

Making space: how public participation shapes environmental decision-making



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Laura H. Berry

Jessica Koski

Cleo Verkuijl

Claudia Strambo

Georgia Piggot

#### Key messages

- Civil society engagement is key to achieving sustainable development and environmental goals. Governments cannot reach environmental protection goals alone – they need support and guidance from the public.
- Increased public participation builds a more engaged citizenry, increases the legitimacy of decisions, and helps ensure that policy-makers have valuable local knowledge.
- Public participation in environmental decision-making includes both formal participation processes ("invited spaces") and mobilization by engaged citizens ("created spaces").
- Policy-makers should invest resources in the capacity building necessary to facilitate equitable and inclusive participation.
- Policy-makers should strive towards transparency in how input is applied to improve the legitimacy of public participation processes.

Public participation in sustainability and environmental protection is critically important. This is reflected in the 2030 Agenda for Sustainable Development, which was created using unprecedented public outreach. More than 7.5 million people from over 190 countries participated in the United Nations' global online survey on the 2030 Agenda (Fox and Stoett 2016). The need for fuller and more inclusive democratic participation is also embedded in the Sustainable Development Goals (SDGs) themselves: Goal 16 specifically calls for "responsive, inclusive, and participatory and representative decision-making at all levels" (United Nations General Assembly 2015).

Despite this commitment, coordinated action to improve public participation does not receive the same level of attention as some of the other SDGs — such as building resilient infrastructure or encouraging sustainable consumption. That may change this year, as public participation will be a central topic at the 2019 High-Level Political Forum on Sustainable Development. The theme for the forum is "empowering people and ensuring inclusiveness and equity".

This discussion brief provides an introduction for policy-makers, researchers, and others interested in better understanding both the promise and challenges associated with expanding public participation. We focus on the value of public participation for environmental decision-making, but the principles outlined have relevance for sustainability more broadly.

Drawing on literature from policy studies and a wide range of social sciences, we begin by summarizing the core rationales for increasing the role of the public in policy-making processes. We also provide a framework for making sense of the diverse array of participation spaces and mechanisms, both within and outside formal state procedures. Next, we turn to challenges, drawing particular attention to how social norms can undermine inclusive and equitable engagement. Finally, we note areas for future research.

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#### Rationales for expanding public participation

For many policy-makers and environmental advocates, public participation is an intrinsic good, regardless of outcome. Allowing impacted communities and other stakeholders to take part in decision-making is a basic component of democracy (Rosenbaum 1978; Thomas 1990).

Others view public participation as a means to an end. For example, public participation can improve the quality of decision-making by providing decision-makers with additional, unique information on local conditions (López Cerezo and García 1996; Newig 2007; Yearley et al. 2003). Local or "lay" knowledge plays an especially important role in implementing international commitments, like the 2030 Agenda on Sustainable Development. While the 17 Sustainable Development Goals are global in scope, the actual policy development and implementation occurs at the national, regional and local level. Policy-makers must translate the global targets to reflect real-world conditions (Fenton and Gustafsson 2017). Top-down translation, without widespread public input, can lead to policies that disregard local priorities and specific development contexts (Fox and Stoett 2016).

# RESOURCES FOR GOVERNMENTS INTERESTED IN IMPROVING PUBLIC PARTICIPATION PRACTICES

Maastricht Recommendations: A comprehensive guide to designing and implementing legal frameworks to facilitate public participation in environmental decision-making, created by the Task Force on Public Participation in Decision-making under the Aarhus Convention.

#### **Open Government Partnership:**

A resource for countries interested in creating action plans to become more inclusive, responsive, and accountable.

**Participedia**: A crowd-sourced online database of global case studies on participatory mechanisms.

Public participation can also improve policy implementation by increasing the legitimacy of the decision-making process and, in so doing, reducing conflict. Multiple studies have demonstrated that whether or not the public accepts a decision hinges on whether or not the public sees the decision-making process as fair (Bulkeley and Mol 2003; Lind and Tyler 1988; Newig 2007; Murphy 2004; Tyler 1990). Engaging the public in decision-making can help overcome deficits in democracy, such as distrust of political leaders, declining faith in public agencies, and low voter turnout (Dalton 2008; Newig 2007; Nye et al. 1997; Welp et al. 2009).

In much the same way, public participation also addresses the distrust that results from the predominance of experts in environmental decision-making. Scientific experts are vital to environmental policy-making, given that many environmental problems, such as ozone depletion and climate change, are only visible through science and technology (Carolan 2004; Eden 1996; Yearley 1992). At the same time, heavy reliance on technical experts can re-cast political issues as solely scientific questions, obscuring other considerations from public debate, such as accountability, equity and other values. (Carter 2001; Dryzek 1997; Fung 2006; Habermas 1970). Absent an explicit language and space for political debate, science becomes the target and subject of debate. This often leads to distrust and gridlock, as evident in climate change policy-making (Ozawa 2006; Sarewitz 2004; Sarewitz 2011). Bringing the public into decision-making has the potential to reinvigorate debate and move policy-making forward.

Ultimately, the ability of public participation to deliver on its myriad promises hinges on how governments and civil society translate ideals into practice. For example, public participation does not improve democratic practice if it is not inclusive. Likewise, public input does not improve the quality of decision-making if the right people are not in the room (i.e., those with unique information) or decision-makers do not actually take that information into account (Newig 2007). Similarly, public participation can breed distrust and conflict if the public does not perceive the process as fair — a difficult benchmark to define and analyze. We return to this point in discussing the challenges to expanding public participation.

## Public participation in practice: invited and created spaces

The broad call to expand public participation has led to a rapid proliferation of public meetings, advisory committees and other government initiatives specifically designed to facilitate citizen engagement in the decision-making process (Coenen 2009; Fung 2006; Richardson and Razzaque 2006; Smith 2009). However, public input is not limited to formal participation mechanisms. Civil society and social movements exert pressure from outside the political process; this mobilization uses a range of tactics – such as community forums, neighborhood coalitions and petitions – to influence policy development. In fact, nearly all contentious decisions today are shaped by both structured public participation and mobilization.

With this in mind, we propose an expanded definition of "public participation" that takes into account the full range of activities that the public undertakes to shape policy outcomes. Cornwall's (2002) "invited" and "created" spaces framework is useful because it does not draw strict boundaries between state-sanctioned participation and mobilization. "Invited" spaces are participation opportunities where decision-making authorities invite the public to provide input (i.e., public participation as traditionally understood). But citizens themselves also create spaces for engagement rooted in shared identities and common interests (i.e., mobilization).

This approach encourages us to consider diverse forms of public participation as operating within a shared political context. This then enables us to see more clearly how participation in "invited" and "created" spaces interact.

#### **Invited spaces**

Since the 1990s, there has been a rapid expansion in formal, state-based frameworks to facilitate public participation in decision-making. Each of these frameworks "invites" the public to engage beyond voting, its standard role in a representative democracy (Escobar 2017; Elstub and Escobar 2017). Different goals and contexts require different approaches (Dietz and Stern 2008; Thomas 1990).

One approach, broadly referred to as "participatory democracy", solicits opinions and concerns from relevant stakeholders throughout the decision-making process (Escobar 2017). Environmental impact assessments, strategic environmental assessments, and public inquiry mechanisms – which are all commonly used invited spaces within conventional environmental decision-making – exemplify this approach (Richardson and Razzaque 2006). In short, they recast administrative decision-making as a collective exercise involving the public.

An alternative approach to invited public participation strives towards "deliberative democracy". This approach focuses on facilitating collaborative exchange regarding a set of policies or actions. Forays into deliberative democracy frequently take the form of "mini-publics" or citizen assemblies. A state agency or other body constructs a representative group of citizens through random or near-random sampling, and this group then deliberates on a set of specific issues. Here, members of the public are invited to engage in processes of "sense-making, problem-solving, and considered judgement" (Escobar 2017; see also Dryzek 2000).

Invited spaces are increasingly expanding into the virtual world. AmericaSpeaks, a non-profit that is no longer active, pioneered a "21st Century Town Hall Meeting" model that uses technology to enable large groups to deliberate and make decisions, while maintaining face-to-face dialogue. Experiments in "e-democracy" raise important questions about the future of political engagement. On the one hand, the internet can help overcome the limitations of distance and mobility. However, the quality of deliberation is often very poor in online forums (Kersting 2005; Kies 2010). There are also large gaps in access to technology and competence both across and within nations. As a result, heavy reliance on new technologies to expand participation may reinforce existing inequities (Smith 2014).

#### **Created spaces**

Civil society groups also employ a diverse set of techniques to deliver feedback to policy-makers and provide input on policy development, such as organizing informational forums and citizen initiatives. These "created" spaces often emerge because the public is dissatisfied with the available invited spaces (Kersting 2013). However, the two are frequently deeply entertwined.

The mobilization against the construction of a biological testing facility in Bishkek, Kyrgyzstan illustrates this interaction. Kasymova and Gaynor (2014) trace how advocacy groups used online resources and a petition to grow awareness of the facility and to ensure that policy-makers were aware of the public's concerns. A local community organization, Clean Environment, also organized multiple public forums. In response, the Bishkek City Council hosted its own public hearing. In effect, advocates' use of created spaces prompted the local government to "invite" the public to engage. The government's hearing provided an opportunity for decision-makers not only to gain local

#### ENGAGING CITIZENS IN CLIMATE POLICY-MAKING: IRELAND'S CITIZEN ASSEMBLY

Deliberative democratic innovations are an increasingly popular tool in environmental policy-making. For example, in fall 2017, Ireland's Citizen Assembly took up the challenge of addressing "How the State can make Ireland a leader in tackling climate change". Created in July 2016 and chaired by former Supreme Court judge Mary Laffroy, the Assembly included 99 Irish citizens chosen randomly to represent the views of the people of Ireland. Over the course of two weekends, the group attended multiple presentations from climate change and energy experts and reviewed submissions from a diverse range of non-governmental organizations, advocacy groups, industry representatives and academics. Following intense deliberation, the Assembly issued 13 recommendations to the State, including a unanimous call for Ireland to take a leadership role in addressing climate change. One of the challenges of many citizen assemblies is where and how to embed the results of deliberation into the policy-making process (Smith 2014). This is true in the case of Ireland's Citizen Assembly, where the final recommendations were not binding.

information from those impacted by the proposal, but also to build rapport with constituents (Kasymova and Gaynor 2014). The Bishkek City Council ultimately created a special commission to review the agreement, which determined that the government had not taken into account the interests of Kyrgyz citizens. The council then voted against the proposal.

Recent mobilization against hydraulic fracturing ("fracking") in Newfoundland, Canada further demonstrates the interaction between created and invited spaces. In November 2012, residents learned that Shoal Point Energy planned to conduct exploratory fracking and proceeded to organize their own public forums, informational meetings and demonstrations. Carter and Fusco's (2017) case study documents how this mobilization in created spaces led the Minister of Natural Resources to create the Newfoundland and Labrador Hydraulic Fracturing Review Panel in October 2014. As panelists reviewed research on fracking and consulted with the public, advocates redirected their attention towards maximizing participation in the newly available invited spaces. The panel ultimately proposed important standards for evaluating fracking proposals, including a health impact assessment. The panel further stressed the importance for the provincial government of gaining "the communities' social license" prior to allowing fracking.

Social movements also co-opt and make creative use of invited spaces. The Colombian community of Piedras offers one example in their unorthodox use of a referendum to challenge nearby mining. Colombian law recognizes citizen referenda as a tool to integrate public input into questions of "vital importance", and it is thus an "invited space" (McNeish 2017). However, the law used to bar municipalities from using referenda to regulate mining in their territory; jurisdiction over mining was limited to the national government (Strambo and Puertas Velasco 2017). This did not deter activists in Piedras, who were deeply committed to blocking new gold mining in the nearby foothills of the Los Nevados Mountains. The community of Piedras held a popular referendum on June 12, 2013 and delivered a clear public condemnation of the mine. The Attorney General accused the mayor and the municipal council of Piedras of violating the law, while the national government issued an executive order reaffirming the ban (McNeish 2017; Strambo and Puertas Velasco 2017). This was the start of a protracted legal battle, which culminated in 2016, when the Constitutional Court ruled that it was unconstitutional to ban municipalities from stopping mining in their territory (Strambo and Puertas Velasco 2017). This is just one, albeit simplified, example of how activists use invited spaces in unorthodox ways, effectively "creating" a new space.

Although the mobilization was "successful" in these three examples, participation in created spaces is important even if it does not directly influence policy decisions. Civil society participation outside institutionalized forums is an important source of democratic deliberation regardless of short-term outcomes (Dryzek 2002; Wehling 2012). These deliberations can yield new narratives that change political discourse or generate new information that alters the political agenda (Dryzek 2000). Created spaces also provide opportunities for members of the public to clarify their thinking, develop well-formed arguments and gain confidence before entering into an invited space (Cornwall 2008).

#### Challenges to expanding public participation

There are major practical hurdles to expanding public participation opportunities (Coenen 2009; Kasymova and Gaynor 2014). Maintaining meaningful participation and discourse within both invited and created spaces requires time and money. However, our expanded conception of public participation also shifts attention to the actual practice of participation and its broader sociopolitical context — and thus pushes us to examine deeper and more intractable obstacles that impact who speaks and who is heard (Cornwall 2002; Gaventa 2006; Kersting 2013).

No participation process is independent of its social context, and participation is biased toward those with more privilege and more resources (Coenen 2009; Newig 2007; Woltjer 2000). As a result, expanding public participation in decision-making could yield policies that poorly reflect the needs and demands of impacted communities and marginalized groups, such as women (Newig 2007; Agarwal 1997; Mosse 1994). In fact, absent explicit attempts to advance justice,

public participation processes have the tendency to recreate and deepen existing inequalities in unintended ways (Agarwal 1997).

For example, open assemblies or public hearings may seem like the most equitable format because they are open to everyone. However, without active attempts to recruit more disenfranchised portions of the public, such formats are likely to see higher turnout from those that are already politically active (Smith 2014). Unless the design of participation processes is specifically targeted at addressing social injustice, it is likely to reinforce the status quo (Fung 2015).

The major role that experts play in environmental decision-making could magnify the negative impact of social and political norms on public participation. Technocratic decision-making can also be a means of excluding the public and prioritizing the role of business and special interests (Carter 2001; Dryzek 1997; Fung 2006). However, injecting the public in a meaningful way into highly technical decisions is not as simple as it sounds. Limited information or overly technical information can be huge stumbling blocks to meaningful public engagement (Diduck and Sinclair 2002; Kartez 1993; Webler et al. 1995). Many people also self-censor because they perceive science as having more authority than they do. Those who are most likely to self-censor are those who are already on society's margins (Cornwall 2002).

There is also a lack of understanding and transparency in how participation influences decision-making. As a result, attempts to expand public participation often backfire and produce more distrust or lead to "participation fatigue". The challenge is that a certain degree of opaqueness seems inevitable. Creating new opportunities for public participation inevitably increases the public's expectation of meaningful influence (Coenen 2009). However, as much as certain mechanisms may model direct democracy, public participation is not a replacement for representative democracy (Alexander 1996; Goldberg 1985; Woltjer 2000). It is also extremely difficult to institutionalize or standardize how decision-makers evaluate and apply public input. Environmental impact assessments are an excellent example. While there are extremely specific procedural requirements for soliciting and responding to public comments, the agency or permitting authority typically determines the significance of that input (Richardson and Razzaque 2006).

In short, translating the public participation ideal into practice is challenging. There is an inherent tendency for participation mechanisms to recreate existing inequalities. There is no universal best practice that applies to all situations. Consequently, policy-makers must pay careful attention to the design of participation processes to ensure that participation is as equitable and inclusive as possible, taking into account the broader social context (Dietz and Stern 2008).

#### Questions for future research

Below, we highlight four areas of future research that build on prior investigations and could improve efforts to expand public input into environmental decision-making.

## 1. How does social stratification manifest in public participation and what can we do to address it? How do we address self-exclusion?

Building truly inclusive and equitable participation mechanisms is important for those who see public participation as a core component of democracy, as well as for those seeking to use public participation to improve policy outcomes and implementation. This requires understanding how a variety of variables — from process design to deliberation rules to the broader social context — shape participation across different contexts.

For example, this research might consider:

- Who participates in what types of spaces? Who does not participate? Why?
- What capacity building such as training, background information, and other resources is necessary to enable widespread participation?
- How can we create conditions that facilitate equitable participation?
- What is the role of scientific analysis to support citizen participation?

## 2. What tactics do marginalized communities and individuals employ to amplify their voices in both invited and created spaces?

Exploring strategies and tactics that marginalized communities already employ to amplify their voices may be useful in identifying best practices for building capacity and designing more inclusive and equitable participation processes (Cornwall 2002).

### 3. How does participation in invited and created spaces interact? How does this interaction shape the policy-making process?

This is important in gaining a deeper understanding of the full impact of public participation in decision-making, including on policy outcomes and the policy-making process itself.

Possible research questions include:

- How does the use of created spaces contribute to invitations to participate in formal decisionmaking procedures?
- How does participation in invited spaces impact the generation of created spaces?
- Are there particular types of experiences with public participation mechanisms that lead one to participate in created spaces?
- How does mobilization in created spaces shape the way that decision-makers in invited spaces receive and implement public input?

#### 4. How do decision-makers receive and apply public input?

Gaining greater understanding of the relationship between input and decision outcomes is vital for increasing the legitimacy of public participation processes. This is true for participation in both invited and created spaces.

Answering the following questions would be especially useful:

- What components of process design, such as setting or discussion format, impact how decision-makers apply the feedback that they receive?
- How do decision-makers weigh different types of expertise?
- What is the most appropriate way to balance expert and local knowledge?
- Are there certain cases where the most appropriate role for the public may be a consultative role rather than direct input on decision-making?
- How can we better institutionalize the relationship between public input and outcomes?
- How can we render the relationship between public input and outcomes more transparent?

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#### **Moving forward**

There are multiple methods that researchers could use to answer these questions, each offering unique and necessary insights. What is most important is that they are asked and investigated, leading to a better understanding of how culture and social norms shape participation across different spaces and how public input makes its way to policy-makers.

This understanding would enable policy-makers to make targeted investments in the capacity building that is necessary to ensure widespread and meaningful participation from those too often excluded from the decision-making process. Additionally, improved knowledge of how public input shapes policy decisions would foster legitimacy by allowing for greater transparency.

Ensuring a livable environment for current and subsequent generations hinges on successfully engaging all sectors of society. As the examples in this discussion brief show, public participation is an invaluable tool for fostering meaningful collaboration with key stakeholders in constructing and achieving a positive vision for our future.

#### References

- Agarwal, B. (1997). Editorial: Re-sounding the alert—gender, resources and community action. *World Development*, 25(9). 1373–80. DOI: 10.1016/S0305-750X(97)00062-4
- Alexander, E. R. (1996). After rationality: towards a contingency theory of planning. In *Explorations in Planning Theory*. Mandelbaum, S. J., Mazza, L., and Burchell, R. W. (eds). Center for Urban Policy Research, New Brunswick, NJ, 45-64.
- Bulkeley, H. and Mol, A. P. J. (2003). Participation and environmental governance: consensus, ambivalence and debate. *Environmental Values*, 12(2). 143–54. https://www.jstor.org/stable/30301925
- Carolan, M. (2004). Ontological politics: mapping a complex environmental problem. Environmental Values, 13(4). 497–522. https://www.jstor.org/ stable/30302024
- Carter, A. V. and Fusco, L. M. (2017). Western Newfoundland's anti-fracking campaign: exploring the rise of unexpected community mobilization.

  Journal of Rural and Community Development, 12(1). 98-120. http://journals.brandonu.ca/jrcd/article/view/1356
- Carter, N. (2001). The Politics of the Environment: Ideas, Activism, Policy.

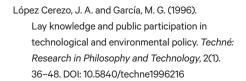
  Cambridge University Press, Cambridge, UK and New York, NY.
- Coenen, F. H. J. M. (2009). Introduction. In Public Participation and Better Environmental Decisions: The Promise and Limits of Participatory Processes for the Quality of Environmentally Related Decision-Making. Coenen, F. H. J. M. (ed.). Springer, Dordrecht, Netherlands and London, UK. 1–10. http://link.springer.com/10.1007/978-1-4020-9325-8
- Cornwall, A. (2002). Making Spaces, Changing Places: Situating
  Participation in Development. Institute of Development Studies,
  Brighton, UK. https://opendocs.ids.ac.uk/opendocs/bitstream/
  handle/123456789/3932/Wp170.pdf
- Cornwall, A. (2008). Unpacking 'Participation': models, meanings and practices. Community Development Journal, 43(3). 269–83. DOI: 10.1093/cdj/bsn010
- Dalton, R. (2008). Citizen Politics: Public Opinion and Political
  Parties in Advanced Industrial Democracies. SAGE Publications,
  Thousand Oaks. CA.
- Diduck, A. and Sinclair, A. J. (2002). Public involvement in environmental assessment: the case of the nonparticipant. *Environmental Management*, 29(4). 578–88. DOI: 10.1007/s00267-001-0028-9
- Dietz, T. and Stern, P. (2008). *Public Participation in Environmental Assessment and Decision Making*. National Academies Press, Washington, DC. http://www.nap.edu/catalog/12434
- Dryzek, J. S. (1997). The Politics of the Earth: Environmental Discourses.
  Oxford University Press, Oxford, UK and New York, NY.
- Dryzek, J. S. (2000). *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*. Oxford University Press, Oxford, UK and New York, NY.
- Eden, S. (1996). Public participation in environmental policy: considering scientific, counter-scientific and non-scientific contributions. *Public Understanding of Science*, 5(3). 183–204. DOI: 10.1088/0963-6625/5/3/001

- Elstub, S. and Escobar, O. (2017). A typology of democratic innovations.

  Presentation at the Political Studies Association's Annual

  Conference, Glasgow, UK, https://www.psa.ac.uk/sites/default/files/
  conference/papers/2017/A Typology of Democratic Innovations Elstub and Escobar 2017.pdf
- Escobar, O. (2017). Pluralism and democratic participation: what kind of citizen are citizens invited to be? *Contemporary Pragmatism*, 14(4). 416–38. DOI: 10.1163/18758185-01404002
- Fenton, P. and Gustafsson, S. (2017). Moving from high-level words to local action governance for urban sustainability in municipalities. *Current Opinion in Environmental Sustainability*, 26–27. 129–33. DOI: 10.1016/j. cosust.2017.07.009
- Fox, O. and Stoett, P. (2016). Citizen participation in the UN Sustainable
  Development Goals consultation process: toward global democratic
  governance? Global Governance: A Review of Multilateralism and
  International Organizations, 22(4). 555–74. http://journals.rienner.com/doi/abs/10.5555/1075-2846.22.4.555
- Fung, A. (2006). Varieties of participation in complex governance. *Public Administration Review*, 66. 66–75. DOI: 10.1111/j.1540-6210.2006.00667.x
- Fung, A. (2015). Putting the public back into governance: The challenges of citizen participation and its future. Public Administration Review, 75(4). 513–22. DOI: 10.1111/puar.12361
- Gaventa, J. (2006). Finding the spaces for change: a power analysis. *IDS Bulletin*, 37(6). 23–33. DOI: 10.1111/j.1759-5436.2006.tb00320.x
- Goldberg, M. A. (1985). The irrationality of 'rational' planning: exploring broader bases for planning and public decision making. In *Rationality in Planning: Critical Essays on the Role of Rationality in Urban & Regional Planning*. Breheny, M. J., Hooper, A., (eds). Pion, London, UK. 120-144.
- Habermas, J. (1970). Toward a Rational Society: Student Protest, Science, and Politics. Beacon Press, Boston, MA.
- Kartez, J. D. (1993). Quick deals and raw deals: a perspective on abuses of public ADR principles in Texas resource conflicts. *Environmental Impact* Assessment Review, 13(5). 319–30. DOI: 10.1016/0195-9255(93)90023-5
- Kasymova, J. and Gaynor, T. S. (2014). Effective citizen participation in environmental issues: what can local governments learn?

  State and Local Government Review, 46(2). 138–45. DOI: 10.1177/0160323X14541549
- Kersting, N. (2005). The quality of political discourse: can e-discussion be deliberative? Presentation at British Political Studies Association Annual Conference, 5-7 April 2005. Leeds, UK.
- Kersting, N. (2013). Online participation: from 'invited' to 'invented' spaces. International Journal of Electronic Governance, 6(4). 270 -80. DOI: 10.1504/IJEG.2013.060650
- Kies, R. (2010). Promises and Limits of Web-Deliberation. Palgrave Macmillan, New York, NY.
- Lind, E. A. and Tyler, T. (1988). The Social Psychology of Procedural Justice. Plenum Press, New York, NY.



- McNeish, J. A. (2017). A vote to derail extraction: popular consultation and resource sovereignty in Tolima, Colombia. *Third World Quarterly*, 38(5). 1128–45. DOI: 10.1080/01436597.2017.1283980
- Mosse, D. (1994). Authority, gender and knowledge: theoretical reflections on the practice of participatory rural appraisal. *Development and Change*, 25(3). 497–526. DOI: 10.1111/j.1467-7660.1994.tb00524.x
- Murphy, K. (2004). The role of trust in nurturing compliance: a study of accused tax avoiders.

  Law and Human Behavior, 28(2). 187–209. DOI: 10.1023/B:LAHU.0000022322.94776.ca
- Newig, J. (2007). Does public participation in environmental decisions lead to improved environmental quality? Towards an analytical framework. Communication, Cooperation, Participation (International Journal of Sustainability Communication), 1(1). 51–71. https://nbn-resolving.org/urn:nbn:de:0168-ssoar-431965
- Nye, J. S., Zelikow, P. and King, D. C., eds. (1997).

  Why People Don't Trust Government. Harvard
  University Press, Cambridge, MA.
- Ozawa, C. P. (2006). Science and intractable conflict.

  Conflict Resolution Quarterly, 24(2). 197–205.

  DOI: 10.1002/crq.168
- Richardson, B. and Razzaque, J. (2006). Public participation in environmental decision-making. In *Environmental Law for Sustainability*.
  Richardson, B. and Wood, S. (eds). Hart Publishing, Oxford, UK. 65–194.
- Rosenbaum, N. (1978). Citizen participation and democratic theory. In *Citizen Participation in America: Essays on the State of the Art.* Langton, S. (ed.). Lexington Books, Lexington, MA. 43–54.
- Sarewitz, D. (2004). How science makes environmental controversies worse. Environmental Science & Policy, 7(5). 385–403. DOI: 10.1016/j.envsci.2004.06.001
- Sarewitz, D. (2011). Does climate change knowledge really matter? *Wiley Interdisciplinary Reviews: Climate Change*, 2(4). 475–481. DOI: 10.1002/ wcc.126
- Smith, G. (2009). Democratic Innovations: Designing
  Institutions for Citizen Participation. Cambridge
  University Press, Cambridge, UK.

- Smith, G. (2014). Options for Participatory Decision-Making for the Post-2015 Development Agenda. http://www.fdsd.org/site/wp-content/ uploads/2015/04/Options-for-participatorydecision-making-paper.pdf
- Strambo, C. and Puertas Velasco, A. J. (2017). The

  Changing Politics of Coal Extraction in Colombia.

  Discussion Brief. Stockholm Environment
  Institute, Stockholm, Sweden.
- Thomas, J. C. (1990). Public involvement in public management: adapting and testing a borrowed theory. *Public Administration Review*, 50(4). 435–45. DOI: 10.2307/977079
- Tyler, T. R. (1990). *Why People Obey the Law.* Yale University Press, New Haven, CT.
- United Nations General Assembly (2015).

  Transforming our world: the 2030 Agenda for Sustainable Development. A/RES/70/1, 21

  October 2015. http://www.un.org/ga/search/view\_doc.asp?symbol=A/RES/70/1&Lang=E
- Webler, T., Kastenholz, H. and Renn, O. (1995).
  Public participation in impact assessment:
  a social learning perspective. Environmental Impact Assessment Review, 15(5). 443–63. DOI:
  10.1016/0195-9255(95)00043-E
- Welp, M., Kasemir, B. and Jaeger, C. (2009).

  Citizens' Voices in Environmental Policy:
  The Contribution of Integrated Assessment
  Focus Groups to Accountable DecisionMaking. In Public Participation and Better
  Environmental Decisions: The Promise and
  Limits of Participatory Processes for the Quality
  of Environmentally Related Decision-Making.
  Coenen, F. H. J. M. (ed.). Springer, Dordrecht,
  Netherlands and London, UK. 21–34. http://link.
  springer.com/10.1007/978-1-4020-9325-8
- Woltjer, J. (2000). Consensus Planning, the Relevance of Communicative Planning Theory in Dutch Infrastructure Development. Ashgate, Aldershot, UK.
- Yearley, S. (1992). Green ambivalence about science: legal-rational authority and the scientific legitimation of a social movement. *The British Journal of Sociology*, 43(4). 511–32. DOI: 10.2307/591338
- Yearley, S., Cinderby, S., Forrester, J., Bailey, P. and Rosen, P. (2003). Participatory modelling and the local governance of the politics of UK air pollution: a three-city case study. *Environmental Values*, 12(2). 247–262. https://www.jstor.org/ stable/30301943



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**Author contact:** jessica.koski@sei.org

Media contact:

emily.yehle@sei.org

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