itself produces and exports) (ibid.). The precipitation is high in municipality, sea level and probability of flood increase (ibid.). The youth data survey revealed that students at Høle, Riska and Forsand to a lesser extent than Sandnes are satisfied with sports facilities, cultural facilities, and public transport (ibid.). A lower proportion of minority language children go to kindergarten compared to the national average, as well as dropouts in upper secondary school for immigrants is evident (ibid.). The cultural use survey for Nord Jæren also shows that there are socio-economic differences in the use of cultural facilities in Sandnes (ibid.). The management of protected areas, biodiversity (to account for species in spatial planning and dense development) and wild reindeer tribes should be considered (ibid.). Several watercourses and river stretch in Sandnes do not have good environmental condition (ibid.).</p>
--	---

Municipal plan for Sandnes 2019-2035 Community part	-
Annual budget 2021 and Action and financial plan 2021-2024	<p>Sandnes is among the large municipalities that had low disposable income in 2019 (NOK 380 million lower revenues than a national average municipality) and are operated efficiently (Sandnes kommune 2020a). Region is particularly vulnerable due to lower demand for oil and lower oil prices (ibid.). In 2020, tax deficit has been significant, and the tax estimate has been reduced by NOK 192 million from the originally adopted budget (ibid.). New savings (schools, kindergartens, health, culture and industry, urban development, organization) of approximately NOK 82 million have been incorporated, increasing to NOK 110 million in 2022, in addition to the companies not receiving compensation for inflation (ibid.). Better health and care service provision will be needed in own home as long as possible, instead of receiving housing offers with round-the-clock staffing (nursing home places must mainly be given priority to people with severe dementia or other serious illness) (ibid.). High investment expenses result in increased interest and instalment costs, and an increase in internal rent by NOK 134 million in 2023 (ibid.). Higher expenditure on pensions and nursing and care services (ibid.). Job control, reduced travel activities and reduced use of consultants (ibid.). It has proved difficult to recruit enough kindergarten teachers, nurses, men employees to meet the new pedagogical norm (ibid.). Reduced settlement of refugees leads to reduced income of integration grants (ibid.). Unemployment, social assistance, and benefits period is assumed to be longer term (ibid.). Procurement shall, when handling competitions for service contracts and building and construction contracts for the municipality set requirements for suppliers that prevent social dumping and work crime (ibid.). As a result of population growth and the need to upgrade more buildings, Sandnes municipality had high level of investment in new construction and rehabilitation (ibid.). Long-term loan debt as a percentage of operating revenues has increased from 89.8% in 2015 to 108.6%</p>

	<p>in 2019, and the loan debt served by unrestricted income has increased from 69.1% in 2015 to 82.2% in 2019, low growth in unrestricted income (ibid.). Sandnes had the second lowest adjusted free disposable income in 2019 with NOK 4,798 less in income per inhabitant than the national average (ibid.). Several large investment projects are postponed (those that do not provide substantial financial benefits in the operating account) (ibid.).</p>
Annual report 2019	<p>There is a negative development when it comes to reported loneliness and other mental illnesses (Sandnes kommune 2019). It is challenging to measure how good the municipality is at being inclusive and represents diversity as an employer and social actor (ibid.). Challenges in recruiting IT and other technical positions within the private sector (ibid.). The security threat is constantly increasing (ibid.). Challenge for businesses to take apprentices due to staffing norms in schools and kindergartens (ibid.). Municipality's units have a high degree of freedom to choose the method to solve their challenges (this is positive) but make it difficult to contribute to uniform overall processes, routines and guidelines for all service areas in Sandnes municipality (ibid.). In 2019, the growth in operating revenues has been much lower than the growth in operating expenses (mainly due to increased expenses for salaries and social expenses) (ibid.). The overall risk associated with the IKSs makes it necessary to set clear requirements for risk management in the companies in the future through updates of the individual ownership-specific strategies (ibid.).</p>

Table 4. (continued)

	Stavanger municipality
Planning strategy 2020-2023 Stavanger municipality/Challenges document 2020	<p>More elderly and fewer at work, business cycle dependent and little varied business, climate and environmental challenges, increasing differences in living conditions and exclusion, increased expectations: residents and businesses wishes seamless services locally, participation and individual adaptation, tighter financial framework (Stavanger kommune 2020). Differences in health between those with high education/income and low education/income are increasing, increasing number of children</p>

	<p>growing up in low-income families (children with an immigrant background/without), young people bothered by loneliness and depressive symptoms (from Ungdata survey), local community can be both a resource and a challenge, and affects children and young people life chances and opportunities (Brattbakk and Andersen (2017) in Stavanger kommune 2020). Long-term financial challenges: costs associated with future service provision, more people chose a pension instead of higher income as a source of income, lower petroleum revenues for the state, state expect lower revenues (ibid.). Own focus on the business community on Finnøy is important, even if the total numbers are small (ibid.). Need for close cooperation across the urban area, in the form of management of common contiguous urban areas and corresponding infrastructure (for example: zero growth target for passenger transport that will be linked to the current metropolitan area, while the municipal parts of Finnøy and Rennesøy will be outside) (ibid.). Data security and privacy (ibid.). New Stavanger will have both metropolitan challenges and district challenges (there are more employees in the former Stavanger municipality than residents in the municipal parts of Finnøy and Rennesøy, islands will be dependent on boat/ferry operations) (ibid.). Young adults move to the central parts of cities and towns, outer areas (Ombo and Sjernerøyene), are experiencing a decline in the number of children and population in the age (ibid.). When the pressure on the housing market has eased because of the decline in oil, people move from the islands to the metropolitan area (ibid.). Storhaug is the municipal part where the largest proportion of the population lives cramped (ibid.). Finnøy and Rennesøy have long distances and few leisure activities for young people and the roads lack sidewalks, walking and cycling paths, as well as there are few meeting places and little developed public transport to the non-landlocked islands (ibid.). Growth and development of tourism is needed (ibid.). Area clarifications at</p>
--	--

sea are needed to prevent conflicts and to utilize the areas potential (natural resources and biological diversity) (ibid.). The municipality, except for Ombo, has little outfield and forest area that can be used for recreation and the picture may be different in the dense city and in the more rural areas (ibid.). Densification and growth lead to competition for land and makes it challenging to maintain quality and sustainable management (more users with different needs and requirements), reduction in green areas and greater pressure on the areas that remain (ibid.). Intensive agriculture with monocultures and the use of chemical pesticides be a threat to biodiversity and at the same time, many of important habitat types and species are dependent on further farming to survive (ibid.). Oslo and Stavanger are the cities with the largest income inequality measured by P90/P10 ratio (indicator describes the relationship between the income of those who have the 90% highest income in the municipality and those who have the 10% lowest income) (ibid.). One in five does not complete upper secondary school (young people with parents with low education are more likely do not complete high school compared to those who have parents with higher education) (ibid.). More people are surviving cancer, even though the incidence is increasing, mental ailments and disorders (ibid.). Many young people are not physically active in everyday life and spend a lot of time in front of screens (differences in living habits follow the level of education and income in the population), according to the HUNT survey, 7 out of 10 adult Norwegians are experiencing overweight on the BMI scale (ibid.). The turnout in municipal elections is lower in the former Stavanger municipality than in the former Rennesøy and Finnøy municipality (ibid.). Loss of critical infrastructure can threaten the basic needs (food, water, heat) of the municipality and the population, epidemic, loss of electricity and electronic communication (biggest vulnerability for Stavanger) (ibid.). Sea level rise, storm, flood, waves, more

	<p>precipitation, and more torrential rain (drainage network is not built to withstand increased amounts of water) (ibid.). Climate change presents challenges for agriculture with reduced yields due to a large amounts of precipitation over a longer period, or long periods of drought (ibid.). Road traffic accounted for 36% of total GHG emissions that are divided into: passenger cars (75%), vans (13%), heavy vehicles (6%) and buses (5%) (ibid.). Shipping accounted for 32% of total emissions and the largest contributions to climate emissions in this sector were passenger boats (50%) and offshore supply boats/service boats (25%), as well as cruise ships accounted for 5% of emissions in the maritime sector (ibid.). Agriculture accounted for 14% of total emissions (emissions are highest on the islands), other sectors that contribute to emissions is heating, industry and other mobile combustion (ibid.). Future challenges are in pessimistic scenario, that there is no growth in the proportion of children between 0 and 5 years, fewer children, more older inhabitants, number of jobs in the business sector is unpredictable, change requires resources (ibid.).</p>
<p>The social part of the municipal plan 2020-2034</p>	<p>Same challenges are emphasized (from challenges document).</p>
<p>The municipal director's proposal Action and financial plan 2021-2024</p>	<p>The investment level is high in relation to what the municipality can afford in the long term (Stavanger kommune 2020a). Increase in debt (due to high borrowing) (debt ratio will increase from 72.7% in 2021 to 83.6% in 2024), capital expenditure, and increase in operating expenses (NOK 699 per inhabitant for services within the revenue system and payroll expenses) due to expanded services will reduce economic room for maneuver in the years to come (ibid.). Operation of health and welfare services require more resources because of infection control measures (ibid.). Unemployment (both in private and public sector), rising social assistance costs, birth rates unclear and immigration are in decline (ibid.). Changes in habits, choices and consumption</p>

patterns challenge the demand for goods and services (ibid.). The room for maneuver that municipality hold for revenues increase is limited by government, laws, and regulations (ibid.). Challenge to recruit qualified personnel in the upbringing services, GP doctors, nurses, engineers, ICT, construction (ibid.). More housing associations is needed for users in round-the-clock services (investments that helps to reduce operating costs and creates a more efficient operation should be a priority) (ibid.). People with intoxication and mental disorders (ibid.). Former Finnøy and Rennesøy had a significant emission from agriculture than former Stavanger and there are large uncertainties associated with the climate budget in general (ibid.). In addition to the direct emissions, Stavanger is responsible for a share of emissions in neighboring municipalities (Sandnes, Randaberg and Sola) (ibid.). Currently there is no methodology for considering the use of shore-side electricity in ports (ibid.). Stavanger municipality raises debt on behalf of municipal enterprises for further lending, and this affects the development of the debt ratio in general (ibid.). For 2020 estimated a stronger fall in tax revenue locally than nationally (ibid.). Stavanger spends more money on nursing and care and less on the school grounds compared to the national average (ibid.). The consolidated financial statements (relating to the company structure) depend on Statistics Norway's consolidation and preparation of financial statements up according to different accounting rules, as well as lack of requirements at whole (municipal enterprises/subsidiary) (ibid.). Resource use and expenditure in the sectors within the revenue system including administration amounts to approximately NOK 53.000 per inhabitant in 2019 and Stavanger's expenses were NOK 1.364 higher than this per inhabitant (ibid.). Municipality is one of the most that spend on political governance, have high expenses within nursing and care, child welfare, culture and sports, physical plan, VAR (water, sewage, renovation) and

	<p>churches and highest net operating expenses per inhabitant for kindergartens (ibid.). The child welfare service will continue to reduce the use of institutional places and increase the use of relief measures (experience has shown that young people who are placed in an institution often do not receive the help they need) (ibid.). The number of homeless and expenditure on the purchase of temporary housing has increased in the last three years (increase is greatest among users with drug addiction) (ibid.).</p>
Annual report 2019	<p>An increasing net domestic emigration (Stavanger kommune 2019). The accounting result in the service areas shows a total negative deviation of NOK 41.5 million (this corresponds to an additional consumption of 0.6% for 2019) (ibid.). More than half of the incidents concern violence and threats related to work (ibid.). Municipality needs extra labor in connection with short-term absence (sick leave, sick child, welfare leave) and holiday settlement (ibid.). Critical errors that persisted for several months after the transition to a new multidose supplier at the turn of the year 2018/2019, and major problems with the Electronic Patient Record system throughout the year led to a great need for resources and overtime, which made the transition very difficult (ibid.). In 2019, the crisis center had an increase in both female and male residents (ibid.). Increase in the price of power per kilowatt hour (kWh) (increase of 117 percent per øre/kWh in 2019 compared to 2015) (ibid.). The organization of the municipality's property management has been announced as a political issue for a long time (failed decision means that other processes are also put-on hold) (ibid.).</p>

Table 4. (continued)

	Haugesund municipality
Municipal planning strategy 2019-2023	The challenge is the size of the city, the development in the peripheral zone at the municipal boundaries and growth forecasts (Haugesund kommune 2020b). The municipality is entering a period in which

	<p>interest costs and instalments will increase significantly (it does not allow for many new initiatives in the years to come) and total investment volume in the financial plan period is high (ibid.). Strong increase in the number of older people until 2040 (ibid.). Sufficient personnel with the necessary competence to be able to provide sound services (health, care, social services) (ibid.). Low coverage rate when it comes to round-the-clock staffed care homes for the elderly/disable people (ibid.). Elderly will experience housing need in the future (ibid.). The situation facing the business community affects most important and most vulnerable export industries (maritime and offshore supplier, seafood, and tourism) (ibid.). In Haugesund, more than 80% of GHG emissions come from shipping (56%), road traffic (16%) and heating (10%) (ibid.). Low-income families, mental and physical health, school mastery and equalization of differences (ibid.). Evening out social inequalities is part of the municipalities' values and objectives in the role of community developer (fight poverty and use of survey) (social sustainability) (ibid.).</p>
<p>The community part of the municipal plan 2014-2030</p>	<p>High proportion of social assistance recipients, high proportion of young disability pensioners (from survey) (Haugesund kommune 2015). Municipality must have a special focus on improving the living conditions in the city center (there is a need for both physical upgrades and social measures) (ibid.). Shopping areas outside the city center have experienced higher turnover, while the city center trade has experienced a negative development (ibid.). An increasing need for more housing units in the city center (ibid.). Establishment of one permanent boat connection between Haugesund and Nord-Karmøy where Vibrandsøy and the city islands are included as a port of call when needed (ibid.). Region is relatively weak in formal higher education (high quality teaching with a focus on both results (counts) and narratives is imperative) (ibid.). A large proportion of children and young people struggle with loneliness and have a physically inactive everyday life (ibid.). Chronic diseases development, young people on disability benefits and unemployed (ibid.). Public Library needs rehabilitation and</p>

	<p>expanded premises, as well as Haugesund Cultural School, the town halls, Festiviteten concert hall and Edda Kinosen (ibid.). Traveling along the sea in Haugesund means large detours and large height differences in places (is not an attractive walking axis) and the pedestrian connection to the city islands is also not satisfactory (ibid.). Challenges associated with demographic change, political initiatives and reforms have significance for the need for competence in the municipal sector (ibid.).</p>
<p>Budget and financial plan 2021 to 2024 Budget 2021 The municipal director's proposal</p>	<p>Debt ratio will increase significantly in the coming years (due to a large investments) and refinance the loan is another major concern (Haugesund kommune 2020a). Lower growth in unrestricted income (ibid.). No law that determines which indicators the municipalities must link economic objectives to (the target figures shall be prepared in accordance with the local economic policy and determined according to local judgment and realistic assessments) (ibid.). Parts of the municipality's loan debt are covered by start-up loans as well as loans with interest and installment compensation (ibid.). The group 1-5 years need a kindergarten place and health services, the group 6-15 years are students in primary school and need leisure activities, the group aged 80 have the greatest need for institutional services, care homes and home-based services (ibid.). Low population growth and strong aging (ibid.). Challenge to meet deadlines for case processing in individual cases with a greater expectation of availability within the Educational Psychological Service (PPT) (ibid.). Reduce sick leave and increase the work presence in the organization (ibid.). Need for sharpened capacity and competence in the ICT area, nurses, GPs (ibid.). Long-term places in nursing homes will be reserved for people with dementia (ibid.). Housing needs to people with disabilities (ibid.). No formal health and social work education to work with disable people (ibid.). Municipality has a large and partly fragmented building stock, where many of the buildings are old, maintenance backlog in technical infrastructure, large backlog of replacement of old pipes (water and sewerage) (ibid.). Large parts of the company's operating costs are related to fixed expenses such</p>

	as electricity, municipal taxes, district heating and rent costs (housing, construction and real estate) and the need to adapting the housing portfolio to today's target group is a challenge (ibid.). The Haugesund fire brigade needs continuous renewal of cars and equipment (ibid.). Drop-out rates are still high among young people (sport and physical activity), costs for participation continue to increase and there is a work to be done for inclusion (ibid.).
Annual accounts and annual report 2019 Haugesund municipality	The loan debt per inhabitant (excluding start-up loans) has increased in the last three years and as of 31 December 2019 was NOK 60.078 per inhabitant (Haugesund kommune 2019). Women's employment rate is low (ibid.).

Table 4. (continued)

	Sokndal municipality
Planning strategy for Sokndal municipality 2020-2024	Population in Sokndal municipality is expected to have a steady low increase over the next 20 years, higher proportion of older people, negative development in the number of births, pupils drop-out upper secondary school (Sokndal kommune 2020b). 10% of students in the 10th grade state that they are often bothered and teased (from survey), as well as bullying, inactivity and obesity, deterioration in dental health at the age of 12-18 years (ibid.). The proportion of people on disability benefits, measured in the age group 18-44 years, is higher in Sokndal at 4.3% than in the county at 2.8% and the rest of the country at 2.9% (ibid.). Mental health problems among children and young people are a general challenge in the country, drug use among young people all the way down to secondary school age (ibid.). Ensure that immigrants and refugees are integrated into local communities, social arenas and working life (ibid.). An increase in the number of child welfare cases in the municipality that results in the implementation of measures (ibid.). Lower proportion of people with education (ibid.). Precipitation, flooding, storm surge, landslides (ibid.). Pollution challenges (in Krossbekken, Høydalsbekken) (ibid.). All cranes and troughs are facing renovation, and the costs could be significant (pipe network for water and sewage) (ibid.).

	Municipality in the future prioritises a sustainable economy and adjusts the municipality's expenses in relation to income (ibid.).
Municipal plan for Sokndal municipality 2011-2022	Young people move out and do not move back (especially true for young women) (Sokndal kommune 2012). Social development is the challenge, both in terms of political priorities, infrastructure, and a competent workforce (ibid.). Citizens' demands for quality-of-service increase in line with the general development of welfare (ibid.). Municipality is given new tasks that put the organization and the economy under pressure (ibid.). To find sufficient manpower and the right skills is challenging for a small outlying municipality like Sokndal (ibid.). P.S. Long time since new plans were updated in report.
Budget 2021 and financial plan 2021-2024	The loan debt increases in line with loan-financed investments in the municipality (Sokndal kommune 2020a). Need for nursing home places and other housing alternatives as a form of housing association for the demented (ibid.). In addition to salaries, the largest cost driver in NAV's (Norwegian Labour and Welfare Administration) budget is financial social assistance (ibid.). Users without permanent residence (this is a recurring problem) and municipality still does not have emergency housing available (ibid.).
Annual report 2019	Excluding start-up loans, the municipality's loan debt is NOK 244.5 million, which amounts to NOK 75,000 in loans per inhabitant (Sokndal kommune 2019). Reduced tax revenues (ibid.). The biggest challenge is to create the best possible conditions for new jobs (ibid.). More competent personnel in schools are needed, and further educating teachers in various subjects and special education (ibid.). Large backlogs in maintenance of municipal building stock and implementation of projects (ibid.).

Table 4. (continued)

	Eigersund municipality
Municipal planning strategy 2020-2023 "Together for all"	Requirements for the services in the upbringing and health and care sectors is great (Eigersund kommune 2020). More older people, people with dementia and mental problems, number of children declining, population growth, unemployment, sick leave (ibid.). Changes in the law and regulations create pressure on municipal

	<p>services, and municipalities experience more and more tasks being transferred from the state to the municipality without being fully financed (ibid.). The coordination reform poses challenges for the health and care sector – and sets requirements for new ways of caring for citizens and providing services (ibid.). Digitalization create new groups of unemployed (jobs disappear) (ibid.). Climate and environmental sustainability (precipitation and risk of flooding) (ibid.). An unpredictable development and need for change in the business community (centralization and restructuring changes due to economic changes) (ibid.). Expectation gap – there are high expectations and needs that do not match the resources and capacity (ibid.).</p>
<p>Eigersund on it is way to 2030 The social part of the municipal plan 2018-2030</p>	<p>Cities must compete for the "best heads" (Eigersund kommune 2018). Municipality performs lower in terms of innovation (patent applications and new establishments), proportion of people with higher education is small, low employment in knowledge intensive industries, net relocation due to a lack of job opportunities and downturns, small proportion of young population (ibid.).</p>
<p>Budget and financial plan 2021 (2021-2024)</p>	<p>Higher debt (investments and payments to 3rd parties) poses higher risk (income gap will increase in the future), underfunded reforms and increased pension expenditures – without coverage through the equivalent government transfers, and the coming years will be reallocated to a new needs and/or reduced services where possible (adjustment in the future) (Eigersund kommune 2020). The need for investment must be taken care through sustainable master plans with step-by-step development and public-private partnership with risk sharing (ibid.). Higher expenses than financial framework should indicate (ibid.). In 2019 reduced pension provision, and it proposes a further reduction within the pension area in 2022 (ibid.). Expenses increase in areas in which no state compensation is given (investment projects) (ibid.). To achieve a well-functioning social policy in line with law and soundness, good connection between politics and economics is important (good financial management</p>

	<p>provides increased political room for maneuver, both in the short and long term) (ibid.). High operating costs per children in municipal kindergartens (operation, operation of buildings and number of children with extra resources) (ibid.). Special about 2021 is that there are discrepancies in the tax estimate between the state and KS (municipalities with offshore shipyards have greater impact than other municipalities and another factor is the residual tax) (ibid.). The service areas (technical service) experience backlog of maintenance of both buildings and facilities and on that occasion also requested an increased staffing (ibid.). The liquidity situation will be strained (ibid.). Granting of start-up loans entails risk (loan for first time buyers, disadvantaged, loans for houses, refinancing loans) (ibid.). The challenge today is to recruit nurses, doctors, and engineers (ibid.). One of Eigersund municipality's main challenges is violence and threats against employees (ibid.). Improve the quality of teaching (ibid.). Municipality is now beginning to face a significant financial challenge against financial reduction of the host municipality subsidy (ibid.).</p>
Annual report 2019	<p>Eigersund municipality do not have satisfactory self-control, however improvements have been made in several areas (Eigersund kommune 2019). Expenditure on health and care services will increase sharply in the years to come (ibid.). Challenges to achieve the goals with the profit realization (culture and upbringing department and child welfare service), if there are major changes in the various areas that require adjustment and willingness to change from all employees (ibid.). Uncertainty in the construction market locally in Eigersund means fewer applications and lower fee income (ibid.). Lag in the maintenance of the roads and green areas (ibid.).</p>

Table 4. (continued)

	Hå municipality
<p>Planning strategy 2020-2023</p>	<p>Growth in housing construction and population has been clearly lower than assumed the municipal plan (Hå kommune 2020b). New inhabitants mean increase income, but also increase expenses (ibid.). Young people with lower incomes and higher debt move to the municipality (ibid.). Significant investments in building and construction for the last years, interest and installments constitute a significant and increasing burden (ibid.). Increase in the number of older people who have a greater need for services, more inhabitants with complex needs (ibid.). There is overcapacity in some kindergarten, while in others are under capacity (ibid.). Six settlement towns and Stokkalandsmarka make it expensive to run services in Hå, that impose financial obligation for municipality (for example staffing standard in school and kindergarten) (ibid.). High debt due to a high borrowing (ibid.). 293 children in Hå municipality grow up in families with persistently low income (it is disturbing that the parents of these children cannot afford to pay for membership in leisure activities and necessary equipment), and an additional challenge is that 204 of the 293 children are immigrant children (municipality has therefore invested heavily in the innovation project "Everyone in Hå") (ibid.). Bullying in schools (ibid.). Lower proportion of members in sport, social health inequalities, the mortality rate from cardiovascular disease is higher among low education/low income, than among those who have college/university education (ibid.). Mental illness between youngest age group 15 to 39 years, cannabis use and inappropriate behavior (ibid.). Over 60% of the GHG emissions in Hå municipality comes from agriculture, followed by diesel-powered motor vehicles (16%) and road traffic (16%) (ibid.). Extreme weather conditions (wilder and wetter climate) (ibid.). Boundary between urban (housing construction) and agriculture (ibid.). Increasing maintenance backlogs in municipal buildings (ibid.).</p>

Municipal plan 2021-2036 Plan program	-
Budget 2021 and financial plan for 2021-2024	The increase in unrestricted income (taxes and subsidies) does not correspond to increased requirements for service production and expectations from authorities and citizens (Hå kommune 2020). Loan debt per capita is NOK 65 360 in 2022 (ibid.). Staffing norms in schools and kindergartens (ibid.). Unemployment (ibid.). In 2019, 229 children in Hå experienced that their parents received a cut in social benefits due to a child benefit (ibid.). Hå municipality provides benefits to the municipal steering groups, financed through the framework grant from the state, in addition, Hå municipality has a local benefit for the municipal steering groups (party support) (ibid.).
Annual report 2019	Largest increase in the number of elderly (Hå kommune 2019). 48% of unemployed are immigrants, and this is among the highest in the country (many of those with language challenges are left as unemployed) (ibid.). In 2019, 561 HMS (Health, Safety and Environment) nonconformities were reported (violence and threats are most meaningful), compared with 287 in 2018 (ibid.). Challenges in reading and English among pupils (5 trinn), and motivation/well-being at the junior high school level (from pupil survey and national test result) (ibid.). In 2019 the medical service had challenges that involved more use of hired staff from agency and lower specialist coverage, as well as an increased workload and no GPs doctors in Hå in 2019 (ibid.). Nærbø experiences the largest influx of people who need a GP, however there are no vacant office space (ibid.). Frisklivssentralen help individuals with dietary habits/snus and smoking/stress management (ibid.). Net wage costs are NOK 47.0 million higher than in 2018 (ibid.).

Table 4. (continued)

	Klepp municipality
Plan program Municipal plan for Klepp 2022-2033	-
Planning strategy 2020-2023	<p>Birth surplus decrease, deaths is expected to increase steadily, more older people/hospital places (Klepp kommune 2020b). Mental disorders between 15-29 years old and obesity issues (ibid.). Antibiotics use, also between youngest/cannabis use/alcohol and smoking/suicide (ibid.). Drop out of upper secondary education (ibid.). Challenges in reading among pupils (5 trinn) (ibid.). Low number of young people aged 13-19 who are active athletes in sports teams (ibid.). Klepp as an agricultural society that needs labor in the primary industry, as well as in construction (ibid.). Single people and single mothers/fathers with children aged 0-17 has the lowest income (ibid.). Households with high debt burden (due to a high housing prices) (ibid.). Small changes in income differences/low income families/sick leave (ibid.). Municipality receives complaints from residents that experience smell related to the primary industry/noise from traffic and industry (ibid.). Klepp has had a slight increase in the number of hip fractures (ibid.). Juvenile delinquency (ibid.). Drowning accidents along the beaches (ibid.). Number of reports to the child welfare service (ibid.). Smaller net relocation/ stagnation of the immigrant population (ibid.). The employment rate among persons with a minority background is high (ibid.). The school weekdays are not sufficiently adapted to the youngest and most immature students/social involvement is needed among foreign (ibid.). Social inequality is increasing, and the municipal health and welfare services will in future go to fewer users, with more demanding and complex needs (ibid.). Challenges related to the recruitment of professionals, who can provide further services to a growing group of older people (few people of working age) (ibid.). Need to acquire a new type of competence and employ professionals within the health, as well as</p>

	<p>technical competences (ibid.). Municipality will play on teams with private actors to meet the needs of the inhabitants and their requirements (ibid.). Extreme rainfall, drought, flood (ibid.). Agriculture, road traffic, shipping, heating are the largest sources of GHG emissions (ibid.). Reduction in biodiversity is considered as one of the major challenges (ibid.). Reduced food waste focus on consumption, renewable raw materials are important themes in the municipal activities (ibid.). Development of residential areas must be considered (ibid.). More workplaces are needed (also public sector) (ibid.). Stricter rules on spreading area can/will challenge animal husbandry (ibid.).</p>
<p>Action and financial plan 2021-2024</p> <p>The municipal director's proposal (preliminary edition)</p>	<p>Decrease in tax revenue in 2020 is expected (Klepp kommune 2020a). Net loan debt will increase by about 45% from 2019 to 2024 (ibid.). Child welfare has some placements in foster homes and institutions that require resources (ibid.). There is a gap between the inhabitants' expectations and available resources (ibid.). Municipality has been given several tasks due to coordination reform (ibid.). Changing labor market affects young adults with little professional experience, low formal competence and/or persons with little Norwegian knowledge (ibid.). Increasing number of supervisory and illegal cases in construction because of investing in this area (ibid.). Great pressure on agricultural land and residual area (balance of different interests) (ibid.). Klepp still has several older asbestos pipes/lack of fire water coverages in some parts of the municipality (ibid.). Increasing fee from IVAR due to a large investments (ibid.).</p>
<p>Accounts and annual report 2019</p>	-

Table 4. (continued)

	Sola municipality
<p>Municipal plan for Sola 2019-2035</p>	<p>The municipality freedom of action will be restricted (Sola kommune 2019b). Proportion of older over 80 years will increase steadily in the years leading up to 2035 (ibid.). Lower tax revenues (ibid.).</p>

Community section	
Municipal planning strategy 2020-2023/Challenge picture for Sola municipality	<p>More older, few working, less proportion of young people (Sola kommune 2020). The population's need for welfare services is increasing – meeting tomorrow's challenges requires the municipalities to change the way to deliver services, change working methods, streamline, and utilizes available resources in the best possible way/more specialized expertise in the services is needed (ibid.). The government wants to shift power and responsibility to larger and more robust municipalities, and the goal is a local democracy that can safeguard the well-being of the inhabitants and ensure value creation and well-being (ibid.). The challenge can be to see the whole around the child, which is a prerequisite for being able to give the right help (ibid.). Child welfare workers need more time than they have today to practice their profession (how the relevant services will meet the best possible way for increased tasks and expectations have not been mapped and clarified) (ibid.). The municipality must retain and recruit the necessary professional competence to be able to solve its social mission in the future/municipality is often the losing party in competition with the private business community in connection with retaining competence and in recruitment processes (ibid.). Income inequality (increase in the group of young people in low-income families) (ibid.). People with higher education live longer than people with low education (ibid.). Sola and the region need good public transport to Stavanger airport, Risavika port, Forus, Universitet i Stavanger and Stavanger Universitetssjukehus (ibid.). There have been fewer plant and animal species that are important for production of food (pollinating insects are among these species) – the decline is due, among other things, to the loss of habitats for the various species (ibid.). Shipping, aviation, heating are the largest sources of GHG emissions, in addition to waste and construction, industry, oil/gas, other mobile combustion, agriculture and road traffic (ibid.). Climate change and extreme weather lead to major challenges such as sea level rise, storm surge and landslide (ibid.). Increased migration because of drought, floods and sea level rise means that new millions of people must leave their</p>

	<p>homes (ibid.). Prolonged loss of electricity and electronic communication (technological vulnerability)/spread of infection, contaminated drinking water, acute pollution, failure of animal health plus major accidents/pandemic and fires (ibid.). Domestic relocation losses (ibid.). Unemployment (ibid.). In the future, there will be fewer hands and heads that can provide services to a larger proportion of inhabitants with help needs (ibid.). Overweight and obesity/illegal drugs use among young people/mental disorders of children and adolescents (ibid.). Absence from schools among youngest/absence from work among folk (ibid.). Several inhabitants live with chronic disorders and complex diseases (ibid.). Conventional distinction between war and peace has become more blurred and it demanding to determine whether a threat situation is of a civilian or military nature (ibid.).</p>
<p>Action and financial plan 2021-2024</p>	<p>-</p>
<p>Annual report 2019</p>	<p>Per 31. December 2019, the debt ratio was 78.8% (gross loan debt excluding pension obligations was NOK 2.16 billion) (Sola kommune 2019a). Tax-financed loan per inhabitant was NOK 41,228 as of 31 December 2019 (ibid.). The accounts show that operating expenses have increased by NOK 64.1 million from 2018 – an increase of 3.3% (ibid.). The service areas: upbringing and culture, living conditions and social development, political level with secretariat and councilor level with central staffs had in 2019 a total additional consumption of NOK 16.5 million, which is 1.2% of the limit (ibid.). Investment level is high (ibid.). Number of children with care measures has been relatively stable, but child welfare service sees moderate increase in children in need of residence in institution (ibid.). Lack of expertise within the teaching personnel in schools (ibid.). The European Court of Human Rights in Strasbourg (EMD) has ruled several Norwegian child welfare cases – The Supreme Court (Høyesterett) is now considering new standard for practice in matters of visitation, care takeovers and adoptions of children (ibid.).</p>

Table 4. (continued)

	Hjelmeland municipality
Hjelmeland of course! Municipal plan 2019-2031 Social part	Power supply to the municipality is a major challenge (due to a lack of supply network from the central line network furthest east in the municipality) – the current goes abroad and to Australia, therefore an upgrade/new development of the pipeline network is needed (Hjelmeland kommune 2019b). Population development is the most critical factor for the municipality and the villages (ibid.). Growing group of elderly people (ibid.). A greater variation in the housing supply with the increase investment in apartments will be necessary (ibid.). Maintenance of existing facilities/outdoor area (sports and physical activity), and establishment of new facilities are specific challenges (ibid.).
Plan Strategy for Hjelmeland 2020-2023/Challenges and resources in Hjelmeland municipality	Switching to the green shift for Hjelmeland is a challenge due to a lack of infrastructure with regard to complete fibre development, charging stations (Hjelmeland kommune 2020b). Government requirements within upbringing and care can be more difficult to handle for small units – The state's requirements are often absolute and do not consider local adaptations that may be just as good (ibid.). Fewer children/emigration (ibid.). Immigrant background gives more inhabitants but can present challenges related to cultural and language differences (ibid.). High proportion of low-income families (ibid.). The public transport service in Hjelmeland is not satisfactory/possible cuts in the speedboat offer (ibid.). Municipality has large areas with a high degree of radon level (ibid.). Overweight/mental issues (ibid.). Focus on dental health is not so big in all cultures (ibid.). Few informal meeting places (due to a few inhabitants) (ibid.). Users of medicine in relation to heart and vascular diseases increasing/ cardiovascular mortality are somewhat higher than average/cancer disease (ibid.). Number of disabled people (18-44 years) (ibid.). Satisfaction with school conditions (ibid.). More pupils are spending their time in internet (ibid.).

<p>Budget 2021 Financial plan 2021-2024</p>	<p>The debt ratio for 2020, based on a new borrowing in 2020 of NOK 29 million is 102% gross, 84% net (Hjelmeland kommune 2020a). Those who can work and pay tax on paid work been fewer while those who pay taxes on pension benefits (ibid.). To get teachers with the right skills (ibid.). Group of refugees that find it difficult to get a job (ibid.). Not satisfied with the IST kindergarten and school administration system, and IST Direkte (communication tool for kindergarten) (ibid.). Absences from kindergartens/ children in the kindergarten who need special educational help and facilitation (ibid.). Old school building with several deficiencies and wear and tear (Fister skule) (ibid.). Poor ventilation at the upper secondary school and poor working conditions for the staff at the upper secondary school (Hjelmeland skule) (ibid.). Classrooms/group rooms at the schools are not adapted to the needs – the dance lacks good rehearsal rooms with dance floors (Kulturskulen) (ibid.). Child welfare reform increases costs and tasks with self-financing on investment measures, operation of measures themselves and legislative changes related to work (ibid.). Substance abuse problems among people (ibid.). People with cognitive impairment (ibid.). Health and care employee recruitment, as well as large sickness absence during pandemic time (ibid.). Preparedness in the municipality is important (case of floods, fires) (ibid.). Struggles to get done adequately internal control and maintenance, the workload does not correspond to the workforce (operation of municipal buildings and construction) (ibid.). Approximately 600 subscribers do not have a water meter (ibid.).</p>
<p>Annual Report 2019</p>	<p>2019 shows over consumption in relation to wages in total of NOK 10.3 millions (Hjelmeland kommune 2019a). Net operating expenses for primary school/kindergartens/health and care/planning and construction matter/culture and sports have increased in 2019 (ibid.). Expected decline in tax revenues (ibid.).</p>

Table 4. (continued)

	Randaberg municipality
Municipal plan 2018-2030 Social part	The public health survey has revealed in recent years a higher number of young people between 15-29 years with mental difficulties (Randaberg kommune 2019b). Reduction of GHG emissions/prepare the municipality on dealing with expected climate change (ibid.). Promote an increased share of bike and walk use in center, increased public transport services and better facilities to be able to live and work in Randaberg (ibid.). Take care of important habitat types and biodiversity on land and in the sea/work for clean water in Hålandsvannet (supplies of nutrients to the water must be sought reduced) (ibid.). Work is needed to get bigger share of local workplaces (ibid.). Better language training for immigrants and refugees (ibid.).
Randaberg municipality Plan and environment Proposal for plan strategy 2020-2024	People are getting older, fewer children are being born, labour immigration has been reduced (Randaberg kommune 2020b). More precipitation and more torrential rain, sea level rise, storm surge and waves (drainage network is not built to withstand an increased water volumes) (ibid.). Agriculture will face major challenges with reduced yields due to a heavy rainfall and stronger winds over a longer period, or long periods of drought (ibid.). The emissions in Randaberg come mainly from shipping, traffic, and agriculture (it makes up 84% of the total emissions)/large share of fine particulate matter in the air (ibid.). One goal is for the municipality to do greener procurement and reduce waste (ibid.). Changes in land use are the greatest threat to biodiversity (ibid.). Development and densification put pressure on both cultural environments and cultural landscapes and challenges the national goals of minimizing the loss of cultural monuments (ibid.). Agricultural areas being reduced to the advantage for housing, roads, industry, and other purposes (ibid.). The difference between those who earn the most and those who earn the least in Randaberg is increasing/an increasing proportion of children and young people that live in low-income families (ibid.). Drop-out rate among young people in upper secondary school/increased loneliness (ibid.). Randaberg is completely dependent on businesses going well in the neighbouring municipalities (ibid.). Unemployment due to pandemic (ibid.). The gap between expected services and available resources are increasing (ibid.).

Randaberg municipality Budget 2021 Financial plan 2021-2024 Councils Proposal	More seniors provide both increased income and increased costs (Randaberg kommune 2020a). Target figure for net loan debt was raised from 60.000 NOK/inhabitant to NOK 90,000/inhabitant (ibid.). Municipality spend more than other municipalities in relation to kindergartens, nursing and care, social services, and municipal health services (on child welfare and primary school spend less) (ibid.). The challenge is to be able to offer predictable relief stays in institutions for persons with dementia (ibid.). Loneliness is one of the biggest challenges among older people (ibid.). Nurses, kindergarten teachers are critical competence which in some departments has been very difficult to both recruit and retain (ibid.). Poverty is increasing in Randaberg (ibid.). An increase in the number of persons who receive work assessment allowance (NAV) (ibid.). More and more young people receive social security benefits (young people must complete upper secondary school – that they can read, write and count) (ibid.).
Annual report and annual accounts 2019	Net operating profit (NOP) for 2019 (NOK - 0.84 million or - 0.09% of operating revenues) – result was better than budgeted NOP of minus NOK 13.8 million (-1.6%) (Randaberg kommune 2019a). Long-term debt that includes the municipality's total loan debt including further lending funds, has increased by NOK 86.6 million, as well as short-term debt have increased (ibid.). Errors in accounting reporting (ibid.). Municipality lagging other municipalities in terms of solvency and reserves (ibid.). High percentage of children who receive child welfare measures (barnevern) (ibid.). Psychological difficulties among young generation (ibid.).

Table 4. (continued)

	Sauda municipality
Municipal Plan's Community Part Sauda 2019-2030	Access to jobs, relocation, aging population, and a challenging municipal economy (Sauda kommune 2020a). Economic development, climate change, demographic change, changes in the way we think, and act also have consequences for overall planning (ibid.). Population decline (challenges when it comes to maintaining a sustainable economy), fewer people of working age, low immigration, fewer births, and more elderly people/need for care services will increase (ibid.). Growth in population and jobs will

	<p>lead to demand for housing (ibid.). Challenges when it comes to safe and open roads (only one road out of the village – winter closed road and frozen fjord) (ibid.). Limited public transport in and out of the municipality – political agenda setting (ibid.). Lack of people with the right skills (ibid.). Municipality will take over responsibilities and tasks from specialist health services in line with intentions of the Coordination Reform (Samhandlingsreforma)²² (ibid.). Public health diseases (cardiovascular disease, cancer, chronic lung diseases, diabetes, mild mental disorders, and age-related dementia)/high mortality rate (ibid.). Mental health/intoxication/physically inactive youth school students (ibid.).</p>
<p>Plan Strategy 2020-2023</p>	<p>The age distribution presents challenges for the labour market and the welfare system when it comes to the care burden (residents of working age who are able to finance and produce services for children, young people, and the elderly in society) (Sauda kommune 2020c). Sauda has good capacity of vacant housing plots (at the same time, it leads to lower demand, and thus, lower price, on existing dwellings) (ibid.). Ungdata shows that many of the young people are bothered by worries, depressive symptoms, and loneliness (ibid.). Lack of residents with college/university education, thus an increased burden on public social security and benefit systems (ibid.). An increasing number of inhabitants receiving disability benefits/on work assessment scheme (ibid.). Qualified personnel within the health and care, planning, child welfare, primary school, ICT, engineering, and skilled workers for building and construction (ibid.). Milder climate in wintertime because of global warming is a potential challenge for tourism related to winter sports (ibid.). 97% of GHG emissions from industry (emissions to air, soil, and water)/municipality also has a responsibility to cut emissions locally within transport, waste, construction, and other sectors (ibid.). Municipality has a great responsibility when it comes to land management and conservation of biodiversity, ecosystems, and species in water and on land (ibid.). Administration has little resources for mapping work and overall strategic planning – there is a need to increase regional and inter-municipal co-</p>

²² The Coordination Reform implies good interaction between the health and care service and other sectors such as NAV, child welfare and PPT (Educational-Psychological Service) (Helse- og omsorgsdepartementet 2009).

	operation, that can have positive consequences for municipalities' professional environment, costs, and efficiency, but at the same time it is important to be aware that it can go beyond management and the development opportunities in the individual municipality (ibid.).
Financial plan 2021-2024 Budget 2021	Restructuring work and savings are postponed due to pandemic (Sauda kommune 2020b). Decline in revenue/lower power revenues are expected (ibid.). The Centre Party (Senterpartiet) and The Christian Democrats party (KrF) have given priority in the budget proposal to work with budget follow-up and the project «Sauda 2025», as well as the project «Care 2030» which will increase the number of institutional places in the future/The Centre Party and The Christian Democrats party do not think that 2021 is the year to burden the organization with new major initiatives (the most important job for Sauda in the future is to get more people to choose to settle here) (ibid.). Rådmann delegated to "freeze" budget items and vacancies items (vacancies shall be carefully considered regarding alternative organization to solve work tasks without new hires) (ibid.). Sauda municipality runs services somewhat expensive/operating level is too high in relation to income (ibid.). The figures budget is adopted with a net negative operating profit of -1.32% of operating revenues/for 2021 it budgets with a deficit of NOK 8 million (the deficit is financed with the use of distributable reserve) (ibid.). Weak declining population (ibid.). Social inequality, about one in ten children lives in low-income families (ibid.). Sickness leave (ibid.). Operating budgets of the kindergartens are very tight/capacity and competences are needed to provide an extra support/help linguistically or socially for children and students (ibid.). Men recruitment for teaching positions (ibid.).
Annual Report 2019	Full-time occupation provides fewer employees who are more often at work (Sauda kommune 2020d).

Table 4. (continued)

	Bokn municipality
Municipal plan Bokn municipality	Large emissions come from an increasing traffic over Bokn, as well as emission from shipping and agriculture (Bokn kommune 2019b). Changes in age composition in the municipality/declining population and changes in

<p>2019-2031 Social part</p>	<p>municipal revenues (ibid.). Reduced budget and greater demands from inhabitants (ibid.). Recruitment of professionals in general (ibid.). It will be crucial to facilitate social meeting places for both residents, employees, and visitors (ibid.). Mental health/substance abuse disorders/overweight and musculoskeletal disorders (ibid.). Infrastructure facilities are needed/protection of the beach zone (ibid.). Municipality is facing a maintenance backlog in parallel with the requirements of good planning and operation (ibid.). Fewer children are born (ibid.). A larger proportion of the population will receive a pension instead of a higher earned income as a source of income (it will be demanding to increase the tax burden for the individual) (ibid.). Low moving rate in municipality/low proportion of residents of working age (ibid.). Rogfast project bring uncertainty for municipality (ibid.). More workplaces are needed (ibid.). Inter-municipal cooperation can lead to a loss of competence locally in the municipality (ibid.). Climate change will pose challenge for the technical sector regarding planning and operation (both increase in fees and reduce in municipal revenues) and assume environmental challenges (ibid.). The biggest challenge for teams and organizations today is the competition against others leisure activities (cabins, weekend trips are prioritized and fewer attend volunteer work and event on weekends)/few people attend church (ibid.). Municipality lacks day care in intoxication and mental health services (ibid.). The current school building does not meet the current requirements for fire protection, ventilation, and heating (ibid.). Some children and young people as well as their families are left out of community inclusion (often linked to linguistic, economic, and social challenges) (ibid.). The waterworks in the municipality does not have a reserve water containers, and the municipality is therefore vulnerable if the main water source cannot be used (shallow acute contamination)/requirements related to water supply and management of wastewater are expected to increase in the years (ibid.). Adapted housing for the elderly, care homes and hospital places are imperative (ibid.). High loan debt (this leads to increased financial costs and reduced net operating profit)/municipality vulnerable in relation to the interest rate increase (ibid.). Outsourcing/inter-municipal cooperation on finance/accounting and ICT</p>
----------------------------------	--

	relates to possible measures to service provision (ibid.). Limited number of service offer in municipality (ibid.). Number of active farms has decreased in Bokn/agriculture is not pronounced politically controlled/regulated industry (ibid.). For the fishing industry, recruitment is one of the main challenges (due to a high prices purchase of licenses, boats, and equipment)/difficult for young people to establish within the industry/for aquaculture industry, the challenges relates to areas (ibid.). Few accommodation options for tourists (ibid.). Role of the Føresvik (municipal centre) and Bokn Plast for development strategy (ibid.). Much of the released area in the municipal plan's area part has not been developed and not arranged (ibid.).
Plan strategy for Bokn kommune 2019-2023	-
Budget 2021 Financial plan 2021-2024	The municipality has increased costs, among other things, related to an increased absenteeism (Bokn kommune 2020). Contribution to the financing of public expenditure from oil revenues will decrease (ibid.). State governs municipalities services with increase or decrease of transfers (ibid.). Stagnation and negative population growth affect both the distribution of income from gas-based industry between Bokn and Tysvær and the framework transfers from the State (ibid.). The Storting ²³ decides every year to transfer new tasks to the municipalities – often with requirements for competence that Bokn municipality does not have or have a problem to recruiting (costs to recruit high skills professional is very high) (ibid.). Statutory services must be reduced to a level corresponding to the cost level for comparable municipalities (ibid.). Lack of professional environment across municipalities (ibid.). In recent years, there has been an increase in cases where child welfare services have stepped in with help measures (the cases are often complex, and require expertise that one must acquire from external parties partners)/measures that require one to go out and buy special expertise often lead to high costs (ibid.). An increase in the number of people

²³ The Norwegian Parliament (Stortinget 2008).

	who are depending on financial social assistance (both as main income and supplementary assistance) (ibid.).
Annual Report 2019 Bokn municipality	The unemployment rate in Bokn is 6.3% in March 2020, compared with 1.8% the year before (Bokn kommune 2019a). The accounts for 2019 show that the new income system that was introduced from 2017 ²⁴ gradually reduces the framework subsidy and weakens the municipal economy (ibid.). Challenge to recruit men for positions in health, school and kindergarten and women for positions in technical (ibid.). Bokn municipality, like all other municipalities, has challenges with all the units that are used privately and in a work context (ibid.).

Table 4. (continued)

	Utsira municipality
Community part of the Municipal Plan 2012-2022	Development of an environmentally friendly pattern and transport system, with securing green areas/0 emission society (Utsira kommune 2012). Strong soil protection (ibid.). Development of the population/children/competencies (recruit staff with kindergarten)/labour (ibid.). Municipality's finances depend to a very large extent on regulations in the Storting (ibid.). Municipality receive only a marginal share of the framework grant based on so-called objective criteria – political variables (small municipality grants and basic grants) which decides, rather than changes in demographic data (ibid.). Residential plots are a limited resource in Utsira municipality (ibid.). Work placements/business structure at Utsira has changed radically (ibid.). Vulnerable communication and small network to the region (ibid.). Get venture capital (ibid.). Get more animals on pasture/ Utsira needs an increased grazing pressure to preserve it distinctive cultural landscape/contribute to marketing alternative production methods in agriculture (ibid.). Health problems, salmon lice problems and pollution of the fjords due to an increase in the number of fish farms have made Utsira more attractive as a fish farming area (both at sea and on land) (ibid.). In the years to come, more teachers will retire/falling number of students (ibid.). An increasing number of older people (ibid.). Teams and associations

²⁴ Through the equalization of expenses in the revenue system, the municipalities are fully compensated for involuntary cost differences related to municipality size (Kommunal- og moderniseringsdepartementet 2017).

	struggle to maintain their offerings due to a few leaders and participants in all age groups (culture development)/lack of organized leisure activities for children/young people (ibid.). Large backlog in the maintenance of some technical facilities (ibid.).
Municipal planning strategy - Utsira municipality 2019-2022	Young people of childbearing age move to the city, and children are to a greater extent born centrally (Utsira kommune 2019). Work to reduce the employer's contribution (ibid.). Purchase of private property for cottage development (ibid.). Ensure that residential and commercial areas in Utsira do not fall under protection regulations (ibid.). Teachers with the right and sufficient competence within the basic subjects, as well as pedagogically psychological competence/replace older teachers with new ones when there is a generational change (ibid.). Physical inactivity among children and young people is a disturbing development in a public health perspective and can for example, lead to obesity, diabetes, and muscle ailments (ibid.). Volunteering today is important (good support for cultural life) (ibid.). Climate change has led to more precipitation, for our part of the rain, and thereby challenges with drainage of surface water/heavy rainfall over a short period of time can result congestion in the power grid and will be costly investments for the municipality (ibid.). Loss of free income requires adjustments of capacity for new frameworks (ibid.).
Financial plan 2021-2024	The challenge ahead is to adapt activity and structure to reduced customer base (spare capacity in school, kindergarten, as well as in nursing home) (Utsira kommune 2020). A change of top management will require resources in several directions but will probably also add new impetus and thoughts for conversions (ibid.). The proposition states that it is 15 years since a public committee has reviewed the income system for the municipalities (ibid.). Good and long-term instruments for merging municipalities prioritized (ibid.). Significant loss of income because of the large population decline last year (through own income equalization, municipalities are compensated with tax revenue below the national average according to given rules) (ibid.). Loan debt shows a scary development (ibid.). Most municipalities in Norway have accumulated very large negative premium variances (up to 40% of the premium basis)/fund premium variance was 1.1.20 of NOK 1,013,850 (ibid.).

Annual report Utsira municipality 2019	<p>With a small staff and with few mercantile resources, it will be a challenge to perform constantly new tasks, whether it is state or county municipal guidelines that form the basis (Utsira kommune 2019). The largest percentage of absences was in the health and care department and the upbringing department (ibid.).</p> <p>Construction area with very rigid legislation (it is very demanding to stay up to date as one process few cases a year/should there be major complicated cases, it makes sense to buy the expertise from a neighbouring municipality) (ibid.).</p> <p>Continued focus on mental health especially regarding the young population (ibid.).</p>
--	---

Table 4. (continued)

	Vindafjord municipality
<p>Municipal plan for Vindafjord municipality 2017-2029</p> <p>The social part</p>	<p>The municipality has a higher percentage in the group 80 years and older than the national average/lower percentage of the age group 20-44 years (Vindafjord kommune 2017). Unemployment has increased recently (ibid.).</p> <p>Increase in the number of children with one mother tongue other than Norwegian can be a challenge both in kindergarten and school (new requirements for teacher competence means that there is a great need for further education) (ibid.). In 20 years will be a deficit of health professionals and nurses (ibid.). Placement of refugees is another challenge (lack of municipal housing and high rental prices/unemployment) (ibid.). Handling of surface water is becoming increasingly important. More construction, more intensive rain, and more area with solid surfaces can lead to large amounts of surface water (ibid.). Capacity and competence in the municipality – weak coordination of diverse initiatives, expectations, and tools (ibid.).</p> <p>Development of housing plots, workplaces, cultural offerings, trade and service and decentralized kindergarten and school structure is important (ibid.). Financial challenges within some areas in recent years (nursing and care sector, health, and social assistance), and major investment project (ibid.). Satisfactory infrastructure/increase in municipal tasks and responsibilities/take care of agriculture (ibid.). To reduce emissions, emphasis must be placed on efficient land use and the transport system (ibid.).</p>

	Risk of floods and landslides provides additional and new challenges for planning (ibid.). Secure drinking water resources/sustainable management of beach zone to sea and water/preserve cultural heritage and cultural environment landscape (ibid.).
Planning strategy and public health overview for Vindafjord municipality - 2020-2023	Proportion of couples with children is declining slightly and the proportion of single-person families and couples without children is increasing (Vindafjord kommune 2020). Agriculture accounts for the most emissions/lack of climate adaptation that leads to others being harmed/biological diversity (ibid.). Mental health/substance abuse/loneliness /an increasing behavioural problem in both kindergarten and school/bullying is a challenge that must be solved as soon as possible (ibid.). The challenges in the kindergarten are to provide an equal and good pedagogical offer in all units (ibid.). Many of the refugees who live in Vindafjord municipality have no or little formal education/services provided to this group from the child welfare services are partly good, but not cost-effective (ibid.). Recruitment of more women to "male-dominated" occupations (ibid.). Structural changes and investment needs in agriculture (ibid.). Municipality is dependent on the higher authorities when it comes to planning and implementation (within infrastructure) (ibid.). Poor mobile network and fiber coverage in parts of the municipality (ibid.). Municipality has a large backlog in the maintenance of municipal buildings (ibid.). Lower mastery level than the national average on national tests in mathematics and reading among pupils (ibid.). Too little physical activity in general in the population/economic differences (ibid.).
Budget 2021 and Financial Plan 2021-2024	Shift in the population (fewer children and more elderly people, at the same time as there will be fewer people of working age) (Vindafjord kommune 2020). Net loan debt/debt per inhabitant is projected to increase (ibid.). Municipality is dependent on positive deviations on other factors to end up in balance (budget is tight, and the framework is often not successful) (ibid.). Challenges with English language among pupils (ibid.). The size of the classroom is an issue/number of students at the school is declining/less children/challenges with resources for disabled students/challenging with temporary staff in kindergartens/cleaning standard in kindergartens (ibid.). It is challenging to set the right fee as there is uncertainty associated with the

	activity level and count cases that come in (some of the unit's services are financed through fees) (ibid.).
Annual Report 2019 Vindafjord municipality	The municipal operating expenses in 2019 were 784,321 million. (an increase of 22.5 NOK million (2.96%) compared to the previous year (Vindafjord kommune 2019). The liquidity situation in Vindafjord municipality has been somewhat reduced from 2018 to 2019 (ibid.). Interest and repayment burden over the last 5 years has been slightly increasing (ibid.). The municipal technical services unit is not properly dimensioned for the workload, which leads to lack of feedback on inquiries, long case processing time, heavy load on employees and the projects must be postponed (ibid.).

Table 4. (continued)

	Time municipality
Municipal Plan for Time 2015-2027 Community section	Population development and the changes in the age composition have a lot to say for the extent of welfare services, kindergarten places and school buildings (Time kommune 2015). Decline in the level of activity in the population (ibid.). Challenges related to dropout in upper secondary school and young people who are disabled (ibid.). Rise in house prices in the municipality in the last 5-10 years (young people and the disadvantaged have problem with buying own home) (ibid.). Population growth will create challenges for teams and associations both in terms of area, construction capacity and the recruitment of volunteer's employees (ibid.). Lifestyle diseases, mental difficulties and drug problems are increasing in groups of the population (ibid.).
Planning strategy for Time municipality 2019-2023	Active agriculture and good management of the area is important to maintain and increase food production in accordance with national and regional soil protection objectives (Time kommune 2020b). It is an important overriding goal to reduce car traffic, something that requires good public transport solutions (ibid.). Mental issue/income differences/school roads/elderly resource/more people move out of Time (to other Norwegian municipalities) than to Time from other places in Norway (ibid.). High proportion of young people in the age

	group 20-29 who receive social benefits via NAV (ibid.). Human rights should be considered (ibid.).
Budget for 2021 and Financial Plan for 2021-2024	Large decrease in children in the age group 0-5 years (Time kommune 2020a). Interest rate developments in future is a risk factor for the municipality due to a large debt (ibid.). Increase in the need for nursing and care services for residents of all ages (ibid.). Unemployment in the region has varied greatly in 2020 because of the pandemic (ibid.). Challenges in the recruitment of the GP doctors (ibid.). The municipality still has some lag when it comes to re-asphalting of municipal roads and streets (ibid.). An increase in election costs of NOK 50,000 has been budgeted in connection with the Storting election and the municipal and county council election (total of NOK 450,000 has been placed in 2021 and NOK 650,000 in 2023) (ibid.). Climate change in recent years has led to greater rainfall and it invested in recent years to increase the capacity of surface water to avoid over summary basements (ibid.).
Annual report 2019	Operating expenses increased by 2.7% against a growth of 5% last year (Time kommune 2019). Different practices when entering premium deviations give municipality an expensed additional cost of NOK 52 million for these years (municipality could alternatively have this as a debt to be repaid coming years) (ibid.). Pedagogical staff coverage for kindergartens (ibid.). Total sickness absence in Miljøtenesta has increased to 11.2% in 2019 against 7.4% in 2018 (ibid.).

Table 4. (continued)

	Suldal municipality
Submission to Plan program Suldal municipality Municipal Plan 2020-2030	Municipality must get own young people back to the municipality and get newcomers to stay/new workplaces/recruit and retain expertise (health and care)/mobilize voluntary efforts/an increase in the number of older people and fewer people in employment/inhabitants coming from other countries (resource that must be used, and at the same time a challenge) (Suldal kommune 2020). Challenges with transport

- community part and area part	connections (ibid.). GHG emissions from (agriculture, shipping, road traffic and other sources) (ibid.). Clear boundaries to important agricultural areas and set of specific requirements for densification/transformation should be established (ibid.).
Planning strategy for Suldal municipality 2020-2024/ Planning strategy and public health overview for Vindafjord municipality - 2020-2023	Sick leave (certified by a doctor) has increased in recent years, especially among women (health and care services) (Suldal kommune 2020b). Uncertain power revenues (ibid.). Climate change is likely to result in more smaller landslides and roads that subject to closure (maybe the pipe network can be too small, and in the worst-case dwellings which is also exposed to climate change) (ibid.). Recruitment of more women to "male-dominated" occupations/structural changes and investment needs in agriculture/sustainable management of the beach zone and sea area regarding use and protection (Suldal kommune 2020). Municipality has a large backlog in the maintenance of municipal buildings (ibid.). Little physical activity among population/intoxication and alcohol use in adolescents/mental illness/loneliness/sexual harassment among high school students/economic differences (ibid.).
Financial plan with Action program 2021-2024	The decrease in the number of children (Suldal kommune 2020a). Long-term debt at the end of 2020 is 47% (ibid.). Major challenges to obtain personnel for shorter and longer absences (ibid.). High investment level due to geography and structure (ibid.).
Annual report and annual accounts 2019	A total of 471 non-conformances were reported in 2019, compared with 441 non-conformities reported in 2018 (Suldal kommune 2019). Municipality hire in permanent position people with lower competences than needed, seen as challenge (ibid.).

Table 4. (continued)

	Tysvær municipality
Municipal plans 2015-	Managing biodiversity, cultural monuments, centre structure and rural development and the need for overall development strategy and housing policy, low retail coverage (Tysvær kommune 2015). Young people moving out of the municipality during education/more older people (ibid.). With tighter economic

<p>2027 The society</p>	<p>room for manoeuvre must private development actors to a greater extent contribute and take responsibility for investments in infrastructure and area development (ibid.). Large investments and a relatively high loan debt (ibid.). Statoil Kårstø (largest workplace in Tysvær) provides work for many employees, and it buys goods and services for significant amounts, as well as the company leaves large sums in municipal treasury in the form of property tax/if gas flow from Statpipe and other older fields decreases, it become relevant with gas and light oil from others fields in the North Sea (ibid.). Active farming gone down in Tysvær (challenges in agriculture is linked to economics and recruitment) (ibid.). Poor mobile coverage and parts of the municipality lack broadband (ibid.). The municipality has challenges within the socially disadvantaged (housing policy, planning work for these groups population have been fragmented) (ibid.). The kindergarten capacity in Tysvær municipality is fully utilized in parts of the municipality/to secure and recruit good teacher competence at all schools become a challenge (ibid.). An increase in the number of children in child welfare service/child welfare workers are exposed to great stress in the work/tthere is a clear aim for the child welfare service to be offensive in the preventive work (an integral part of the interdisciplinary work in the municipality, and in accordance with the law requirements and regulations) (ibid.). Recruitment of professionals with technical education is a challenge (ibid.).</p>
<p>Plan strategy Tysvær kommune 2020-2023</p>	<p>GHG emissions in Tysvær municipality are particularly large due to the sector «industry, oil and gas» (Tysvær kommune 2020). The low population growth is due to a lower birth surplus and a negative net migration/an increasing proportion of young people with disabilities/social inequality for dropouts in upper secondary school (ibid.). Municipality will also face challenges in the next few years with a sharp increase in the need for services (ibid.). Of the "non-quota" emissions in 2018, the largest direct emissions were from agriculture, shipping, road transport and other mobile combustion (diesel for plants, tractors) (ibid.). Overweight and obesity, and too little physical activity among people (ibid.). High sickness absence (ibid.). Unsustainable cost level is a challenge (ibid.). Lower level of arithmetic and reading skills among pupils/bullying/children in immigrant households living in a low incomes/few</p>

	schools and kindergartens are approved in accordance with regulations on environmental health care (ibid.). Low coverage of public drinking water/radon occurrence (ibid.). Sales of alcoholic beverages are rising steadily/drug use among young people (ibid.).
Budget 2021 Financial plan 2022 - 2024	Tysvær municipality spends more on services and has an additional consumption of NOK 9.124 per inhabitant compared with medium-sized municipalities (Tysvær kommune 2020). Total wage costs for 2021 are budgeted at NOK 726 million, compared with NOK 706 million in 2020 (nominal increase of NOK 20 million) (ibid.).
Annual report 2019	-

Table 4. (continued)

	Karmøy municipality
Plan program Municipal plan part of society 2021-2030	Social inequality creates health inequalities/senior resource/mental health/physical activity for all/infrastructure (reduce car dependence) (Karmøy kommune 2020c).
Municipal planning strategy 2020-2023	Reduction in the proportion of young people/people of working age/low birth rates (Karmøy kommune 2020b). Some young people have problems in completing their education (ibid.). Precipitation increases significantly both in intensity and frequency, more surface water, more and larger rain floods, greater probability of landslides, as well as an increase in storm surge levels due to sea level rise (ibid.). Karmøy has poor solutions related to alternative water supplies, so-called reserve water solutions (ibid.). The long drainage network makes maintenance both extensive and expensive (this has led to a significant backlog on the maintenance side)/many private sewage plants in Karmøy municipality (lack of documentation, standard, age and condition is a challenge) (ibid.). The business life in Haugalandet region has challenges (ibid.). Investments in the private sector have had a negative development over the past three years (ibid.). Municipality

	annually manages a budget with gross operating expenses of more than 3 billion kr. (ibid.). Large maintenance backlog has been accumulated (ibid.).
Action program 2021-2024 With annual budget and financial plan The councillor's proposal	Further investments will increase municipality debt (Karmøy kommune 2020a). Despite lower revenues, Karmøy municipality in 2019 spent more money on service production (excluding administration) than the national average (ibid.). The pupils at the upper secondary schools in Karmøy score lower than the national average on the factor's motivation and mastery (ibid.). Need for competence development within the school department (environmental workers, teachers, and school leaders) (ibid.). Challenges with the recruitment of doctors, health nurses and psychologists (ibid.). The number of people with drug addiction has become higher and users are more in need of help (ibid.). GHG emissions from industry (oil and gas), shipping, airport, road traffic, heating, waste, and sewage (ibid.). For Karmøy municipality's activities, maintenance and construction services have the largest contribution to the total GHG emissions (ibid.).
Annual account 2019	For second year in a row in 2019 were negative figures for own service production (Karmøy kommune 2019). The liquidity ratio has declined (one explanation is that municipality now has less unused loan funds than before) (ibid.). Sick leave is high among people (ibid.).

Table 4. (continued)

	Bjerkreim municipality
Plan program for the municipal plan's area part and the community part of the municipal plan/ Municipal Plan 2014-2026. Community part	More older people/mental issues among people (Bjerkreim kommune 2014). The municipality centre needs development in terms of structure, aesthetics, modernization, and urbanization (ibid.). Local businesses lack size, capital, and expertise to be able to take part in the large construction contracts/municipality has limited capacity and competence to contribute to achieving the objectives about developments of renewable energy (ibid.). Constant pressure on services, rights, required documentation and reporting present increased challenges for service provision (ibid.). The challenges and expenses for the child welfare service have increased sharply and the scope of serious cases has increased considerably (several foster homes) (ibid.). Competence and resources within the

with action program	health sector is an issue (ibid.). Aging building stock requires maintenance/weather (extreme showers) creates challenge for road maintenance/food production (ibid.). Agriculture is politically thoroughly regulated (ibid.). Many farmers are struggling with increasing demands for efficiency and declining incomes (ibid.).
Plan strategy for Bjerkreim kommune 2020-2023	It has been a decline in the population in recent years – mainly due to emigration (Bjerkreim kommune 2020c). The increase in the proportion of older people will lead to increased expenditure on health and care/the age composition will affect the municipality's finances with an increase of public services in the future, at the same time as tax payments weaken (ibid.).
Proposed Financial Plan 2021-2024 Budget 2021	For 2021, Bjerkreim is 10.4% more expensive to operate in relation to the national average expenditure need/inhabitant (Bjerkreim kommune 2020a). Municipality is dependent on taxes and framework grants (ibid.). Current debt will triple (due to plans for borrowing to make investments) (ibid.).
Annual report 2019	In 2019, the municipality had a negative net operating profit of NOK 0.887 million (Bjerkreim kommune 2019).

Table 4. (continued)

	Lund municipality
Planning strategy 2020-2024	Recruitment and retains high-tech labour in the Lund community is the challenge (Lund kommune 2020d).
Plan program for rolling out the community part of the municipal plan and the land-use 2021-2032	The municipality does not have a sustainable economy based on the current operating level 2020 – expenses are greater than revenues, which results in negative operating results (Lund kommune 2020c). Municipality has the highest operating expenses per inhabitant in Dalane (ibid.). Low education level (problems in recruiting kindergarten teachers and teachers in general) (ibid.). Pressure must still be exerted on central authorities to improve the railway Drangsdalen/infrastructure (ibid.). More older people and fewer people in work/declining population (ibid.). Little variation in the business world/climate and environmental

	<p>challenges – flood issues (ibid.). Decentralized school and kindergarten sector – high operating costs (ibid.). Municipality has decided to exist as it is own municipality, but the challenge further is to deliver good services to inhabitants (ibid.). Public health – correlation with education level (health differences between those with high education/income and low education /income) (ibid.).</p>
<p>Annual budget 2021 Financial plan 2021 - 2024</p>	<p>The government states that the level of public spending must go down, which also reflects the lower transfers from the state to the municipalities (Lund kommune 2020b). Lund is a low-income municipality (with an average tax revenue of approx. 79% of the national average) – the tax revenue is highly dependent on how the tax revenue will be for the country collectively (ibid.). The high level of debt has contributed to the municipal sector increasing it is vulnerability toward the interest rate market/an increasing share of operating revenues is used to cover instalments and interest costs on the loan debt (ibid.). For the past 3 years, Lund has budgeted with negative net operating results (municipality's fund portfolio is drained annually corresponding to the budget deficit) (ibid.). Mental health and substance abuse among people (ibid.). Recruiting midwives is the challenge (ibid.). The number of children with measures from the child welfare service in Lund municipality has increased significantly – Dalane child welfare took over the responsibility in 2012 (ibid.). Challenge to maintain satisfactory maintenance in relation to roads facilities as well as buildings (ibid.).</p>
<p>Annual report 2019</p>	<p>Large lag in the provision of digital services (Lund kommune 2019a). Adapt municipality's operations so that the financial target figures can be met in the long term (ibid). Large cuts in upbringing and the cultural services (ibid.).</p>

Table 4. (continued)

	Gjesdal municipality
<p>Planning strategy 2019-2023</p>	<p>The proportion of people over the age of 67 will increase sharply in the next few years, and it is estimated that the proportion of taxpayers per pensioner will be halved by</p>

	2040 (Gjesdal kommune 2020c). Mental health is a major challenge among people (ibid.). GHG emissions in Gjesdal must be cut sharply over the next 10 years (ibid.). It is likely that it will be more expensive to run municipality in the coming years (ibid.). Changes in the composition of the population affects income and operating expenses (ibid.).
Together for an attractive Gjesdal society 2019–2030 report	High loan debt (Gjesdal kommune 2019c). Gjesdal will be dependent on a net influx of people of childbearing age (ibid.). The trend from 2016 onwards is that the birth rates, and consequently the need for kindergarten places, are somewhat lower than in the period 2010-2016 (ibid.).
Budget 2021 Action and financial plan 2022-2024 The municipal council's decision	-
Annual report 2019	Decline in the number of residents in recent years, the same is about revenue growth (Gjesdal kommune 2019b). Decline in the share of population/children that contributes to municipality income (ibid.). Municipality continued to focus to limit the number of customers/buyers by increasing the competence among them (this is to streamline the procurement process and ensure that as many of the municipality's procurements as possible are made through established procurement agreements) (ibid.). Increased lending of start-up loans (ibid.). The shortage of kindergarten teachers is still one of the greatest challenges (ibid.). The nurses do not get enough time to follow up children, young people, and their families (ibid.). Obesity problems (ibid.).

End of table 4.