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“It is a sham process with participation.”

Ten forms of citizen participation for sustainable development in the Norwegian Arctic

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Abstract

Achieving the Sustainable Development Goals (SDGs) requires action at all levels, from local to global, through synergy among all societal actors. Norway shares responsibility for SDG-based sustainable development with local authorities (municipalities and counties). The Planning and Building Act's purpose clause stipulates that it shall promote sustainable development for the benefit of individuals, society and future generations. Municipal responsibility for sustainable development, when incorporated into planning processes, is complex and requires the inclusion of diverse knowledge holders. Focusing on spatial planning as an instrument for sustainable transformation, this study examined citizen participation practices at the municipal level in the Norwegian Arctic. I conducted semi-structured interviews with 75 residents with very diverse backgrounds. Using inductive thematic analysis, I coded forms of citizen participation, their characteristics, and their links with sustainability and transformation. I further analyzed the forms using Arnstein's ladder of citizen participation and Fung's cube of democracy. I identified 10 forms of citizen participation in planning processes. Only two of these give citizens the opportunity to influence decisions, but only on matters less relevant to sustainability. A link to sustainability and transformation is prominent in all forms. Citizens emphasize the importance of focusing on climate adaptation, nature conservation, and local values. Local authorities see green industry, power plants, and the economy as fundamental. Lay citizens, some politicians, and some planners believe these are destructive to local sustainability values, which are strongly linked to the importance of nature in people's lives. Overall, the current practice of participation in planning processes in my sample of municipalities in the Norwegian Arctic lacks genuine cooperation, fails to incorporate local knowledge, and hardly leads to citizens' influence. Citizens' priorities thus don't affect the decisions that are made. This hinders local

engagement in planning processes, utilization of local knowledge, and achievement of the SDGs.

Author Summary

The Sustainable Development Goals are not on track. Sustainable transformation requires thinking globally and acting locally. Focusing on spatial planning as an instrument for sustainable transformation, I studied citizen participation practices in municipalities in the Norwegian Arctic. Through spatial planning, municipalities decide where, for instance, factories, mines, wind parks, houses, and cabins can be built, which activities are allowed in coastal zones, and which areas are reserved for military activities. Such decisions can damage nature, pollute the environment, and worsen climate change. In Norway, citizen participation in municipal spatial planning is mandatory to ensure livable conditions for future generations. I interviewed 75 residents to find out how different actors experience citizen participation in planning processes. The results show that current practice lacks genuine cooperation, fails to incorporate local knowledge and hardly leads to citizens' influence. The interviewees feel citizens lack opportunities to participate in the initial planning and decision-making phases. Although on paper, climate and nature conservation measures are clearly included in municipal plans, the interviewees highlight that in practice, these measures are often not implemented. The interviews show that many municipal decisions conflict with local values and the importance of nature in people's daily lives.

Introduction

With less than 5 years left, the UN [1] warned that only 17 percent of the Sustainable Development Goals (SDG) targets are on track. Two important goals that affect all others, SDG13 (Climate Action) and SDG 17 (Partnerships for the goals), receive low scores [1]. Greenhouse gas emissions continue to increase, and the past ten years 2015-2024 have been

the ten warmest years on record, with natural disasters such as floods, earthquakes, heat waves, and droughts [2].

Since the SDGs were adopted, Norway has strongly advocated and supported them [3]. Norway committed itself to achieving the SDGs by 2030 and contributed, among other things, financial support to certain African countries [4]. Norway incorporated the SDGs into policy documents, action plans and budgets [5] (p32-34). For example Norway's "National expectations regarding regional and municipal planning 2023–2027" [6] clearly focuses on climate and sustainability by outlining areas of challenge that Norwegian municipalities are expected to address: climate-related challenges that will have consequences for both nature and society (p. 5), conservation of biodiversity and ecosystems, focus on carbon capture and storage, plans for managing stormwater, focus on green industry that provides attractive jobs, and renewable energy (wind farms). At the same time, it mentions that both green industry and wind farms require large areas of land, which will lead to a reduction in forests, marshes and peatlands, increases in greenhouse gas emissions from land-use change, can threaten vulnerable ecosystems and impact biodiversity (p. 25). Nevertheless, the document states that investing in the green transition will lead to sustainable development in the long term [6]. Further, Norway implemented several information campaigns to raise awareness of the SDGs and created public consultation platforms to gain insight into the population's wishes and priorities related to the achievement of the SDGs and their knowledge of these goals [7]. Another important step includes the government's annual reporting to the Norwegian Parliament on progress and work on the SDGs, and Norway's regular reporting to the UN on the country's progress toward achieving the SDGs [4]. According to the Norwegian government, *sustainable development* is about meeting today's needs without compromising future generations' ability to meet their own needs. Everyone should have the opportunity to live a good and safe life, while respecting the limits of nature [4] (p.6). Since various policy

documents repeat this definition, it provides a common direction for the achievement of SDGs at the local, regional and national levels.

Despite Norway's efforts and the achievement of some of the SDGs [8], the country still has practices that hinder the achievement of in particular goals 12 Responsible consumption and production, 13 Climate action, and some of the targets of goal 11, which deals with Sustainable cities and communities (p.323). Low scores on these goals also affect other countries' achievement of the SDGs. One such practice is an increased focus on defense policy, which entails the use of land areas for military exercises and training by foreign and Norwegian units. The largest areas designated for this purpose are located in Northern Norway [6]. Other factors include development such as housing estates, industry and wind farms, environmental pollution in both sea and land, increased use of technology, technological services and replacement of equipment leading to a growing need for energy and extraction of rare minerals [4]. Waste management is also increasing. Other unsustainable practices include oil extraction, transport and the fishing industry [9]. The sub-goals linked to Goal 11 face scattered residential areas, population decline and an increasing proportion of elderly people, particularly in the northernmost areas [4, 9]. The same areas experience more frequent and intense rainfall, thinning of the permafrost and retreating glaciers [4, 10]. The government is also concerned that climate change could exacerbate over-tourism in especially Northern Norway, increase commercial interest in Northern Norway (particularly from China), increase military presence in Northern Norway and change shipping patterns [4,11]. While these activities are increasing due to climate change, they are also contributing to increased greenhouse gas emissions. In its assessment, the government mentions that warming in Norway is occurring faster than the global average and is greater in Northern Norway than in the rest of the country [4] (p.90). Overall, the Norwegian government mentions that 61 of 126 SDG sub-goals need improvement [4].

Achieving the SDGs requires action at all levels, from local to global, based on cooperation between governments, the private sector, academia and civil society around the world [12]. An important prerequisite for such action at all levels is a sustainable transformation at the structural, systemic and individual levels [3,13,14]. In this process, it is essential to include a diversity of knowledge and pathways, because hybrid issues, definitions and solutions based on interactions between different ways of knowing can bring new and sustainable alternatives. Collective goals, democratization of knowledge and collaboration with various knowledge holders, which also require changes in established power relations, are the keywords that recur in the literature on sustainable transformation [14-19]. This is highlighted by IPBES, which defines transformative change as fundamental, system-wide shifts in views, structures and practices: *“Deliberate transformative change for a just and sustainable world shifts views, structures and practices in ways that address the underlying causes of biodiversity loss and nature’s decline. At the same time, it remains important to recognize and strengthen views, structures and practices that are aligned with the goal of creating a just and sustainable world, such as those of many Indigenous Peoples and local communities”*. [20]

Recognizing that the complexity and nature of sustainability problems require new forms of governance, a recent literature synthesis identified five modes of governance that can facilitate sustainability transformation: participatory, collaborative, multilevel, smart, and network governance [21].

An important step towards such a transformation, and in line with the multi-level governance approach, Norway shares responsibility for SDG-based sustainable development with local authorities (municipalities and counties). The purpose clause of the Planning and Building Act stipulates that the Act shall promote sustainable development for the benefit of individuals, society and future generations [22]. White Paper 25 (2024–2025) [23] also notes that municipal responsibility for sustainable development, when incorporated into planning

processes, is complex, with consequences for the knowledge and skills municipalities must possess [23]. This includes knowledge of local conditions and land areas, current and future climate change, biodiversity, and the consequences of decisions for the environment, climate, and nature. In this context, it is particularly relevant to include various knowledge holders in the planning process. Indeed, White Paper 27 (2022-2023) [24] invites local authorities to focus on cooperation. The Act's "§5 Participation" requires municipalities to include citizens in planning processes [22]. Participation is described as complementary to electoral democracy [24] (p. 159) and should begin as early as possible. The Act recognizes explicitly that "participation by those who live and work in the area is necessary to bring local knowledge and experience-based knowledge into the decision-making process" (p. 9).

As a political instrument, the Act intends to address challenges as they arise at the local level and adapt solutions that lead to sustainable development [25]. Social and spatial planning is a suitable tool for steering development in a more sustainable direction: it is about addressing the most important social challenges, finding solutions and setting priorities based on local and regional conditions. Local participation and political engagement are crucial to the success of processes in which residents, businesses and organizations are involved. Although delegating responsibility to local authorities is seen as a powerful instrument, it cannot guarantee transformation and achievement of the SDGs. Municipalities have the freedom to exclude issues that require national coordination and cross-sectoral measures [26].

Sustainable transformation requires mechanisms and common strategies that can help to create connections between different sectors and levels (local, regional, national, global) [27].

The planning process as an instrument for sustainable transformation in Northern Norway

165 Northern Norway houses the 3rd largest Arctic population in the world [28]. It is the part of
166 the country that experiences the greatest climatic changes and where activities occur that
167 hinder sustainable transformation (mineral extraction, fish farming, industrial development
168 and wind farms, the allocation of large areas for military exercises and the destruction of
169 nature due to overtourism). The delegation of responsibility for planning processes related to
170 coastal and land-use planning, which require broad participation, also affects how Norway
171 succeeds in its sustainable transformation.

172 For example, the municipality of Hammerfest in northern Norway took research and public
173 information campaigns on the consequences of climate change in northern areas seriously by
174 including sea-level rise, among other things, in its master plan, intended to serve as a
175 management tool for new development projects [29]. Since the Planning and Building Act
176 requires broad participation, this created challenges for the municipality, which experienced
177 difficulties involving local politicians, the business community (developers), and other
178 knowledge holders in climate adaptation [29]. In reality, Norwegian municipalities depend on
179 the business community participating in the proposed sustainable strategies, as they have
180 access to capital [30,31]. Priorities in planning processes in the smallest municipalities in
181 Northern Norway, therefore, often favor economics over sustainability [26]. Based on 13 case
182 studies, Westskog et al. [32] present similar findings showing that transformative climate
183 policy in Norwegian municipalities is challenged by the need for job and business
184 development. Tønnesen et al [33] confirm this. With the help of perceptions from local,
185 regional and national knowledge holders from four rural municipalities, they show that land
186 use policy is strongly linked to strategies aimed at income growth, job creation and population
187 growth. This can also come at the expense of nature conservation if it does not provide
188 sufficient benefits. The municipalities in Northern Norway are largely unsuccessful in

maintaining population growth, which is mainly concentrated around the largest “knowledge cities” where the universities are located [34].

Coastal planning is another area that is highly relevant to Northern Norway and sustainable development. Here, the aquaculture industry has social, cultural and economic significance for both growth in coastal municipalities and Norwegian exports. For example, the Norwegian authorities stated that Norway shall become the world's leading seafood nation with an aquaculture industry by 2050 [35]. In this context, it is appropriate that planning is supported by the inhabitants and carried out sustainably. A study in two northern Norwegian municipalities using structured (N=150) and semi-structured interviews (N=10) shows that perceptions of aquaculture and the expansion of aquaculture differ between ordinary citizens and fishermen, with the latter group not supporting this type of industry [36]. Coastal zone planning has long been a contentious area because many interests and values are at stake. Achieving an inclusive and fair planning process is therefore extremely challenging [37].

Wilke [38] also focuses on coastal planning processes and, using Arnstein’s [39] “ladder of citizen participation” shows that in the Troms region these processes are conflictual and face challenges in involving a broad range of interested parties (especially indigenous peoples) in decisions and challenges with public debate. The exclusion of a wide range of interested parties and ordinary citizens has also been observed in planning processes focused on urban development. This is particularly evident in the early stages of planning, when preliminary agreements are concluded in closed negotiations between municipal planners and private developers [40]. At the same time, if the municipality manages to establish a common understanding of the SDGs among the local population, taking into account local values and knowledge through participatory processes and by strengthening the agency of the population, they have the potential to achieve social transformation [41]. By focusing on the municipality of Andøy in Northern Norway, the author shows that, even though the municipality initially

lacked common strategies and a vision for the SDGs, this could be improved through inclusive, collaborative processes [41]. Based on three northern coastal communities and municipal planning, Hovelsrud et al. [42] show that involving the local population in the mapping and development of adaptation strategies is beneficial for ensuring the right focus, highlighting the links between climatic and socioeconomic conditions, and increasing local engagement and awareness of climate change.

Achieving the SDGs and the green transition in European countries requires a shift from fossil fuels to renewable energy and necessitates access to minerals. Mineral extraction is being implemented at the local level, especially in Northern Norway. Planning processes that attempt to include national and global expectations for the green transition on the one hand, and take into account local values, cultural practices, and reindeer herding on the other, are encountering resistance and conflict [43]. The authors conclude that the understanding of what constitutes a sustainable transition may differ between the global and local levels. The planning of land use for mineral extraction can nevertheless gain acceptance among local people when convictions are strong enough and involve promises of jobs, population growth and similar benefits [44]. However, this can still affect traditional Sami reindeer husbandry practices and, as Nygaard [44] notes, decisions in planning processes in Northern Norway may vary depending on the majority of indigenous peoples in municipalities, which in turn shows that sustainable transformation does not always take social justice into account [45].

Studies focusing on planning processes for sustainable development in Northern Norway highlight various challenges that such processes encounter, while also emphasizing the importance of fair and inclusive involvement of the local population aiming at identifying relevant local challenges and joint solutions, increased engagement in the sustainable development of municipalities, establishing the population's understanding of the SDGs and their significance for local and global conditions as well as for the next generation, and setting

239 common local goals for transformative social change. As I see it, there is a lack of studies
240 that, based on the reflections, perceptions or narratives of the population, highlight the various
241 forms of planning processes that contribute to or counteract sustainable transformation. With
242 this as a starting point, I focus on selected municipalities in Northern Norway in three
243 counties, Nordland, Troms and Finnmark, and address the following research questions:

244 A) What forms of citizen participation related to spatial planning processes can be identified
245 in certain municipalities in Northern Norway?

246 B) What characterizes the forms identified in A)?

247 C) What opportunities do the forms identified give citizens to influence decisions in the
248 municipalities where they live?

249 D) How is local citizen participation linked to sustainability and transformation?

250 In addition, I will discuss the opportunities that the identified forms of participation in
251 planning processes can provide for sustainable transformation at the local level.

252 **Conceptual framework and research approach**

253 Research questions B) and C) were addressed by analyzing the results from research question
254 A) and relevant data material in light of two typologies aimed at citizen participation.

255 Arnstein's seminal ladder of citizen participation [39] distinguishes eight steps, each
256 illustrating the expansion of rights and opportunities that citizens have: manipulation (with no
257 opportunity for participation), therapy, informing, consultation, placation, partnership,
258 delegated power, and citizen control (where citizens have clear influence). It distinguishes
259 between participation without influence and participation with real influence on plans or
260 programs that are being developed. Manipulation and therapy refer to the absence of citizen
261 participation and are used to "educate" or "cure" the participants [39]. Informing and

consultation are seen as symbolic participation, where citizens are given information and the opportunity to express their views, but these forms offer no guarantee that participation will result in influence. Placation is participation at a slightly higher level than the two preceding forms, where citizens are given the right to offer advice, objections and suggestions, but these usually have no bearing on the final product. Partnership gives citizens the opportunity to enter into cooperation with decision-makers and can also result in compromises that have a certain degree of influence on the final product. The last two steps give citizens a real opportunity to influence decisions, and the last step also gives them control. Arnstein points out that real influence on decisions is difficult to accomplish in practice and is most often achieved through struggle (e.g., demonstrations). Overall, Arnstein's model provides an important starting point for understanding that participation that leads (or does not lead) to influence on decisions has significant gradations.

Fung's Cube of Democracy [46] complements Arnstein's ladder, but focuses in more detail on how the various participation designs affect democratic values: legitimacy, fairness, and the effectiveness of public action. To understand the potential and limitations of different types of citizen participation, Fung believes it is important to consider questions such as: Which citizens participate? How do they communicate? What is the relationship between their proposals, objections and conclusions on the one hand, and public policy and action on the other? Fung summarizes these questions in three dimensions: selection of participants, method of communication and degree of influence. These three dimensions span up Fung's Cube.

Fung [46] describes many different designs for selecting participants. For instance, public meetings where anyone who wishes to participate can contribute suggestions, comments, etc. According to Fung, those who choose to participate are often not representative of the

286 population. These may be wealthy and well-educated people or people with specific interests
287 or strong opinions.

288 Fung signals that open participation meetings can also be problematic and unnecessary, and
289 that the right choice of participants can contribute to more legitimate, fair, and effective
290 decisions, solutions, or actions. One such design could be meetings with specific
291 organizations or group representatives (parent committee, youth representatives, etc.) or a
292 random selection of citizens covering gender, different interests, age, background, and the
293 like. Such a random selection can contribute to effective, legitimate and fair meetings that
294 lead to decisions that benefit the majority of people, but the communicative aspect between
295 the participants (administration, politicians, the population, etc.) also plays a crucial role.

296 The information provided by those in power should be clear and understandable, but if only
297 one-way communication is used, this will weaken democracy and influence decisions. Other
298 forms of communication may include: a) discussion meetings on relevant issues where all
299 contributions are welcome, b) dialogue meetings involving citizens at all stages of, for
300 example, planning, c) public meetings where many people attend, but only a few express their
301 opinions, while the rest act as an audience, and d) those in power listen to suggestions from
302 the audience and promise to discuss them later, but these have no significant impact on
303 decisions. Forms that allow citizens to participate in processes relevant to them are considered
304 more legitimate and effective [46]. These can also show participants that an issue can be
305 understood in different ways, which can further contribute to changing perceptions and to
306 recognizing that there are different needs and solutions. Regarding forms of communication,
307 Fung concludes that "public participation at its best operates in synergy with representation
308 and administration to yield more desirable practices and outcomes of collective decision
309 making and action" (p. 66).

In addition, Fung provides several examples of how well-planned participation enriches decisions, makes them more relevant to society, and how citizens' knowledge, experience, and creativity make solutions to societal challenges more robust and forward-looking. Inclusive and representative participation processes that also focus on forms of communication that engage and intensify participation can strengthen legitimacy [46]. Fairness is often about who has the right and opportunity to participate and whether decisions benefit society or only selected groups. Therefore, the processes in which citizens are invited to participate should aim to strengthen these dimensions. Effectiveness can be enhanced by including citizens in later stages where proposals for decisions are evaluated and adopted or solutions are assessed and prioritized. Lay citizens may have the necessary experience, local knowledge, and innovative solutions because they are freer from outdated wisdom and methods of experts or professionals [46].

Methods and data material

This study is part of the French project CLIMArcTIC (from the regional to the global impact of climate change in the Arctic: an interdisciplinary perspective), in which one of the work packages focuses on the interaction between human choices and actions at the local level (in Arctic areas) and nature and climate. The areas covered in this article lie north of the Arctic Circle and comprise Norway's Arctic region, including some of the municipalities located in the counties of Nordland, Troms, and Finnmark. In line with the Norwegian authorities, I use a broader definition of the Arctic. White Paper 9 (2020–2021) [47] defines the Arctic as “the sea and land areas between the North Pole and the Arctic Circle. This is the most common definition of the Arctic (for practical reasons, we choose to follow the county border and define the entire county of Nordland as part of the Arctic)” p.9.

The study presented here is based on a qualitative approach using semi-structured interviews, which is a method of data collection that allows the researcher to focus on specific topics, ask

335 follow-up questions, and give interviewees the opportunity to share their own experiences,
336 opinions, and perceptions of specific practices, phenomena, and the like.

337 Candidate interviewees and their contact information were identified by browsing public
338 websites from local organizations, municipalities, companies, schools, and universities and
339 the interviewees also helped identify other relevant actors. I aimed at a diverse sample of
340 societal actors with different positions, backgrounds, etc. If any interviewee mentioned
341 specific important individuals, organizations, positions, or other entities, then they were also
342 contacted. A total of 75 people aged between 26 and 80 of different genders, educational
343 backgrounds, experiences and positions were interviewed. 53 of 75 interviewees are from
344 Narvik municipality with approximately 21,500 inhabitants. Of these 53, 12 were either born,
345 raised and have parents in other relevant municipalities, or live and work in two different
346 municipalities in Northern Norway. Such a skewed sample could have had an impact on the
347 results of this study, but at the same time, the study has a qualitative approach and the
348 interview questions are directed at the interviewees' experiences and perceptions. Supporting
349 Information S1 provides details about the interviews.

350 Interview questions were prepared in advance, but allowed the interviewees to bring up other
351 relevant topics. The interviewees were asked, among other things, whether they felt that
352 municipalities (municipal councils, planners, administrators, etc.) invite residents to discuss
353 local challenges and solutions to these, and whether there is any form of dialogue on selected
354 issues. Some brought up these topics without me asking them. The overall context for the
355 interviews was climate and environmental change, sustainability (as defined above), and
356 societal challenges that residents considered relevant.

357 During the analysis, I found that some responses (14) related to the questions addressed in this
358 paper were very short or unclear. I contacted those from whom I wanted more information at
359 the beginning of 2025. I received responses from everyone except two people, and one of

360 them did not want to say more than had already been said. The context and interview
361 questions, as well as my own cultural competence, created a framework for what could be
362 said and further articulated in this article. I have lived in Northern Norway for many years,
363 which provides me with the necessary cultural, historical, and linguistic expertise.

364 **Practical aspects**

365 The interviews were collected between June and October 2024. The interviews were
366 conducted online via Teams, by telephone, and on Signal. They lasted between 20 and 120
367 minutes (an average of 30 minutes). Complying with informed consent procedures, the
368 interviewees received written information about the project, their rights, and anonymity. Some
369 interviewees asked to be sent interview questions in advance and everyone who requested this
370 was sent the information. All interviews were conducted in Norwegian and transcribed using
371 "Autotekst: NB Whisper verbatim" developed by the University of Oslo. Furthermore, all
372 transcripts were manually read and corrected during the analysis process.

373 **Method of analysis**

374 Assisted by NVivo-14, I applied an inductive thematic approach [48] to identify forms of
375 participation and some of their characteristics. This implies that the forms identified are based
376 on people's perceptions of participation (how they cooperate or engage in dialogue with,
377 among others, the municipality). In the introduction, I have shown that §5 of the Norwegian
378 Planning and Building Act [22] obliges municipalities (organizers) to implement participation.
379 The guidance document [49], prepared to clarify this law, also invites municipalities to
380 involve local people in all stages of planning processes with the aim of “influencing public
381 assessment and decision-making processes” (p. 8). With this as a starting point, and because
382 there is a clear expectation of broad participation in the UN's SDGs, and agreement in the
383 research presented above that participation is necessary to achieve SDG goals, I have chosen

to use two typologies that can help to examine what characterizes the forms identified in A) and the opportunities that local people have to participate in planning processes (questions B) and C)). Arnstein's ladder of participation [39] and Fung's Cube of Democracy [46] are used for further analysis of the forms identified. This part of the analysis is normative in the sense that municipalities' practices of participation in planning processes are analyzed on the basis that participation is necessary for planning processes to contribute to the achievement of SDGs. Here, I focus primarily on the choices, measures, etc. that may have an impact on climate-related issues and environmental issues (examples include climate adaptation, the development of large areas or the use of land for large industries). The criteria for the analysis based on Arnstein's ladder are the ladder levels with their characteristics described in the framework above. The analysis based on Fungs Cube focused on his three dimensions for design processes (here forms of participation); selection of participants (who has the right or opportunity to participate and how are participants selected?); types of communication (one-way communication; dialogue meetings with participation in all phases of the process; discussion meetings with the opportunity to make various comments; public meetings with large participation and only a few people making comments or everyone participating; synergy between organizers and people and dialogical communication with organizers who listen, meetings where organizers inform, listen to suggestions, and promise to take them into account) and the opportunities to influence planning processes or decisions. In addition, I analyzed the data material with a focus on how different designs (forms of participation) affect legitimacy (inclusiveness, representativeness, relevance of focus areas, questions and solutions, and communication), fairness (who has the right and opportunity to participate and how decisions are relevant to as many people as possible) and effectiveness of public action (inclusion of citizens in all stages of the process and evaluation of decisions and measures). Research question D) was answered through initial coding, in which 1. statements from the

interviewees addressing sustainability issues related to climate and the environment were distributed according to their content; 2. the coded statements were linked to Fung's criteria and compared with what is expected of municipalities based on the Planning and Building Act's purpose clause, which obliges municipalities to include a focus on sustainability in planning processes. The results are discussed in light of the literature focusing on sustainable transformation presented in the introduction.

To preserve anonymity, in the presentation of results below, only Narvik municipality is named (see Method for number of respondents). The participants' age, education, position, name, and occupation have been anonymized. I have also removed the names of certain companies and some specific places (marked with XX). Norwegian policy documents use the term “municipality” when referring to those responsible for planning processes. Here, I have chosen to refer to the same actors as “organizers.”

Ethics Statement

This study complies with Norway's Guidelines for Research Ethics in the Social Sciences and the Humanities, given by the National Committee for Research Ethics in the Social Sciences and the Humanities (NESH) of Norway [50] and the ClimArctic Data Management Plan [51]. University of Bergen's institutional system for research projects involving human participants and personal data, RETTE (University of Bergen's “System for Risk and compliance”), documents that the interview procedure and protocol comply with all ethical and legal requirements for recruitment, anonymization, consent procedures, and GDPR (EU's General Data Protection Regulation) (RETTE, ID: F4260) under auspices of UiB's data management officer.

The author obtained informed consent to participate in this study in written form (by email) from all participants prior to the interviews. All participants received information by email about the project, its goals, context and funding and a specification of the scope of the informed consent: participants' rights, anonymization procedures, data encryption procedures, data management, their right to withdraw their participation at any time, who has access to the transcriptions, information about when the audio recordings and transcriptions would be destroyed, and that their statements can be published in anonymized form. At the start of each interview, some of the written information was repeated or explained more clearly verbally.

Results

The analysis identified 10 forms of citizen participation in municipal planning and participation processes aimed at identifying local challenges and finding good solutions together.

Ten forms of citizen participation

Table 1 lists the identified forms of participation. Below, I describe what is said about these forms during the interviews and, where appropriate, I substantiate the descriptions with statements from the interviewees (quotes from the analyzed transcripts). All words in italics are quotations from transcripts. Supporting Information S3 provides a more comprehensive overview.

Table 1. Forms of citizen participation in planning processes (for a detailed account of the last two columns see section "Characteristics of the forms of participation and opportunities to influence decisions")

Form	Description	Correspondence to Arnstein	Correspondence to Fung

F1	Participation through one's network	Not applicable	May weaken legitimacy, fairness and effectiveness of public action
F2	Digital participation (information meetings, opportunity to send opinions and suggestions, but no guarantee that these will influence decisions)	Informing and consultation (symbolic)	informative and open to participation but only one-way communication, may weaken legitimacy and fairness, effectiveness of public action two-fold
F3	Cooperative participation and workshops (but only in cases with specific themes) And examples of topics people cannot contribute to	Partnership (but on restricted topics)	Weakened legitimacy, limited fairness, effective in restricted domains only
F4	Information meetings, (can give opportunities for people's feedback or suggestions, but no guarantee of influence)	Informing (but with limited consultation) add with elements of Therapy	Weakens democracy and alienates citizens from decision makers
F5	Participation through elected politicians or elections	Not applicable	Not applicable

F6	Participation through organizations and committees	Symbolic	Can strengthen democracy if general public is represented if communicative and influence dimensions are perceived as fair
F7	Participation through political involvement, (you have to become a politician) or contact the municipality by yourself	Not applicable	Not applicable
F8	Participation through people's movement, demonstration, or resistance	Not applicable	Not directly applicable (but strong public engagement strengthens democracy)
F9	Participation where local people are seen as equal participants	Partnership	Most effective design that supports legitimacy, fairness and effectiveness of public action
F10	Non-participation	Manipulation / therapy	Does not support democratic values (legitimacy, fairness,

			effectiveness of public action)
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453

454 Form F1 (Participation through one's network) was identified in statements made by citizens
455 from small municipalities. This form takes place without being organized in advance. It is said
456 that *everyone knows everyone* and that *people talk to each other often* (with administration
457 and politicians) in town, in shops, cafés, etc. However, despite the fact that participation takes
458 place through almost private conversations according to those interviewed and even though
459 this participation does not take place in a way where several people meet and share their
460 thoughts, ideas, concerns, and possible solutions and discuss them, the interviewees say that
461 they feel they *are heard* and that it is *easy to share* their *thoughts and concerns with those who*
462 *make decisions*. In addition, some older people mentioned that increasing difficulty getting
463 out makes them rarely see the organizers anymore (*it had been a year since I last spoke to the*
464 *potential organizers*).

465 Form F2 (Digital participation) was identified among citizens living in Narvik municipality
466 and is described as *innovative, creating a broad impact, great engagement, and involvement*.
467 Organizers mention that they *have received over 1,000 inputs* at one of these participatory
468 meetings. The analysis shows specific advantages of F2: a) defining who can participate, b)
469 participation without having to attend in person, c) sharing ideas anonymously, and d) public
470 access to documents. Point a) was mainly mentioned by organizers, b) was mentioned by lay
471 citizens who emphasized that they did not need to attend a meeting and raise their hands to
472 say something. Point c) was particularly emphasized by citizens who had opinions that they
473 considered critical of other voices in their municipality. They felt that they could say what
474 they thought without being labeled as *negative*. The last point, d), shows the potential of the
475 digital format for creating openness in planning processes and other matters. For example:

476 *Suddenly, everything became public; you could read and be part of it.* Despite this form
477 generating significant engagement among lay citizens, it is not being further developed or
478 practiced to any great extent. The interviewees mentioned: *There have been few such*
479 *activities since the coronavirus pandemic,* and some said that they had *not heard of any*
480 *further events of this kind.*

481 The interviewees mentioned two disadvantages of F2. Organizers mentioned a lot of work
482 afterward and delays. Lay citizens interviewed said they were *disappointed* when the final
483 decisions did not reflect their input.

484 Form F3 (Cooperative participation and workshops) is mentioned by several citizens living in
485 larger municipalities (population over 14,000, including Narvik) and gives them the
486 opportunity to interact with organizers or to participate in workshops on specific topics only.

487 In summary, the following themes are mentioned: *overtourism, construction of a golf course,*
488 *investigation of what can create positivity in a specific municipality, establishment of a*
489 *bicycle park, establishment of a restaurant, development of outdoor spaces for young people*
490 *with a focus on climate footprint, finding shortcuts in a city, focus on sidewalks for people*
491 *with special needs, including families with small children, and related plans to build Håkvik*
492 *harbor* (Supporting Information S3). In all the stories related to F3, it emerges that the
493 organizers select whom they want to participate and which voices are given the opportunity to
494 participate, but critical, questioning, and negative voices are not included, according to the
495 interviewees. *In connection with proposals for a land use plan* [construction of Håkvik
496 harbor], *the administration was supposed to visit the various villages and districts to hear*
497 *what was on the minds of those who live there. I was not invited, nor were many of the others*
498 *I know, because they knew we would ask critical questions.* Another example: *The XX*
499 *department has built a pump track that was completed this summer. This is a positive activity*
500 *and something good. However, it has subsequently emerged that many residents in the*

501 *surrounding area were neither asked nor consulted. It was simply built without taking*
502 *important aspects into account. For example, traffic safety. Perhaps in processes like this,*
503 *there needs to be better involvement.*

504 In contrast to the above topics, there are topics where people cannot participate: *the location*
505 *of industrial buildings and the need to establish industry, the need to establish green industry,*
506 *health-related challenges, the consequences of climate change or climate measures, and*
507 *climate and environmental issues.* An example of this: *In decisions related to whether to build*
508 *such factories, etc., people are not involved in the decision-making process. Their opinions*
509 *are not included in the discussions.* Several people have expressed their views on participation
510 in climate and nature issues: *I have not seen any meetings where the municipality asks people*
511 *for help with this, i.e. the consequences of climate change or climate measures, and I don't*
512 *think I have ever heard of any participation meetings on climate and the environment.*

513 Although it is stated that F3 is based on cooperation, it creates uncertainty and mistrust
514 towards organizers. This is because lay citizens cannot participate in important matters and
515 because, as I have shown above only certain groups/individuals are invited, and those who are
516 not invited are often those who are affected by the plans and decisions. Some examples of
517 uncertainty are: *I wonder what the municipality does with all the tips and advice they get from*
518 *people. They have a bad reputation; people don't feel that they are being heard.* Another
519 example: *It seems that only the proposals that fit with what the municipality wants and stands*
520 *for were taken forward. It is not a completely democratic process.*

521 When the organizers gave examples of challenges affecting local people and how they had
522 been resolved, it was clear that not all such cases gave local people the same rights to
523 participate. One of the organizers says: *We see that tourism affects the local people so strongly*
524 *that we have to involve them in order to get their input on, among other things, what areas we*
525 *think it is okay for tourists to visit and what areas we would prefer to have to ourselves, so*

526 *that we can live a normal life. So it has to go hand in hand.* Later in the interview, the same
527 person says: *We fully understand that the local people are affected by both business*
528 *development and industry. We have some challenges around an industrial area in the*
529 *municipality, where those who live around the industrial area are starting to feel the pain of*
530 *living close to an industrial area. There is an odour nuisance. There is a noise nuisance. But it*
531 *will always be the case that not everyone will get their way. The municipality must always*
532 *weigh up what is socially sensible against the wishes and suggestions of individuals.* Those
533 who were almost equal to the organizers in the participatory process on tourism issues are
534 suddenly deprived of the right to have their wishes and proposals accepted when industry is at
535 stake.

536 F4, (Information meetings), is mentioned by the majority and is considered unfair by more
537 than half of those who mentioned it. Words used to describe this are *sham process*
538 (*skinnprosess/ skinnmanøvr*), *nonsense involvement* (*tulleinvolvering*) or *rubber-stamping*
539 (*sandpåstrøing*). For example, *it's just nonsense involvement. They let people participate a*
540 *little, and they hold hearings just before the holidays. But when it comes to the big, important*
541 *issues that affect generations, such as conflicting initiatives like establishing industry and*
542 *tourism on the one hand and nature on the other, there is no real involvement.* And another
543 interviewee says: *Rubber-stamping is really about making it seem like you're involved, but*
544 *you have very little influence on the decisions that are made. But at least they are invited,*
545 *informed about issues and plans, and given the opportunity to express their opinions.*

546 Some information meetings allow lay citizens to contribute, but it is rare for their suggestions
547 to be included in the final plans and decisions. *Public meetings are held, but none of the*
548 *signals that come out of them are taken further in the planning process. It's only because it*
549 *says that public meetings must be held and that citizens must be involved. None of the input*
550 *that came during the planning process was taken into account in the planning document. So,*

551 *in a way, it's just a sham. Something you do. A discipline that has no value other than that it*
552 *says you have to do it.*

553 Citizens' statements are also confirmed by some organizers: *We have become better at*
554 *involving the local people in the processes surrounding our major plans, but then people don't*
555 *recognize themselves when the final plan comes back, meaning they don't feel that their input*
556 *has been taken into account by the municipality. And then it doesn't help that you've had a*
557 *large and broad process. People see that there was no point.*

558 F4 creates mistrust among citizens: *I am left with the feeling that if someone has agreed that*
559 *this is how it should be, then that is how it will be. We are told that this is the best for*
560 *everyone. And then it doesn't really become a real discussion [at the information meetings].*

561 Several other statements include the words *best for everyone*, which the organizers seem to
562 use as an argument intended to create acceptance.

563 F4's most prominent feature is that it offers very limited opportunities for participation: *We*
564 *have some information meetings, but I don't feel that the average person on the street has any*
565 *influence in this municipality.* Another statement that comes up again and again in the
566 interviews is that the organizers assign certain characteristics (*negative or opponent*) to critics:
567 *So, you are quickly labeled as negative if you are critical. And: If you ask critical questions,*
568 *you are seen as an opponent, as someone who wants to stagnate the development of our*
569 *municipality.* Being a negative person or an opponent is not welcome, according to the
570 respondents.

571 F5 (Participation through elected politicians or elections) is mentioned by those who are
572 unfamiliar with the Participation Act and practices related to it, or by those who do not feel
573 that they can participate in any way other than by voting in elections (national and local). An

574 interviewee stated: *My voice is who I vote for in politics. I have to cast my vote in elections*
575 *and participate in political meetings.*

576 The politicians confirm that political meetings are held where *people are invited* and that they
577 *listen to their electorate.* The interviewees expressed that *local politicians are receptive.*

578 However, some politicians and other citizens have mentioned that not all parties and not all
579 issues are heard by the organizers. F5 is mentioned by a few people (from different
580 municipalities). It is therefore difficult to provide further interpretations of this form.

581 F6 - (Participation through organizations and committees) and is a form mentioned by several
582 people from different municipalities. F6 is used both in addition to other forms and stand-
583 alone. Citizens can participate and obtain necessary information through *district councils,*
584 *sports clubs, parents' working committees, village development teams and neighborhood*
585 *committees.* Experience with F6 includes: *people are not heard, the distance is too great*
586 *between citizens and organizers, and it remains at the written or verbal level.* A few
587 interviewees mentioned that this form is *a good way to participate.* The rest say that lay
588 citizens are not heard: *People run out of energy because they are not heard, so participation is*
589 *difficult.*

590 The organizers themselves are divided into two groups. In one group, respondents believe that
591 F6 provides good opportunities for participation and that it is often *the committees themselves*
592 *that fail to show up* (Supporting Information S3), while respondents from the other group say
593 that they themselves are not very good at taking suggestions from the committees and
594 organizations and using them in the decisions that are made.

595 F6 has some weaknesses that may explain why the interviewees feel that they are not being
596 heard: *too great distance* between organizers and lay citizens and that people are forgotten by
597 the organizers. Equal cooperation or mutual dialogue is not mentioned in relation to F6, but it

598 is still possible to get important ideas or thoughts across: *They [organizers] listen to the*
599 *organizations from time to time, but it is not without a struggle.*

600 F7 (Political involvement) is less widespread: people who want to participate must get
601 directly involved in politics or contact the administration themselves. Still, it is described as
602 both effective and the virtually only form that can help people be heard. The interviewees use
603 strong and commanding words such as “have to”: *There is only one way to participate, and*
604 *that is through politics. You have to get involved in politics, i.e., become a politician.*

605 F8 (People's movements, demonstrations, or resistance), is seen as highly effective.
606 Interviewees mention that *politicians and the administration will not go against an angry*
607 *crowd*. In Narvik municipality, two major issues engaged people. One is the attempt to close
608 the emergency room and maternity ward at the hospital (Supporting Information S3) and the
609 other is the planning of the Håkvik port. *They [the administration] were influenced by people*
610 *in another case in addition to the hospital case. They had a municipal plan that said they were*
611 *going to build a new port out here in a suburb called Håkvik. [...] It is a very protected area*
612 *that is biologically interesting. A very large quay was to be built, and there was a lot of*
613 *uproar from the people who live there and also from environmentalists in Narvik. This led the*
614 *politicians to decide to put this plan up for discussion for the entire municipality and*
615 *reconsider it. So it is currently under review. So I would say that they listened to the people if*
616 *they show strong opposition*. Several of those interviewed believed that resistance and
617 demonstrations are the most effective way to be heard: *Things like that help here. That's how*
618 *you can get involved*. When the interviewees talk about this type of participation, they
619 mention some similar points that can be summarized as follows: people with different
620 positions, professions, and backgrounds stand together and try to fight (be heard) on issues
621 that may affect the most vulnerable members of society and the natural environment in which
622 they live.

623 F9 (Equal participation) is a very rare form. It is only mentioned by organizers, citizens with
624 important positions, or former employees of the administration. *I have participated in many*
625 *public meetings where residents could give suggestions and opinions; community plans, city*
626 *center plans, and preventive plans for children and young people are some examples. Of*
627 *course, my role means that I have this type of dialogue with the municipality more often. But*
628 *in general, I experience openness in relation to development work and the major measures the*
629 *municipality wants to take for future solutions. The municipality definitely takes input from*
630 *“ordinary” citizens seriously and integrates it.*

631 Although none of the lay citizens mentioned this form does not necessarily mean that it does
632 not exist. (In some municipalities, I had few respondents, so more research is needed to
633 investigate the existence of this form).

634 F10 (Non-participation) is mentioned by a few people from different municipalities. This
635 form does not allow for participation and usually applies to organizers other than the
636 municipal administration, such as various companies owned by or under municipal
637 supervision: *I know of some of the planning developments in Narvik [company] where none of*
638 *the residents have been involved.*

639 **Characteristics of the forms of participation and opportunities to influence decisions**

640 Arnstein's typology [39] was used to examine the difference between degrees of influence that
641 lay citizens can have in participation processes (see method section). All 10 forms of
642 participation were also analyzed, using Fung's dimensions [46] to clarify their significance for
643 citizens' opportunities to influence decisions and to identify what characterizes each form.

644 F1 (Participation through personal contacts in small municipalities) can be characterized as
645 partially effective in shaping decisions (among those who have the opportunity to interact
646 with organizers). At the same time, F1 can create uncertainty and a lack of transparency, since

647 conversations between organizers and lay citizens are neither arranged nor documented.
648 None of the steps in Arnstein's ladder can be linked to this form. Fung does not describe any
649 design for participation that can be compared to this. Such a form lacks real inclusiveness,
650 representativeness, and a type of communication that opens up for dialogue and discussion at
651 all stages of the planning process and ensures that everyone receives the same information. In
652 addition, the results above show that certain groups who are unable to leave their homes due
653 to illness or other reasons do not have the opportunity to meet with organizers and thus lose
654 the opportunity to influence decisions. This raises the more general issue of engaging with
655 vulnerable groups in participatory land-use planning [52]. According to Fung, all these
656 characteristics of F1 will weaken important democratic values such as legitimacy, fairness,
657 and the effectiveness of public action but as shown in section 1 of the results, several
658 interviewees are satisfied with this form.

659 F2, digital participation, is at the symbolic level (Arnstein's ladder). Participants receive
660 information and are given the opportunity to express themselves, but based on the results,
661 only one out of 53 in Narvik municipality stated that residents' comments are integrated into
662 decisions and that residents see their suggestions in the final documents. F2 can be
663 characterized as a form that contributes to a more flow of information than the other forms.
664 This gives anyone with internet access the opportunity to submit their comments. At the same
665 time, my results show that F2 does not contribute to dialogue or discussion between
666 organizers and lay citizens. Several people have also mentioned that they do not experience
667 any form of dialogue between decision-makers and other citizens. Based on my findings and
668 Fung's cube, F2, can be characterized as informative and open to participation, but it has one-
669 way communication, since the audience does not receive feedback or see their comments
670 reflected in final decisions. Nor did the interviewees mention that participation could take
671 place at all stages of the planning process. Such a design weakens legitimacy and fairness but

672 has potential if the type of communication is changed. What is prominent throughout the
673 analysis process is that the effectiveness of public action is twofold. More than half said they
674 were very committed to participating in such processes, but when they could not find their
675 suggestions in the decisions, they lost the motivation to participate again.

676 F3 (Cooperative participation and workshops) is often used alongside other forms and gives
677 citizens (the most selected ones) a real opportunity to participate, but only in specific areas.
678 The organizers often select the participants themselves or restrict participation based on
679 criteria (e.g., age). Nevertheless, F3 can be placed at Arnstein's level of partnership,
680 characterized by citizens and organizers entering into almost equal relationships in which they
681 can discuss and agree. The interviewees described this process as relatively open, even though
682 not everyone is necessarily invited specifically, and it emerged from the interviews that their
683 suggestions are incorporated into the final decisions (in certain selected areas, see results
684 above). Arnstein shows that this process is not new, because those who have the power to
685 decide will still want to keep it on their side. In practice, this means that if residents' proposals
686 conflict with the organizers' plans, the organizers will still get their way. This also appears in
687 my findings. An important characteristic of F3 is that the selected topics/areas in which lay
688 citizens have a real influence do not include topics that are important for citizens and the next
689 generation, such as climate adaptation, preservation of biological diversity and preservation of
690 local values. The design of F3 appears weakened in its participant selection, as many feel it is
691 not representative and does not provide an opportunity to influence decisions on issues
692 important to locals. This, in turn, leads to a weakening of legitimacy (in this case,
693 representativeness and the relevance of focus areas) and fairness (the relevance of decisions to
694 as many people as possible).

695 F4 (information) can be placed on the step called Informing on Arnstein's ladder [39], because
696 this form is characterized by citizens being given information and the opportunity to express

697 their opinions, but there is no guarantee that participation will lead to influence. At the same
698 time, when I compare this form with Arnstein's ladder, I see that F4 also draws on some of the
699 characteristics of the Therapy stage, because participants are given “diagnoses” such as
700 *negative* or *opponent*. As shown earlier, being negative is undesirable in the eyes of the
701 organizers because such attitudes undermine well-being and the municipality's development
702 in terms of attracting industries that create jobs. Fung [46] writes that this type of
703 communication between those in power and citizens weakens democracy and influences
704 decisions (often in a way that creates distance between decision-makers and citizens).

705 F5 (participation through political elections and locally elected politicians) is considered by
706 many to be a highly effective form of participation. However, political elections and
707 participation in party meetings are not the same as participation in planning processes.
708 Further, F5 does not guarantee that people's suggestions and ideas will be included in final
709 decisions or plans. Arnstein has no step in her ladder that can be compared to F5. This form is
710 also difficult to analyze using Fung's Cube because political elections are not included among
711 the designs in planning processes.

712 F6 is participation through committees and organizations. It corresponds to symbolic
713 participation on Arnstein's ladder because the interviewees say they can make their
714 comments, but since these often remain on paper, they do not have a real opportunity to
715 influence decisions. Fung describes participation through organizations, committees,
716 associations and similar bodies as positive because these often have representatives from the
717 general public, but Fung warns that this design can only support democratic values if the
718 communicative dimension and the influence dimension are perceived as fair. It appears that
719 these dimensions are weakened in F6.

720 F7 (becoming a politician) is characterized by giving citizens real opportunities for
721 participation, but since it is not possible for all residents to become politicians, it is difficult to
722 assess this form against Arnstein's ladder and Fung's Cube.

723 F8 (movement, protest, and resistance) is the only form that leads to citizens being heard and
724 their proposals being given a real position in decisions. Arnstein does not have a specific step
725 for such participation but writes that in most cases where power is distributed between those
726 in power and citizens, citizens take it. The interviewees from all municipalities said this is the
727 form that most often leads them to be heard. The analysis based on Fung's Cube is difficult to
728 carry out because the proposed designs require the involvement of organizers. F8 can be
729 characterized by strong public engagement and consensus, and is also seen as inclusive, but
730 its impact on decisions comes through demands from the public rather than through dialogue
731 or discussion.

732 F9, equal participation, requires further investigation because only a few organizers
733 mentioned it, and only a few lay people (with important positions or former employees in
734 administration) confirmed that this form exists. At the same time, it should be noted that,
735 based on Arnstein's ladder, this form corresponds to what is referred to as partnership and
736 gives citizens the opportunity to collaborate with decision-makers and can also lead to
737 compromises that have a certain influence on the final product. Based on Fung, this form can
738 also be described as synergy between those in power and the population, which is considered
739 the most effective design that supports legitimacy, fairness and effectiveness of public action.

740 F10 (no participation) can be placed at the lowest level of Arnstein's ladder and is
741 characterized by lay citizens having no opportunity to influence planning processes and
742 decisions. This form also does not support democratic values (legitimacy, fairness and
743 effectiveness of public action).

Links to sustainability and transformation

I have identified statements on to sustainable development issues in municipalities, with an emphasis on climate and environmental challenges and unsustainable practices, across all ten forms of citizen participation. There are many different ideas, experiences and interests among the 75 interviewees. However, the themes that recur can be grouped in sustainability as a concept and attitude, sustainability as a responsible behavior, and sustainable and unsustainable practices. As a concept, sustainability and the SDGs are a topic in schools and universities, where it is integrated in several subjects or where students are given assignments that shape their understanding and critical thinking. Sustainability as a behavior is clear in respondent's references to that fact that several university campuses introduced waste sorting, cycling to work and paid parking. Several respondents also referred to sustainable and unsustainable practices such as sustainable tourism (focus on local food for tourists, guided tours without the use of transport), the Alpine World Championships in Narvik (although criticized for its impacts on the environment, almost all interviewees from Narvik believed that this event is socially and economically sustainable and will not have an unacceptable negative impact on nature), aquaculture (almost all 75 believe that this industry is important and sustainable, while others question the sustainability of this practice), development of green industry, use of electric cars and population size. For more examples see additional information S2.

The organizers mainly associate the word sustainability with the economy, industry, aquaculture, jobs and population growth. Several of the organizers mention that challenges related to climate change, environmental pollution and land degradation are also fundamental to sustainable development, but at the same time they emphasize that many other challenges, such as attractive jobs and economic growth, must be prioritized over these in northern Norwegian municipalities with poor economies. Several of those interviewed from different

769 municipalities said they have abundant natural resources and that building wind farms or
770 industrial buildings will not be problematic for nature. An example of such a statement is:
771 *Narvik is an industrial town and is perhaps characterized by a focus on development,*
772 *expansion, and job creation rather than on preserving nature and the environment. There is a*
773 *perception that Narvik has a lot of nature, mountains, and untouched wilderness, so there is*
774 *plenty to draw from.*

775 Specifically, for Narvik, both organizers and lay citizens mentioned sustainable measures the
776 municipality has implemented through planning processes, such as the use of electric cars and
777 investment in green industry. These measures are intended to contribute to CO₂ reduction. The
778 measures are also outlined in national policy documents, and municipalities can receive
779 financial support from national authorities if they include them in their planning processes.
780 More than half of those interviewed believe that the municipality is focusing on these
781 measures to obtain financial support, not because it is considering sustainable development.

782 Some politicians, planners, and companies in Narvik, as well as several of the other
783 interviewees from other municipalities, mention that *sustainability has gained a strong*
784 *position in all discussions, proposals, and plans* in all municipalities in Northern Norway
785 because it is *an expectation and requirement from the national authorities*. In the introduction,
786 I showed that the focus on sustainability and the achievement of the SDGs is evident in many
787 national policy documents. I also showed that the planning framework for 2023–2027 seeks to
788 balance the need to focus on climate and biodiversity with the need to build green industry
789 and power plants. This is reflected in the practices of several of the municipalities
790 interviewed: *I definitely notice an increasing focus on sustainability. Fortunately, national*
791 *expectations have been set for us to incorporate a climate perspective into everything we do.*
792 *We must take this focus into account in all political proposals and assessments we make. And*
793 *we must assess things in relation to the UN's climate goals and similar. [...], but I don't feel*

794 *that there has been any major change in what we decide.* There are several similar statements
795 in my corpus: *I feel that there is more talk than action when it comes to sustainability in the*
796 *municipality. [...] You can't be a municipality today without talking about sustainability. But I*
797 *don't feel that resources are being used to ensure that there is a good enough basis for*
798 *decision-making to say that this is a future-oriented, sustainable choice.* The statements show
799 that incorporating national requirements separates sustainable practices into verbal/written
800 practices and action-oriented practices, with the latter affecting people's local values and their
801 lives. For example: *If we are to be able to get the exciting jobs that young people want, so that*
802 *we can have more children and more tax revenue, then it is not so important whether we have*
803 *industry in our outdoor recreation areas, because that is where the jobs are. But for those of*
804 *us who already live here, it's absolutely awful to see us losing the outdoor recreation areas we*
805 *have. They are very valuable in our lives. And nature issues and climate issues always lose*
806 *out.*

807 Although the analyzed corpus contains many statements about SDG achievement and
808 sustainability related to climate change and nature conservation, it is clear that the measures
809 implemented follow national expectations and initiatives that contribute to the economic
810 development of municipalities. There are several statements from lay citizens that these
811 measures are at the expense of their values, the next generation, and the destruction of local
812 nature. Climate and environmental issues are integrated into the plans, according to several of
813 those interviewed, but they neither change established practices nor influence decisions (that
814 is, they remain on paper).

815 Regarding the transformative aspects of sustainable development, the IPBES definition
816 quoted in the introduction emphasizes that transformative change requires “wide shifts in
817 views, structures, and practices” and addressing of the root causes—not just individual
818 measures, but changes in how we think, how systems are structured, and how we actually act.

819 Across the interview transcripts, there are scattered signs in statements referring to broad
820 shifts in views, structures, and practices, as called for by IPBES. At the same time, the data is
821 dominated by statements describing the absence of such shifts and the absence of addressing
822 root causes. Many interviewees observe a continuation of the structures that perpetuate nature
823 loss.

824 The positive signs are few, but they are present. One statement points to a structural change in
825 governance, where “national expectations have been set for us to incorporate a climate
826 perspective into everything we do.” Shifts in practice include both individual practices, such
827 as biking to work and reducing consumption, and shifts in the business sector, for example,
828 where companies like Bring and Rema 1000 are investing in the electrification of vehicles and
829 solar energy. Shifts in views are evident in two of the statements, which refer to a debate that
830 “increasingly values nature for its own sake” and a debate about the importance of focusing
831 on climate change at the municipal level. These examples are, however, exceptions rather than
832 the main trend, and several of the interviewees themselves emphasize that the changes are
833 marginal compared to major decisions that counteract or delay transformation.

834 The dominant pattern in the data is that in spite of participation, underlying structures remain
835 unchanged, despite rhetorical support for sustainability. Several statements indicate that
836 sustainability functions as a term without substance: sustainability is referred to as “nothing
837 more than words on paper,” and several describe the situation as “more talk than action.” One
838 of the statements provides the clearest expression of this pattern, asserting that “there is no
839 sincere desire to make things sustainable.” At the same time, two other statements show that
840 the structural power relations remain intact: “industry and economics rule everything; nature
841 loses out time and time again,” and “jobs and development always win.”

842 Taken together, the material paints a picture of a society where views are changing to some
843 extent, but where structures and practices largely continue unchanged—which, according to
844 IPBES, is precisely the obstacle to real transformative change.

845 It is also clear that the 10 forms of participation identified and presented above offer little
846 opportunity for equal discussion and dialogue between lay citizens and organizers in areas
847 such as the establishment of industry, fish farming, or climate adaptation. Nor do these forms
848 allow for synergy between organizers' knowledge and that of other residents.

849 **Discussion**

850 Planning processes have a real impact on sustainable development in municipalities in
851 Norway [23] and other European countries [14-19], as well as on the local achievement of
852 sustainability goals, which are crucial for achieving them at the global level [12, 26, 27].
853 Working with sustainability goals requires a transformation in which the inclusion of different
854 types of knowledge and synergy between different actors (in this case, municipalities and
855 residents) are considered crucial [3,13-18]. Through the lenses of Arnstein's ladder of citizen
856 participation and Fung's cube of democracy, my findings show that the ten forms of citizen
857 participation identified in local planning processes in some municipalities in Northern
858 Norway lack genuine cooperation and fail to incorporate local knowledge. This, in turn, is a
859 barrier to local engagement in planning processes (the results show that the interviewees are
860 not motivated to participate when their suggestions are not reflected in decisions) and hinders
861 joint transformation work in some municipalities. Cooperation between different actors,
862 especially in planning processes, often faces various challenges, for example due to different
863 interests [29], different values [37] economic priorities that local authorities may prioritize
864 over choices aimed at nature conservation [26, 32, 33], and not least due to different
865 worldviews and practices between minority groups (indigenous peoples) and the majority (the
866 Norwegian population) [38].

867 The design of participation in planning processes touches on democratic values such as
868 legitimacy (inclusiveness, representativeness, relevance of focus areas, questions and
869 solutions, and communication), fairness (who has the right and opportunity to participate and
870 how decisions are relevant to as many people as possible) and effectiveness of public action
871 (inclusion of citizens in all stages of the process and evaluation of decisions and measures)
872 [46]. Since all forms of participation in planning processes, or what Fung refers to as design,
873 include types of communication, selection of participants, and opportunities to influence
874 decisions, it is important that these three elements be chosen in ways that support democratic
875 values. At the same time, previous studies show that establishing a common understanding of
876 the SDGs among municipal residents, grounded in diverse types of knowledge, local values
877 and voices, and cooperation that strengthens people's agency, has the potential to achieve
878 social transformation in municipalities [e.g., 41].

879 The ten forms of citizen participation identified here can also be seen in view of the five
880 modes of governance of sustainability transformation [21] mentioned in the introduction
881 (participatory, collaborative, multilevel, smart, and network governance) and other recent
882 literature. F1 aligns with “network governance”. Other literature highlights the role of
883 “informal governance” [53] and “informal planning” [54] which relates to F1 (but also to F6
884 and F8). F2 resembles “Smart governance”. F3 stands between “participatory governance”
885 (characterized by low influence) and a limited form of “collaborative governance”. F4 falls in
886 the category “participatory governance”. F5 is hard to match to the governance modes but
887 could perhaps be seen as part of “multi-level governance”. F6 clearly aligns with “network
888 governance”. F7 somewhat fits in “network governance”. F8 could be seen as a grass-roots
889 attempt to engage in “network governance”. F9 aligns well with “collaborative governance”.
890 F10 could perhaps be seen as the weakest form of “participatory governance”.

Overall, F9 is the form that seems best fit for contributing to the governance of sustainability transformation, and F8 seems the best option for citizens to contribute to local sustainability transformation if their municipality fails to implement F9 or if F9 fails to result in the required wide shifts in views, structures, and practices and root causes remain unaddressed. That participation is not a guarantee for more sustainable outcomes is also highlighted in a recent study on citizen participation in the governance of nature-based solutions: Kiss et al [52] found no statistical correlation between a high level of participation and ecological outcomes. They do however tend to result in significantly better social outcomes, such as trust, social learning, ownership, inclusion, long-term stewardship and legitimacy of decision [52], which are all conditions for transformative change.

The sample of which the results presented here are based, is limited to certain municipalities in the Norwegian Arctic, with a substantial concentration in Narvik. Still, the findings are relevant to participation in governance of sustainability transitions in other geographic areas, too. The conditions under which the findings may be transferable include small population centers, climate-vulnerable peripheries, strong legal frameworks for public participation, the presence of indigenous minorities, and professionalized planning systems. It could be less transferable and more challenging in contexts with weak state planning, authoritarian regimes, or where citizen knowledge is more politically organized (see also [55]).

As one anonymous reviewer indicated, the analysis could have given additional insights if the participants would have been grouped into actor-categories, this could be an interesting angle for follow-up research as it may reveal in-depth insights regarding asymmetries as regards to who gets how much of a say in the participation in statutory planning processes.

Conclusion

915 This study examined practices of citizen participation in planning processes, with an emphasis
916 on sustainable choices relevant to climate and environmental challenges. Analysis of
917 transcripts from 75 interviews with citizens from various municipalities in Northern Norway
918 identified 10 forms of citizen participation in planning processes: F1 Participation through
919 one's network, F2 Digital participation, F3 Cooperative participation and workshops, F4
920 Information meetings, F5 Participation through elected politicians or elections, F6
921 Participation through organizations and committees, F7 Participation through political
922 involvement, F8 Participation through people's movement, demonstration, or resistance, F9
923 Participation where local people are seen as equal participants and F10 Non-participation.
924 Although the interviewees see forms such as F5, F7 and F8 as those in which they experience
925 real opportunities to influence decisions, these forms cannot be regarded as participation in
926 planning processes as defined in Norwegian law on planning and building processes. Nor can
927 these forms be linked to the ladder of citizen participation or the cube of democracy. What is
928 most striking about the other forms is that democratic values (fairness, legitimacy, and the
929 effectiveness of public action) are not fully supported, as the design forms fail in terms of the
930 chosen communication type, participant selection, and opportunities to influence the planning
931 process and decision-making. F2 has great potential, but communication is mostly one-way
932 (information from organizers and submission of public comments). It lacks dialogue and
933 discussion. In addition, it appears that citizens do not see their proposals reflected in the final
934 decisions, which negatively affects their motivation to participate again. F3 ensures the best
935 type of communication but is weakened in areas such as the selected topics that citizens are
936 given the opportunity to participate in and the topics that they are unable to influence, as well
937 as in the area of the selected groups (those affected by decisions are often not the ones who
938 are selected). F9 is the form that, in principle, supports all democratic values, but since only a
939 few respondents mentioned it, further research is needed.

Sustainable development, with a focus on nature conservation, environmental protection, reducing greenhouse gas emissions, and achieving the SDGs, is mentioned by all interviewees. What is understood as sustainable choices, actions, and measures does not necessarily coincide among lay citizens, politicians, planners, and local authorities. The results show that measures aimed at climate mitigation and adaptation and the conservation of nature and the environment are most often included in planning documents because they are required by national authorities, but they usually remain on paper. In addition, local authorities prioritize green industry, wind farms, and electric cars on the grounds that they strengthen the local economy. Lay citizens, some politicians, and some planners believe these are destructive to local values strongly linked to the importance of nature in people's lives. The 10 forms of participation leave little room for participation at the early stages of planning processes, and the same applies to the final phase when decisions are made. This may be the reason for different understandings of what is considered sustainable for the municipalities where the interviewees live.

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