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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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19 **Abstract**

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

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

45 **Author Summary**

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

62 **Introduction**

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

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

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

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

94 Despite Norway's efforts and the achievement of some of the SDGs [8], the country still has
95 practices that hinder the achievement of in particular goals 12 Responsible consumption and
96 production, 13 Climate action, and some of the targets of goal 11, which deals with
97 Sustainable cities and communities (p.323). Low scores on these goals also affect other
98 countries' achievement of the SDGs. One such practice is an increased focus on defense
99 policy, which entails the use of land areas for military exercises and training by foreign and
100 Norwegian units. The largest areas designated for this purpose are located in Northern
101 Norway [6]. Other factors include development such as housing estates, industry and wind
102 farms, environmental pollution in both sea and land, increased use of technology,
103 technological services and replacement of equipment leading to a growing need for energy
104 and extraction of rare minerals [4]. Waste management is also increasing. Other unsustainable
105 practices include oil extraction, transport and the fishing industry [9]. The sub-goals linked to
106 Goal 11 face scattered residential areas, population decline and an increasing proportion of
107 elderly people, particularly in the northernmost areas [4, 9]. The same areas experience more
108 frequent and intense rainfall, thinning of the permafrost and retreating glaciers [4, 10]. The
109 government is also concerned that climate change could exacerbate over-tourism in especially
110 Northern Norway, increase commercial interest in Northern Norway (particularly from
111 China), increase military presence in Northern Norway and change shipping patterns [4,11].
112 While these activities are increasing due to climate change, they are also contributing to
113 increased greenhouse gas emissions. In its assessment, the government mentions that warming
114 in Norway is occurring faster than the global average and is greater in Northern Norway than
115 in the rest of the country [4] (p.90). Overall, the Norwegian government mentions that 61 of
116 126 SDG sub-goals need improvement [4].

117 Achieving the SDGs requires action at all levels, from local to global, based on cooperation
118 between governments, the private sector, academia and civil society around the world [12].
119 An important prerequisite for such action at all levels is a sustainable transformation at the
120 structural, systemic and individual levels [3,13,14]. In this process, it is essential to include a
121 diversity of knowledge and pathways, because hybrid issues, definitions and solutions based
122 on interactions between different knowledge systems can bring new and sustainable
123 alternatives. Collective goals, democratization of knowledge and collaboration with various
124 knowledge holders, which also require changes in established power relations, are the
125 keywords that recur in the literature on sustainable transformation [14-19].

126 An important step towards such a transformation, Norway shares responsibility for SDG-
127 based sustainable development with local authorities (municipalities and counties). The
128 purpose clause of the Planning and Building Act stipulates that the Act shall promote
129 sustainable development for the benefit of individuals, society and future generations [20].
130 White Paper 25 (2024–2025) [21] also notes that municipal responsibility for sustainable
131 development, when incorporated into planning processes, is complex, with consequences for
132 the knowledge and skills municipalities must possess [21]. This includes knowledge of local
133 conditions and land areas, current and future climate change, biodiversity, and the
134 consequences of decisions for the environment, climate, and nature. In this context, it is
135 particularly relevant to include various knowledge holders in the planning process. Indeed,
136 White Paper 27 (2022-2023) [22] invites local authorities to focus on cooperation. The Act's
137 "§5 Participation" requires municipalities to include citizens in planning processes [20].
138 Participation is described as complementary to electoral democracy [22] (p. 159) and should
139 begin as early as possible. The Act recognizes explicitly that "participation by those who live
140 and work in the area is necessary to bring local knowledge and experience-based knowledge
141 into the decision-making process" (p. 9).

142 As a political instrument, the Act intends to address challenges as they arise at the local level
143 and adapt solutions that lead to sustainable development [23]. Social and spatial planning is a
144 suitable tool for steering development in a more sustainable direction: it is about addressing
145 the most important social challenges, finding solutions and setting priorities based on local
146 and regional conditions. Local participation and political engagement are crucial to the
147 success of processes in which residents, businesses and organizations are involved. Although
148 delegating responsibility to local authorities is seen as a powerful instrument, it cannot
149 guarantee transformation and achievement of the SDGs. Municipalities have the freedom to
150 exclude issues that require national coordination and cross-sectoral measures [24].

151 Sustainable transformation requires mechanisms and common strategies that can help to
152 create connections between different sectors and levels (local, regional, national, global) [25].

153 **The planning process as an instrument for sustainable transformation in Northern** 154 **Norway**

155 Northern Norway houses the 3rd largest Arctic population in the world [26]. It is the part of
156 the country that experiences the greatest climatic changes and where activities occur that
157 hinder sustainable transformation (mineral extraction, fish farming, industrial development
158 and wind farms, the allocation of large areas for military exercises and the destruction of
159 nature due to overtourism). The delegation of responsibility for planning processes related to
160 coastal and land-use planning, which require broad participation, also affects how Norway
161 succeeds in its sustainable transformation.

162 For example, the municipality of Hammerfest in northern Norway took research and public
163 information campaigns on the consequences of climate change in northern areas seriously by
164 including sea-level rise, among other things, in its master plan, intended to serve as a
165 management tool for new development projects [27]. Since the Planning and Building Act

166 requires broad participation, this created challenges for the municipality, which experienced
167 difficulties involving local politicians, the business community (developers), and other
168 stakeholders in climate adaptation [27]. In reality, Norwegian municipalities depend on the
169 business community participating in the proposed sustainable strategies, as they have access
170 to capital [28,29]. Priorities in planning processes in the smallest municipalities in Northern
171 Norway, therefore, often lean toward economics rather than sustainability [24]. Based on 13
172 case studies, Westskog et al. [30] present similar findings showing that transformative climate
173 policy in Norwegian municipalities is challenged by the need for job and business
174 development. Tønnesen et al [31] confirm this. With the help of perceptions from local,
175 regional and national stakeholders from four rural municipalities, they show that land use
176 policy is strongly linked to strategies aimed at income growth, job creation and population
177 growth. This can also be at the expense of nature conservation if nature conservation does not
178 provide sufficient benefits. The municipalities in Northern Norway are largely unsuccessful at
179 maintaining population growth, which is mainly concentrated around the largest “knowledge
180 cities” where the universities are located [32].

181 Coastal planning is another area that is highly relevant to Northern Norway and sustainable
182 development. Here, the aquaculture industry has social, cultural and economic significance
183 for both growth in coastal municipalities and Norwegian exports. For example, the Norwegian
184 authorities stated that Norway shall become the world's leading seafood nation with an
185 aquaculture industry by 2050 [33]. In this context, it is appropriate that planning is supported
186 by the inhabitants and carried out sustainably. A study in two northern Norwegian
187 municipalities using structured (N=150) and semi-structured interviews (N=10) shows that
188 perceptions of aquaculture and the expansion of aquaculture differ between ordinary citizens
189 and fishermen, with the latter group not supporting this type of industry [34]. Coastal zone

190 planning has long been a contentious area because many interests and values are at stake.
191 Achieving an inclusive and fair planning process is therefore extremely challenging [35].
192 Wilke [36] also focuses on coastal planning processes and, using Arnstein's [37] "ladder of
193 citizen participation" shows that in the Troms region these processes are conflictual and face
194 challenges in involving a broad range of interested parties (especially indigenous peoples) in
195 decisions and challenges with public debate. The exclusion of a wide range of interested
196 parties and ordinary citizens has also been observed in planning processes focused on urban
197 development. This is particularly evident in the early stages of planning, when preliminary
198 agreements are concluded in closed negotiations between municipal planners and private
199 developers [38]. At the same time, if the municipality manages to establish a common
200 understanding of the SDGs among the local population, taking into account local values and
201 knowledge through participatory processes and by strengthening the agency of the population,
202 they have the potential to achieve social transformation [39]. By focusing on the municipality
203 of Andøy in Northern Norway, the author shows that, even though the municipality initially
204 lacked common strategies and a vision for the SDGs, this could be improved through
205 inclusive, collaborative processes [39]. Based on three northern coastal communities and
206 municipal planning, Hovelsrud et al. [40] show that involving the local population in the
207 mapping and development of adaptation strategies is beneficial for ensuring the right focus,
208 highlighting the links between climatic and socioeconomic conditions, and increasing local
209 engagement and awareness of climate change.

210 Achieving the SDGs and the green transition in European countries requires a shift from fossil
211 fuels to renewable energy and necessitates access to minerals. Mineral extraction is being
212 implemented at the local level, especially in Northern Norway. Planning processes that
213 attempt to include national and global expectations for the green transition on the one hand,
214 and take into account local values, cultural practices, and reindeer herding on the other, are

215 encountering resistance and conflict [41]. The authors conclude that the understanding of
216 what constitutes a sustainable transition may differ between the global and local levels. The
217 planning of land use for mineral extraction can nevertheless gain acceptance among local
218 people when convictions are strong enough and involve promises of jobs, population growth
219 and similar benefits [42]. However, this can still affect traditional Sami practices of reindeer
220 husbandry and, as Nygaard [42] notes, decisions in planning processes in Northern Norway
221 may vary depending on the majority of indigenous peoples in municipalities, which in turn
222 shows that sustainable transformation does not always take social justice into account [43].

223 Studies focusing on planning processes for sustainable development in Northern Norway
224 highlight various challenges that such processes encounter, while also emphasizing the
225 importance of fair and inclusive involvement of the local population aiming at identifying
226 relevant local challenges and joint solutions, increased engagement in the sustainable
227 development of municipalities, establishing the population's understanding of the SDGs and
228 their significance for local and global conditions as well as for the next generation, and setting
229 common local goals for transformative social change. As I see it, there is a lack of studies
230 that, based on the reflections, perceptions or narratives of the population, highlight the various
231 forms of planning processes that contribute to or counteract sustainable transformation. With
232 this as a starting point, I focus on selected municipalities in Northern Norway in three
233 counties, Nordland, Troms and Finnmark, and address the following research questions:

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

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

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

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

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

242 **Conceptual framework and research approach**

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

245 Arnstein's seminal ladder of citizen participation [37] distinguishes eight steps, each
246 illustrating the expansion of rights and opportunities that citizens have: manipulation (with no
247 opportunity for participation), therapy, informing, consultation, placation, partnership,
248 delegated power, and citizen control (where citizens have clear influence). It distinguishes
249 between participation without influence and participation with real influence on plans or
250 programs that are being developed. Manipulation and therapy refer to the absence of citizen
251 participation and are used to "educate" or "cure" the participants [37]. Informing and
252 consultation are seen as symbolic participation, where citizens are given information and the
253 opportunity to express their views, but these forms offer no guarantee that participation will
254 result in influence. Placation is participation at a slightly higher level than the two preceding
255 forms, where citizens are given the right to offer advice, objections and suggestions, but these
256 usually have no bearing on the final product. Partnership gives citizens the opportunity to
257 enter into cooperation with decision-makers and can also result in compromises that have a
258 certain degree of influence on the final product. The last two steps give citizens a real
259 opportunity to influence decisions, and the last step also gives them control. Arnstein points
260 out that real influence on decisions is difficult to accomplish in practice and is most often
261 achieved through struggle (e.g., demonstrations). Overall, Arnstein's model provides an

262 important starting point for understanding that participation that leads (or does not lead) to
263 influence on decisions has significant gradations.

264 Fung's Cube of Democracy [44] complements Arnstein's ladder, but focuses in more detail on
265 how the various participation designs affect democratic values: legitimacy, fairness, and the
266 effectiveness of public action. To understand the potential and limitations of different types of
267 citizen participation, Fung believes it is important to consider questions such as: Which
268 citizens participate? How do they communicate? What is the relationship between their
269 proposals, objections and conclusions on the one hand, and public policy and action on the
270 other? Fung summarizes these questions in three dimensions: selection of participants,
271 method of communication and degree of influence. These three dimensions span up Fung's
272 Cube.

273 Fung [44] describes many different designs for selecting participants. For instance, public
274 meetings where anyone who wishes to participate can contribute suggestions, comments, etc.
275 According to Fung, those who choose to participate are often not representative of the
276 population. These may be wealthy and well-educated people or people with specific interests
277 or strong opinions.

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

286 The information provided by those in power should be clear and understandable, but if only
287 one-way communication is used, this will weaken democracy and influence decisions. Other
288 forms of communication may include: a) discussion meetings on relevant issues where all
289 contributions are welcome, b) dialogue meetings involving citizens at all stages of, for
290 example, planning, c) public meetings where many people attend, but only a few express their
291 opinions, while the rest act as an audience, and d) those in power listen to suggestions from
292 the audience and promise to discuss them later, but these have no significant impact on
293 decisions. Forms that allow citizens to participate in processes relevant to them are considered
294 more legitimate and effective [44]. These can also show participants that an issue can be
295 understood in different ways, which can further contribute to changing perceptions and to
296 recognizing that there are different needs and solutions. Regarding forms of communication,
297 Fung concludes that "public participation at its best operates in synergy with representation
298 and administration to yield more desirable practices and outcomes of collective decision
299 making and action" (p. 66).

300 In addition, Fung provides several examples of how well-planned participation enriches
301 decisions, makes them more relevant to society, and how citizens' knowledge, experience, and
302 creativity make solutions to societal challenges more robust and forward-looking. Inclusive
303 and representative participation processes that also focus on forms of communication that
304 engage and intensify participation can strengthen legitimacy [44]. Fairness is often about who
305 has the right and opportunity to participate and whether decisions benefit society or only
306 selected groups. Therefore, the processes in which citizens are invited to participate should
307 aim to strengthen these dimensions. Effectiveness can be enhanced by including citizens in
308 later stages where proposals for decisions are evaluated and adopted or solutions are assessed
309 and prioritized. Lay citizens may have the necessary experience, local knowledge, and

310 innovative solutions because they are freer from outdated wisdom and methods of experts or
311 professionals [44].

312 **Methods and data material**

313 This study is part of the French project CLIMArcTIC (from the regional to the global impact
314 of climate change in the Arctic: an interdisciplinary perspective), in which one of the work
315 packages focuses on the interaction between human choices and actions at the local level (in
316 Arctic areas) and nature and climate. The areas covered in this article lie north of the Arctic
317 Circle and comprise Norway's Arctic region, including some of the municipalities located in
318 the counties of Nordland, Troms, and Finnmark. In line with the Norwegian authorities, I use
319 a broader definition of the Arctic. White Paper 9 (2020–2021) [45] defines the Arctic as “the
320 sea and land areas between the North Pole and the Arctic Circle. This is the most common
321 definition of the Arctic (for practical reasons, we choose to follow the county border and
322 define the entire county of Nordland as part of the Arctic)” p.9.

323 The study presented here is based on a qualitative approach using semi-structured interviews,
324 which is a method of data collection that allows the researcher to focus on specific topics, ask
325 follow-up questions, and give interviewees the opportunity to share their own experiences,
326 opinions, and perceptions of specific practices, phenomena, and the like.

327 Candidate interviewees and their contact information were identified by browsing public
328 websites from local organizations, municipalities, companies, schools, and universities and
329 the interviewees also helped identify other relevant actors. I aimed at a diverse sample of
330 societal actors with different positions, backgrounds, etc. If any interviewee mentioned
331 specific important individuals, organizations, positions, or other entities, then they were also
332 contacted. A total of 75 people aged between 26 and 80 of different genders, educational
333 backgrounds, experiences and positions were interviewed. 53 of 75 interviewees are from

334 Narvik municipality with approximately 21,500 inhabitants. Of these 53, 12 were either born,
335 raised and have parents in other relevant municipalities, or live and work in two different
336 municipalities in Northern Norway. Such a skewed sample could have had an impact on the
337 results of this study, but at the same time, the study has a qualitative approach and the
338 interview questions are directed at the interviewees' experiences and perceptions. Supporting
339 Information S2 provides details about the interviews.

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

347 During the analysis, I found that some responses (14) related to the questions addressed in this
348 paper were very short or unclear. I contacted those from whom I wanted more information at
349 the beginning of 2025. I received responses from everyone except two people, and one did not
350 want to say more than what had already been said. The context and interview questions, as
351 well as my own cultural competence, created a framework for what could be said and further
352 articulated in this article. I have lived in Northern Norway for many years, which provides me
353 with the necessary cultural, historical, and linguistic expertise.

354 **Practical aspects**

355 The interviews were collected between June and October 2024. The interviews were
356 conducted online via Teams, by telephone, and on Signal. They lasted between 20 and 120
357 minutes (an average of 30 minutes). Complying with informed consent procedures, the

358 interviewees received written information about the project, their rights, and anonymity. Some
359 interviewees asked to be sent interview questions in advance and everyone who requested this
360 was sent the information. All interviews were conducted in Norwegian and transcribed using
361 "Autotekst: NB Whisper verbatim" developed by the University of Oslo. Furthermore, all
362 transcripts were manually read and corrected during the analysis process.

363 **Method of analysis**

364 Assisted by NVivo-14, I applied an inductive thematic approach [46] to identify forms of
365 participation and some of their characteristics. This implies that the forms identified are based
366 on people's perceptions of participation (how they cooperate or engage in dialogue with,
367 among others, the municipality). In the introduction, I have shown that §5 of the Norwegian
368 Planning and Building Act [20] obliges municipalities (organizers) to implement participation.
369 The guidance document [47], prepared to clarify this law, also invites municipalities to
370 involve local people in all stages of planning processes with the aim of “influencing public
371 assessment and decision-making processes” (p. 8). With this as a starting point, and because
372 there is a clear expectation of broad participation in the UN's SDGs, and agreement in the
373 research presented above that participation is necessary to achieve SDG goals, I have chosen
374 to use two typologies that can help to examine what characterizes the forms identified in A)
375 and the opportunities that local people have to participate in planning processes (questions B)
376 and C)). Arnstein's ladder of participation [37] and Fung's Cube of Democracy [44] is used for
377 further analysis of the forms identified. This part of the analysis is normative in the sense that
378 municipalities' practices of participation in planning processes are analyzed on the basis that
379 participation is necessary for planning processes to contribute to the achievement of SDGs.
380 Here, I focus primarily on the choices, measures, etc. that may have an impact on climate-
381 related issues and environmental issues (examples include climate adaptation, the
382 development of large areas or the use of land for large industries). The criteria for the analysis

383 based on Arnstein's ladder are the ladder levels with their characteristics described in the
384 framework above. The analysis based on Fungs Cube focused on his three dimensions for
385 design processes (here forms of participation); selection of participants (who has the right or
386 opportunity to participate and how are participants selected?); types of communication (one-
387 way communication; dialogue meetings with participation in all phases of the process;
388 discussion meetings with the opportunity to make various comments; public meetings with
389 large participation and only a few people making comments or everyone participating;
390 synergy between organizers and people and dialogical communication with organizers who
391 listen, meetings where organizers inform, listen to suggestions, and promise to take them into
392 account) and the opportunities to influence planning processes or decisions. In addition, I
393 analyzed the data material with a focus on how different designs (forms of participation)
394 affect legitimacy (inclusiveness, representativeness, relevance of focus areas, questions and
395 solutions, and communication), fairness (who has the right and opportunity to participate and
396 how decisions are relevant to as many people as possible) and effectiveness of public action
397 (inclusion of citizens in all stages of the process and evaluation of decisions and measures).
398 Research question D) was answered through initial coding, in which 1. statements from the
399 interviewees addressing sustainability issues related to climate and the environment were
400 distributed according to their content; 2. the coded statements were linked to Fung's criteria
401 and compared with what is expected of municipalities based on the Planning and Building
402 Act's purpose clause, which obliges municipalities to include a focus on sustainability in
403 planning processes. The results are discussed in light of the literature focusing on sustainable
404 transformation presented in the introduction.

405 **Ethics Statement**

406 This study complies with Norway's Guidelines for Research Ethics in the Social Sciences and
407 the Humanities, given by the National Committee for Research Ethics in the Social Sciences

408 and the Humanities (NESH) of Norway [48] and the ClimArctic Data Management Plan [49].
409 University of Bergen’s institutional system for research projects involving human participants
410 and personal data, RETTE (University of Bergen’s “System for Risk and compliance”),
411 documents that the interview procedure and protocol comply with all ethical and legal
412 requirements for recruitment, anonymization, consent procedures, and GDPR (EU’s General
413 Data Protection Regulation) (RETTE, ID: F4260) under auspices of UiB's data management
414 officer.

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

423 **Results**

424 The analysis identified 10 forms of citizen participation in municipal planning and
425 participation processes aimed at identifying local challenges and finding good solutions
426 together. To preserve anonymity, only Narvik municipality is named (see Method for number
427 of respondents). The participants' age, education, position, name, and occupation have been
428 anonymized. I have also removed the names of certain companies and some specific places
429 (marked with XX). Norwegian policy documents use the term “municipality” when referring
430 to those responsible for planning processes. Here, I have chosen to refer to the same actors as
431 “organizers.”

432 **Ten forms of citizen participation**

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

438 Table 1. Forms of citizen participation in planning processes

Identified forms of citizen participation
F1. Participation through one’s network
F2. Digital participation (information meetings, opportunity to send opinions and suggestions, but no guarantee that these will influence decisions)
F3. Cooperative participation and workshops (but only in cases with specific themes) And examples of topics people cannot contribute to
F4. Information meetings, (can give opportunities for people's feedback or suggestions, but no guarantee of influence)
F5. Participation through elected politicians or elections.
F6. Participation through organizations and committees
F7. Participation through political involvement, (you have to become a politician) or contact the municipality by yourself
F8. Participation through people's movement, demonstration, or resistance
F9. Participation where local people are seen as equal participants
F10. Non-participation

439

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

451 Form F2 (Digital participation) was identified among citizens living in Narvik municipality
452 and is described as *innovative, creating a broad impact, great engagement, and involvement*.
453 Organizers mention that they *have received over 1,000 inputs* at one of these participatory
454 meetings. The analysis shows specific advantages of F2: a) defining who can participate, b)
455 participation without having to attend in person, c) sharing ideas anonymously, and d) public
456 access to documents. Point a) was mainly mentioned by organizers, b) was mentioned by lay
457 citizens who emphasized that they did not need to attend a meeting and raise their hands to
458 say something. Point c) was particularly emphasized by citizens who had opinions that they
459 considered critical of other voices in their municipality. They felt that they could say what
460 they thought without being labeled as *negative*. The last point, d), shows the potential of the
461 digital format for creating openness in planning processes and other matters. For example:
462 *Suddenly, everything became public; you could read and be part of it*. Despite this form
463 generating significant engagement among lay citizens, it is not being further developed or
464 practiced to any great extent. The interviewees mentioned: *There have been few such*

465 *activities since the coronavirus pandemic, and some said that they had not heard of any*
466 *further events of this kind.*

467 The interviewees mentioned two disadvantages of F2. Organizers mentioned a lot of work
468 afterwards and delays. Lay citizens interviewed said they were *disappointed* when the final
469 decisions did not reflect their input.

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

473 In summary, the following themes are mentioned: *overtourism, construction of a golf course,*
474 *investigation of what can create positivity in a specific municipality, establishment of a*
475 *bicycle park, establishment of a restaurant, development of outdoor spaces for young people*
476 *with a focus on climate footprint, finding shortcuts in a city, focus on sidewalks for people*
477 *with special needs, including families with small children, and related plans to build Håkvik*
478 *harbor* (Supporting Information S3). In all the stories related to F3, it emerges that the
479 organizers select whom they want to participate and which voices are given the opportunity to
480 participate, but critical, questioning, and negative voices are not included, according to the
481 interviewees.. *In connection with proposals for a land use plan [construction of Håkvik*
482 *harbor], the administration was supposed to visit the various villages and districts to hear*
483 *what was on the minds of those who live there. I was not invited, nor were many of the others*
484 *I know, because they knew we would ask critical questions.* Another example: *The XX*
485 *department has built a pump track that was completed this summer. This is a positive activity*
486 *and something good. However, it has subsequently emerged that many residents in the*
487 *surrounding area were neither asked nor consulted. It was simply built without taking*
488 *important aspects into account. For example, traffic safety. Perhaps in processes like this,*
489 *there needs to be better involvement.*

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

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

507 When the organizers gave examples of challenges affecting local people and how they had
508 been resolved, it was clear that not all such cases gave local people the same rights to
509 participate. One of the organizers says: *We see that tourism affects the local people so strongly*
510 *that we have to involve them in order to get their input on, among other things, what areas we*
511 *think it is okay for tourists to visit and what areas we would prefer to have to ourselves, so*
512 *that we can live a normal life. So it has to go hand in hand.* Later in the interview, the same
513 person says: *We fully understand that the local people are affected by both business*
514 *development and industry. We have some challenges around an industrial area in the*

515 *municipality, where those who live around the industrial area are starting to feel the pain of*
516 *living close to an industrial area. There is an odour nuisance. There is a noise nuisance. But it*
517 *will always be the case that not everyone will get their way. The municipality must always*
518 *weigh up what is socially sensible against the wishes and suggestions of individuals. Those*
519 *who were almost equal to the organizers in the participatory process on tourism issues are*
520 *suddenly deprived of the right to have their wishes and proposals accepted when industry is at*
521 *stake.*

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

532 Some information meetings allow lay citizens to contribute, but it is rare for their suggestions
533 to be included in the final plans and decisions. *Public meetings are held, but none of the*
534 *signals that come out of them are taken further in the planning process. It's only because it*
535 *says that public meetings must be held and that citizens must be involved. None of the input*
536 *that came during the planning process was taken into account in the planning document. So,*
537 *in a way, it's just a sham. Something you do. A discipline that has no value other than that it*
538 *says you have to do it.*

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

544 F4 creates mistrust among citizens: *I am left with the feeling that if someone has agreed that*
545 *this is how it should be, then that is how it will be. We are told that this is the best for*
546 *everyone. And then it doesn't really become a real discussion [at the information meetings].*
547 Several other statements include the words *best for everyone*, which the organizers seem to
548 use as an argument intended to create acceptance.

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

557 F5 (Participation through elected politicians or elections) is mentioned by those who are
558 unfamiliar with the Participation Act and practices related to it, or by those who do not feel
559 that they can participate in any way other than by voting in elections (national and local). An
560 interviewee stated: *My voice is who I vote for in politics. I have to cast my vote in elections*
561 *and participate in political meetings.*

562 The politicians confirm that political meetings are held where *people are invited* and that they
563 *listen to their electorate*. The interviewees expressed that *local politicians are receptive*.
564 However, some politicians and other citizens have mentioned that not all parties and not all
565 issues are heard by the organizers. F5 is mentioned by a few people (from different
566 municipalities). It is therefore difficult to provide further interpretations of this form.

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

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

581 F6 has some weaknesses that may explain why the interviewees feel that they are not being
582 heard: *too great distance* between organizers and lay citizens and that people are forgotten by
583 the organizers. Equal cooperation or mutual dialogue is not mentioned in relation to F6, but it
584 is still possible to get important ideas or thoughts across: *They [organizers] listen to the*
585 *organizations from time to time, but it is not without a struggle*.

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

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

609 F9 (Equal participation) is a very rare form. It is only mentioned by organizers, citizens with
610 important positions, or former employees of the administration. *I have participated in many*

611 *public meetings where residents could give suggestions and opinions; community plans, city*
612 *center plans, and preventive plans for children and young people are some examples. Of*
613 *course, my role means that I have this type of dialogue with the municipality more often. But*
614 *in general, I experience openness in relation to development work and the major measures the*
615 *municipality wants to take for future solutions. The municipality definitely takes input from*
616 *“ordinary” citizens seriously and integrates it.*

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

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

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

625 Arnstein's typology [37] was used to examine the difference between degrees of influence that
626 lay citizens can have in participation processes (see method section). All 10 forms of
627 participation were also analyzed, using Fung's dimensions [44] to clarify their significance for
628 citizens' opportunities to influence decisions and to identify what characterizes each form.

629 F1 (Participation through personal contacts in small municipalities) can be characterized as
630 partially effective in shaping decisions (among those who have the opportunity to interact
631 with organizers). At the same time, F1 can create uncertainty and a lack of transparency, since
632 conversations between organizers and lay citizens are neither arranged nor documented.

633 None of the steps in Arnstein's ladder can be linked to this form. Fung does not describe any
634 design for participation that can be compared to this. Such a form lacks real inclusiveness,

635 representativeness, and a type of communication that opens up for dialogue and discussion at
636 all stages of the planning process and ensures that everyone receives the same information. In
637 addition, the results above show that certain groups who are unable to leave their homes due
638 to illness or other reasons do not have the opportunity to meet with organizers and thus lose
639 the opportunity to influence decisions. According to Fung, all these characteristics of F1 will
640 weaken important democratic values such as legitimacy, fairness, and the effectiveness of
641 public action, but, as shown in section 1 of the results, several interviewees are satisfied with
642 this form.

643 F2, digital participation, is at the symbolic level (Arnstein's ladder). Participants receive
644 information and are given the opportunity to express themselves, but based on the results,
645 only one out of 53 in Narvik municipality stated that residents' comments are integrated into
646 decisions and that residents see their suggestions in the final documents. F2 can be
647 characterized as a form that contributes to a more flow of information than the other forms.
648 This gives anyone with internet access the opportunity to submit their comments. At the same
649 time, my results show that F2 does not contribute to dialogue or discussion between
650 organizers and lay citizens. Several people have also mentioned that they do not experience
651 any form of dialogue between decision-makers and other citizens. Based on my findings and
652 Fung's cube, F2, can be characterized as informative and open to participation, but it has one-
653 way communication, since the audience does not receive feedback or see their comments
654 reflected in final decisions. Nor did the interviewees mention that participation could take
655 place at all stages of the planning process. Such a design weakens legitimacy and fairness, but
656 has potential if the type of communication is changed. What is prominent throughout the
657 analysis process is that the effectiveness of public action is twofold. More than half said they
658 were very committed to participating in such processes, but when they could not find their
659 suggestions in the decisions, they lost the motivation to participate again.

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

679 F4 (information) can be placed on the step called Informing on Arnstein's ladder [37], because
680 this form is characterized by citizens being given information and the opportunity to express
681 their opinions, but there is no guarantee that participation will lead to influence. At the same
682 time, when I compare this form with Arnstein's ladder, I see that F4 also draws on some of the
683 characteristics of the Therapy stage, because participants are given "diagnoses" such as
684 *negative*, or *opponent*. As shown earlier, being negative is undesirable in the eyes of the

685 organizers because such attitudes undermine well-being and the municipality's development
686 in terms of attracting industries that create jobs. Fung [44] writes that this type of
687 communication between those in power and citizens weakens democracy and influences
688 decisions (often in a way that creates distance between decision-makers and citizens).

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

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

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

707 F8 (movement, protest, and resistance) is the only form that leads to citizens being heard and
708 their proposals being given a real position in decisions. Arnstein does not have a specific step

709 for such participation, but writes that in most cases where power is distributed between those
710 in power and citizens, citizens take it. The interviewees from all municipalities said this is the
711 form that most often leads them to be heard. The analysis based on Fungs Cube is difficult to
712 carry out, as the proposed designs require the involvement of organizers. F8 can be
713 characterized by strong public engagement and consensus, and is also seen as inclusive, but
714 its impact on decisions comes through demands from the public rather than through dialogue
715 or discussion.

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

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

728 **Links to sustainability and transformation**

729 I have identified statements on issues related to sustainable development in municipalities,
730 with an emphasis on climate and environmental challenges and unsustainable practices, in all
731 ten forms of citizen participation. There are many different ideas, experiences and interests
732 among the 75 interviewees. However, the following themes recur: sustainability as a concept

733 and SDG goals in schools (students are given assignments that shape their understanding and
734 critical thinking), sustainability at university (integrated into various subjects) and, in
735 addition, the university with several campuses introduced waste sorting, cycling to work and
736 paid parking, sustainable tourism (focus on local food for tourists, guided tours without the
737 use of transport), the Alpine World Championships in Narvik (almost all interviewees from
738 Narvik believed that this event is socially and economically sustainable and will not have a
739 negative impact on nature), aquaculture (almost all 75 believe that this industry is important
740 and sustainable), development of green industry, use of electric cars and population size (for
741 more examples see additional information S2).

742 The organizers mainly associate the word sustainability with the economy, industry,
743 aquaculture, jobs and population growth. Several of the organizers mention that challenges
744 related to climate change, environmental pollution and land degradation are also fundamental
745 to sustainable development, but at the same time they emphasize that many other challenges,
746 such as attractive jobs and economic growth, must be prioritized over these in northern
747 Norwegian municipalities with poor economies. Several of those interviewed from different
748 municipalities said they have abundant natural resources and that building wind farms or
749 industrial buildings will not be problematic for nature. An example of such a statement is:
750 *Narvik is an industrial town and is perhaps characterized by a focus on development,*
751 *expansion, and job creation rather than on preserving nature and the environment. There is a*
752 *perception that Narvik has a lot of nature, mountains, and untouched wilderness, so there is*
753 *plenty to draw from.*

754 Specifically, for Narvik, both organizers and lay citizens mentioned sustainable measures the
755 municipality has implemented through planning processes, such as the use of electric cars and
756 investment in green industry. These measures are intended to contribute to CO₂ reduction. The
757 measures are also outlined in national policy documents, and municipalities can receive

758 financial support from national authorities if they include them in their planning processes.
759 More than half of those interviewed believe that the municipality is focusing on these
760 measures to obtain financial support, not because it is considering sustainable development.
761 Some politicians, planners, and companies in Narvik, as well as several of the other
762 interviewees from other municipalities, mention that *sustainability has gained a strong*
763 *position in all discussions, proposals, and plans* in all municipalities in Northern Norway
764 because it is *an expectation and requirement from the national authorities*. In the introduction,
765 I showed that the focus on sustainability and the achievement of the SDGs is evident in many
766 national policy documents. I also showed that the planning framework for 2023–2027 seeks to
767 balance the need to focus on climate and biodiversity with the need to build green industry
768 and power plants. This is reflected in the practices of several of the municipalities
769 interviewed: *I definitely notice an increasing focus on sustainability. Fortunately, national*
770 *expectations have been set for us to incorporate a climate perspective into everything we do.*
771 *We must take this focus into account in all political proposals and assessments we make. And*
772 *we must assess things in relation to the UN's climate goals and similar. [...], but I don't feel*
773 *that there has been any major change in what we decide*. There are several similar statements
774 in my corpus: *I feel that there is more talk than action when it comes to sustainability in the*
775 *municipality. [...]* *You can't be a municipality today without talking about sustainability. But I*
776 *don't feel that resources are being used to ensure that there is a good enough basis for*
777 *decision-making to say that this is a future-oriented, sustainable choice*. The statements show
778 that incorporating national requirements separates sustainable practices into verbal/written
779 practices and action-oriented practices, with the latter affecting people's local values and their
780 lives. For example: *If we are to be able to get the exciting jobs that young people want, so that*
781 *we can have more children and more tax revenue, then it is not so important whether we have*
782 *industry in our outdoor recreation areas, because that is where the jobs are. But for those of*

783 *us who already live here, it's absolutely awful to see us losing the outdoor recreation areas we*
784 *have. They are very valuable in our lives. And nature issues and climate issues always lose*
785 *out.*

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

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

798 **Conclusion**

799 This study examined practices of citizen participation in planning processes, with an emphasis
800 on sustainable choices relevant to climate and environmental challenges. Analysis of
801 transcripts from 75 interviews with citizens from various municipalities in Northern Norway
802 identified 10 forms of citizen participation in planning processes: F1 Participation through
803 one's network, F2 Digital participation, F3 Cooperative participation and workshops, F4
804 Information meetings, F5 Participation through elected politicians or elections, F6
805 Participation through organizations and committees, F7 Participation through political
806 involvement, F8 Participation through people's movement, demonstration, or resistance, F9

807 Participation where local people are seen as equal participants and F10 Non-participation.
808 Although the interviewees see forms such as F5, F7 and F8 as those in which they experience
809 real opportunities to influence decisions, these forms cannot be regarded as participation in
810 planning processes as defined in Norwegian law on planning and building processes. Nor are
811 these forms mentioned in planning theories. What is most striking about the other forms is
812 that democratic values (fairness, legitimacy, and the effectiveness of public action) are not
813 fully supported, as the design forms fail in terms of the chosen communication type,
814 participant selection, and opportunities to influence the planning process and decision-
815 making. F2 has great potential, but communication is mostly one-way (information from
816 organizers and submission of public comments). It lacks dialogue and discussion. In addition,
817 it appears that citizens do not see their proposals reflected in the final decisions, which
818 negatively affects their motivation to participate again. F3 ensures the best type of
819 communication, but is weakened in areas such as the selected topics that citizens are given the
820 opportunity to participate in and the topics that they are unable to influence, as well as in the
821 area of the selected groups (those affected by decisions are often not the ones who are
822 selected). F9 is the form that, in principle, supports all democratic values, but since only a few
823 respondents mentioned it, further research is needed.

824 Sustainable development, with a focus on nature conservation, environmental protection,
825 reducing greenhouse gas emissions, and achieving the SDGs, is mentioned by all
826 interviewees. What is understood as sustainable choices, actions, and measures does not
827 necessarily coincide among lay citizens, politicians, planners, and local authorities. The
828 results show that measures aimed at climate mitigation and adaptation and the conservation of
829 nature and the environment are most often included in planning documents because they are
830 required by national authorities, but they usually remain on paper. In addition, local
831 authorities prioritize green industry, wind farms, and electric cars on the grounds that they

832 strengthen the local economy. Lay citizens, some politicians, and some planners believe these
833 are destructive to local values strongly linked to the importance of nature in people's lives.
834 The 10 forms of participation leave little room for participation at the early stages of planning
835 processes, and the same applies to the final phase when decisions are made. This may be the
836 reason for different understandings of what is considered sustainable for the municipalities
837 where the interviewees live.

838 **Discussion**

839 Planning processes have a real impact on sustainable development in municipalities in
840 Norway [21] and other European countries [14-19], as well as on the local achievement of
841 sustainability goals, which are crucial for achieving them at the global level [12, 24, 25].
842 Working with sustainability goals requires a transformation in which the inclusion of different
843 types of knowledge and synergy between different actors (in this case, municipalities and
844 residents) are considered crucial [3,13-18]. My findings show that the ten forms of citizen
845 participation identified in local planning processes in some municipalities in Northern
846 Norway lack genuine cooperation and fail to incorporate local knowledge. This, in turn, is a
847 barrier to local engagement in planning processes (the results show that the interviewees are
848 not motivated to participate when their suggestions are not reflected in decisions anyway) and
849 hinders joint transformation work in some of the municipalities. Cooperation between
850 different actors, especially in planning processes, often faces various challenges, for example
851 due to different interests [27], different values [35] economic priorities that local authorities
852 may prioritize over choices aimed at nature conservation [24, 30, 31], and not least due to
853 different worldviews and practices between minority groups (indigenous peoples) and the
854 majority (the Norwegian population) [36].

855 The design of participation in planning processes touches on democratic values such as
856 legitimacy (inclusiveness, representativeness, relevance of focus areas, questions and
857 solutions, and communication), fairness (who has the right and opportunity to participate and
858 how decisions are relevant to as many people as possible) and effectiveness of public action
859 (inclusion of citizens in all stages of the process and evaluation of decisions and measures)
860 [44]. Since all forms of participation in planning processes, or what Fung refers to as design,
861 include types of communication, selection of participants, and opportunities to influence
862 decisions, it is important that these three elements be chosen in ways that support democratic
863 values. At the same time, previous studies show that establishing a common understanding of
864 the SDGs among municipal residents, grounded in diverse types of knowledge, local values
865 and voices, and cooperation that strengthens people's agency, has the potential to achieve
866 social transformation in municipalities [e.g., 39].

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