

**LOCAL ACCEPTANCE OF MINERAL EXPLORATION AND
EXPLOITATION ACTIVITIES: ANALYSIS OF FINNISH
MINERAL POLICY IN THE PERIOD OF 2019-2022**

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<p>Abstract</p> <p>This study analyzes how local acceptance of mineral exploration and exploitation activities was addressed in Finnish mineral policy between 2019-2022, following the Sanna Marin Government Programme's aim of improving local acceptability and opportunities for citizen influence in the development of mining projects. This period was marked by the reform of the Mining Law of 2011. This research explores the theme from the perspectives of land use planning, public participation, access to information and impacts on other sectors/activities. It analyzes a core set of themes identified to be relevant when discussing acceptance of mineral exploration and mining and the building of higher levels of social license to operate (SLO).</p> <p>This study joins in the discussions that revolve around the relationship or interplay entre la public policy and the social acceptance of mineral exploration and mining, being this framed in contemporary debates on mining governance and sustainable development. This study uses the concept of social license to operate (SLO), emphasizing the terms of acceptance and legitimacy, to frame and guide, in part, the present research. Complementarily, the concept of sustainable development is introduced for the analysis of the various subjects and aspects explored. This thesis analyzes official policy documents from the Government of Finland. The qualitative documental-based content analysis is complemented by different academic sources and contrasted with existing studies on the themes tackled. Findings showed that reforms mainly stress the municipal land use plans and strengthen the coordination of different interests locally when mineral exploration and exploitation activities are planned and promote greater protection and safeguarding of local business activities and livelihoods. Municipal decision-making power in land use planning is strengthened when considering future mining activities. Citizens' participation and access to information are reinforced by stipulating new public participation opportunities while developing exploration or exploitation activities. The permit process is strengthened with more information sessions for citizens and notification obligations reaching both planned and ongoing projects and targeting both the mining authority and the operator. More notifications in the reservation, prospecting and exploration phases are introduced, seeking to reinforce early access to information by relevant local stakeholders. This study suggests that some of the subjects and aspects covered in the draft of the Mining Act are introduced in a general manner, leaving some room for interpretation—this can pertain to the substance of the matter and the procedure to follow. It also suggests that to complement the proposed changes, policy documents such as plans, programmes, or guides could be used to delve into some aspects of the reforms and eventually bring more clarity to potential stakeholders. If well implemented, these reforms may offer more safeguards to local stakeholders from the early stages of mining projects.</p>	
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ABBREVIATIONS

Abbreviation	Description
GPP	Government's Proposal to Parliament to amend the Mining Act
DMR	Draft Mining Regulations
MA	Mining Act
SD	Sustainable Development
UN	The United Nations
SLO	Social license to operate

FIGURES

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1 INTRODUCTION

Social acceptance is a key challenge of mining activities. In addition, building meaningful dialogue between local stakeholders, mining companies and other relevant stakeholders, including governments, is another important issue for the future development of the mining industry and local governments (Mononen & Sairinen, 2021; Mononen et al., 2023). Seeking to understand the relationship or interplay between institutions, actors and processes by focusing on local mining governance and local support, or lack thereof, for project development can be complex and more in situations of resistance and conflict. Today local communities are more aware of mining issues and voice their concerns and demand more action from governments and companies to protect their economic and sociocultural interests (Poelzer et al., 2021).

The lack of local support and acceptance of a project, which can manifest through active opposition from local residents, may be tied to various social, environmental, economic, political and/or cultural reasons. The most mentioned by scholars are the lack of participation in the planning and decision-making processes, inclusion and representation, fluent communication, information sharing, recognition of rights of indigenous people (e.g. traditional livelihoods); environmental concerns (e.g. water use, water pollution); demands for more local economic benefits or better distribution of benefits; land-use planning; among others (see, for example, Jartti et al., 2020; Mononen et al., 2022; Suopajärvi, 2013; Lyra, 2021). Past experiences, current perceptions about mining and procedural fairness are relevant issues for impacted communities when evaluating a new mining project (Mononen et al., 2022).

As has been noted by academia, when addressing social acceptance of mining is critical that residents have opportunities to voice their opinions regarding planned exploration and exploitation activities and potential impacts (e.g. Moffat & Zhang, 2014; Thomson & Boutilier, 2011; Mononen & Sairinen, 2021; Litmanen et al., 2016; Prno & Slocombe, 2012; Pölönen et al., 2020; Bastida, 2020). Procedural fairness, and

the quality of such interactions, are key issues to building local support and acceptance of mining projects (see e.g. Jartti et al., 2020; Mononen & Sairinen, 2021; Litmanen et al., 2016; Moffat & Zhang, 2014; Prno & Scott Slocombe, 2012). Both manner and timing of participatory procedures are relevant aspects when considering fostering collaborative practices (Pölonen et al., 2020). It is commonly argued that greater public participation generates fairer processes. In addition, it represents a broader range of interests and concerns, and leads to better acceptance of decisions and support for projects that use natural resources (e.g., Jartti et al., 2020; Mononen & Sairinen, 2021; Siegrist et al., 2012; Prno & Slocombe, 2012). Scholars also have argued that the coexistence of traditional livelihoods and local businesses, exploring and identifying complementarities and synergies and supporting the different activities is very relevant for local acceptance of mining projects (Mononen et al., 2023; Suopajärvi et al., 2022; Pölonen et al., 2021, Raitio et al., 2020).

Debates on how to work towards improving local acceptance of mining and sustainable management of mineral resources in broad terms are taking increasing importance, and this is a trend that will further accentuate. Some of the issues shaping the debates are growing competition in access to raw materials, clean technologies development (highly dependent on metals and minerals), and more stringent environmental requirements and climate protection. Also, the growth of the population worldwide and accelerated urbanization. Even when progress is made with metal recycling, mineral substitution, and new technological changes, mining will continue to have a key role in the foreseeable future. Today's society is largely dependent on metals and minerals. Different studies show that the demand for minerals will grow (World Bank Group, 2020, 2017; Ali et al., 2017). The OECD (2018) has indicated that the need for more raw materials (in general) will essentially double by 2060.

Within the framework of such debates and the complex challenges tied to the sustainable development of resources, it is relevant to conduct deep and critical studies on national mineral policies in developed and developing countries. Defining the contents and working on the design of policies to manage complex themes, such as local acceptance of an extractive industry, remains extremely challenging. It requires a detailed analysis of a variety of topics and aspects, working the links and connections between them towards integrated policy frameworks. The formulation of resource policy in general and mineral policy in particular, requires carefully considering the substantive, procedural, and institutional dimensions of sustainable resource management (Bastida & Iriart, 2023; Bastida, 2020). In this sense, promoting participatory approaches to the formulation of law and policy in the mining sector through instances of multi-stakeholder discussions is an aspect to be emphasized within contemporary governance frameworks, pursuing environmentally, socially, and economically responsible mining. Policy processes that promote deliberation, collaboration, and compromise can lead to greater accountability. It also promotes and contributes to the acceptance of projects. Sustainable resource management also entails paying attention to the outcomes of decisions and the institutional setting in general. Thus, following all the above, when researching and analyzing a policy or regulation, it is vital to consider the concept of sustainable development.

This study is framed within the field of development studies with an emphasis on extractive industries and natural resources and the role of public policies. The focus of this study will be on exploring and analyzing the changes discussed in Finland's mineral policy on the reform to the Mining Act (MA), which would be aimed at improving the social acceptance of mineral exploration and exploitation activities at the local level. The MA reform arises in the context of social debates and critical discussions that question various socioeconomic and environmental issues related to the development of mining projects and their impacts. Studies on Finnish mineral policy and mining regulatory framework are scarce; therefore, this work seeks to contribute in this regard.

The conceptual standpoint chosen for this study is the concept of social license to operate (SLO), emphasizing the terms of acceptance and legitimacy. Complementarily, the concept of sustainable development is introduced, being a backdrop for the analysis of the various subjects and aspects explored in this research. This study will use official policy documents from the Government of Finland, reports and publications from the Prime Minister's Office of Finland, and the Ministry of Economic Affairs and Employment, among other relevant ministries, institutions and organisms, and legislation and regulations. The main document of this research is the "Hallituksen esitys eduskunnalle laiksi kaivoslain muuttamiesta" (2022) (Government's Proposal to Parliament to amend the Mining Act) (180 pages in the Finnish language). The qualitative documental-based content analysis is complemented by different academic sources and contrasted with existing studies on the themes tackled. This study is intended to be a first research phase on the subject of this thesis, laying the groundwork for further investigation. The reflections and contributions of this study could be of interest to researchers and policymakers engaged in the development of mineral resources, the social acceptance of mining, and the role of public policy, likewise, for those with a specific interest in regulatory frameworks applicable to the extractive industries sector.

As a consultant and researcher, I have always been interested in working with mineral policy, regulatory frameworks and governance issues in the extractive sector. This thesis continues in such a vein but focuses on Finland exclusively, being an analysis of a developed country. Previously I have had the opportunity to delve into the mining policy of countries such as Argentina, Chile and Peru (developing countries) (Iriart, 2018, 2016), for which I find it interesting to be able to research a developed country at this stage and focus on a specific topic that is of attention in different countries, seeking to share the experience of Finland in this regard. This will help me to continue deepening my knowledge and experiences in this very specific sector, such as mining and with so many implications and impacts on the development of modern life. Therefore, I am personally motivated to carry out this analysis, and I hope that it is useful and contributes to continuing delving into issues related to the local acceptance of mineral exploration and exploitation activities and the role of public policies within the framework of contemporary debates on mining governance.

1.1 Research question

This research aims to explore how local acceptance of exploration and exploitation activities was addressed in Finnish mineral policy between 2019-2022, following the Sanna Marin Government Programme's aim of improving local acceptability and opportunities for citizen influence in the development of mining projects.

This Thesis intends to answer the following main research question:

1. How is local acceptance of mineral exploration and exploitation activities addressed in Finland's mineral policy in the period 2019-2022?

1.2 Structure of the thesis

As for the chapters of this thesis, the first introduces this study, the main research question and the structure of the thesis. The second chapter focuses on previous literature on the subject of the study. It summarizes relevant aspects highlighted by the scholarship on the theme of this thesis, which is complemented by the conceptual framework presented in the chapter 3. It introduces the main concepts in which this research is framed. The study departs from the concept of social license to operate (SLO) and expands on the terms of acceptance and legitimacy. Complementarily, the concept of sustainable development is introduced. The fourth chapter explains the methodology used in this study and describes the data analysis process and ethical concerns. The fifth chapter exposes the research findings and answers the main research question of this study. Findings are introduced and discussed in three sections. The final chapter provides concluding remarks and avenues for future research.

2 LITERATURE REVIEW

This chapter summarizes relevant aspects highlighted by the scholarship on the subject of this thesis, which is complemented by the conceptual framework presented in the chapter 3. The first part introduces the concept of public policy and makes a brief introduction to the policy process, which allows an understanding of the complexity of the process of, for example, elaborating and defining the contents of a mineral policy. Public policy involves laws, regulatory measures, plans, programmes, among other policy documents, concerning a given topic established or promulgated by a governmental entity or its representatives. The study makes special mention of the concept of governance. Then it refers to the formulation of mineral policy in the context of progress towards sustainability. The second part addresses the local acceptance of mineral exploration and exploitation activities, emphasizing issues that have been identified as relevant by academics when studying local support for projects in different contexts.

2.1 Mineral policy on perspective

2.1.1 The public policy: on the complexity of the policy process

When researching and analyzing public policies, a fundamental distinction that scholars make is between the content of a policy and the process that produces it; content is the "what" of policy, and the process is the "how". The former refers to the substance and implications of adopted or potentially adopted policies. The latter to the process through which public policies are adopted in a particular political system (see Weimer & Vining, 2017; Lasswell, 1971). This policy research focuses on the content of Finland's mineral policy (see section 3.1.1 of this study, where reference is made to the above).

The concept of public policy still is discussed in different circles (e.g. Howlett & Cashore, 2020; Carney, 2012; Dror, 1973; Hill, 2009; Howlett & Ramesh, 2009; Gavilanes, 2009). Some terms appear repeatedly in scholarly works on the subject, such as institutions, rules, actors, processes, society and governance (this last term is addressed in more contemporary works). For instance, Heikkila & Andersson (2018) note that public policies can be seen as institutional arrangements that lay down official rules for society as we all work to provide public goods and manage complex social dilemmas. Hence, public policy involves laws, regulatory measures, plans, and programmes, among other policy documents, concerning a given topic established or promulgated by a governmental entity or its representatives.

Institutional arrangements that may appear appropriate in one context can fail in another. Policies are influenced by context, and this implies that national, regional, economic, political, cultural, and social structures, among others, need to be considered in any research and analysis. Designing policies to manage complex issues, such as sustainable management and efficient use of mineral resources, is extremely challenging. It requires a detailed analysis of the different topics reached, working the links and connections between them towards integrated frameworks. Ostrom (2005), in her Institutional Analysis Development Framework, defines institutions as the rules, norms, and shared strategies that lead to human behavior and choices and are collectively created and modified (see also Ostrom, 2011). When policies are examined, the scope of such a task is defined because of the type of policy problem it applies and the range of activities it tackles. Examining a public policy may revolve around the institutional design, policy evaluation and implementation, or decision-making phase.

Before delving into the concept of mineral policy, a brief introduction to the policy process stages is provided, which allow an understanding of the complexity of the process of elaborating and implementing a mineral policy. In this sense, a policy can be approached as a process with different stages in which feedback in and from each stage is relevant. Thus, an issue or problem may be addressed through a plan or specific program in a systematic way by defining it, developing solutions, and then moving on to the implementation and evaluating the results. This short reference to the policy process stages follows the analysis framework of the stages of the policy process introduced by Jann and Wegrich (2017).

The field of policy analysis, which emerged in the 1950s, has been linked to its traditional version, considering that the policy process evolves through a sequence of stages. The idea of seeing the policy process in terms of stages was first introduced by Lasswell (1956). He developed a simplified policy process model and spoke of seven phases (intelligence, promotion, prescription, invocation, application, termination, and appraisal). This framework considers the general characteristics of the policy process. This model was the starting point for a variety of typologies and developments later in the policy process. With the later contributions of Easton's input-output model, this proposal of stages was then linked to a cyclical model (the "policy cycle"). The focus was extended to include the implementation of policies. In such a sense, the policy cycle framework has not developed into a theoretical framework itself. Currently, agenda-setting, policy

formulation, decision-making, implementation, and evaluation (& termination) are the conventional way in the chronology of a policy process.

Following the above, the first stage in the policy process would be *"agenda-setting: problem recognition and issue selection"*. Agenda-setting arises from a selection of various problems and issues. Here will be the selection of the policy theme and, on the other, the potential strategies and instruments that are being considered to formulate a policy following the different phases of the policy cycle. Therefore, policymaking presupposes the recognition and definition of a policy problem (a social problem) and that it is included in the agenda for consideration of public action. It refers to analyzing how the different variables, such as actors and institutions, interact depending on the specific situation. The previous stage is followed by *"policy formulation and decision-making"*, which revolves around declaring, for example, a problem, or well proposals, and demands and exploring how they can be incorporated into government programmes. It includes the definition of objectives and exploring possible action alternatives. In this work, and following Jann and Wegrich's analysis, formulation and the final adoption of a policy are introduced as substances in the same stage of the policy cycle since it can be challenging to separate them in many cases. In contemporary times, policy formulation can be understood as a complex social process where many actors can be involved, including the state, which has an important but (perhaps) not necessarily a decisive role (this is framed within the debate on new forms of governance and their impact in the policy process). Governments and society interactions through policy networks is a contemporary policy formulation and decision-making phenomenon.

Then comes the *"implementation"* stage -top-down and bottom-up approaches-. This stage can be understood as the phase of execution or enforcement of a specific policy by the institutions and/or organizations charged with that. This will involve the specification of program details, allocation of resources, and decisions. As already mentioned in this work, the implementation stage as a new stage in the study of policymaking was identified in the 1970s. In its beginnings, this phase was regarded from a perspective called the top-down approach, which followed a hierarchical and chronological path of a particular policy. The aim was to assess how far goals and objectives previously defined were achieved. However, evidence showed that implementation was not appropriate. Subsequently, the bottom-up approach emerged; in this case, it was considered that policy was the result of implementation due to the interaction of different actors and programmes. The stage of *"evaluation and termination"* is added later. Policymaking pursues to contribute to problem-solving. Policymaking should be assessed against intended objectives and impacts, which forms the starting point of policy evaluation. It is relevant to stress that it has to be applied to the whole policymaking process (ex-ante, ex-post). Eventually, evaluations may also lead to the termination of a policy (exploring why there are programmes that continue to exist even though they are no longer applied or are not useful).

Regarding contemporary aspects of the policy process, it is key to mention the **governance** concept. The policy process in contemporary societies is featured by the interaction between policy-related activities at different levels and arenas of governance. A continuous, synergistic process can be noted where policies are

constantly debated. Jann and Wegrich (2017) note that the traditional policy cycle framework has a "heuristic purpose" and is the starting point from the hierarchical top-down perspective and contributes to the development of other approaches in the political science field. The interaction between various plans, programmes, laws, and regulations and their parallel implementation and evaluation does not have the attention of policy analysis in the first model developed by Laswell.

Blomkamp (2018), when analyzing participatory design in the context of public policy ("co-design for public policy" in the words of the author), stresses that this method arises to more efficiently involve citizens and stakeholders in the processes seeking solutions to complex issues. The aim is to promote cooperation and trust between different groups, ensure that policies meet the needs of citizens, and achieve economic efficiency by improving responsiveness, to name a few. It aims to improve the policy process and its outcomes. However, this is a constant challenge for policy-makers due to the plurality of voices and interests discussed and involved.

Kooiman (2003), in his book "Governing as governance", introduces the notion of governance as a process of interaction between different societal and political actors and the growing interdependencies between the two due to the complexity, dynamism and diversity of modern societies. He refers to multi-lateral relations between social and political actors and entities (individuals, organizations, institutions). For its part, Hyden et al. (2004) note that in the social sciences, the governance concept had been put to four different uses. These have depended on whether scholars focused on results, processes, rules (i.e. institutions) or the ability to steer (i.e. administrative capacity of public entities to enforce public policy decisions). It is worth noting that rules are part of the social science notion of institutions. Pierre (2000) notes that some scholars see governance as a coordinated process of policymaking involving public-private interactions and policy networks that are institutionalized to a greater or lesser extent, while others see it as the steering that governments do to achieve specific outcomes (see the Doctoral dissertation on 'Good Governance' of the Extractive Resources Sector: A Critical Analysis of Dietsche, 2014). To borrow the words of Kooiman (2003), in contemporary societies, the responsibility of seeking solutions to societal problems and exploring opportunities belongs to the collective realm.

2.1.2 Sustainability and mineral policy

The formulation of resource policy in general and mineral policy in particular in the context of progress towards sustainability is complex. A mineral policy, as a public policy, pursues to influence the entire management of the minerals along the value chain (Bastida & Murguía, 2018). The procedural, substantive and institutional dimensions of sustainable resource management demand careful attention in the formulation of law and policy (Bastida & Iriart, 2023). Policies focused on sustainability emphasize issues such as seeking to minimize the environmental and social impacts of mining and its costs, promoting transparency, and sharing information. Also, they encourage broader linkages with other sectors of the economy, take into account community expectations and local development, and show consistency with other government policies, among

other relevant topics (see, e.g. Shields & Šolar, 2004; Shields et al., 2002; Gibson et al., 2005). For instance, Endl (2017) researched how some governance for SD principles (as steering principles) can be incorporated into national mining strategies. The Intergovernmental Forum on Mining, Minerals and Metals (IGF) (2018, 2013), in its documents of Mining Policy Framework, points out that principles such as shared benefits, participation, sustainability, multi-stakeholder consultation, transparency, and accountability should be considered in the development of a mineral policy.

Participatory approaches to the formulation of law and policy in the mining sector through instances of multi-stakeholder discussions are an increasingly observed feature in comparative mining practices with different scopes (Bastida & Iriart, 2023; see also Bastida, 2020; Iriart & Bastida, 2020). Poelzer et al. (2021) stress the relevance of involving key stakeholders in the policy process, mentioning the significant impact this has on whether the policy will work or not in the future. Policy processes that promote deliberation, collaboration, and compromise can potentially lead to greater accountability and promote and contribute to the **acceptance** of projects. As noted by Poelzer et al. (2021), the traditional model of the policy process establishing a linear progression and different and separate phases does not reflect the patterns of governance of the contemporary mining policy processes. Sustainable resources management entail also to pay attention to the outcomes of decisions.

In line with the above, the policy coherence for sustainable development concept (PCSD) is relevant to reflect on the economic, social and environmental costs and consequences of policies. The OECD defined PCSD as an approach through which the three dimensions of sustainability (social, environmental and economic) plus a governance dimension seek to integrate into the different stages of policymaking. As Ylönen & Salmivaara (2021) mentioned, many challenges in this regard are political and organizational. Tosun and Leininger (2017) distinguished between a substantive and a procedural approach to policy coherence. The first of these refers to changes to the policy content and the institutional arrangements for their development and implementation (for example, the integration of policies). In comparison, the procedural approach refers to changes in the policy process.

All the above emphasizes the relevance of formulating a comprehensive national and long-term minerals development policy, in harmony with other national policies, pursuing environmentally, socially, and economically responsible mining. Pursuing a more holistic approach in planning resource development, stressing the aim of sustainable, broader-based development following the Agenda 2030 of the UN (see Bastida, 2014).

2.2 Local acceptance of mineral exploration and exploitation activities

Social acceptance of mining and the forms of local mining governance as a complex system of multi-actor governance are key challenges for the mining industry and local governments (Mononen & Sairinen, 2021;

Mononen et al. 2023). In broad terms, for a project to have local acceptance, the community must believe that the economic, social and/or environmental benefits of it outweigh its eventual negative impacts (Mononen & Sairinen, 2021). The impacts of mineral exploration and exploitation activities on the local economy, people's livelihoods, local culture, and the environment are relevant issues to consider when addressing the acceptance of mining projects (Owen & Kemp, 2013). For their part, Prno and Slocombe (2012) note that some basic mining sustainability principles need to be met for having the acceptance of a local community. While Poelzer et al. (2020) note that the relationship between the SLO and sustainability seems highly contextual; that is, attention should be paid to how local actors conceptualize sustainable development and that it is prioritized in local consultations.

Local resistance to the development of a project may be due to different reasons. The most mentioned by scholars are the lack of participation in the planning and decision-making processes, inclusion and representation, communication, and information sharing. Also, recognition of the rights of indigenous people (e.g. their livelihoods); environmental concerns (e.g. water); and demands for more local economic benefits or better distribution of benefits, to mention just a few (see, for example, Jartti et al., 2020; Mononen et al., 2022; Lyra, 2021; Suopajarvi, 2013). Past experiences, current perceptions about mining and procedural fairness are relevant issues for impacted communities when evaluating a new mining project (Mononen et al., 2022).

As has been widely noted by academia, when addressing social acceptance of mining is critical that residents have opportunities to voice their opinions regarding planned exploration and exploitation activities and potential impacts (e.g. Moffat & Zhang, 2014; Thomson & Boutilier, 2011; Mononen & Sairinen, 2021; Litmanen et al., 2016; Prno & Slocombe, 2012; Jartti et al., 2020). Local residents need to have opportunities to share their opinions and also concerns about the project in question, have early access to related information, and be able to discuss opportunities, alternatives and challenges (see Mononen & Sairinen, 2021). If the community has opportunities to participate in decisions related to resource management and development and uses them, substantially better and more equitable solutions are often reached (see Prno & Scott Slocombe, 2012), improving the quality of planning and decision-making. Deliberation leads to more accountability, and this eventually leads to acceptance (see Poelzer et al., 2021). **Participation** allows multiple values, interests and knowledge to be incorporated into the planning and decision processes (see Pölönen et al., 2020). Participatory rights can support greater reconciliation of diverse interests and objectives, better implementation of policy and legislation, increased legitimacy (acceptability) of decisions and practices (Pölönen et al., 2020). Mononen et al. (2023), when researching the local governance of mining in Finland, especially from the perspective of municipalities, noted that communities and stakeholders require more direct opportunities to participate in the different phases of planning and evaluating a project's potential impacts.

Pölönen et al. (2020), when discussing Finnish and Swedish law on mining, note that the manner and timing of participatory procedures are relevant issues when considering collaborative practices. They also note the significance that participatory procedures being conducted alongside the technical development of the

mining project. Poelzer et al. (2021), when discussing Finnish and Swedish mining policies, highlighted the relevance of considering processes that allow input throughout mining development, including mechanisms that promote engagement and collaboration.

Scholars emphasize that **procedural fairness** is crucial for building local support and acceptance of mining projects (e.g. Zhang et al., 2015; Thomson & Boutilier, 2011; Jijelava & Vanclay, 2018, 2017; Mononen et al., 2022). Moffat and Zhang (2014) have shown that procedures through which decisions about a project are made are a vital point in building trust and social acceptance of mining projects, emphasizing the significance of the quality of such interactions (see also Jartti et al., 2020; Mononen et al., 2023). When discussing trust in the mining industry, procedural fairness and confidence in governance are key issues (Zhang et al., 2015). The above is connected to the social acceptance of mining (Mononen et al., 2022).

For example, when analyzing the case of the Kylylahti mine, Mononen and Sairinen (2021) pointed out that even though the company did not comply with the jobs offered locally and regionally, and local expectations regarding new inhabitants did not materialize either, this did not affect the support of local people for the project. The dialogue between the parties and the search for negotiated solutions was key in this regard.

Land use and **socioeconomic impacts** are also aspects of relevance when addressing the local acceptance of projects. Poelzer et al. (2021) note that governments need to clarify the management of different land use activities to different stakeholders, particularly when they overlap significantly. Pölönen et al. (2020) highlight that minimum requirements in the law regarding participatory rights can seem insufficient for addressing, for example, different land use interests, mining policies legitimacy, or planning and evaluation of the impacts of a project. Similarly, for the permitting of projects, or earning SLO (i.e. local acceptance and legitimacy) in case of projects with relevant environmental and social impacts. However, the scope of the inclusion of formal participation rights could be questioned, according to the authors. Mononen et al. (2023) note that in the case of Finland, the relationship between land-use planning at the municipal level and the development of mining ventures has not been clear enough over the years.

Scholars also have argued that the coexistence of **traditional livelihoods** and **local businesses**, exploring and identifying complementarities and synergies and supporting the different activities is a cornerstone for local acceptance of mining projects (Mononen et al., 2023; Suopajarvi et al., 2022; Pölönen et al., 2021, Raitio et al., 2020). At the local level, there may be a divergence of judgment in relation to which economic activity to prefer (Lyra, 2021; Acosta, 2013; Brand et al., 2017). Tourism, for example, is an activity performed at the local level that usually takes place before mining projects start. Some residents might believe that tourism is better than the potential economic benefits of mining in the area; the local economy already stirs around that previous and well-known economic activity (see Lyra, 2021).

Black (2017) notes that it is not enough for a company to bring new jobs to a given region to build acceptance and SLO. In fact, there are mining projects that do not meet social sustainability parameters and still remain widely accepted (Poelzer et al., 2020) (see also Moffat and Zhang, 2014). For instance, Poelzer et al. (2020) mention the case of the mine in Kaunisvaara, Pajala, Sweden. In this case, the company had gained support and approval for the operation, and regardless of the fact that the project was not later economically viable, and its closure had an impact on the local economy, this did not affect the levels of local support for the mine.

Institutional-governmental factors and the trust placed in these are also connected to the acceptance of mining (Mononen et al., 2020; Litmanen et al., 2016). Scholars note that governance capacity in setting the rules for mining is important for developing trust and acceptance (see Jartti et al., 2020; Litmanen et al., 2016; Zhang et al., 2015). Poelzer et al. (2021) mention that the relationship between institutions, actors, and process and the perception of mining is closely tied to the concept of SLO, and that such a concept shows the interplay between governance and formal institutions. The authors note that if the regulation is not precise in its contents (and the authorities' coordination is not strong), clear terms are not provided for the actors involved in SLO-related activities (Poelzer et al., 2020). For its part, Prno and Slocombe (2012) note that regulation can be an important driver of community participation in the mining sector and motivate companies to obtain the SLO.

Poelzer et al. (2020) refer to the relevance of considering community perceptions regarding SLO practices and whether there is a preference for these to be incorporated into legislation. The mentioned authors, when analyzing acceptance of mining in Sweden, pointed out that in the Swedish Minerals Strategy (2013), SLO-type practices are promoted as means to address land use conflicts and that the Mineral Act from 1991, which was amended in 2018 made early consultation with interested parties and right holders compulsory. In that sense, the authors mention that further research have to be done on the extent to which SLO has the capacity to affect (change) established institutional settings. Along the same line, Moffat and Zhang (2014) have pointed out that SLO-related activities may offer opportunities to change existing institutions, for example, if actors consider that the regulatory framework is not satisfactory (e.g. due to the perception of lack of equity in it).

Overall, key issues related to mineral policy and local acceptance of mining have been described in this literature review chapter. What has been discussed in the same is relevant for reading the next chapter focused on the conceptual framework. Both chapters (i.e. 2 and 3) lay a solid foundation for undertaking the detailed analysis in chapter 5.

3 CONCEPTUAL FRAMEWORK

This chapter introduces the main concepts in which this research is framed. The study departs from the concept of social license to operate (SLO) and expands on the terms of acceptance and legitimacy. These definitions and the literature review will provide grounds to explore/investigate the local acceptance of exploration and exploitation activities in Finnish policy between 2019-2022 from the perspectives of land use planning, public participation, access to information, and impacts on other sectors/activities. Complementarily, the concept of sustainable development is introduced, being a backdrop for the analysis of the various subjects and aspects explored in this research. Formulating mineral policy in the context of progress towards sustainability requires carefully considering the substantive, procedural, and institutional dimensions of sustainable resource management. Thus, it is necessary to incorporate the concept of SD when researching the current contents of Finnish mineral policy. Furthermore, it is important to note that in the mining sector development, the evolution of the agenda of sustainable development and the SLO are connected. It is also relevant to mention that the underlying aim of the Sanna Marin Government Programme is to pursue a more socially, economically and ecologically sustainable society.

3.1 The concept of social license to operate (SLO)

When addressing local acceptance of mining, the core term continues to be the social license to operate (SLO) (Mononen & Sairinen, 2021), which influences industry, government and academia on resource development issues (Poelzer et al., 2020). In the last two decades, different concepts and frameworks have been outlined regarding the SLO (e.g. Joyce & Thomson, 2000; Thomson & Boutilier, 2011; Boutilier & Thomson, 2011; Prno & Slocombe, 2012; Moffat & Zhang, 2014; Lesser et al., 2021; Litmanen et al., 2016). The concept of SLO continues to be discussed in different circles, and academia does not show a consensus on its definition.

(Prno, 2013; Boutilier, 2014; Jijelava & Vanclay, 2018, 2017; Black, 2017; Parsons et al., 2014; Poelzer et al., 2020; Jartti et al., 2020; Owen & Kemp, 2013). However, some terms commonly resonate and are repeated in scholarly works on the subject (with different scopes), such as acceptance, approval, relationships, participation, fairness, procedures, distribution, impacts and benefits. In Finland, studies on SLO have been increasing in recent years (e.g. Mononen & Sairinen, 2021; Litmanen et al., 2016; Jartti et al., 2020; Lehtonen et al., 2020; Lesser et al., 2021).

This study takes as starting point the SLO concept and model of Thomson and Boutilier (2011) (see also Boutilier & Thomson, 2011; Boutilier, 2014), and emphasis is placed on the set of terms detailed in such a framework, which are highly cited by academic literature. The terms of the Thomson and Boutilier model are taken as a reference to frame and guide, in part, the present research. This study clearly does not pursue testing such a model and its definitions. It is about highlighting that the terms of the model can guide up to a certain point and are of valuable help when conducting research and analysis of public policies on the matter in question, that is, local acceptance of exploration and exploitation activities from a policy perspective. In addition, incorporating relevant literature on SLO helps illuminate the analysis. To complement the above approach, it deserves to be noted that Lehtonen et al. (2020) have suggested introducing state-related elements to the economic and socio-political legitimacy and interactional and institutionalized trust criteria followed in the Thomson and Boutilier framework. The authors' argument revolves around exploring and considering better the state's multiple roles, which mediate between public, private and community interests.

Before referring in detail to the Thomson and Boutilier model and its key terms, it is important to pay attention to, as noted in chapter 2, the subtle difference between policy research and policy analysis (see Weimer & Vining, 2017). This study can be understood primarily as policy research that focuses on the content of a public policy in question (i.e. the substance, the “what” of policy), with its first audience being the community of researchers (*idem*). Heikkilä & Andersson (2018) refer to public policies as institutional arrangements that lay down official rules of the game for society as we all work to provide public goods and manage complex social dilemmas (e.g. sustainable natural resource development). Such a term refers to a system of laws, regulatory measures, plans and programmes (among other strategic policy documents) concerning a given topic established or promulgated by a governmental entity or its representatives. Accordingly, this study takes as its starting point the Programme of Prime Minister Sanna Marin's Government (2019) where it refers to promoting the reform of the MA from 2011 for improving local acceptability and opportunities for influence by citizens, strengthening environmental protection, and ensuring the operating conditions of mines.

Going back to the Thomson and Boutilier (2011) model, the authors point out that the SLO is related to the community's perceptions regarding the acceptability of a company's operations, and this would be reflected in a certain level of acceptance of the project. They acknowledge that in order to address the SLO, it

is necessary to consider the local community but also other company stakeholders. They use the concept of "stakeholder networks" based on the stakeholder theory proposed by Freeman (1984; see Freeman et al., 2018) and distinguish between two categories of stakeholders: (i) company's stakeholders who are affected by the project or would be at risk of being so, and (ii) those who may affect the project. For instance, in the case of government regulators (e.g. national government), Boutilier (2014) notes that they can be seen as outside stakeholders (i.e. beyond the community) that can affect the project and significantly influence the SLO.

Thomson and Boutilier (2011) distinguish between various levels of SLO strength, namely, 1) *withheld/ withdrawal*, 2) *acceptance*, 3) *approval*, and 4) *psychological identification*. The terms legitimacy, credibility and trust, explain the differences between those levels. Thus, in such a framework, the SLO is seen as a continuum between different levels. When comparing the first level (withheld/ withdrawal) and the last level of SLO (psychological identification), it is noted that in the former, there is no support for the project, while in the latter, the community strongly support the project and consider it as integral to their identity and values. To reach this fourth level, there must first be approval, which happens at the third level; that is, the community already see the project positively and encourage the activities of the operation—approval is earned with credibility. Credibility means that the company has provided information that is true, credible, and complies with its commitments (Jijelava & Vanclay, 2018).

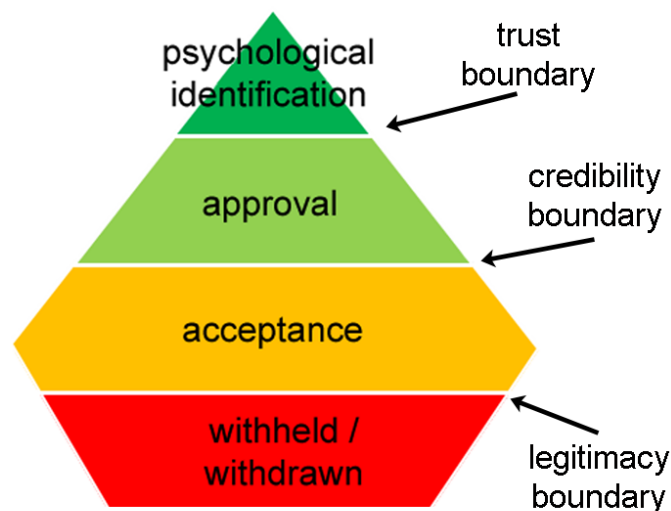


Fig. 1. The Social License to Operate (SLO) levels
Source: Boutilier & Thomson (2011, p. 2)

This study deals more directly with the second level of the SLO, that is, **acceptance**, which is earned through legitimacy. At this level, the community accepts and tolerates a project (Lehtonen et al., 2020), but there is still no approval. This is a basic but significant level of the SLO, where the SLO begins to build. At this point, the company has a minimal social license from the community. **Legitimacy** can be understood as the acceptance of the project by the community in terms of its fairness (i.e. fair procedure to enable the project

and also fair distribution of benefits) (Jijelava & Vanclay, 2017; see also Lehtonen et al., 2020). When addressing the term legitimacy, Boutilier and Thomson (2011) distinguish between *economic and sociopolitical legitimacy*. Jijelava & Vanclay (2018) add to the previous two legitimacies a third one, *legal and administrative legitimacy*, and use “social” instead of sociopolitical legitimacy as used by Boutilier and Thomson.

Economic legitimacy is mainly linked to the community’s perception of the benefits that a project provides locally (Boutilier & Thomson, 2011). For example, jobs, new business and entrepreneurship, social investment programmes, shared infrastructure or training or capacity programmes. That is, company contributions above what the regulatory system could require (e.g. in terms of taxes, royalties). Lehtonen et al. (2020) argue that it is the citizens’ perception that the benefits and costs of the project are shared equitably (i.e. distributive justice). Jijelava and Vanclay (2017) talk about the idea of a fair relationship between the project’s benefits to the community and compensation to affected individuals because of the project’s development. For its part, *socio-political legitimacy* is inherently complex and is a perception associated with the assumption that the project contributes (or will) to the well-being of the community and region, respecting the way of life and culture of local citizens. Lehtonen et al. (2020) note that the proponent has to show a willingness to protect the social, environmental and cultural ways of life of local citizens from harmful impacts. Lehtonen et al. (2020) also note that this legitimacy stresses procedural justice, which is ultimately anchored in law (e.g. the MA or the Land Use and Building Act). In the words of Boutilier and Thomson (2011), this legitimacy leads to exploring how the project will fit into the local socio-political ecosystem. Economic and socio-political legitimacy mainly stress issues of distributive and procedural justice (Lehtonen et al., 2020). Simply put, Thomson and Boutilier (2011) emphasize economic and sociopolitical legitimacy when referring to local acceptance. They note that if interactional trust is added to economic and sociopolitical legitimacy, the chances of a project having local acceptance become particularly high (Boutilier & Thomson, 2011). Interactional trust is the perception that the company works by strengthening mutual dialogue, shows reciprocity in its local interactions, and keeps its promises. Interactional trust over time can lead to well-established and institutionalized trust (Jijelava & Vanclay, 2018; see also Thomson & Boutilier, 2011).

For its part, Jijelava and Vanclay (2018) refer to legitimacy in legal/administrative, economic and social (or socio-political) terms, leading to acceptance. The *legal and administrative legitimacy* proposed by Jijelava and Vanclay (2018) refers, on the one hand, to the fact that the project is justified for the local community (there would be a need for it); and, on the other, to the perception that the legal and administrative procedures/ processes have been carried out fairly, including decision-making (here would be soft law issues).

It is noted that environmental legitimacy does not appear as a separate dimension in the above-mentioned classifications. However, there is a connection between legitimacy and environmental issues (Mononen & Sairinen, 2021; Mononen et al., 2023; Peltonen, 2016). For example, after the Talvivaara case in

Finland, environmental issues began to affect this first level of the SLO, acceptance (see for example Sairinen et al., 2017). As noted in chapter 1, this study is thought of as the first phase of the core theme addressed (i.e. local acceptance of mining from a policy perspective). Thus, environmental issues are planned to be explored more directly in a second phase, while several of the subjects and aspects addressed in this study are directly or indirectly linked to environmental issues.

3.2 The concept of sustainable development (SD)

Without intending to be exhaustive, this section introduces the most used concept of Sustainable Development (SD), widely recognized by academia, government and industry on resource development issues, that is, the definition of the Report "Our Common Future" of the Brundtland Commission of 1987. Then it includes a brief review of United Nations conferences from 1972 to 2015 and their references to the use of natural resources and mining activity, seeking to explore how resource development has been approached in core international documents. For instance, in the Earth Summit Rio+20 of 2012, it was discussed and mentioned the role of governments in managing and regulating the mining industry within the framework of sustainable development. It referred to the importance of regulatory frameworks and policies that promote the economic and social benefits of the sector's development and protect the environment.

In mining sector development, the evolution of the agenda of sustainable development and the SLO are connected (see Poelzer et al., 2020; see also Prno & Slocombe, 2012). The author of this study acknowledges that such a relationship is still being discussed by scholars (e.g. to what extent does the SLO promote sustainability or to what extent certain sustainability principles are necessary to gain SLO). As we noted in the first page of this chapter, in this study, the concept of SD is introduced as a backdrop for the analysis of the various themes identified to be relevant when discussing acceptance of exploration and mining activities and the building of higher levels of SLO, following the Sanna Marin Government Programme's aim of improving local acceptability of mining. The underlying aim of such a programme is to pursue a more socially, economically and ecologically sustainable society. As noted in the introduction to this chapter, formulating mineral policy in the context of progress towards sustainability requires carefully considering the substantive, procedural, and institutional dimensions of sustainable resource management. Thus, it is necessary to incorporate the concept of SD when researching the current contents of Finnish mineral policy.

According to the Brundtland Report, "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, WCED 198, p. 43). The term revolves around the ideas of sustainable use of resources in the long-term ("future generations"), fair redistribution of resources to ensure a good quality of life to people ("needs"), and economic development recognizing the limitations of the natural environment ("development") (see Tomislav, 2018). In this long-term view of global development, social, economic, and environmental issues

should be addressed in an integrated manner (see Mitchell, 2002). *Economic sustainability* is linked to the efficient use of resources to ensure profitability over time; *social sustainability* refers to ensuring human rights, preservation of cultural identity, respect for cultural diversity, strength of the identity of communities, in short, ensuring conditions of stability, democracy, participation and justice, and equal human welfare; and *environmental sustainability*, to maintain the quality and the reproducibility of the natural resources, considering, for example, ecological processes and biological diversity (see Tomislav, 2018; Muñoz, 2015). Interpretations of the SD concept have varied between those who support a "strong" approach to sustainability, arguing that natural resources should be maintained at appropriate levels to provide for an indefinite supply, emphasizing environmental indicators and a strict conservationist vision (e.g. Daly, 1996); and those who are inclined towards a "weak" sustainability approach, accentuating the aggregate stock of available natural and human capital and not particularly the quantities of resources (e.g. Solow, 1992) (see Prno & Slocombe, 2012; Ali, 2009; see also Faucheux & Noël, 1995).

Before delving into the UN conferences that are intended to be introduced in this section, a brief review of relevant publications is mentioned, which allowed the debate on different topics with potential impact on the development of resources to expand. For instance, some of the topics that are addressed today within the term SD were mentioned in publications made during the eighteenth and nineteenth centuries, with different scopes, such as Population growth (Malthus, 1798), The coal question (Jevons, 1866) (referring to depletion of resources such as wood, coal and oil), Man and nature (Marsh, 1864) (emergence of the conservation movement). From the 1960s, scientific information about the damage caused by human activities to nature increased and was popularized in publications such as *The Silent Spring* (Rachel Carson, 1962), *The population bomb* (Paul & Anne Ehrlich, 1968), *A blueprint for survival* (Edward Goldsmith et al., 1972), and *Small is beautiful* (Fritz Schumacher, 1973). In 1968, the Club of Rome was founded, and its first report called *The Limits to Growth* (1972), got considerable public attention. The core message was that unlimited growth in a limited space is impossible. It stimulated and strengthened a new mode of thinking about development; economic development was not understood as a synonym for development. It prepared the way for sustainability as an alternative future goal to everlasting unlimited economic growth (also see *Limits to Growth: The 30-Year Update*, 1992).

The UN Conference on the Human Environment from 1972 (*Stockholm Declaration on the Human Environment*, 1972) put the environmental dimension on the international agenda. The exploitation of natural resources was discussed, and the concept of intergenerational equity and the bases of the precautionary principle was approached (see principles two and five of such Declaration). For example, it was pointed out that non-renewable resources have to be used in a way to avoid their future depletion. Although this conference did not establish great advances in the search for definitive solutions, it laid, to some extent, the basis for what would be developed in subsequent summits. A decade later (1983), the UN Secretary General, Javier Pérez de Cuéllar asked the then Norwegian Prime Minister Gro Harlem Brundtland to form the World Commission on

Environment and Development. The task was to create a global programme for environmental and development reform. The Brundtland Commission concluded its work in 1987 with the release of the report *Our Common Future*. With the report, sustainable development became a key concept in the debate on the environment and development. In the document *Our Common Future*, led by the scientist Gro Harlem Brundtland, the concept of SD explicitly arises. Under this concept, a new paradigm was established for the exploitation of natural resources. That is, the extraction of minerals, considering their non-renewable nature, should be carried out in a planned manner in order to guarantee their availability in the long term. Similarly, it is based on the need to protect the expectations of future generations without prejudice to current generations having the right to enjoy the resources that the world offers.

The concept of development promoted at the UN Conference about Environment and Development in Rio de Janeiro in 1992 ("the Earth Summit") stressed what was established in the Stockholm Declaration of 1972. Such a concept was approached more from an anthropocentric vision in which people are placed at the core of development—intergenerational equity is stressed (see principle three of such Declaration). A few years later, the "Millennium Development Goals" (MDGs) were released and represented the commitments of UN Member States to reduce extreme poverty and its many manifestations (eight goals with targets and deadlines). MDG targets 2000-2015 were set to get us halfway to the goal of ending hunger and poverty.

It is worth noting the World Summit on Sustainable Development in Johannesburg in 2002 (called "Rio+10"), where commitments around the SD were addressed in the elaboration of a plan, which incorporated two chapters related more directly to mining: Chapter III, entitled "*Modification of unsustainable patterns of consumption and production*", and Chapter IV, "*Protection and management of the base of natural resources for economic and social development.*" For instance, it is pointed out that managing natural resources sustainably and in an integrated manner is critical for sustainable development. The summit raised how important mining is for economic and social development and the essential role of minerals in modern living. It was noted that to improve the contribution of mining, minerals and metals to SD, the impacts and benefits of mining throughout its life cycle should be addressed, aiming at improving value-added processing, and recover and rehabilitate degraded sites, for example. Likewise, it points to fostering sustainable mining practices by providing support for less developed countries with potential for development in the mineral sector, particularly in financial, technical and capacity-building aspects. This summit is connected with the development of the 10-year framework of programmes supporting initiatives regarding sustainable consumption and production partners to promote social and economic development, which is mentioned in this document.

The Earth Summit Rio+20 of 2012 focused on the progress made in terms of SD and identified gaps and new challenges based on the review of two central issues: a) the implementation of a green economy considering poverty eradication and SD and b) the institutional framework for SD. This summit acknowledged

that mining means an opportunity to catalyze broad-based economic development and help countries in meeting development goals if managed effectively and properly. It is emphasized that mining should seek to maximize social and economic benefits and address effectively negative impacts. The role of governments in promoting the sustainable development of mineral resources is stressed, including policy and regulatory aspects.

Approximately two years later, the UN document "The future we want" is released, seeking to work towards the definition of new development objectives, , which leads to the well-known 17 SDGs. While MDGs target developing countries, the SDGs apply to both the rich and the poor. The SDGs were included in the resolution "Transforming our world: the 2030 Agenda for Sustainable Development", with the support of 193 countries at the UN General Assembly in September 2015. These are 17 goals and 169 targets covering multiple aspects of development; goals are to be met by 2030, and states are in charge of the implementation of such SDGs. However, reaching the goals requires wide participation also from local government, the private sector, civil society and citizens. The triple bottom line needs to be guaranteed to achieve the goals: economically, socially and ecologically SD. The agenda goes from local to global and involves the private as well as the public sector and in civil society. Some authors talked about a fourth factor in achieving SDGs, which is the quality of governance at all levels. It is even disputed whether there should be a separate cultural dimension. The 2030 Agenda does not mention words like "mining" or "mineral resources" in the body of the text. The anchor concept appears to be "natural resources".

Overall, the concept of social license to operate that was introduced in this chapter, and the emphasis on the terms of acceptance and legitimacy, are a cornerstone for the analysis of the various themes of chapter five. In the same way, the concept of sustainable development is also relevant for the analysis of the themes, their contents and scope. Before that, the methodology followed in this research work should be introduced.

4 METHODOLOGY

This chapter focuses on describing the methodology used in this research. It introduces the methodological approach and focuses on key aspects of the data collection phase, describes the data, and refers to the analysis phase.

4.1 Overall methodological approach

This policy research is based on qualitative content analysis. A **content analysis** was considered the most favourable approach according to the exploratory and descriptive objectives of this study (Raigada, 2002). Leedy and Ormrod (2001) note that content analysis refers to a detailed and systematic examination of the contents of a particular body of materials for the purpose of identifying, for example, themes, patterns or biases. The content analysis approach is selected for this research because it is a useful tool to describe policy documents analyzing topics and issues addressed in different instruments and compare them. It also serves to study trends over time as well as explore historical materials. By using this kind of analysis, it is possible to research the presence, meanings, and scope of different topics relevant to answer the research question of this study. As policy research, this study focuses on addressing some specific contents of the Finnish mineral policy (i.e. it refers to the substance, the “what” of the policy), with its first audience being the community of researchers.

This research uses official policy documents from the Government of Finland, reports and publications from the Prime Minister's Office of Finland, and the Ministry of Economic Affairs and Employment, among other relevant ministries, institutions and organisms, and legislation and regulations. The main data is based on the document called "Hallituksen esitys eduskunnalle laiksi kaivoslain muuttamiesta" (2022) (Government's Proposal to Parliament to amend the Mining Act) (180 pages in the Finnish language). The

qualitative documental-based content analysis is complemented by different academic sources and contrasted with existing studies on the themes tackled. As Tracy (2013) notes, qualitative researchers borrow and interweave multiple perspectives from a variety of data available and build a meaningful, creative, resourceful and useful research synthesis.

The main aim of the policy documents research was to explore subjects and aspects identified to be relevant in answering the research question of this study (i.e. themes related to the acceptance of mining and the building of higher levels of social license to operate (SLO)). The themes were determined in the coding process and clustered into three main categories. A detailed analysis of each theme was sought, showing diverse aspects related to local acceptance and pursuing a comprehensive approach. The framework of the analysis mainly benefits from Thomson and Boutilier's (2011) terms of social license to operate, acceptance and legitimacy.

Before undertaking the above-mentioned tasks, subjects and aspects related to the acceptance of mining and the building of higher levels of SLO were explored through a preliminary literature review (e.g. factors, preconditions for SLO). Research, surveys and case studies carried out in Finland in the period 2013-2022 were prioritized. It is worth noting that as a preparatory phase for the research, before defining the theme selected for this study, ten relevant themes were identified in Finland regarding the sustainable development of the mining sector, namely, circular economy, battery minerals and battery industry, stakeholder involvement or actor networks, climate change, mine closure, environmental protection and risks, gender, mining and intersectoral economic links, access to raw materials, and local acceptance of mining. Such a preparatory phase involved a very preliminary review of policy documents and other sources.

Acknowledging that qualitative research needs to be conducted in a systematic manner, the following sections of this chapter briefly introduce the procedures and steps followed in handling and using the information gathered.

4.2 Data collection

For this research, the author relied on documentary analysis of official policy documents gathered from different official websites of the Finnish Government, especially from the Ministry of Economy and Public Affairs. The preliminary process of data collection started in August of 2022. When beginning to collect the data, the challenge was that the information gathered be substantial and appropriate so that it could provide a meaningful representation of the topic under study in the selected period (2019- 2022) and, in this way, lead to a rich understanding of the chosen theme. In that sense, in the second half of 2022, the author reviewed in as much detail as possible the main documents related to the mineral policy of the country, including different regulations. As a starting point, she analyzed two central documents in the country's mining policy, Finland's

minerals strategy from 2010 and the Sustainable extractive industries action plan from 2013, to introduce herself to the field in question.

The document that was noted from the beginning as strategic for this investigation is the **Hallituksen esitys eduskunnalle laiksi kaivoslain muuttamiesta (2022)** [Government's Proposal to Parliament to amend the Mining Act], being a very substantial and extensive document. In that period, a large amount of data was collected, which served as supporting material when the main documents of this investigation were analyzed, which are listed in section 4.3 of this chapter.

During the data collection process and the analysis phase, the author participated in the Research Center on Mining, Minerals and Society (CEMMS) seminars of the University of Eastern Finland, which helped her to learn more about the mineral policy of the country. In November 2022, the author participated in the Geography Days 2022 at the University of Tampere and introduced her research plan and received feedback from colleagues in the area of extractive industries.

All of the above helped in the data-gathering phase. Overall, the used methodology of data collection allows for answering the main research question formulated in this thesis. It is also noted that the author did a literature review regarding different kinds of methods and their application to academic research before the start of the data collection phase.

4.3. Description of the data

The data used by the author consists of a set of official policy documents from the Government of Finland, including publications from the Prime Minister's Office of Finland, and the Ministry of Economic Affairs and Employment, among other relevant ministries, institutions and organisms. The Ministry of Economic Affairs and Employment was prioritized since that is where the mining department of the Finland Government works. The selected documents include, among others, government programmes, government reports, legislation and regulations. The author worked with documents dated until December 2022, that is, in the framework of the discussions of the reforms to the MA.

The main documents considered for this research are: (i) the **Programme of Prime Minister Sanna Marin's Government 10 December 2019, "Inclusive and Competent Finland - a socially, economically and ecologically sustainable society"**; (ii) **Hallituksen esitys eduskunnalle laiksi kaivoslain muuttamiesta (2022)** [Government's Proposal to Parliament to amend the Mining Act] (180 pages in the Finnish language); (iii) the **Draft Mining Regulations (bill)** (June 2022); and (iv) the **Mining Act 621/2011**.

Other documents include: (i) Assessment of the Effectiveness of Legislation on Mining Operations (Ministry of Economic Affairs and Employment, 2019) (report) and (ii) Functioning of the Reservation Mechanism under the Mining Act Ministry of Economic Affairs and Employment, 2022) (report).

It deserves to be noted that the process of renewing the Mining Act formally began in March 2020 with the creation of a Mining Law Working Group made up of a plurality of actors and stakeholders in the development of the mining sector. In that sense, the author reviewed selected materials from the Mining Law Working Group (2020-2022). She also collected a range of academic papers that have been published mainly in Finland about or related to the chosen theme. Complementary, she collected information from the media about it. All these sources, taken together, were relevant to undertake this study.

4.3.1 Data usage

For this research, the focus was to analyze how local acceptance of mineral exploration and exploitation activities is addressed in Finnish mineral policy in the period 2019-2022 (i.e. what the changes are, their content and scope). Special attention was paid to issues related to land use planning, public participation, access to information and impacts on other sectors/activities. In that sense, the identified texts were closely read and reread. Documents in the Finnish language were translated into the English language. For instance, the main document of this research is the "Hallituksen esitys eduskunnalle laiksi kaivoslain muuttamiesta" (2022) (Government's Proposal to Parliament to amend the Mining Act), which has 180 pages in the Finnish language. In this sense, during the months of December 2022 and January 2023, the author focused in great detail on the translation of the main documents relevant to this study that were written in the Finnish language. This involved using digital translation websites and consulting with colleagues about some terms or phrases. In addition, this study uses many references, and materials were compared, allowing to confirm terms. To analyze the data, the author systematically filtered the information that was relevant to the research. This was implemented by performing a qualitative content analysis. The analytical process was guided exclusively by the purpose of exploring themes to be relevant to answering the research question. They were determined in the coding process and clustered into three main categories. The process of data analysis is described below.

4.4. Data analysis

This section introduces the matrix and logistics of analysis and the mechanics of coding in this research work. As Elo & Kyngäs (2008) note, a particular challenge of qualitative content analysis is that there are no simple guidelines for data analysis, there is no right way of doing it; being a very flexible method where each inquiry is distinctive and different. The results depend on the skills, insights, analytic abilities and style of the researcher (Hoskins & Mariano, 2004). In content analysis the researcher has to analyze and simplify the data and define categories that reflect the theme of study in a reliable manner (Kyngäs & Vanhanen, 1999). In that

sense, the category system lies at the core of qualitative content analysis (Kohlbacher, 2006, as cited in Carol Cardno, 2018), which should adequately reflect the research question. A list of codes was put together that gave rise to specific categories of interest within the framework of this research; to this end, the research question and the purpose of this work were followed.

4.4.1 Coding

Saldaña (2009, p. 3) defines a code in qualitative inquiry as “most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data”. Coding is the process of identifying data as belonging to, or representing, some type of phenomenon, such as a concept or theme (Tracy, 2013). It is known that the categories of a coding system have to be inclusive and exclusive at the same time. Creating categories is both an empirical and a conceptual challenge, as categories have to be conceptually and empirically grounded (Dey, 1993). In this research work, the author sought to assign labels to the significant and relevant information of the policy documents chosen, knowing that these codes would give rise to the subsequent assembly of categories.

Saldaña (2009) recommends descriptive coding specifically for studies involving document analysis, as these types of studies often begin with general questions. More specifically, descriptive coding “summarizes in a word or short phrase, most often as a noun, the basic topic of a passage of data.” “Description is the foundation for qualitative inquiry” (Tracy, 2013, pp. 70-72).

The initial coding process was of descriptive type, to then move on to more analytical aspects in the coding (see Saldaña, 2009; Tracy, 2013). Tracy (2013) notes that “the researcher should choose to focus on the questions and corresponding codes that are of the greatest significance, interest, and value” (p. 193). In the additional instances of coding, the aim was to critically examine the codes identified in the first place, seeking to explain, organize, synthesize and, finally, categorize them. In other words, working towards more focused and specific codes, interpreting them, seeking to identify patterns or rules. All of the above was considered in this work to advance in the coding process. Work had to be done on a reduction of the codes and categories, prioritizing those of greatest interest for this research. The expected times for the development of the thesis was also considered, which reinforced the fact of focusing the analysis on those aspects of most interest and/or most relevant. It was key to consider whether the emerging codes attended to my research question in an interesting and significant way. Seeking to choose the most promising or interesting codes and emerging claims (which data is the most important or relevant for the analysis).

The analysis of the data obtained and the interpretation of it was carried out using manual qualitative analysis. In that sense, the author used Microsoft Word in the coding process. She used the “comment” feature in Microsoft Word to indicate phrases, themes and aspects of interest and, then, the specific codes. She made notes along the margins of the documents, which helped to capture emerging topics and issues. The categories

and themes finally chosen for this study are entered in the table below. Having already introduced the literature on the subject of this thesis, the conceptual framework and the methodology, the findings of this work are addressed in the next chapter.

TABLE 1 Categories and themes addressed in this study.

Categories	Themes
Land use and natural resources and socioeconomic impacts	Municipal land-use decision-making in mining matters (local land-use plans)
	Cooperation procedure for mineral exploration or mining in the special reindeer herding area
	Impacts on local business activities and livelihoods in general
Citizen's participation in development	Opportunities for public participation by the permit holder
	Opportunities for public participation by the mining authority
Reporting requirements and procedures related to exploration and reservation	Information to provide by the exploration permit applicant and by the permit holder
	Notifications in exploration
	Landowner's consent to extend the validity of the exploration permit
	The reservation mechanism

Note. Author's own construction

5 FINDINGS

This study examined the local acceptance of mineral exploration and exploitation in Finland from the perspectives of land use planning, public participation, access to information and impacts on other sectors/activities during the period 2019-2022 through the analysis of policy documents. The research focused on a local approach following the aim of the Sanna Marin Government Programme that pursues to improve local acceptability and opportunities for citizen influence in the development of mining projects, particularly in the framework of the suggested amendments to the Mining Act (MA). This led to the main research question of the study focused on how local acceptance of mineral exploration and exploitation activities is addressed in Finnish mineral policy in the period 2019-2022 (i.e. what the changes are, their content and scope).

As introduced in chapter 2, the literature points to the relevance of the above perspectives, among others, when discussing building and gaining local acceptance of mining projects and support of communities. Topics and issues related to the acceptance of mining and the building of higher levels of social license to operate (SLO) were explored through a preliminary literature review (e.g. factors, preconditions for SLO). Research, surveys and case studies carried out in Finland in the period 2013-2022 were prioritized. The theoretical concepts presented in chapter 3 laid the foundations for this study.

Throughout the process of data analysis, the following themes were identified to be relevant in answering the research question. They were determined in the coding process and clustered into three main categories. The categories are as follows: (a) land use & natural resources and socioeconomic impacts, which contains three themes, municipal land-use decision-making in mining matters (local land-use plans), cooperation procedure for mineral exploration or mining in the special reindeer herding area, and impacts on local business activities and livelihoods in general; (b) citizen's participation in development, which contains two themes, opportunities for public participation by the permit holder, and by the mining authority; (c)

reporting requirements and procedures related to exploration and reservation, which contains four themes, information to provide by the exploration permit applicant and by the permit holder, notifications in exploration, landowner's consent to extend the validity of the exploration permit, and the reservation mechanism.

This chapter discusses all the themes mentioned above, addressing their social and economic aspects. A detailed analysis of each theme was sought, showing diverse aspects related to local acceptance and pursuing a comprehensive approach. The qualitative documental-based content analysis is complemented by different academic sources and contrasted with existing studies on the themes tackled. As mentioned in chapter 1, a thorough investigation of the central theme of this research (i.e. local acceptance of mineral exploration and exploitation activities) is planned in successive phases. In that sense, this study constitutes the initial research phase, and delves into some of the themes and aspects identified in the documents reviewed.

Defining the contents and working on the design of the policies to manage complex themes, such as social acceptance of mineral exploration and exploitation projects, remains extremely challenging and requires a detailed analysis of a variety of themes and aspects, promoting links and synergies towards coherent, integrated policy frameworks. Governance capacity in setting the rules for mining is important for developing trust and acceptance (see Jartti et al., 2020; Litmanen et al., 2016; Zhang et al., 2015).

Section 5.2 introduces the findings that attempt to answer the research question addressed in this study. Before, a necessary reference to the context in which the changes addressed are proposed and described in following section 5.1.

5.1 General overview of the Finnish mineral policy and the Mining Act reform process

5.1.1 Finnish mineral policy

Finland's mineral policy pursues to influence the entire management of the minerals along the value chain. Two central documents in the country's mining policy are Finland's minerals strategy from 2010 and the Sustainable extractive industries action plan from 2013. Other documents complement these two at the national and European Union levels, addressing issues related to or impacting the development of the mining sector. Currently, the reform of the MA, the national battery policy and the promotion of the continuous circulation of materials (raw material - product - recycling - product) (i.e. circular economy) are stressed in the country mineral policy, among others. For example, the National battery strategy 2025 (2021) and the Strategic programme to promote a circular economy (2021) are relevant documents to be mentioned. Issues related to strengthening regional and local governance and development are still discussed and could be reinforced in policies.

The Finland's minerals strategy (2010) aims to work towards the sustainable use of mineral resources and towards the mining sector to have a leading role in the national economy. It outlines recommendations for formulating the country's mineral policy, best-practice guidelines and introduce twelve rather general proposals for action. The key aspects addressed revolve around strengthening the mineral policy, ensuring the supply of raw materials, reducing environmental impact, increasing the productivity of the mineral sector, and strengthening capacities and specialized knowledge in research and development. While the Sustainable extractive industries action plan (2013) complements what is established in Finland's Minerals Strategy and introduces a package of more concrete measures, totaling about thirty-five. It was published after the Talvivaara mining accident when questions arose demanding greater responsibility from mining companies and around the social acceptability of the mining sector in the context of the country's rapid growth of mining operations. Particularly with this last document and after it, topics and issues related to local mining development, governance, and social responsibility slowly began to be incorporated into the Finnish government policies (see Mononen et al., 2023).

Specifically, the action plan refers to measures aimed at improving the conditions in which the extractive industry operates, particularly regarding administration, training and infrastructure aspects, also including measures to gain the acceptability and support of operations by society, promoting a sustainable mining industry. It highlights, for example, that gaining society's trust requires open and updated communication by the extractive industry during the project planning stage, after the start of operations and at the end of them. It also refers to stakeholder participation in land use planning, as is the need to reconcile and balance the interests of different industries and activities and safeguard the Sámi culture. Following the action plan, the Sustainable Mining Network was formed in 2014, being a forum for discussion and cooperation between the mining industry and stakeholders. The network developed a mining responsibility system, including various assessment tools that cover the life cycle of a mine. Such a system is based on the model developed by Canada (TSM, Towards Sustainable Mining). It has been pointed out that the network has led to better reporting on mining activities and made it more transparent (National Audit Office of Finland, 2021).

In the period 2019-2022, the possibility of updating Finland's minerals strategy and Sustainable extractive industries action plan does not seem to have been in the political debate and on the public agenda; rather, the reform of the MA has been the central item on the political agenda. A recent report from the Finnish National Audit Office (2021) questions the extent to which Finland's minerals strategy and the Sustainable extractive industries action plan guide current policies. In the same vein, a report from the Government's analysis, assessment and research activities (2020) raises that the country's mining policy has not been strengthened in the manner foreseen in the Finnish mineral strategy and the Sustainable extractive industries action plan. This thesis was completed at a time of negotiation regarding the new Government in Finland after the April 2023 general election.

5.1.2 The Mining Act reform process

The purpose of the reform of the MA promoted by the Government of Prime Minister Sanna Marin (December 2019-April 2023) mainly revolves around improving local acceptability and opportunities for influence by citizens, strengthening environmental protection, and ensuring the operating conditions of mines (Programme of Prime Minister Sanna Marin's Government, 2019). The process of renewing the Mining Act formally began in March 2020 with the creation of a Mining Law Working Group made up of a plurality of actors and stakeholders in the development of the mining sector. Such a group was led by the Ministry of Economy and Public Affairs and culminated its meetings in September 2022, when the draft law was sent to Parliament. At the moment this study is being written, the draft reform to the MA has been approved by Parliament, with some adjustments. The new Mining Law, 505/2023, comes into force on June 1, 2023 (see also laws 573/2023 and 37/2023).

Such reform arises in the context of debates and critical discussions that question various socioeconomic and environmental issues related to the development of mining projects and their impacts, which have gained importance in recent years. The increase in exploration activities in the country, mainly for battery minerals, and the Talvivaara mining accident are just two facts that can be mentioned in the debates. The arguments have revolved around a plurality of topics. Including, for example, the increase in the number of permits for exploration and reservation petitions, mining collateral and responsibilities, water impacts, protected natural areas, relations with other industries, more direct citizen involvement opportunities, the power relations between the MA and municipal-level land use decisions, the processing of the mining permit and the environmental permit and the possibility (or not) of simultaneous procedures, among other issues. These criticisms and others gave rise to questions about the possibility of reforming the current mining law. For example, the social movement "Saimaa region without mines" promoted a citizen initiative reforming the Mining Act sent to Parliament in October 2019. Also, the range of actors and stakeholders in the development of mining activities has been expanding. For example, municipalities have a more active role in the discussions, different actor networks have been created that are gaining importance, non-governmental organizations take place around the table, civic engagement tends to challenge prevailing structures and policies, and the church has taken a more active role, to name a few (see Mononen et al., 2023; Poelzer et al., 2021).

The current MA from 2011 (Mining Act 621/2011) strengthened aspects such as opportunities for local participation in mining exploration and exploitation, and information on mining became public (Pölönen, 2012). It points out that ensuring both public and private interests' protection means considering landowners and private parties that could suffer damage because of the development of mining activities, as well as possible impacts on land use, the economical use of natural resources, and the environment. It also mentions that municipalities need to have opportunities to influence decision-making and individuals who could be

affected by the development of mining activities. These and other issues were discussed and expanded within the bill's suggested amendments.

5.2 Local acceptance of mineral exploration and exploitation activities in Finnish mineral policy in the period 2019-2022

This section presents the findings of this study in response to the research question elaborated in the Introduction. It describes the categories and themes addressed in the research with their corresponding analysis. They were determined after a comprehensive and comparative review of the texts selected for this research. The main documents analyzed were: (i) the Programme of Prime Minister Sanna Marin's Government 10 December 2019, "Inclusive and Competent Finland - a socially, economically and ecologically sustainable society"; (ii) Hallituksen esitys eduskunnalle laiksi kaivoslain muuttamiesta (2022) [Government's Proposal to Parliament to amend the Mining Act]; (iii) Draft Mining Regulations (bill) (June 2022); (iv) Mining Act 621/2011. It should be noted that when this study refers to the current mining norm in force, it means the MA from 2011.

5.2.1 Land use and natural resources and socioeconomic impacts

This section explores themes and aspects mainly related to community and economic development, consequences of mining development to other industries, businesses, and livelihoods, land use planning and the rational use of natural resources from the angles of reforming the Mining Law and being aspects mentioned by the Land Use and Building Act.

SLO is related to the perceptions of locally impacted communities about the impacts of companies' activities on the economy, people's livelihoods, local culture, and the environment (Owen & Kemp, 2013). The acceptability of mining is often enhanced by positive economic impacts at the local and regional level (see Mononen et al., 2023), acknowledging that impacts vary and have to be understood within the framework of the corresponding development stage of a mining project and the planned activities (e.g. an exploration campaign could be relevant from a social and economic perspective at the local level) (see Mononen et al., 2022). Governance aspects of economic and community development are relevant to municipalities in Finland (Mononen et al., 2023).

5.2.1.1 Municipal land-use decision-making in mining matters (local land-use plans)

The bill to amend the Mining Act strengthens municipal decision-making power in land use planning, with an impact on the approval or rejection of the establishment of a mine in its territory. This is particularly noted with the suggested amendments to section 47, subsection 4 (prerequisites for granting a mining permit) of the

normative. From the analysis, a prerequisite for granting a mining permit (i.e. exploitation activities) will be that mining activities be based on a local detailed plan (asemakaava) or a local master plan (yleiskaava) legally binding according to the Land Use and Building Act, where the location of the mining area and the mine's auxiliary area and the relationship with other uses of the areas have been clarified. As discussed in chapter 2 of this research, land use planning can be quite challenging due to the various interests concerned and the significant impact that mining activities can have on other land uses at the local level (e.g. Mononen et al., 2023; Pölonen et al., 2020; Bjørge, 2018; Similä & Jokinen, 2018). According to Mononen et al. (2023), the relationship between land-use planning at the municipal level and the development of mining ventures has not been clear enough over the years.

In light of the analysis set out below, it is noted that in the last four years (2019-2022), the role of municipalities in decision-making related to the development of mining activities has been at the centre of the picture in the discussions in the Finnish mineral policy. It follows that for the Government of Prime Minister Sanna Marin, work to improve local acceptance of mining goes hand in hand with considering municipal land use plans, and this is particularly stressed for the exploitation stage. The acceptance (or not) of a mining project and its location in the municipal territory would remain in the hands of the municipality.

Municipal land use planning has to be framed and comply with all the legal requirements, in particular, those that refer to the purpose of the local plans and their contents, established by the Land Use and Building Act (e.g. sections 35, 41, 50 and 54; see also KHO:2019:67). Land use planning is a key legal instrument for addressing differences that could exist on the uses of the land, and potential conflicts between mining and other possible economic activities to be developed (Similä & Jokinen, 2018). A municipality can define a master plan, which essentially provides guidelines on land use and building for the territory of the municipality or a specific area of the latter, or a detailed plan pursuing a more detailed organization on this topic, allocating specific areas for said purposes. At the time of writing this research work, the Government was working on a proposal to amend the Land Use and Building Act.

The analysis of the data suggests that the amendment to the MA mentioned above (i.e. section 47, subsection 4) seeks to prevent that in future a mining project is in conflict with a local land use plan, and, in this sense, the feasibility of proposed mining activities within the framework of local detailed or master plan would be reviewed before the granting of such a permit. It can be outlined that the autonomy of the municipality in land use planning is reinforced by promoting a more active role in decision-making when undertaking mining activities. This change would seek to promote better coordination of the interests of mining operations and the use of other areas in the municipal territory (Pölonen, 2019).

As mentioned above, the development of mining activities based exclusively on a local land use plan has been among the most discussed topics within the framework of the reforms to the MA and has been actively

promoted by the Government of Prime Minister Sanna Marin. The Government's Programme points out that municipalities should be able to decide as part of land use planning if they agree with the development of mining activities in their territory, and if so, in which areas it could be established a mine (p. 47). The Proposal of the Government to Parliament to amend the MA refers in different parts of the document's body to the position of the municipalities in decision-making related to land use planning and natural resources and the participation of local residents in such planning (e.g. sections 2.2.8, 2.3.8, 4.2.4 and 5.1.6). In an excerpt from this last document (p. 62), the following statement was made:

Kaavoitus kaivostoiminnan edellytyksenä parantaa kansalaisten, kunnan asukkaiden mahdollisuutta vaikuttaa kaivostoiminnan sijoittumiseen kunnan alueelle. Tarkoituksena on lisätä paikallista hyväksyttävyyttä [land-use planning as a prerequisite for mining improves the opportunity for citizens, the residents of the municipality, to influence the placement of mining operations in the municipality's territory. The purpose is to increase local acceptability].

The GPP points out that in said municipal planning, the different forms of land uses compete with each other and that this has to be resolved locally. In such document it was noted (p. 69) that “esityksessä vahvistetaan kuntakaavoituksen asemaa ja tätä kautta vahvistetaan eri intressien yhteensovittamista paikallisesti ja sitä kautta paikallista priorisointia” [the proposal (to amend the MA) strengthens the position of municipal planning and through this strengthens the coordination of different interests locally and thereby local prioritization]. The reconciliation of the different interests in the land use planning process remains a major challenge for the municipalities.

The preference at the municipal level for one economic activity over another is discussed, but a local master plan has to be framed within the regional land use plan in force (Land Use and Building Act, section 32, subsection 1, and section 39, subsection 1). A recent case of the Supreme Administrative Court (KHO:2022:12), although it does not refer to mining, it is mentioned in context since it underlines what is stated above. At the same, a land use plan adopted by the City Council of Kuusamo for a wind farm in a reindeer herding area was denied and considered unlawful for not meeting the requirements set out in the planning regulations of the regional plan for securing the conditions for reindeer husbandry. It was considered that the regional plan did not serve as a guideline in the preparation of the partial master plan as set out in the Land Use and Building Act (among other arguments of the ruling).

As noted, the bill to amend the MA explicitly mentions compliance with a local plan, following the Land Use and Building Act, as a condition for granting a mining permit and does not refer to the possibility of other types of land reports. In contrast, the current mining law sets out as a condition for granting a mining permit both a plan specified in the Land Use and Building Act and other types of land use reports. The fact that the MA seems to put a legally binding plan and other types of impact assessments by the local authority,

the Regional Council, and Center for Economic Development, Transport and the Environment (ELY) on the same level, has been questioned and led to different interpretations when the first would have more weight from the legal perspective and impacts (Vihervuori, 2019). Following the above, it can be outlined that the regional plan, local detailed plan, the local master plan, and other land use-related reports are seen as alternatives to each other in the current mining law (section 47, subsection 4) (GPP, p. 29), which would change with the promoted reform.

As of the date of this research, the application of a regional land use plan (maakunnan suunnittelu) as a legally binding plan, when referring to the current section 47 subsection 4 of the MA, has been considered as a sufficient condition to grant a mining permit (Pölonen, 2019), although it has been discussed in aspects related to the autonomy of the municipality where the mine is to be located. Some mining projects have been evaluated by following only a regional land use plan (Vihervuori, 2019). The latter refers to the allocation of areas to coordinate land use among various municipalities or to meet national or regional objectives, and in its content aspects such as the sustainable use of land's extractable resources, the economics of land use, and conditions in which the region's businesses operate are considered (Land Use and Building Act, sections 25 and 28).

The local master plan adopted by the Kuusamo municipality in 2015 to control the development of mining projects in its territory deserves to be referred to in this analysis given the recent changes suggested in the bill to amend the MA, which put local plans at the centre of the scene (section 47, subsection 4). Such a plan essentially included a central area of tourism (rm-1) and an area of services for tourism and recreation (vr-1), prohibiting in said areas the carrying out of extraction, benefit and processing activities. The content of the normative formula of the plan to address the relationship between mining, the environment and the tourist centre was questioned. The mining companies that were affected by the adoption of the plan (Dragon Mining, Kuusamo Gold) appealed the decision to the administrative court. The Supreme Administrative Court ruled in 2019, noting that the regulations of the master plan were illegal (KHO:2019:67). The judgment states, among other things, that regulations that prohibit mining in the mentioned areas were unconditional in their wording. In an excerpt from the judgment (1.4 Oikeudellinen arviointi [legal assessment], fourth paragraph) is stated:

Kuusamon strategisen yleiskaavan rm-1- ja vr-1- kehittämismerkintöihin sisällytetyt kaivostoiminnan kieltäviä määräyksiä ei voida pitää maankäyttö- ja rakennuslain 41 §:n 1 momentissa tarkoitettuina haitallisten ympäristövaikutusten estämistä tai rajoittamista koskevinä määräyksinä, sillä määräykset eivät välittömästi koske ympäristövaikutuksia, vaan tietyn tyyppisen elinkeinotoiminnan kieltämistä [the regulations prohibiting mining included in the rm-1 and vr-1 development designations of Kuusamo's master plan cannot be considered as regulations concerning the prevention or limitation of harmful environmental effects as referred to in section 41 subsection 1 of the Land Use and Construction Act, as the regulations do not directly concern environmental effects, but the prohibition of certain types of economic activity].

In another excerpt (1.4 Oikeudellinen arviointi [legal assessment], second paragraph) is pointed out that "yleiskaavalla tai sen määräyksellä voi kuitenkin olla vain maankäyttö- ja rakennuslain säännöksiin perustuvat oikeusvaikutukset" [a local master plan or its regulations can only have legal effects based on the Land Use and Building Act's provisions]. The Court stated that mining operations' conditions, including land use and environmental effects, were previously resolved in permit procedures following the MA and the Environmental Protection Act. To some extent, this case sets a frame of reference in the current debate on land use plans at the local level.

Although the changes suggested in the bill concerning land-use planning (at the municipal level) have emphasized the exploitation phase, some modifications intended for the previous stage, that is, exploration, are also introduced. In that sense, the suggested amendments are aligned with the current version of the norm and bring more clarity to the text. The analysis showed that the bill sets out as an obstacle to granting an exploration permit when the municipality opposes such granting due to issues related to land planning or for some other compelling reason related to the use of the land. The exception to the above would be when a significant public interest requires the granting of a permit (section 46, subsection 1, paragraph 7). Punctually, the bill of the MA replaces the phrases "muusta alueiden käyttöön liittyvästä pätevästä syystä" [other good cause related to land use] with "muusta alueiden käyttöön liittyvästä painavasta syystä" [other compelling reasons related to land use], and "jollei luvan myöntämiselle ole erityistä syytä" [unless there is a specific reason for granting the permit] with "jollei tärkeä yleinen etu edellytä luvan myöntämistä" [unless there is a significant public interest for granting the permit] (the wording may vary since, as previously mentioned in this research, there is no official English version of the bill when writing this study). For example, the national supply of raw materials or surveys of mineral resources related to regional development are cases where a public interest can be identified (Vihervuori, 2019; GPP, 2022). Mineral deposits are of public interest because of their relevance as sources of raw materials for society; the safeguarding of mineral deposits is a pending topic of discussion in Finland (Eerola, 2022).

The Citizens' initiative to amend the Mining Act promoted by the "Saimaa region without mines" sent to Parliament in October 2019 (i.e., prior to the adoption of the Government Programme of Prime Minister Sanna Marin, where it refers to improve local acceptance of mining) needs to be added into the analysis ("*Kaivoslaki Nyt – Lakialoite kaivoslain muuttamiseksi*," 2019). The same promotes strengthening local decision-making power in the mining activities development (Mononen et al., 2023); therefore, it is closely linked to the comments made in the previous paragraphs. In the text, it is stated that in the processing of exploration and exploitation permits, the land use strategies by municipalities and the development of other livelihoods should be further considered. It is mentioned that the municipality has to define its land-use planning based on the Land Use and Construction Act, guiding the coordination of livelihoods in its territory. An excerpt notes that "kunnalla on täten mahdollisuus perustellusti estää kaivostoiminta ml. malminetsintä alueellaan" [the municipality thus has the opportunity to justifiably prevent mining activities, e.g. ore

exploration in their area] (Kaivoslaki Nyt – Lakialoite kaivoslain muuttamiseksi [Mining Act Now – Legislative initiative to amend the Mining Act], Aloitteen sisältö [content of the initiative], paragraph 11). When analyzing the text of the initiative, the repeated use of the term "exploration" (malminetsintä) is noted; it is mentioned more than fourfold as often as the term "exploitation" (kaivostoiminta), therefore laying great emphasis on the initial phase in the development of a mining project. The latter is noted since there has been an increase in exploration activities in the country, mainly for battery minerals, and this has led to debates at the regional and municipal level and the formation of social movements such as the one mentioned in these lines.

Both section 47, subsection 4, and section 46, subsection 7, are two opportunities that municipalities have to influence the permit process. The purposes and contents of local land use plans are issues to be carefully considered by municipalities in view of recent rulings from the Supreme Administrative Court. In context, it is mentioned in the analysis that the formal capacities of the municipalities, including land use planning, is an issue that remains open to discussion and exceeds the scope of this research.

5.2.1.2 Cooperation procedure for exploration or exploitation in the special reindeer herding area

In line with current mining law, the bill reaffirms a cooperation procedure to assess the potential impacts of mineral exploration and mining on the special reindeer herding area. This is referred to in section 38 (procedure to be applied in the Sámi Homeland, Skolt area, and special reindeer herding area). It follows that this participatory process, which has been described in the normative in rather more general terms, is mainly intended to carry out a joint evaluation among the parties concerned (i.e. the mining authority, the applicant, the local reindeer owners' associations, the Sámi Parliament, the Skolt village meeting, and the authority or institution that manages the area) on the possible effects of the activities proposed by the permit applicant on state lands located in Lapland that are part of the special reindeer herding area and the Sámi people' right to maintain and develop their language and culture. Traditional livelihoods, such as reindeer herding, are part of the Sámi culture and are constitutionally protected (section 17, subsection 3). Mining ventures may impact reindeer herding in various ways, so the coexistence of those with traditional livelihoods and local businesses, exploring and identifying complementarities and synergies and supporting the different activities, becomes a cornerstone for local acceptance of mining projects (e.g. Mononen et al., 2023; Suopajärvi et al., 2022; Pölonen et al., 2021, Raitio et al., 2020), and for this reason, this theme is of significance to answer the research question. In this analysis, section 38 has been given priority due to its relevance in the process of building local acceptance of mineral exploration and exploitation between mining companies and local stakeholders.

Resolving conflicts between reindeer herding and others land use forms, including mineral exploration and mining, is a sensitive and contested issue in many respects, which remains of discussion in Finnish policy.

The need to reduce such conflicts is specifically mentioned in the Programme of Prime Minister Sanna Marin's Government (p. 137). The dissenting positions of the Reindeer Herder's Association (Paliskuntain Yhdistys) and the Sámi Parliament (Saamelaiskäräjät) to the bill' text to amend the MA from the last meeting of the Mining Law Working Group of June 2022, after more than two years of joint work is part of that debate. It reflects the difficult and complex task of addressing issues related, directly or indirectly, to reindeer herding and the Sámi rights and reaching a consensus on the text.

In light of the analysis set out below, the flexibility of the cooperation procedure introduced in section 38 of the MA is a distinctive feature of the same, emphasizing case-by-case analysis. In general, the cooperation procedure of the bill maintains the approach of section 38 of the current mining law. It follows that such a cooperation process would include access by concerned parties to the report that the applicant submitted in his permit application, in a kind of preliminary instance to the cooperation procedure (proposed addition to current normative). It would also include the request by Tukes for statements from the different parties, the organization of participatory information meetings, and the possibility of an event together with other actors. All of the above are under the supervision of the mining authority. Some parts of the text of section 38 would be transferred from such article to section 34 (permit application), but they remain as such in the normative.

The Proposal of the Government to Parliament to amend the MA refers specifically to complementing the cooperation procedure of section 38, allowing the local reindeer owners' associations, the Sámi Parliament and the Skolt village meeting, based on the report submitted by the applicant in his permit application, can take a position on the issue before the mentioned procedure starts (p. 52). The above was added to the bill. While the possibility of holding an event by the mining authority is maintained in the draft law where the stakeholders mentioned in paragraph one of this section, and the municipality, the local fishing area, and forests in joint ownership may delve into the impacts as a consequence of the development of exploration or exploitation activities.

Although the analysis showed some adjustments in the wording of section 38, the modifications of the bill are not perceived as major, and the flexibility observed in the procedure seems to be in line with the draft of the Government's proposal to amend the MA of 2009 (HE 273/2009), which noted among its objectives that the situations in mineral exploration and exploitation vary in each case under analysis, for which the law should provide some flexibility in regards to the rights and obligations of those who engage in such activities (p. 48). It is worth mentioning that the current bill states that what is contemplated in section 38 could be expanded by Government decree with more detailed regulations in relation to the procedure to be followed and the content of the report submitted by the applicant. Therefore, the draft law leaves the door open to further clarifications on the issue.

Following the above, it is interesting to note that the Government Proposal to Parliament to amend the MA points out that the application of the obligation to cooperate according to section 38 is found in the judgment of the Supreme Administrative Court KHO:2021:83 (p. 33). Due to the relevance of such mention and being a contemporary court case, it deserves to be introduced in this analysis. The ruling revolves around an exploration permit granted by the mining authority to the Geological Survey's (GTK), which is located in the home region of the Sámi people and the special reindeer herding area. Representatives of the Sámi people, the Reindeer Herder's Association and the Lapland district of the Finnish Association for Nature Conservation appealed the judgment of the Administrative Court of Northern Finland, which confirmed the decision of the mining authority to grant the permit to GTK. The Supreme Administrative Court ruled in 2021, noting that it is a small-scale project, the effects of which were sufficiently clarified within the framework of cooperation established in article 38 of the MA. In this sense, it was considered that additional impact evaluations to complement the report submitted by the applicant in their application were not needed.

The flexibility of the cooperation procedure of section 38 mentioned above in the analysis, is also noted in an excerpt from the judgment (para. third), which points out that "38 §:ssä tai muuallakaan kaivoslaissa ei kuitenkaan ollut tarkemmin säädetty, miten yhteistyö ja hankkeen vaikutusten selvittäminen kussakin yksittäistapauksessa käytännössä toteutetaan" [neither in section 38 nor elsewhere in the Mining Act, however, was there a more detailed provision on how cooperation and the investigation of the project's effects would be carried out in practice in each individual case]. One of the highlights of the aforementioned ruling is that the Court notes that the cooperation established under section 38 of the MA requires that the representatives of the Sámi people and the local reindeer herder's association take part in the discussions to identify the possible effects of the project on the rights of the Sámi people (para. fourth), and, failing to do so, this does not prevent the mining authority from continuing with the mining procedure in question.

It should be noted that in the normative in force, the development of exploration or exploitation activities is not allowed if this implies considerable damage to reindeer herding; in such case, Tukes will not grant the corresponding administrative permit (MA, section 50, subsection 3; Reindeer Husbandry Act, section 2, subsection 2). In case, after the implementation of section 38 participative procedure, impacts to reindeer herding are not considered to be major, both the permit exploration and mining permit granted by Tukes has to include provisions referring to ensuring that the right of the Sámi people to develop their culture and traditional livelihoods are not affected by the development of those activities in the area of the Sámi Homeland (section 51, subsections 2 and 3; section 52, subsections 4 and 5). The bill maintains that the administrative permit granted by Tukes has to include a reference to reduce the harm caused to reindeer herding in the special reindeer herding area (section 51, subsection 2; section 52, section 4). It is worth stressing that the bill refers to reindeer herding in other sections (e.g. 8, 12, 58, 75).

In line with the previous paragraph, within the framework of the section 38 cooperation procedure, it should be possible to determine whether the report submitted by the applicant in his permit application is sufficiently clear and comprehensive about the possible impacts of his activities on reindeer herding. If not, additional studies would be required to determine the degree of the impacts better. In principle, exploration activities, in most cases, would not appear to be an obstacle to the granting of a permit by the mining authority. However, in the case KHO:2021:83, mentioned in this section, there was local and regional opposition to developing an exploration project, leading the Supreme Administrative Court to rule on the matter. While exploitation activities, due to their greater impacts in an area, would require more detailed analysis and may entail additional studies.

Regarding section 38 under analysis, the Reindeer Herder's Association (Paliskuntain Yhdistys) has expressed its disagreement with the new version of the bill's text. Among the main questions is the need for more clarity on the proceeding and the area on which the impacts are evaluated due to the development of exploration or exploitation activities based on the applicant's report. In the statement, which is very concise, section 38 is linked to section 34 (permit application); the latter refers, among other issues, to the content of the report submitted by the applicant in his application. The statement notes that section 34 should include a mention that the applicant has to refer in his report to the special reindeer herding area, including potential impacts on reindeer herding, given that such a document is the basis of the analysis of the cooperation procedure of section 38. It is noted that the new version of article 34 would include an express reference to the applicant indicating in his report which key areas of the Sámi Homeland the application refers to, while no reference is included to the special reindeer herding area and reindeer herding area. There is also a mention of not having been consulted about the latest changes to the draft law of May 2022 (see Ministry of Economic Affairs and Employment, 2022). Some aspects of section 34, which has several changes, are addressed in this study in section 5.2.3.

While the Sámi Parliament (Saamelaiskäräjät), in a brief statement from June 2022, has indicated that in the latest draft of the text of the bill, changes are made to article 38 by transferring part of its content to article 34, alleging a lack of consultation in this regard. These would be issues related, among other aspects, to the areas of the Sámi Homeland referred to in the application request and other forms of use of the areas that would hinder the rights of the Sámi people (MA, section 38, subsection 1.1, 1.2 and 1.3). The lack of clarity in the proceeding of article 38 was also highlighted (see Ministry of Economic Affairs and Employment, 2022).

After detailed analysis, one may wonder if the aim set out in the Government's Programme of improving local acceptability of mining (p. 47) would not be hampered by dissenting opinions on the latest draft section 38 of the bill by two key actors, the Reindeer Herder's Association and the Sámi Parliament. This last actor has pointed out that the changes proposed to the MA concerning the Sámi people are rather superficial.

The preceding may also hinder the Government's aim of reducing conflicts between reindeer herding and other land use forms.

5.2.1.3 Impacts on local business activities and livelihoods in general

The bill seeks to promote greater protection and safeguarding of local business activities and livelihoods during the exploration and exploitation phases. In this section, the analysis highlights more the exploration phase, which has undergone more changes in the MA reform process. The ability of mining and business activities and other livelihoods (e.g. tourism, reindeer herding) to coexist in a same area is often referred to as a key aspect for gaining local acceptance for the mining operations; significant economic concerns are consequences for mining development to other industries, businesses and livelihoods in the region (see e.g. Mononen et al., 2023; NAOF, 2021; Similä & Jokinen, 2018; Sihvonen & Sairinen, 2018; Hast & Jokinen, 2016). This emphasizes the relevance of this theme for the research question of this study.

5.2.1.3.1 Exploration phase

From the analysis, it follows that with the amendments to the MA, it is sought that during the process of finding commercially viable mineral resources (i.e. exploration phase), the potential impacts that such activities may have on local livelihoods and businesses are considered and addressed in the permit process (i.e. pre and post granting). Within the framework of the reforms, it is worth noting the suggested amendments to sections 51 (regulations to be included in an exploration permit, 34 (permit application) and 46 (obstacles to granting of an exploration permit or gold panning permit), among others. In general, additions seem to be to some extent well aligned with the Citizen initiative to modify the MA promoted by the "Saimaa region without mines " (2019), which emphasizes reinforcing different aspects related to the exploration phase in the permit process, including the practice of other local livelihoods.

The bill notes that the exploration permit will not be granted if it could cause significant harm to other business activities (section 46, subsection 1.8). From the analysis, the exploration permit granted by the mining authority would have to include provisions aimed at reducing potential damage to the traditional livelihoods of the Sámi people in the Sámi Homeland and to local business activities as a consequence of the development of exploration activities (section 51, subsections 2.2, 2.3, 2.10). Therefore, when granting the exploration permit, the mining authority will have to lay down provisions and conditions that mitigate or prevent impacts that may harm local livelihoods. In relation to this point, Similä and Jokinen (2018) have previously pointed out that with the granting of permits, the mining authority has to convert norms of the legislation that are general and non-specific (as this seems to be the case) (i.e. open-ended formulations of legal requirements) into specific case conditions. The authors note that the MA not only allows but requires the mining authority

to impose permit conditions to prevent harm to public and private interests. However, they highlight the lack of inclusion of effective conditions in the practice of granting permits in the country.

Although it is clear that each mining project is particular and establishing specific rules in the MA might not be the best way to go on this specific issue, it cannot be overlooked that the regulations regarding the protection of other businesses and livelihoods continue to be very open following the draft law. In any case, it will be interesting to see future decisions of the mining authority in this regard and the extent to which Tukes elaborates on the theme in exploration and exploitation cases and considers whether guidelines on the matter could bring more clarity to the scope of the regulatory framework.

Within the framework of the subject under analysis, it is worth mentioning a Report of the “Special Rapporteur on the rights of indigenous peoples on the situation of human rights of the Sami people in the Sápmi region of Norway, Sweden and Finland” dated 2016 (United Nations General Assembly). The same points out that the MA does not clearly define the conditions that undermine Sámi or Skolt livelihoods and culture or cause considerable damage to reindeer herding, leaving too much room for interpretation. It also adds that the evaluation of the impact assessments has tended to rely disproportionately on the information provided by applicants. From the analysis, no clarification on this observation has been noticed in the documents reviewed. Although the bill states that what is contemplated in sections 51 and 52 could be expanded by Government decree with more detailed regulations, leaving the door open to further clarifications on the issue.

Due to the changes in the law, it is also interesting to note that the applicant for an exploration permit would have to clarify in his application report the effects of the proposed activities on the traditional livelihoods of the Sámi people, as well as mention whether, after the granting of such a permit the Sámi people could continue to develop such livelihoods (draft law, section 34, subsections 2.1, 2.5; see also section 38 of the bill, and section 5.2.1.2 of this study). It is an obstacle to granting an exploration permit in the Sámi Homeland or the Skolt area when such a permit could affect the conditions for engaging in traditional Sámi livelihoods or the possibilities for pursuing a livelihood or affecting the living conditions of the Skolt population (MA, section 50). However, a permit may be granted regardless of the impediments of section 50 if they can be removed through permit provisions. The MA already points out that the measures related to exploration work, due to a permit granted, have to be planned in such a way that public or private interests are not undermined as long as the foregoing can reasonably be avoided. It states, among other aspects, that damage to other industrial and commercial activities has to be avoided (section 11).

The theme addressed in this subsection and the next one is closely related to section 5.2.1.1 of this study since strengthening municipal decision-making power in land use planning could allow enhancing aspects related to local business activities and livelihoods in planning decision-making, which is also

emphasized in the GPP (p. 59). Municipalities often take an active political role when mining is seen as a threat or risk to other livelihoods or businesses (Mononen et al., 2023).

5.2.1.3.2 Exploitation phase

Regarding exploitation, the protection measures for other livelihoods and businesses are practically similar in scope to those of the exploration phase. Some of those measures were already in the current mining norm. The MA notes that a mining permit cannot be granted if it could significantly affect the locality's living and industrial conditions (section 48, subsection 2).

Within the framework of the reforms, it is worth noting the suggested amendments to sections 52 (regulations to be included in a mining permit) and 34 (permit application). The measures mentioned in the subsection above (5.2.1.3.1) to reduce the harm caused to the traditional livelihoods of the Sámi people would also apply when granting an exploitation permit, avoiding also affecting the settlement or business conditions of the locality (section 52, subsections 3.4, 3.5, 3.12).

The applicant would have to report the effects of the proposed activities on the traditional livelihoods of the Sámi people. Also, clarify if the Sámi people could continue to develop their livelihoods once permission has been granted by the authority (draft law, section 34, subsections 2.1, 2.5). The impediments of section 50 indicated before also apply to the exploitation phase. What is stated in this subsection and the previous one needs to be also considered when addressing the rights of the Skolt population in the Skolt area.

5.2.2 Citizen's participation in development

This section explores themes and aspects mainly related to citizen participation and access to information. The importance of participation and fostering interaction between local residents and companies to build mining acceptance and higher levels of social license are issues mentioned by the literature with different scopes and approaches (e.g. Moffat & Zhang, 2014; Prno, 2013; Ziessler-Korppi, 2013; Thomson & Boutilier, 2011). Public participation in development is central to the sustainable development approach. As Prno & Scott Slocombe (2012) point out, public participation contributes to improving the substance of decision-making, and public participation can also be seen as an end in itself; that is, it improves the decision-making process.

It has been mentioned that greater public participation generates fairer processes, represents a broader range of interests and concerns, and leads to better acceptance of decisions and support for projects that use natural resources (e.g., Jartti et al., 2020; Mononen & Sairinen, 2021; Siegrist et al., 2012; Prno & Slocombe, 2012). Procedural fairness is generally associated with processes in which citizens' voices are heard, and their opinions are valued and respected and taken into account in future decisions and action plans (e.g. Jartti et al.,

2020; Mononen & Sairinen, 2020; Litmanen et. al., 2016; Tyler, 2000). The idea and understanding of procedural fairness can vary between the parties, so different expectations could arise between them (see Poelzer et al., 2020). For example, Mononen and Sairinen (2021) showed how dialogue, active listening, and negotiated company-community solutions were vital in gaining local acceptance and credibility in the Kylylahti mine in Northern Karelia, Finland.

5.2.2.1 Opportunities for public participation by the permit holder

The bill reinforces citizens' participation and access to information by stipulating that the permit holder organize annual public events while developing exploration or exploitation activities. This is introduced in sections 14 (report on exploration and results in the exploration area) and 18 (obligations of the mining permit holder). The draft law is limited to pointing out the type of information that will be shared and the possibility that such events can be held online, but it leaves the door open that more detailed regulations on such events can be issued. The realization of these events can be assessed as a valuable addition to the bill, giving local residents a formal instance to voice their opinions regarding planned activities and potential impacts, albeit in the knowledge that what matters most for trust in the mining industry and building acceptance and higher levels of social license is the quality and thoroughness of participation (see e.g. Jarti et al., 2020; Mononen & Sairinen, 2021; Litmanen et al., 2016; Moffat & Zhang, 2014; Prno & Scott Slocombe, 2012). The preceding highlights the relevance of this topic to answer the research question. Pölonen et al. (2020) note "the manner and the timing of participatory procedures as key issues for successful collaborative practices" (p. 128).

From the analysis, events seem to be informative and participatory, thus adding to other instances with broadly similar characteristics already incorporated into the permitting process. It follows that these events would be to inform and facilitate dialogue and interaction between stakeholders regarding mineral exploration or mining activities. The normative framework would be incorporating an SLO' practice of informing local residents about works performed and planned that different companies, although not all, have been doing it voluntarily and in different ways, but now as an annual mandatory requirement. It could be said that it is about formalizing these instances of citizen participation within the regulatory framework, and, at the same time, open them to the general public (see Poelzer et a., 2020). This would be a minimum requirement since, in practical terms, companies need to keep other information channels open with local residents to answer queries related to the project and its impacts within a reasonable time. For a project, particularly in the exploitation stage, more than an annual event may be needed to inform and attend to citizens' claims.

If handled well, these public events can help reduce misunderstandings between different stakeholders, provide timely access to accurate information and promote dialogue and cooperation between the parties. Such instances in charge of the permit holder have to be handled efficiently and appropriately, and observations

channeled promptly (i.e. how the company will consider and, as appropriate, address the comments and suggestions resulting from the exchanges between the parties within the framework of the event).

In the body of the GPP it is highlighted the greater interest of citizens both in mineral exploration and exploitation, which has led to the formation of movements and organizations in which mining and the possibilities of influencing the public debate about such activity development and, mainly, local impacts are discussed (e.g. the Saimaa region without mines, an initiative already mentioned in this study). The role of new technologies (internet and social media) in allowing the rapid flow of information to citizens and between them is also stressed. As a consequence of the above and other issues, the Government proposal notes the relevance of citizens getting objective and reliable information on planned or ongoing mining activities in their areas as early and as quickly as possible (p. 61).

In an excerpt from the GPP, it is noted that “tilaisuuksien tarkoituksena on lisätä toiminnan vaikutusalueen maanomistajien, yrittäjien ja asukkaiden tiedonsaantioikeutta sekä mahdollistaa avoin vuorovaikutus vaikutusalueen maanomistajien ja muiden toiminnan vaikutuspiirissä olevien tahojen sekä toiminnanharjoittajien välistä vuorovaikutusta” [the purpose of the events is to increase the right of access to information of the landowners, entrepreneurs and residents of the area affected by the operation and to enable open interaction between the landowners of the mentioned area and other parties affected by the operation, as well as the operators] (p. 44). While the Government's Programme of Prime Minister Sanna Marin points out the aim of improving the position and right to information of property owners and landowners in the area affected by mining development, as well as reinforcing the possibilities of influence of the latter (p. 47).

As per the draft law, the type of information that the permit holder provides in the event will be linked to the activities developed. In the case of an exploration permit, the information will be on the activities performed in the area, their impacts, the methods used, the results obtained to date, and future activities envisaged and effects. While in the case of a mining permit, information about the programme undertaken, the scope and results of exploitation so far, and information on mineral reserves, if it changes substantially, will be given. The GPP notes that in the same event, the activities and results of several adjacent properties that fall under the same permit holder may be introduced, although this is not specified in the draft law. The event may take place in the locality where the project is located or happen online, or it could even be a combination of both modalities. The latter is interesting since it will allow more actors to join the event. This can imply extra challenges for companies, given the possibility of more observations and comments.

In the case of mines, the annual events would apply as long as operations were active and when activities are planned to resume. The bill punctually indicates the obligatory nature of the event, "ellei tilaisuuden järjestämisestä ole pidettävä ilmeisen tarpeettomana" [unless the organization of the event is

considered clearly unnecessary] (section 18). In the exploration case, no exception to such obligation is mentioned in the bill.

According to the bill, the holder of a mining exploration or exploitation permit will have to notify the owners of the properties included in the mining exploration or exploitation area and areas surrounding it and other rights holders of such an event. In addition, the municipalities in the area of exploration or exploitation and other relevant authorities, the Sámi Parliament in the Sámi Homeland, the Skolt people's meeting in the Skolt area and local reindeer owners' associations should also be informed about this opportunity to participate. Event details will be listed on the permit holder's website.

The role of the mining authority in these events, if any, is not clarified in the policy documents reviewed. This incorporation into law would then emphasize the role of companies as organizers of these public opportunities. It would be interesting to see if there will be any advice or supervision by Tukes regarding the events. In a case study on the local governance of metal mining in Finland from the perspective of five municipalities (Kittilä, Kuusamo, Pyhäjärvi, Raahe and Sodankylä), Mononen et al. (2023) showed that four of the municipalities did not consider playing a role as organizer of communication between various actors at the local level (except Sodankylä).

It deserves to be mentioned that before granting an exploration or exploitation permit, the regulatory framework sets out opportunities to share opinions and complaints by different parties. These opportunities are channeled mainly through Tukes (see e.g. section 5.2.2.2 of this study) and the Regional State Administrative Agency (AVI), which is responsible for approving the environmental permit. However, the need to define more direct opportunities to participate in the stages of the planning and impact assessment processes for residents, communities and stakeholders has been pointed out (Mononen et al., 2023). A study by Jartti et al. (2016) showed that Finns' perceptions of having opportunities to participate in decisions about mining are not strong; they do not feel as heard and respected by the mining industry, municipal government and state government.

These new citizen participation opportunities explored in the present section of this research work and briefly in the next section of it could be understood as a positive response from the Government to expand opportunities for citizen participation, listening to certain claims that sectors of society have come posing. The implementation of these events introduced in the draft law will have associated challenges, mainly by the plurality of voices and opinions potentially involved and the effective and timely treatment of any observations and comments that may arise.

5.2.2.2 Opportunities for public participation by the mining authority

The draft law promotes that citizens can voice their opinions before granting a mining permit. This is found in section 39 (complaints and opinions). The bill establishes that, before granting a mining permit, making a change to it or extending its term of validity, the mining authority has to establish an opportunity open to the public so that citizens can bring their opinions on the matter discussed. At that time, information on the permit in question will be provided, and the event can be held online. The preceding highlights the relevance of this topic to answer the research question of this study. The authority will have to include a record of such participation opportunity in its decision on the mining permit. It is noted that the realization of such an event could not occur if it were considered unnecessary.

The reference in the draft law to such an event is brief and is limited to what is mentioned in the previous paragraph, although it indicates that all of the above could be expanded with more detailed government regulations. As per the GPP, this addition aims to improve the opportunities for information and interaction among residents and other parties affected by the application or the mine's area and the public at large. Such a document specifically mentions in relation to section 39 of the draft law that “pääministeri Sanna Marinin hallituksen ohjelman tavoitteet edellyttävät muutoksia kaivostoimintaa ohjaavaan lainsäädäntöön, jotka *parantavat paikallista hyväksyttävyyttä* [emphasis added] ja vaikuttamismahdollisuuksia” [the goals of Prime Minister Sanna Marini's government's programme require changes to the legislation governing mining that *improve local acceptability* and opportunities for influence] (p. 91).

It deserves to be noted that the current mining normative already establishes in section 39 that the mining authority has to set an opportunity for the involved parties to bring their complaints before granting an exploration or exploitation permit. It also points out that parties other than those involved need to have also an opportunity to express their opinions on a matter concerning an exploration permit or a mining permit and that the terms for the above should be sufficient.

5.2.3 Reporting requirements and procedures related to exploration and reservation

This section mainly deals with access to information by local relevant stakeholders when planning the development of a mining project, with particular emphasis on prospecting and exploration activities. It also discusses the reservation mechanism, which aims to regulate the order of priority of those interested in exploring a given area but does not lay out any land use or other rights over the reserved land areas for the reserving party. It notes that information related to the permit procedures established in the MA has been improved in the bill with, among other things, proposed information sessions and more notification obligations. Information requirements reach planned and ongoing projects and aim both at the mining authority and the operator. The issues discussed in this section are relevant to address the research question since they are related to building social acceptance of mineral exploration. In this sense, this study details some reporting

requirements and procedures related to exploration and reservation. Other draft law requirements could be added to those addressed in this section.

5.2.3.1 Information to provide by the exploration permit applicant and by the permit holder

The bill expands the requirements that the exploration permit applicant has to fulfil, emphasizing aspects related to the compatibility between the development of the proposed activities with the exercise of the rights of the Sámi people. The draft law lays down in section 34 that the applicant has to follow the procedure of article 38 if the exploration area of its interest falls on the Sámi Homeland (see section 5.2.1.2 of this study). The applicant would have to clarify the effects that the development of its activities may have on the Sámi people's rights to maintain their traditional means of livelihood, culture and language. The bill goes even a little further and states that even if the applicant's area of interest does not fall within the Sámi Homeland, the applicant has to review whether such activities could also impact the exercise of the rights of the Sámi people mentioned above and include that information in their application before Tukes (section 34).

The aspects mentioned above will be part of the content of the detailed report that the permit applicant submits before Tukes as part of his application. Based on that document, the mining authority assesses that the applicant has the conditions and intends to start exploration activities. According to the draft law, such a report should also refer to other permits requested by the applicant before Tukes or well already granted by such authority to the applicant and that are in force (section 34, subsection 2.1).

The bill maintains the exploration permit holder's obligation to submit a report to Tukes annually about the activities carried out and the results thereof. Following the above, the draft law adds that the permit holder will have to define annually an opportunity open to the public where he informs citizens about such activities and results, as well as the next planned works in the field (section 14, report on exploration and results in the exploration area). Section 5.2.2.1 of this study analyzes this addition to the norm. It is not mentioned in the draft law if the permit holder reports will be available online.

It is worth noting that the draft law notes that if the holder requests an extension of his exploration permit, the mining authority will assess whether the holder has complied with the exploration plan object of the permit granted (essential aspects thereof). The exploration must have been effective and systematic (section 61, subsections 2.1, 2.3). Likewise, the holder must have complied with the obligations laid down in the mining norm as well as in the permit regulations and, specifically, the draft law indicates that in case of some negligence by the holder, the authority will evaluate aspects such as duration of the same, frequency, amount of damage, among other issues. In context, it is noted that an exploration permit can be valid for a maximum

of four years after it is granted—the holder could request extensions of said term up to a maximum of fifteen years (sections 60 and 61, subsection 1).

In closing this subsection and even knowing that other issues in the bill could be added to the same, it is highlighted that there will be more requirements to be met by both the applicant for an exploration permit and the holder thereof and that such requirements are related to working towards higher levels of acceptance of exploration activities (SLO) if effectively they are well implemented. Issues related to considering the local livelihoods and the culture in general of the Sámi people could be specifically emphasized, minimizing impacts as a consequence of the development of exploration activities and also the events open to the public where the holder has to provide information about their current geological works and future ones.

5.2.3.2 Notifications in exploration

The excerpts from the bill referenced below mainly emphasize more notifications during the reconnaissance and prospecting works in an area of interest, and exploration in general, and early access to information by relevant local stakeholders. These are significant issues when thinking about building local acceptance of projects.

In the MA, the reference to prospecting work is included in chapter 2, "Exploration". In that sense, this study has followed the same criteria by including prospecting in this section of the research work. In the mining norm, prospecting works refer to geological measurements, making observations, and taking minor samples, being works that do not cause any damage or just minor inconvenience or disturbance (MA, section 7, prospecting work). Such works are not subject to a permit granted by the mining authority. In his book, *Essentials of Mineral Exploration and Evaluation* (2016), Gandhi and Sarkar note that "Prospecting is a small-scale mineral exploration and is the first link in a chain of events that hopefully leads to a mineral resource" (p. 53).

5.2.3.2.1 Prospecting works

The bill indicates that the interested party in doing prospecting works in the special reindeer herding area, would have to submit a notification to the "paliskunta" of the area before the commencement of the same. A paliskunta is a cooperative of reindeer herdsman administering a defined herding area ("Paliskuntain yhdistys," 2023) (section 8, notification of sampling related to prospecting work, subsection 1). In comparison, the current mining norm states that in the case of prospecting works, the notification is only to the owner and holder of real estate in the area where those works will be undertaken. In other words, with the reform, the interested party in doing prospecting works will have to notify the cooperative of reindeer herders in the area in question, whenever applicable, and the owner and holder of real estate. It also deserves to be noted that this kind of

notification has to include a plan regarding the sampling and the schedule, the area of the works, as well as contact information of the party responsible for prospecting work, among other details.

5.2.3.2.2 Exploration works

Regarding exploration, the bill notes that if it is carried out with the consent of the property owner of the area of interest (see MA, section 9, subsection 1), the person in charge of such works will have to notify the mining authority before starting the mentioned works (draft law, section 12, notification of fieldwork and construction in the exploration area). In this sense, the current mining regulations establish that it is possible to carry out exploration work having the consent of the owner of the property where the work is planned, even when it does not have a permit from the mining authority. However, it is necessary to assess the following. In case exploration works could cause damage to people's health or general safety, other industrial and commercial activity, or deterioration in value related to the landscape or nature protection values, the interested party will necessarily have a permit from the mining authority. The same also for gaining a privilege for exploiting a deposit or when it is planned to explore areas for uranium or thorium, among other cases (MA, section 9, exploration subject to a permit). If the interested party does not have the property owner's consent, a permit granted by the mining authority is required.

The current mining norm sets out that the holder of the exploration permit has to notify owners of real estate included in the exploration area, and other holders of rights, in advance of all fieldwork that could cause any damage or harm and of any temporary constructions to be erected (section 12, notification of field work and construction in the exploration area). The bill emphasizes what the MA already points out, that, in the case of exploration works, notifications have to be provided to the Sámi Parliament in the Sámi Homeland, a village meeting of the Skolt people in the Skolt area, and in the special reindeer herding area, to the corresponding “paliskunta”.

It should be noted that the current mining norm establishes that once an exploration permit has expired and the restoration tasks of the area and removal of buildings have been completed, among other aspects, (section 15, subsection 1.1), the permit holder has to proceed with some notifications. Such notifications reach the mining authority; the owners of the properties included in the exploration area and other holders of rights; the Sámi Parliament in the Sámi Homeland; the local reindeer owners' associations in a special reindeer herding area; and/or the village meeting of the Skolt people in the Skolt area, as relevant. The bill maintains the above. The preceding does not apply if the holder applies for an extension of the validity of his permit and obtains such a concession from the mining authority or applies for a mining permit.

It is also interesting to note that if the permit in question were assigned to another party (i.e. assignment of a permit), the bill states that the mining authority, once approved of such assignment, has to notify the owners of properties included in the exploration area (section 74).

5.2.3.3 Landowner's consent to extend the validity of the exploration permit

The bill adds a subsection that states that the holder of the exploration permit will need to have the consent of the owners of the properties when it comes to extending the validity of a ten-year permit (section 61, extending the validity of an exploration permit). The condition is fulfilled if the applicant shows that the consent has been given by property owners whose properties cover at least half of the prospecting area. It can be understood that with this change, the owners would have more opportunities to influence the decision to continue with mineral exploration work on their properties; thus, their positions in the permit process would be strengthened. However, for the company, this could mean costs in terms of managing consent and negotiations with the landowners. For example, one can think of the case of a company whose exploration area has many different owners of properties. The obligation will also increase the business risk of companies engaged in ore exploration. The above is mentioned by the GPP (p. 57).

If the holder could not count on such consent, he could still submit an application before the Government to extend the permit's validity, invoking a significant public interest and justifying the preceding one. Another possibility is that if the owner does not have the consent of the owners of the properties but has the authorization of the authority or institution responsible for the administration of the area, he could also apply for the extension of the permit's validity. In any case, the holder also has to meet the other requirements of section 61.

5.2.3.4 The reservation mechanism

At the beginning of section 5.2.3, reference was made to what the reservation mechanism means. Before going into the analysis, it should be noted that the reserving party prepares its exploration permit within the time frame established in the reservation decision and apply for the area if effectively said party maintains an interest in the same. In context, it deserves to be noted that movements that oppose mineral exploration and exploitation have arisen increasingly earlier and, some of them at the reservation phase (Metsä-Simola et al., 2022; Leino & Miettinen, 2021; Leino, 2023) (e.g. “Ei kaivoksia Suomen käsivarteen” (No mines in Northwest Finland), “Saimaa ilman kaivoksia” (Saimaa region without mines) and “Pro Heinävesi”, among others). In the Citizens' Initiative sent to Parliament in October 2019 (already referred to in this study), it was noted that the area reservation system should be eliminated or modified.

Regarding the reservation petition, the bill establishes that the reserving party will have to inform the municipality or municipalities where the reserve area is located about the request for a reserve before the mining authority. If the reserve area is located in the region of origin of the Sámi, the Sámi assembly has to be informed; if the reserve is located in the Skolt area, the Skolt village meeting has also to be informed. It also establishes restricted areas for reserve applications, such as natural parks and national parks (section 44, reservation notification). No reference to inform the owners of properties in the area in question or to the corresponding “paliskunta” in the special reindeer herding area is noted in the draft law. In this sense, in a report from the Ministry of Economic Affairs and Employment (Metsä-Simola et al, 2022), it is noted that it is important that information about the reservation reaches the owners and holders of property in the area as well as possible. The document mentions that landowners had expressed concerns about the reservation mechanism, as they consider that it creates uncertainty regarding future property use and administration.

Regarding the reservation decision, the bill notes that if the reservation area is located in the home region of the Sámi, a copy of the decision has to be delivered to the Sámi assemblies and the village meeting of the Kolts, if the reservation area is located in the Skolt area. If the reservation area is located in a reindeer herding area, a copy of the decision has to be submitted to the relevant "paliskunta" (section 75, issuing a reservation decision and informing thereof). Therefore, the right of access to information on reservation decisions is extended to other potential interested parties, but this is after the pronouncement of the mining authority of the reservation petition.

The bill states that the purpose and effects of the reservation have to be explained in the reservation decision. Such decision has to confirm the location and boundaries of the reservation area, and the validity period of the reservation (section 55, decision on reservation notification). In that sense, the draft law indicates that the reservation decision is valid for a maximum of twelve months after the booking notification (i.e. the twenty-four-month term of the current mining norm is reduced to twelve months) (section 76, validity of a reservation decision). It is also established that the reservation applicant has to pay one euro per hectare requested. Payment is made to the mining authority after the decision is issued (section 98).

This study closes the findings chapter by highlighting that the acceptance of mineral exploration and exploitation activities needs to be approached from different angles, including the policy and regulatory framework. Future research efforts should further explore the relationship or interplay between public policy and the social acceptance of mineral exploration and mining. This study sought to contribute in that way.

6 CONCLUSION

This study analyzed how local acceptance of exploration and exploitation activities was addressed in Finnish mineral policy between 2019-2022, following the Sanna Marin Government Programme's aim of improving local acceptability and opportunities for citizen influence in the development of mining projects. This period was marked by the reform of the Mining Law of 2011, which was completed with the recent approval of the bill by Parliament. The new Mining Law, 505/2023, enters into force on June 1, 2023. This research explored the theme from the perspectives of land use planning, public participation, access to information and impacts on other sectors/activities. It analyzed a core set of themes identified to be relevant when discussing acceptance of mineral exploration and mining and the building of higher levels of social license to operate (SLO). It was intended to be a first research phase on the subject matter, laying the groundwork for further investigation.

6.1 The recap of the main findings of the study

This study acknowledges that the key term in local acceptance of mining continues to be the social license to operate (SLO) (Mononen & Sairinen, 2021), which influences industry, government and academia on issues of resource development (Poelzer et al., 2020), even knowing that there are different approaches to such a term in the literature. The lack of local support and acceptance of a project, which can manifest through active opposition from local residents, may be tied to various social, environmental, economic, political and/or cultural reasons. The impacts of mineral exploration and exploitation activities on the local economy, people's livelihoods, local culture, and the environment are key issues to consider when addressing the acceptance of mining projects (Owen & Kemp, 2013).

The main research question of this study allowed for exploring the local acceptance of exploration and exploitation activities in Finland based on themes and aspects addressed in the mineral policy of the country

between 2019-2022. The findings of the policy research were presented in terms of land and natural resource use and socioeconomic impacts, citizen participation in development, and reporting requirements and procedures related to exploration and reservation.

Regarding land use and natural resources and socioeconomic impacts, the analysis emphasized three themes: 1) municipal land-use decision-making in mining matters (local land-use plans); 2) cooperation procedure for mineral exploration or mining in the special reindeer herding area; and 3) impacts of mineral exploration or mining on local business activities and livelihoods in general. The findings revealed that in Finland's mineral policy, improving local acceptance of mineral exploration and exploitation is very closely tied with considering the municipal land use plans and strengthening the coordination of different interests locally and, thereby, local prioritization of uses of the areas. The investigation showed that the bill amending the MA strengthens municipal decision-making power in land use planning by promoting a more active role in the decision-making process when considering future mining activities (i.e., exploitation). The research identified that the feasibility of the applicant's proposed exploitation activities would be cross-checked against the municipal land use plan, whether master or detailed, before the mining authority grants (or not) said permit; this change seems to be aimed at seeking to clarify the relationship of future mining activities with other uses of the areas at the local level. While in the exploration phase, the amendments bring more clarity to the mining norm, laying out an obstacle to granting such a permit when the municipality opposes it due to land planning issues or other compelling reasons related to land use. The study underscored that the purposes and contents of local land use plans are issues to be carefully considered by municipalities in the future, given recent rulings from the Supreme Administrative Court. The study also noted that overall proposed changes are to some extent aligned with the Citizens' initiative to amend the Mining Act fostered by the "Saimaa region without mines". Such an initiative promotes strengthening local decision-making power in exploration and mining activities development. It stresses that municipalities' land use strategies and development of local livelihoods be further considered in the processing of permits.

The research showed that the bill, in line with the current mining norm, reaffirms a cooperation procedure between the mining authority, the permit applicant, the local reindeer owners' associations, the Sámi Parliament, the Skolt village meeting, and the authority or institution that manages the area, as relevant. The aim of such a procedure is to assess the potential impacts/effects of mineral exploration and mining on the "special reindeer herding area". The bill adds a kind of preliminary instance where the local reindeer owners' associations, the Sámi Parliament, and the Skolt village meeting would have access to the report that the permit applicant submits to the mining authority as part of his application, and therefore they could take a position on the issue before the cooperation procedure begins. The study suggested that, in this case, acceptance of mineral exploration and exploitation seems to be linked to promoting a joint evaluation process among the parties concerned of potential impacts/effects because of the development of future exploration or exploitation activities. Nevertheless, the analysis underscored that such a process is described both in the current mining

norm and in the bill to reform the MA in rather general terms, and its flexibility is its distinctive feature, emphasizing case-by-case analysis. The Reindeer Herder's Association (Paliskuntain Yhdistys) and the Sámi Parliament (Saamelaiskäräjät) have objected to the lack of clarity in the cooperation procedure introduced in section 38 of the draft law. It emerges from the analysis that such a procedure would include early access by concerned parties to the report that the applicant submitted in his permit application. It would also include the request by Tukes for statements from the different parties, the organization of participatory information meetings, and the possibility of an event with other actors. From the analysis performed, it follows that within the framework of the section 38 cooperation procedure, it seeks to determine whether the report submitted by the applicant in his permit application is sufficiently clear and comprehensive about the possible impacts of his activities on reindeer herding, or whether additional studies are required to determine the degree of impacts better. The study questioned whether the goal of improving the local acceptability of mining would not be hampered by dissenting opinions on the latest draft section 38 of the bill by two key actors, the Reindeer Herder's Association and the Sámi Parliament. It further noted that the Sámi Parliament has pointed out that the proposed changes to the mining norm concerning the Sámi people are rather superficial.

The analysis showed that the reforms to the mining norm seek to promote greater protection and safeguarding of local business activities and livelihoods during the exploration and exploitation phases. In particular, the exploration phase has undergone more changes in the draft law. The study identified that an exploration permit would not be granted if it could cause significant harm to other business activities, and the mining authority decision on the permit application would have to include provisions aimed at reducing potential damage to the traditional livelihoods of the Sámi people and to local business activities as a consequence of the development of exploration activities. Additionally, the study noted that the applicant for an exploration or exploitation permit would have to clarify in his application report the effects of the proposed activities on the traditional livelihoods of the Sámi people, as well as mention whether, after granting such a permit, the Sámi people could continue to develop such livelihoods. Moreover, the study noted that measures seeking to reduce the damage caused to the traditional livelihoods of the Sámi people would also apply when granting an exploitation permit, avoiding affecting settlement conditions or businesses in the locality. The above would have also been considered when addressing the rights of the Skolt population in the Skolt area. Beyond being significant additions proposals to the norm and closely linked to impact the building of local acceptance of exploration and exploitation activities, the analysis conducted underscored that provisions protecting other businesses and livelihoods are introduced rather in a broad manner and not so accurately into the bill. This could lead to different interpretations of the provisions by stakeholders. The study suggests that attention should be given to future decisions of the mining authority in this regard and the extent to which Tukes elaborates on the subject. It also suggests considering other instruments, such as guidelines on the matter, that could bring more clarity to the scope of the regulatory framework. For instance, the Report of the "Special Rapporteur on the rights of indigenous peoples on the situation of human rights of the Sami people in the Sápmi region of Norway, Sweden and Finland" from 2016 (United Nations General Assembly) pointed out

that the MA does not clearly define the conditions that undermine Sámi or Skolt livelihoods and culture or cause considerable damage to reindeer herding, leaving too much room for interpretation.

Regarding citizen participation in development, the analysis focused on opportunities for public participation by the permit holder and mining authority. The research showed that the country's policy documents emphasize the relevance of citizens obtaining objective and reliable information about planned or ongoing mineral exploration and exploitation activities as early and quickly as possible. The findings revealed that the bill reinforces citizens' participation and access to information by stipulating that the permit holder organize annual public events while developing exploration or exploitation activities. The study identified that the permit holder would have to notify the owners of properties included in the area of interest and areas surrounding it and other rights holders of such an event. In addition, the municipalities in the area of exploration or exploitation and other relevant authorities, the Sámi Parliament in the Sámi Homeland, the Skolt people's meeting in the Skolt area and local reindeer owners' associations should also be informed about this opportunity to participate. The analysis indicated that in the case of an exploration permit, the information would be about the activities performed in the area, their impacts, the methods used, the results obtained to date, and future activities envisaged and effects. While in the case of a mining permit, information about the programme undertaken, the scope and results of exploitation so far, and information on mineral reserves, if it changes substantially, would be given.

The study highlighted that these new citizen participation opportunities appear to be oriented to inform and facilitate dialogue and interaction between stakeholders. In that sense, they could be understood as a positive response from the Government to expand opportunities for citizen participation, listening to certain claims that sectors of society have come posing. The role of companies as organizers of these public opportunities seem to be emphasized within the framework of the reforms. The study stressed that implementation of these events will have associated challenges, mainly by the plurality of voices and opinions potentially involved and the effective and timely treatment of any observations and comments that may arise. The research also showed that before granting a mining permit, making a change to it or extending its term of validity, the mining authority would have to establish an opportunity open to the public. The preceding would be intended so that the residents and other parties affected by the application or the mine's area and the public at large can bring their opinions on the matter discussed, and information on the permit in question would be provided, being another interesting point to mention in the framework of the reforms discussed.

Regarding reporting requirements and procedures related to exploration and reservation, the analysis highlighted four themes: (i) information to provide by the exploration permit applicant and permit holder; (ii) notifications in exploration; (iii) the landowner's consent to extend the validity of the exploration permit; and (iv) the reservation mechanism. The investigation showed that new information sessions for citizens and more notification obligations are introduced with the bill and that such requirements reach planned and ongoing

projects and target both the mining authority and the operator. There would be more requirements to be met by both the applicant for an exploration permit and the holder thereof. Also, the events open to the public where the holder has to provide information about their current geological works and future ones are stressed. These requirements are relevant to mention since if they are well implemented, they could positively impact the building of acceptance of the companies' activities.

In addition, what emerges from the analysis is that changes emphasize more notifications during the reconnaissance and prospecting works in an area of interest, and exploration in general, and early access to information by relevant local stakeholders. The interested party in doing prospecting works would have to notify the cooperative of reindeer herders in the area in question, whenever applicable, and the owner and holder of real estate. If exploration is carried out just with the property owner's consent of the area of interest, the person in charge of such works would have to notify the mining authority before starting the mentioned works. The research showed that the bill maintains the obligation of the exploration permit holder to submit a report to the mining authority annually of the activities carried out and the results thereof. It was noted that in line with the current norm, the bill emphasizes that in the case of exploration works, notifications have to be provided to the Sámi Parliament in the Sámi Homeland, a village meeting of the Skolt people in the Skolt area, and in the special reindeer herding area, to the corresponding "paliskunta". In case the permit in question was assigned to another party, the analysis showed that the mining authority would have to notify the owners of properties included in the exploration area once approved of such an assignment. The findings also revealed that the bill states that the exploration permit holder would need to have the consent of the property owners when it comes to extending the ten-year permit, which has been another relevant point in the framework of the discussions.

From the analysis performed, it was noted that the right of access to information on reservation decisions of the mining authority is extended to other potential interested parties. The study identified that the reforms highlight that if the reservation area is located in the home region of the Sámi, a copy of the decision has to be delivered to the Sámi assemblies and the village meeting of the Kolts if the reservation area is located in the Skolt area. If the reservation area is located in a reindeer herding area, a copy of the decision has to be submitted to the relevant "paliskunta". In addition, the reserving party would have to inform the municipality or municipalities where the reserve area is located about the request for a reserve before the mining authority. If the reserve area is located in the region of origin of the Sámi, the Sámi assembly has to be informed; if the reserve is located in the Skolt area, the Skolt village meeting has also to be informed. It also establishes restricted areas for reserve applications, such as natural parks and national parks. The bill states that the reservation's purpose and effects have to be explained in the reservation decision.

In brief, this study has shown that Finland has promoted the reform of the MA to address various subjects and aspects related to the social acceptance of mining projects, where social and economic aspects

stand out—the changes address a plurality of issues with different scopes and contents. Such reforms mainly stress the municipal land use plans and strengthen the coordination of different interests locally when mineral exploration and exploitation activities are planned and promote greater protection and safeguarding of local business activities and livelihoods—municipal decision-making power in land use planning is strengthened when considering future mining activities. Citizens' participation and access to information are reinforced by stipulating new public participation opportunities while developing exploration or exploitation activities. The permit process is strengthened with more information sessions for citizens and notification obligations reaching both planned and ongoing projects and targeting both the mining authority and the operator. More notifications in the reservation, prospecting and exploration phases are introduced, seeking to reinforce early access to information by relevant local stakeholders.

The study suggests that some of the subjects and aspects covered in the draft MA reform are introduced in a general manner, leaving some room for interpretation—this can pertain to the substance of the matter and the procedure to follow. It also suggests that to complement the proposed changes, plans, programmes, or guides could be used to delve into some aspects of the reforms and eventually bring more clarity to potential stakeholders. These resources could address specific topics with detailed content and examples to reinforce the reforms to the MA. Preliminarily, a review of the existing documents relevant to the matter in question could be made and updated if appropriate. The reforms incorporated various suggestions from local stakeholders, such as more instances of participation and early information access in the permit process.

After adopting the proposed changes and as they are implemented in practice, it remains to be seen how such an implementation is carried out and how and to what extent the reforms impact local acceptance of exploration and exploitation activities. If well implemented, these reforms may offer more safeguards to local stakeholders from the early stages of mining projects. Several issues subject to the reform could be expanded in future. Furthermore, consider the Programme of the new Government in Finland after the April 2023 general election and the issues that are emphasized for the development of mineral resources and the mining sector for the coming years.

6.2 Contribution of this study

This study contributed to the understanding and explanation of some of the changes discussed in Finland's mineral policy on the occasion of the reform to the MA, which would be aimed at improving the social acceptance of mineral exploration and exploitation activities at the local level. The study has detailed in the findings chapter, the content and scope of such changes within the framework of the promoted reforms. The MA reform arises in the context of social debates and critical discussions that question various socioeconomic and environmental issues related to the development of mining projects and their impacts.

This research contributed to the literature on the acceptance of mining projects and the social license to operate by bringing the experience of a developed country and delving into different issues related to the social acceptance of mineral exploration and exploitation activities that Finland addresses in its contemporary mineral policy. The country is well-known for being at the forefront of many sustainability initiatives linked to the mining sector. Studies on Finnish mineral policy and mining regulatory framework are scarce; therefore, this work makes a contribution on the matter.

In the previous section (6.1), when recapitulating the main findings of this study, reference was made that several of the changes discussed on the occasion of the mining law reform process revolve around introducing in the regulation more opportunities for citizen participation. These opportunities are introduced in the exploration and exploitation phases and for planned and ongoing works. Furthermore, early access to information by relevant local stakeholders is emphasized. As discussed in much of the SLO literature, when addressing social acceptance of mining is critical that residents have opportunities to voice their opinions regarding planned exploration and exploitation activities and potential impacts (e.g. Moffat & Zhang, 2014; Thomson & Boutilier, 2011; Mononen & Sairinen, 2021; Litmanen et al., 2016; Prno & Slocombe, 2012). As pointed out by Pölonen et al. (2020), when discussing Finnish and Swedish law on mining, the manner and timing of participatory procedures are relevant issues when considering collaborative practices. Pölonen et al. (2020) note the significance that participatory procedures being conducted alongside the technical development of the mining project. In the same line, Poelzer et al. (2021), when discussing Finnish and Swedish mining policies, highlighted the relevance of considering processes that allow input throughout mining development, including mechanisms that promote engagement and collaboration. Interestingly, Moffat and Zhang (2014) have shown that procedures through which decisions related to the development of a project are made are a vital point in building trust and social acceptance of mining projects, emphasizing the significance of the quality of such interactions (see also Jartti et al., 2020; Mononen et al., 2023). Scholars also highlight that procedural fairness lays the foundation for building local support and acceptance of mining projects (e.g. Zhang et al., 2015; Thomson & Boutilier, 2011; Jijelava & Vanclay, 2018, 2017; Mononen et al., 2022). Mononen et al. (2023) refer that communities and stakeholders need to have more direct opportunities to participate in the different phases of planning and evaluating the impacts of a project. The findings of this study are related, in different ways, to the scholarly discussions mentioned above, among others.

In section (6.1), aspects related to land use planning and the coordination of different interests at the local level were also mentioned. Poelzer et al. (2021) note that governments need to clarify the management of different land use activities to different stakeholders, particularly when they overlap significantly. Mononen et al. (2023) note that in Finland, the relationship between land-use planning at the municipal level and the development of mining ventures has not been clear enough over the years. Pölonen et al. (2020) highlight that minimum requirements in the law regarding participatory rights can seem insufficient for addressing, for example, different land use interests, mining policies legitimacy, or planning and evaluation of the impacts of

a project. Similarly, for the permitting of projects, or earning SLO (i.e. local acceptance and legitimacy) in case of projects with relevant environmental and social impacts. However, the scope of the inclusion of formal participation rights could be questioned, according to the authors. Poelzer et al. (2021) discuss how, due to different and increasing social demands, governments seek to enhance the policy process or elements of it with a more inclusive, participatory approach. The community's claims require action from governments (and corporations) to protect residents' social, cultural and economic interests. Complementarily to the above, different authors presented in this thesis recognize that the coexistence of traditional livelihoods and local businesses, exploring and identifying complementarities and synergies and supporting the different activities is a cornerstone for local acceptance of mining projects (Mononen et al., 2023; Suopajärvi et al., 2022; Pölonen et al., 2021, Raitio et al., 2020).

This study joins in the discussions that revolve around the relationship or interplay between the public policy (mineral policies, regulatory frameworks, institutions) and the social acceptance of mineral exploration and mining, being this framed in contemporary debates on mining governance (e.g. Poelzer et al., 2020, 2021; Prno & Slocombe, 2012). Poelzer et al. (2020) note that the SLO term highlights the interplay between formal institutions and governance. Governance capacity to sets out rules for mining development becomes vital for developing acceptance (Jartti et al., 2020; Litmanen et al., 2016; Zhang et al., 2015). When legislation is not precise in its contents and authorities' coordination is not strong, clear terms are not provided for the actors involved in SLO-related activities (Poelzer et al., 2020). As Jartti et al. (2020) note, the local SLO for a mining project is neither obtained nor maintained in isolation from what happens at the national level (see Litmanen et al., 2016). For instance, Poelzer et al. (2020), when analyzing acceptance of mining in Sweden, pointed out that in the Swedish Minerals Strategy (2013), SLO-type practices are promoted as means to address land use conflicts and that the Mineral Act from 1991, which was amended in 2018 made early consultation with interested parties and right holders compulsory. By bringing recent experience from Finland, this study contributes to these discussions by showing the changes recently debated in the country and with potential impact on building local acceptance of mining. These discussions are also framed at a time when mining sector legal regulation is increasing in the world.

This study used as a conceptual framework the SLO concept and model of Thomson and Boutilier (2011) (Boutilier & Thomson, 2011). The set of terms of such a framework was taken as a reference to frame and guide, in part, the present research. The author of this study acknowledges the difficulty of addressing the local acceptance of the exploration and mining activities from a policy perspective following the Thomson and Boutilier framework, which, although on the one hand, recognizes the state and government regulators as stakeholders that can significantly influence the levels of SLO, on the other hand, does not incorporate state-related elements to the economic and socio-political legitimacy, for example (Lehtonen et al., 2020). Even so, this study highlights that the definitions detailed in Thomson and Boutilier's framework can guide up to a certain point and be of valuable help when conducting research and analyzing public policies on local

acceptance of exploration and exploitation activities from a policy perspective. This research acknowledges that when analyzing the acceptance of exploration and mining, environmental issues must also be considered (Mononen & Sairinen, 2021; Sairinen et al., 2017; Peltonen, 2016).

Finally, the study sought to frame the analysis of themes identified in Finnish policy to be relevant in the acceptance of exploration and mining activities with purposes adopted and pursued by UN conferences underlying the significance of regulatory frameworks and policies in promoting the economic and social benefits of mining sector development and environmental protection (for example, the Earth Summit Rio+20 of 2012). Beyond the above, the author of this study acknowledges that the relationship between the acceptance of mining, the SLO and sustainable development is still discussed by academia (Poelzer et al., 2020; Prno & Slocombe, 2012). Complementarily, this study showed that different topics related to local mining development have continued to be incorporated into the Finnish government policies. The above expands in the same line the arguments of Mononen et al. (2023) that with the Sustainable extractive industries action plan (2013) and after it, topics and issues related to local mining development, governance, and social responsibility slowly began to be incorporated into the Finnish government policies.

6.3 Limitations and trustworthiness of the study

Credibility and trustworthiness are relevant aspects when validating qualitative research (Cope, 2014). In that sense, it is important that the researcher provides a detailed description of the research process, explaining issues such as the context of the research, the methodology used, and the conceptual framework that supports the analysis. In the following paragraphs, the author briefly introduces the main limitations of this research and the decisions made to ensure credibility and trustworthiness.

The time for carrying out the study, and the author's lack of prior knowledge of the policy framework applicable to the mining sector in Finland, were two initial limitations of this research. To limit this constraint, in the second half of 2022, the author studied in as much detail as possible the main documents related to the mineral policy of the country, including different regulations. Additionally, the author participated in the seminars of the Research Center on Mining, Minerals and Society (CEMMS) of the University of Eastern Finland. In November 2022, the author participated in the Geography Days 2022 at the University of Tampere and introduced her research plan and received feedback from colleagues in the area of extractive industries. Furthermore, one of the author's supervisors has specific expertise in the mining sector in Finland, which makes this work even more robust. Additionally, in order to make a proper analysis and deliver the thesis in the scheduled time, the writer of this study had to carefully consider the perspectives to be considered in the analysis of different subjects and aspects to be addressed (i.e. land use planning, public participation, access to information and impacts on other sectors/activities) and the topics to be deepened in this first research phase.

Another limitation was that several of the policy documents are in the Finnish language only. The main document of this research is the "Hallituksen esitys eduskunnalle laiksi kaivoslain muuttamiesta" (2022) (Government's Proposal to Parliament to amend the Mining Act) (180 pages in the Finnish language). The native language of the author of this study is Spanish, and English as a second language. The author has a basic Finnish language. In this sense, during the months of December 2022 and January 2023, the author focused in great detail on the translation of the main documents relevant to this study that were written in the Finnish language. This involved using digital translation websites and consulting with colleagues some terms or phrases. In addition, this study uses a large number of references, materials were compared, and this allowed to confirm terms. Also, the author's previous knowledge, having worked with other mineral policy frameworks before, was also helpful in this regard. Then, between February and April 2023, the data analysis was carried out.

Finally, it is important to acknowledge positionality to position myself in the context of this research (Bourke, 2014). As indicated in chapter 1 of this thesis, the author starts this study from her knowledge and previous experiences in the mineral sector in different countries as a consultant and researcher, which have served as a basis when exploring policy documents. It was sought at all times to explore the subject researched in as much detail as possible. As Yanow (2006, p. 28) notes, "selves are shaped by prior experiences, which in turn shape perception and understanding". Tracy (2003) notes that a researcher in the social sciences can be seen as an instrument, and in the observations that make, its interests, preferences, goals, and past professional experiences have to be part of a process of self-reflection. In this sense, the author sought to reflect on how past experiences could be channeled positively within the framework of this analysis. The findings presented in this research are the author's interpretations from the conceptual framework, literature review, data and discussions that drove the analysis. In that sense, the author pursued a data-based analysis, and during the thesis writing process, she had fluent communication with the thesis supervisors and discussed the findings with the aim of generating academically valid research. Consequently, the author believes that for all the decisions made and interactions carried out, some of which are introduced in this section, she has contributed to delivering reliable research.

This study aimed to contribute to the academia on research topics focused on mineral policy and social acceptance of mineral exploration and exploitation activities in the framework of contemporary debates on mining governance and sustainable development. In that sense, it brings the experience of Finland that the author has attempted to reflect in a consistent and correct manner.

6.4 Suggestions for further research

This thesis closes by discussing potential avenues for further research. As already noted, this study was intended to be a first research phase on the subject matter, laying the groundwork for further investigation. In that sense, an important point for future research is to carry out a second research phase, including issues not addressed in this first instance. For example, exploring the scope of environmental aspects in the framework of the reforms to the MA. Along these lines, it should be noted that environmental justice scholars are calling for more research linking environmental justice and participatory rights to the relations between the extractive industries and affected communities (Lyra, 2021). For instance, investigate the inclusion of more environmental justice elements in the mineral policy (i.e. laws, plans, programmes, guides, among other documents).

Future research efforts should explore further the relationship or interplay between public policy and the social acceptance of mineral exploration and mining and pay attention to how activism in different contexts has resulted (or not) in policy and decision-making changes, especially with the promotion and inclusion of environmental and social safeguards.

This study could be expanded with interviews at the national, regional and local levels to discuss with key stakeholders in the development of the mining sector some of the subjects and aspects addressed on the occasion of the MA reform, including issues that have been left out of such reform. This study suggests investigating how the reforms to the MA could be complemented, for example, by elaborating guides or specific studies that delve into topics that require more detail and may bring more clarity to the different stakeholders.

After adopting the proposed changes and as they are implemented in practice, it remains to be seen how such an implementation is carried out and how and to what extent the reforms impact local acceptance of exploration and exploitation activities. For example, during the next few years, it could be possible to monitor how the new law has been implemented and the results achieved. The study also notes that attention should be given to the Programme of the new Government in Finland after the April 2023 general election and the issues that are emphasized for the development of mineral resources and the mining sector for the coming years. Finally, mention that the process through which the changes to the MA were discussed and adopted did not enter into the analysis of this study, but it is another point that could be addressed in the framework of participatory initiatives in the formulation of mineral policy and law.

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