



Engaging Citizens for Socially Just Climate Action

JULY 2022

© 2023 The World Bank Group

1818 H Street NW, Washington, DC 20433

Telephone: 202-473-1000; Internet: www.worldbank.org

This work is a product of the staff of The World Bank Group with external contributions. “The World Bank Group” refers to the legally separate organizations of the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA). The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank Group, its Board of Executive Directors, or the governments they represent.

The World Bank Group does not guarantee the accuracy, reliability or completeness of the content included in this work, or the conclusions or judgments described herein, and accepts no responsibility or liability for any omissions or errors (including, without limitation, typographical errors and technical errors) in the content whatsoever or for reliance thereon. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries. The findings, interpretations, and conclusions expressed in this volume do not necessarily reflect the views of the organizations of the World Bank Group, their respective Boards of Executive Directors, and the governments they represent.

The contents of this work are intended for general informational purposes only and are not intended to constitute legal, securities, or investment advice, an opinion regarding the appropriateness of any investment, or a solicitation of any type. Some of the organizations of the World Bank Group or their affiliates may have an investment in, provide other advice or services to, or otherwise have a financial interest in, certain of the companies and parties named herein.

Nothing herein shall constitute or be construed or considered to be a limitation upon or waiver of the privileges and immunities of any of the organizations of The World Bank Group, all of which are specifically reserved.

Rights and Permissions

The material in this work is subject to copyright. Because the World Bank Group encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given and all further permissions that may be required for such use (as noted herein) are acquired. The World Bank Group does not warrant that the content contained in this work will not infringe on the rights of third parties and accepts no responsibility or liability in this regard.

All queries on rights and licenses should be addressed to World Bank Publications,
The World Bank Group,
1818 H Street NW, Washington, DC 20433, USA;
e-mail: pubrights@worldbank.org.

Cover photographs: WCCI



Contents

Preface	1
Acknowledgments	2
Table of Abbreviations	3
1. Introduction	5
Citizen Engagement for Socially Just Climate Action	7
<i>Why Is Citizen Engagement Important?</i>	7
<i>Challenges and Enablers of Citizen Engagement</i>	8
Social Learning as a Way to Balance Power Dynamics	14
<i>Typology of Citizen Engagement for Climate Action</i>	15
<i>Digital Participation</i>	19
<i>How Can Citizen Engagement Influence Policy to Support Community Needs?</i>	20
2. Purpose, Framework, and Methods	23
Purpose and Framework	24
Methods	26
The Case Study Networks	26
<i>Women’s Climate Centers International</i>	26
<i>Paran Alliance</i>	27
<i>Slum Dwellers International</i>	27
3. Findings	28
Contextual Features	29
<i>Type of Issue or Policy Arena</i>	29
<i>Level of Governance</i>	29
<i>Stage of Policy Process</i>	30
<i>Level of Openness for Civil Society in Decision-Making</i>	31
<i>Digital Connectivity and Digital Divide</i>	32
Design Features	33
<i>Participant Selection</i>	33
<i>Mode of Participation</i>	34
<i>Mode of Decision-Making</i>	36



<i>Level of Citizen Influence in Policy Making</i>	37
<i>Space of Participation</i>	40
<i>Time and Duration</i>	41
Individual and Collective Political Capabilities	42
<i>Political Capabilities for Climate Action</i>	42
<i>Use of Digital Tools and Generation, Accessibility, and Use of Climate Information</i>	44
<i>Social and Collective Learning</i>	46
Grassroots Networks' Responses to COVID-19	49
<i>Self-Organized Groups and the Efficient Flow of Information, Resources, and Knowledge</i>	49
<i>Enablers for the Rapid Allocation of Resources: Targeting, Delivery, and Distribution</i>	50
4. Discussion and Conclusions	52
Designing Engagement Processes for Inclusive Climate Action	53
Importance of Individual and Collective Political Capabilities	54
Digital Tools and Climate Information	55
5. Recommendations and Research Needs	57
Recommendations	58
Research Needs	61
References	62
Annex. The Intrinsic Importance of Citizen Engagement	67

Tables

Table 1. Families of Citizen Engagement Processes or Democratic Innovations	19
Table 2. Levels of Engagement in the Three Case Studies	30
Table 3. Mode of Participant Selection	34
Table 4. Mode of Engagement	36
Table 5. Decision-Making Processes	37
Table 6. Enablers and Constraints to Policy Influence	40
Table 7. Space of Engagement	41
Table 8. Building on Autonomous Action for COVID-19 Risk Management	51



Figures

Figure 1. Summary of Key Messages from the Literature—Challenges and Qualities of Citizen Engagement in Climate-Related Decision-Making	9
Figure 2. Mode of Selection	15
Figure 3. Mode of Participation	16
Figure 4. Mode of Decision-Making	16
Figure 5. Level of Influence	17
Figure 6. Space of Engagement	17
Figure 7. Time and Duration of Citizen Engagement	18
Figure 8. Framework for the Analysis of Citizen Engagement Processes for Climate Policy and Action	25
Figure 9. The Tujuane Tujengane Mtaani Model Developed by the Muungano Alliance – SDI Kenya	35
Figure 11. SDI’s Enablers of Individual and Collective Political Capabilities	43

Boxes

Box 1. SDI: Multidisciplinary and Multisectoral Partnerships to Blend Knowledge and Resources	38
Box 2. WCCI: Using Women to Support Political Engagement	38
Box 3. Paran Alliance: Influencing Policy	39
Box 4. The Connecting Role of the Secretariat for Iterative Learning in SDI	47



Photo: SDI



Photo: WCCI



Photo: WCCI



Photo: SDI



Preface

Climate change governance poses particular challenges for citizen engagement in decision-making and policy processes. Climate risk management and governance are affected by uncertain (and often limited) evidence about future changes in specific locations, longer time horizons for expected changes relative to policy cycles, and the multisectoral nature of climate change. Although climate impacts cut across traditional policy domains and institutions, a whole-of-government approach to addressing climate change is still weak. The impacts of climate change also differ for various groups, depending on intersecting attributes of social difference, including gender, race, ethnicity, class, and disability, among others. It is especially important that citizens are engaged meaningfully in climate policy processes to ensure their needs and priorities are captured in policy-making processes and policy implementation. Research on deliberative governance and social learning shows that processes using engagement and outreach, employing such techniques as iterative learning; changing values, attitudes, and capabilities; and engaging institutions to work for broader change, can address some of these challenges to climate change planning and decision-making.

People who engage in participatory spaces often have unequal resources, capabilities, and socioeconomic status. This can make it difficult for those with fewer resources, information, or capabilities to participate effectively in public decisions. This paper identifies six main challenges to meaningful engagement in climate decision-making: unequal “presence” in decision-making spaces (unequal participation); unequal political capabilities for climate action; unequal power to influence decisions; perceived high costs and low efficiency; challenges of legitimate representation due to scale; and access to digital tools and climate information. By reviewing literature on engagement and participation, the paper shows that how participants are selected, how decisions are made, the mode of engagement, and the relationship to power and authority can help overcome challenges to engagement. These features of engagement also rely on broader contextual features, such as the nature of the risk, the stage of the policy process, and the scale of engagement. And engagement needs to build on individual capabilities to engage meaningfully with traditionally marginalized individuals and groups.

Governments planning to ensure meaningful citizen engagement of traditionally disenfranchised individuals and groups in climate policy and action through local and national platforms are the primary audience of this paper. Secondary audiences include development organizations, donors and philanthropies, and civil society actors that advocate for and support the processes that enable the meaningful engagement of citizens in climate policy and action.



Acknowledgments

As part of its mission, the World Bank's Social Sustainability and Inclusion Global Practice seeks to promote citizen engagement in climate decision-making. This paper, commissioned to support that effort, analyzes three civil society or grassroots networks active in Kenya, Malawi, and Uganda. It explores what forms of participation have best supported citizen engagement in climate change policies, how citizens make collective decisions, how citizens influence relevant stakeholders to respond to their needs, and how citizens' capabilities can aid response to other risks, such as the COVID-19 pandemic. The paper also considers how digital tools and various forms of risk information can support inclusive and farsighted decision-making and how they can strengthen resilience to dynamic local risks.

Margaret Arnold was the team leader for the activity at the World Bank. The work was undertaken by the International Institute for Environment and Development (IIED) in partnership with other research and civil society organizations. The authors of the report include Karen Wong-Pérez, Tracy Kajumba, Barry Smith, Emilie Beauchamp, Sam Greene, Clare Shakya, and Anna Walnycki (IIED); Susannah Fisher (SOAS University of London); Beth Chitekwe-Biti and Ariana Karamallis (Slum Dwellers International); Rose Wamalwa and C. Hajra Mukasa (Women Climate Centers International); and David Silakan (Pastoralist Alliance for Resilience and Adaptation in Northern Rangelands). The team sincerely thanks its research partners in Malawi, Kenya, and Uganda. Special thanks go to Hajra Mukasa, Rose Wamalwa, Tracy Mann, Sarah Diefenord (WCCI); David Silakan (Paran Alliance); Malih Ole Kaunga (IMPACT); Jane Meriwas (Samburu Women Trust); Liban Golicha (Waso Trust Lands); Jacinta Rhoda (Sangida Foundation); Mohamed Dida (ISID); Galm Qampise (Kivulini Trust); Grace Lolim and Abdia Haji (Isiolo Gender Watch); Abdullahi Shandey (Merti Integrated Development Program); Domini Maringa (Ngare Ndare Forest Trust); Phaniel Kitonga (Ngare Ndare Water Resource Users Association); Beth Chitekwe-Biti, Kirsty Bryant, and Ariana Karamallis (SDI Secretariat); Sheela Patel (SDI India affiliate SPARC); Wonderful Hunga and Zilire Luka (SDI Malawi affiliate Centre for Community Organization and Development); Joe Muturi, Joseph Kimani, Jane Weru, Jack Makau, and Stanley Dzimadzi (SDI Kenya's Muungano Alliance). Larissa Setaro (IIED) provided excellent project coordination. Elizabeth and Acul and Francisco Lazzaro provided valuable support from the World Bank. The team appreciates Erik Caldwell Johnson, Nicholas Meitiaki Soikan, and Manuel Figueredo Thomson for serving as peer reviewers of the paper, and thanks Ingo Wiederhofer for his additional inputs. Funding for the activity was provided by the World Bank's Global Facility for Disaster Reduction and Recovery.

The findings, interpretations, and conclusions in this report are entirely those of the authors and should not be attributed in any manner to the World Bank, its affiliated organizations, members of its board of executive directors, or the countries they represent. The World Bank does not guarantee the accuracy of the data in this publication and accepts no responsibility for any consequence of their use. The boundaries, colors, denominations, and other information on any map in this volume do not imply on the part of the World Bank Group any judgment about the legal status of any territory or the endorsement or acceptance of such boundaries.



Table of Abbreviations

ACREI	Agricultural Climate Resilience Enhancement Initiative
AI	Artificial intelligence
CCODE	Centre for Community Organization and Development
COMPE	Community Mobilization for Positive Empowerment
CSO	Civil society organizations
DNMC	District Non-Governmental Monitoring Committee
ENACTS	Enhancing National Climate Services
ERF	Emergency Relief Fund
GFDRR	Global Facility for Disaster Reduction and Recovery
GIS	Geographic information system
GSMA	Global System for Mobile Communication Association
ICNL	International Center for Not-for-Profit Law
ICT	Information and communications technology
IIED	International Institute for Environment and Development
ISID	Indigenous Strategies and Institution for Development
NGO	Nongovernmental organizations
NMHS	National Meteorological and Hydrological Services
OWN	Osukuru United Women's Network
SIM	Subscriber identity module
SMART	Spatial Monitoring and Reporting Tool
SPA	Special Planning Area
UCC	Uganda Communications Commission
UNFCCC	UN Framework Convention on Climate Change
UWWI	Uganda Women's Water Initiative
WCCI	Women's Climate Centers International
WWANC	Women in Water and Natural Resources Conservation

1 | Introduction

Photo: WCCI





Engaging citizens in climate-related decision-making is critical to ensure that government policies respect the priorities of communities and contribute to gender equality and social justice. Engagement also ensures that climate measures have adequate public support and, therefore, are more effective in reducing emissions and improving resilience to climate change. Hence, responding to the interconnected challenges of poverty, inequality, ecosystem degradation, and climate change requires mechanisms that enable people to engage with policy and political processes as active agents of change. Studies on climate justice show that those people most affected by climate change are the ones already excluded or marginalized based on gender, ethnicity, income level, migratory status, and others, in low-, middle-, and high-income countries.

Policy makers, scholars, and civil society see citizen participation in policy making as a process with intrinsic value and a means to improve the effectiveness of climate policies. In 2020, at the seventy-fifth session of the UN General Assembly, UN Secretary-General Antonio Guterres highlighted participation itself as a fundamental human right and an underutilized tool for better policy making. UN Human Rights Chief Michelle Bachelet said participation is “a major asset to governments” and stressed the need to strengthen inclusive, meaningful, and effective participation as a matter of deep global urgency. “Crucially,” she said, “participation must be inclusive, extending participation most especially to marginalized and vulnerable groups.” Participation must not be merely formal or tokenistic, but have an actual impact on decisions, and be timely and sustained (UN 2020).

In the context of the COVID-19 pandemic and the growing availability of digital tools and platforms for civic engagement, virtual forms of participation are increasingly important for inclusive citizen engagement. Social distancing and restrictions on physical interaction have meant many democratic processes have had to be replicated online. However, to avoid exacerbating existing digital inequalities, attention is needed to explore how marginalized communities might be supported to access tools that could advance their voice. For climate action, people also need to have access to usable and targeted information on present and future scenarios, often delivered in digital formats, as well as the ability to interpret the information.

This paper uses three case studies to explore how local climate action and citizen engagement mechanisms can support decision-making on national climate policy. It focuses on grassroots and civil society networks working in Kenya, Malawi, and Uganda. The paper documents how citizens are engaged in the diverse risks they face, how they identify priorities for collective action and engage with government authorities to influence change, and how they use digital tools and platforms to enhance their impact.

The aim of the paper is to

- Assess deliberative processes currently used by civil society networks and social movements to address the risks of climate change and the COVID-19 pandemic, make collective decisions, and influence relevant stakeholders to respond to their needs;
- Identify digital tools to assess risks and provide local communities with access to risk information and explore how technology can support social inclusion in decision-making and the strengthening of resilience; and
- Strengthen the evidence base on the democratic innovations and tools used to build local resilience and on the role of grassroots actors.

The next section reviews relevant literature on citizen engagement and policy processes, followed by an outline of the framework and methods for this study. The final section discusses the findings and conclusions.



Citizen Engagement for Socially Just Climate Action

Meaningful citizen engagement depends on interrelated factors such as how citizen engagement processes are designed, the context in which those processes take place, and the political capabilities of individuals and groups. These elements are important in determining how inclusive citizen engagement processes are and how much they can influence policy. Digital participation is increasingly important for risks such as the COVID-19 pandemic.

Why Is Citizen Engagement Important?

“People have to be seen... as being actively involved—given the opportunity—in shaping their own destiny, and not just as passive recipients of the fruits of cunning development programs.” (Sen 1999, 53)

Climate change poses challenges for citizen engagement and policy making (Fisher et al. 2016). These challenges include the uncertain (and often limited) evidence about future changes in specific locations; the longer time horizons of expected changes relative to policy cycles; the multisectoral nature of climate change, which cuts across traditional policy domains and institutions; and the differential impacts of climate change effects on marginalized groups.

The uncertain (and often limited) nature of climate information is a challenge to meaningful citizen engagement due to the differing technical capacities and interpretative skills of participants, as well as the difficulties of communication of uncertainties and risk thresholds to participants (Klein et al. 2014). However, waiting for complete information before planning for adaptation would likely lead to higher economic costs and high vulnerability. Wilby and Dessai (2010) highlight the uncertainty about how climate impacts will affect different groups and individuals within a particular context due to differing local impacts and adaptation responses.

Different groups and individuals have varying degrees of vulnerability and exposure to the impacts of climate change. Women and other marginalized groups often experience higher levels of vulnerability because of prevailing constraints such as lack of assets and limited access to services (Holmes and Jones 2013; Moser and Satterthwaite 2008). Different communities and individuals within communities may need a variety of support to build their resilience and may experience the impacts of adaptation and mitigation interventions in different ways (Otzelberger 2011). Who is affected and how adaptation responses address differentiated impacts are key to addressing climate uncertainties inclusively.

Climate change is a “wicked” problem that often blends into other multidimensional challenges and presents great scientific complexity and deep uncertainties. It is particularly important, therefore, that affected groups are meaningfully engaged in developing responses. Within policy frameworks and research, the value of engaging these groups has been based on its intrinsic importance, the instrumental contributions, and the constructive role of citizen engagement.

Policy and legal frameworks recognize the **intrinsic importance** of public participation. The 2030 Agenda for Sustainable Development includes participatory governance as an objectives. Target 16 aims to “ensure responsive, inclusive, participatory and representative decision-making at all levels.” while Target 5.5 provides for the participation of vulnerable groups and women in decision-making processes. In the climate arena, Article 6 (a.iii) of the UN Framework Convention on Climate Change (UNFCCC) includes commitment of the parties to promote “public participation at the national and subregional levels in addressing climate change and its effects and developing adequate responses” (UNFCCC 1992, p17). And the Paris Agreement preamble portrays a people-centered vision of an equitable, low-emission future where inclusive participation is a key element in designing and driving climate-resilient solutions. In this context, public participation needs to go beyond consultation and seeks to foster long-term collaboration between citizens and local and national governments to craft policies. Article 12 of the Paris Agreement emphasizes the need to improve public participation and access to information.



Citizen engagement has also been regarded as having **intrinsic value** for the quality of people’s lives and as a constituent of human agency (Drèze and Sen 2002). In the context of climate change, duly recognizing those affected by climate change and giving them procedural justice in developing solutions have also been seen as core tenets of realizing climate justice (Fisher 2015; Schlosberg 2004). In *Development as Freedom*, Amartya Sen (1999, 53) describes two types of relationship between the state and society—one where people who are materially deprived are deemed “passive recipients of the fruits of cunning development programs” and feel acutely their lack of voice, power, and independence—and another where human agency has a central role and people are seen as actively involved in shaping their own destiny.

There are a range of arguments on the **instrumental contributions** of citizen engagement. These include participation as the most effective defense against arbitrary power; the individual as the best judge of their own interests (Smith 2009, 5); effectiveness of decision-making and collective problem solving (Ganz 2000; De Souza Briggs 2008); the potential to improve democratic legitimacy (Dewey 1927; Dryzek 2009); improved accountability, transparency, and trust in the government (Fung and Olin Wright 2003; Lee and Schachter 2019; Pradhan 2020; Smith 2009); improved local governance and responsiveness to community priority needs (DCF Alliance 2019; Sen 1999; World Bank 2002); strengthening political capabilities necessary for individuals to ensure functioning (Nussbaum 2001; Sen 1999); and advancing social, environmental, and climate justice given that participation in decision-making is key for procedural justice (Fraser 1998; Schlosberg 2007). Others draw attention to the way in which disadvantaged social groups are marginalized or excluded from the political process. For example, Phillips argues, “when policies are worked out for rather than with a politically excluded constituency, they are unlikely to engage all relevant concerns” (1995, 13). In this view, political legitimacy rests on whether the distinct voices and perspectives of these social groups are recognized and represented in political decision-making processes (Smith 2009).

Forms of participation like deliberation also have a **constructive importance** because the perspectives people exchange in deliberative spaces and in social learning settings can change their values and preferences (Alkire 2005). By participating in these processes, individuals reflect on their preferences and can articulate and communicate their needs (Dryzek 2009), which “gives citizens an opportunity to learn from one another” (Sen 1999, 3). Annex 1 summarizes the distinct intrinsic, instrumental, and constructive arguments of citizen engagement.

Challenges and Enablers of Citizen Engagement

“Injustice often results from political inequality. When some groups cannot influence the political agenda, affect decision making, or gain information relevant to assessing how well policy alternatives serve their interests because they are excluded, unorganized, or too weak, they are likely to be ill served by laws and policies.” (Fung 2006, 70)

Despite its importance, the meaningful engagement of citizens has many challenges, particularly for those who are distant from the locus of power. One challenge is that individual participants enter participatory spaces with unequal resources, capacities, and social positions. Social inequalities make it difficult for people who lack resources and capabilities to participate effectively in public decisions. This undermines the public character of deliberation by reproducing the advantages of those who already possess sufficient information and political capacity. Several authors have highlighted the challenges of citizen engagement, especially for historically marginalized individuals and groups (Bohman 2000; Gaventa and Barrett 2010; Narayan et al. 2000; Sen 1999; Smith 2009; World Bank 2002).

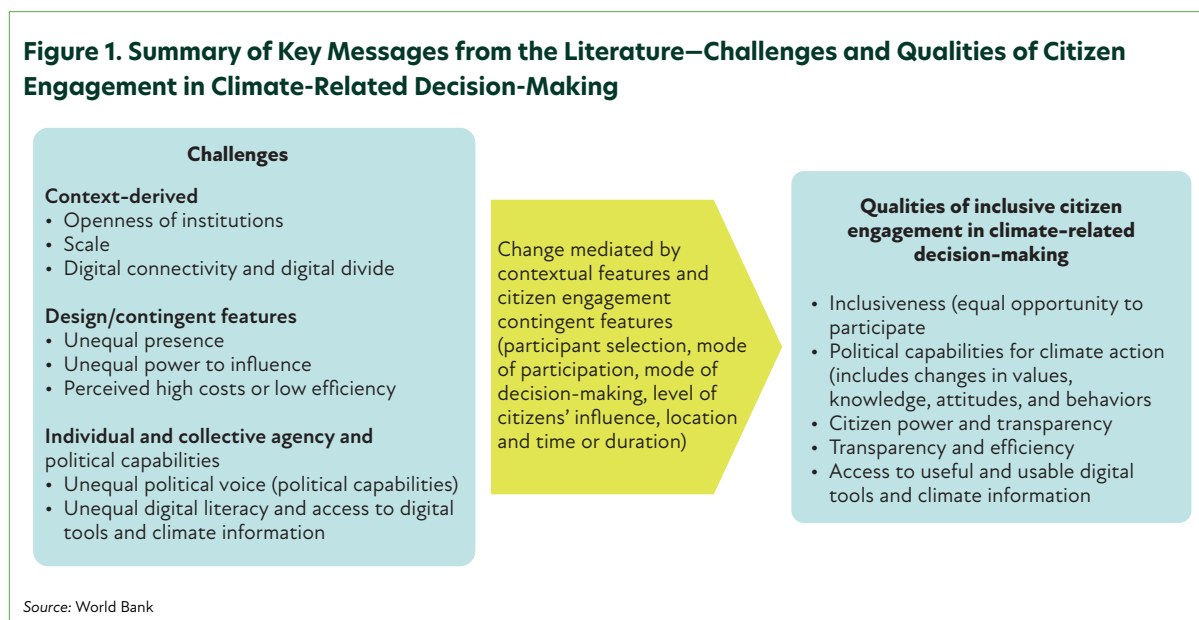
In the presence of deep social inequalities, it is essential to ensure the inclusion and participation of excluded or marginalized groups in decision-making processes. A variety of potential corrective measures have been suggested for democratic inclusion (Bohman 2000, 136–46; Pradhan 2020; Smith 2009; World Bank 2002). Some highlight the need to adopt a systemic approach and strengthen the individual and collective agency of people (Narayan 2005; World Bank 2002). Others focus more on the need for governments to reach out actively to marginalized citizens and provide them with meaningful information (Pradhan 2020).



The context in which participation is embedded strongly influences public attitudes toward meaningful citizen engagement. The level of government openness to citizen participation is manifested in the existing legal frameworks that allow and encourage participation, the level of control of the internet and access to information, and the attitude of public servants and citizens toward participation. Drawing on the accounts collected through case studies and the issues climate change poses, we cluster these challenges and corresponding enablers in three groups:

- A. Challenges and enablers based on **contextual (systemic) features** in which citizen participation is embedded, such as
 - Openness of institutions
 - Legitimate representation due to scale
 - Digital connectivity and digital divide.
- B. Challenges and enablers arising from **design (contingent) features** of the public space, such as
 - Unequal “presence” in decision-making spaces (unequal participation)
 - Unequal power of citizens to influence decisions
 - Perceived high costs and low efficiency of participation.
- C. Challenges and enablers based on **individual and collective capabilities for climate action** of citizens, such as
 - Unequal political capabilities for climate action (unequal political voice)
 - Low digital literacy and low access to and use of climate information.

Figure 1. Summary of Key Messages from the Literature—Challenges and Qualities of Citizen Engagement in Climate-Related Decision-Making



Contextual-Derived Challenges (Systemic Challenges)

Space for civil society in decision-making—openness of institutions. Openness of institutions to citizen participation is manifested directly through the presence or absence of **legal and regulatory frameworks** that promote and encourage participation (Alidemaj 2020), or the **openness or restriction of access to information**, such as controls on free access to the internet. Indirectly, but very tangibly, a society’s culture of participation affects the quality of participation. In addition, the **public servants’ and citizens’ attitudes toward public participation** influence participation outcomes. Public servants skeptical of the instrumental and constructive value of participation processes, who carry out citizen participation processes only to comply with regulatory frameworks, run the risk of conducting processes that do not achieve instrumental and constructive outcomes and further alienate citizens, who do not see the results of their participation (perception of low efficiency). Smith (2009) compiles evidence from consultation



exercises that justify citizens' skepticism about their capacity to influence decision-making processes. For example, beliefs among government officials that citizen engagement is not suitable for strategic decisions (Cooke and Kothari 2001; Smith 2009). Where a culture of citizen participation is absent, citizens lack the habit, confidence, and political capabilities to participate, creating a negative feedback loop that reinforces public servants' skepticism of the value and potential benefits of citizen engagement.

Civil society organizations (CSOs) worldwide face government limitations on their ability to operate. Restrictions range from the types of funding CSOs can receive, draconian registration requirements, and in some countries, the introduction registration bills for nongovernmental organizations (NGOs), suggesting that the openness of the government to civil society participation in policy has not been secured and properly institutionalized. These restrictions are increasingly putting pressure on the effectiveness of civil society in certain countries (Tiersky and Renard 2016; Jones and Tembo 2018).

The International Center for Not-for-Profit Law pointed out in its report on mapping initiatives to address legal constraints that between January 2012 and August 2014, about 50 countries introduced or enacted laws designed to restrict the activity of CSOs or curtail funding for their work. On January 30, 2016, the government of Uganda assented to the Non-Governmental Organizations Act (NGO Act). This act undermines the right of freedom of association. Section 44, for example, prohibits NGOs from conducting activities in any part of the country unless they have approval from both the District Non-Governmental Monitoring Committee (DNMC) and the local government, and have signed a memorandum of understanding with government officials. NGOs may not expand operations to new geographic areas unless they receive a recommendation from the National Bureau for NGOs through an area's DNMC. Organizations working on governance and human rights have especially been targeted (Tiersky and Renard 2016; CIVICUS 2019).

On the brighter side, in several countries where democratic freedoms have been denied, people took to the streets to demand that their voices be heard and their rights respected. Civil society demands for reform where civic space has been restricted, as well as violence by states and anti-rights groups, indicate a need for effective consultative mechanisms for policy makers, who often give limited time for public comment on policies, and for citizens to be more proactive in the policy-making processes (CIPESA 2019; CIVICUS 2020).

Legitimate representation due to scale. Legitimacy does not have a one-size-fits-all remedy. Governments engaged in closing civil society spaces not only target specific civic groups but also spread doubt about the legitimacy of an autonomous civic sphere that can activate and channel citizens' interests and demands. Four arguments are typically offered for these legitimacy attacks: that CSOs are self-appointed and do not represent the popular will; that they receive foreign funding and are accountable to external rather than domestic constituencies; that they are partisan political actors disguised as nonpartisan civic actors; or that they are elite actors who are not representative of the people they claim to represent (Brechenmacher and Carothers 2018; Opalo 2013). The widening attacks on the legitimacy of civil society oblige CSOs and their supporters to revisit fundamental questions, such as: What are the sources of legitimacy of civil society? How can CSOs strengthen their legitimacy to weather government attacks and build strong coalitions to advance their causes? And how can international actors ensure that their support reinforces rather than undermines the legitimacy of local civic activism? CSOs draw their legitimacy from five major sources: who they are, what they do, how they do it, with whom, and what their impact is (Brechenmacher and Carothers 2018).

Legitimacy can be assessed using two different approaches: one at the system level, or *normative legitimacy*, and one at the individual level, or *empirical legitimacy* (what citizens believe is legitimate) (Arnesen and Peters 2017 citing Weatherford 1992). On the system level, political legitimacy refers to the acceptability of legislation according to abstract normative criteria. This "macro perspective" emphasizes formal system properties, institutional procedures, and policy output criteria for democratic legitimacy that include accountability, efficiency, and procedural fairness (Arnesen and Peters 2017 citing Rothstein and Teorell 2008; Weatherford 1992). These criteria map onto the general category of *normative legitimacy*. The challenge of scale also involves the role of representatives and their legitimacy to fully represent the interests of citizens. As Robert Dahl describes it: "The smaller a democratic unit, the greater its potential for citizen participation and the less the need for citizens to delegate government decisions to



representatives. The larger the unit, the greater its capacity for dealing with problems important to its citizens and the greater the need for citizens to delegate decisions to representatives” (Dahl 1998 cited in Smith 2009, 20).

Digital connectivity and the digital divide. The digital divide is closing in many areas of the world; for example, internet connectivity in Africa has increased dramatically in recent years (Shirazi 2009; Silver and Johnson 2018). Still, the digital divide remains. Regionally, internet use is lowest in sub-Saharan Africa, where a median of 41 percent of the population across six countries use the internet. Unsurprisingly, internet use globally is much more common in wealthier countries, and the percentage of people who are online in a country corresponds with its gross domestic product per capita (Silver and Johnson 2018). In regions with good internet access, it is possible to promote participation in climate change planning and achieve effective climate change action using digital tools. Where this is not the case, using digital tools to engage citizens can mean less accessibility for individuals and groups who are already marginalized, as well as accentuated dynamics of exclusion. A growing number of citizens in African countries are using forms of information and communications technology (ICT) regularly, which has made digital technologies pivotal to improving their livelihoods. In some places, however, digital rights are being undermined through internet blockages and a proliferation of laws and regulations that undermine the potential of technology to drive socioeconomic and political development on the continent (CIPESA 2019). In March 2018, the Uganda Communications Commission (UCC) issued a notice to all online data communication service providers, including online publishers, online news platforms, and online radio and television operators advising them to apply and obtain authorization from the commission within one month or risk having their websites or streams blocked by Internet Service Providers (UCC 2013). In Kenya, a cybercrimes law was enacted in May 2018, which human rights defenders say contravenes rights to freedom of expression, privacy, and association. After civic groups filed a suit, the High Court suspended the implementation of several clauses in the new law that were deemed unconstitutional (CIPESA 2019). Policy makers should also be more transparent in the policy-making process by offering more time for consultations and meaningfully considering the inputs they receive from citizens and other interested parties. Digital rights actors also need to adopt a multistakeholder approach in the promotion of digital rights. This includes involving traditional human rights organizations, women’s rights organizations, and private sector actors, among others, in campaigns to advance digital rights (Lopes 2014; CIPESA 2019).

Challenges of Design (Contingent) Features

Unequal presence in decision-making. Who participates in decision-making? Evidence from studies of participation across a range of political activities shows that few citizens engage regularly in formal political decision-making and that participation is strongly positively correlated to income, wealth, and education (Pattie 2005; Verba, Nie, and Kim 1978). Smith (2009, 14) highlights that these sections of the population have less access to the resources, such as time, money, and knowledge, that would allow them to participate in political action. Lijphard (1997) calls this unequal participation the “unresolved dilemma of democracy,” which occurs when large sectors of the population do not participate in policy-making processes and their interests and opinions are less likely to be considered. Some difference democracy theorists argue that extending opportunities for citizen participation in the political process will simply reinforce and amplify the existing differentials of power and influence within society because, in practice, inclusiveness cannot be realized (Smith 2009, 15).

Addressing unequal presence requires asking whether citizens have an equal opportunity to participate. It involves fairness of selection rules and procedures and asks who has the right to participate, who has “presence” in decision-making processes. Smith (2009, 21) points out, “the presence of citizens from politically marginalized groups does not necessarily imply equality of voice ... simply being present does not necessarily mean that citizens will be willing or able to make their views known.” Theorists such as Iris Young report that particular types of contributions (for example, dispassionate reason-giving) are often favored over other modes (for example, narrative or storytelling), thus perpetuating dominant forms of communication (Young 1990) and excluding people less practiced in those forms. Understanding the level of inclusiveness requires assessing the extent to which institutions encourage different types of contributions and offer support to encourage the participation of people with less experience and confidence. Bohman (2000) suggests creating new spaces for deliberation where participants can make the public sphere more inclusive. This involves self-organization to mobilize existing informal networks of communication among groups to create social movements. As collective actors, social movements have two effects on social



inequalities. First, they give a unified voice to shared challenges and can pool resources, capacities, and experiences of individuals and groups. Second, mutual trust and solidarity within informal networks allows pooling of resources and information and the creation of public goods within the movement that can compensate for resource inequalities and political poverty (Bohman 2000, 136–46).

The inclusion of the most vulnerable in public dialogue requires actively engaging low-income citizens and communities in decision-making. In Costa Rica, the government and civil society institutionalized government dialogue with Indigenous populations, which helped to settle land disputes. In Côte d'Ivoire, five subnational governments have been trained in participatory budgeting practices to engage women's groups in determining budget priorities based on the needs of the local community (Pradhan 2020).

Unequal power of citizens to influence decisions. A common criticism of citizen engagement is that it has little or no effect on decisions and that participation is either ignored or used to confirm decisions already made (Smith 2009, 23). This challenge arises when citizens have a secured presence in political processes and have the motivation, knowledge, and skills to engage, but their contributions are ignored or manipulated by political authorities to suit their own interests, so the participants are not given any meaningful power to influence decision-making.

Addressing this challenge requires examining the type of issue, policy stage, and the degree to which participants can influence aspects of decision-making (Smith 2009). In the ladder of citizen participation, Arnstein (1969) depicts a common concern: that political elites manipulate participation. During both self-organization and decision-making processes, the differing distributions of power among groups of actors represent the ability of citizens to influence decision-making effectively.

Perceived high costs and low efficiency of participation. Smith (2009, 18) argues that, for politically marginalized communities, “the perceived costs of participation far outweigh any perceived benefits, and thus there is little or no motivation to engage” and that the demands of participation are just as likely to generate anxieties and a preference to spend that time on other activities. However, this view does not consider that, when facing existential threats, such as eviction, the cost of not participating may be higher. In such circumstances, participation is a useful mechanism to accentuate collective voice because the alternative can be very costly. For public authorities, engaging citizens also has economic and time implications. Lack of resources and tight timetables frequently result in poorly designed participatory processes that undermine trust and effectiveness. Often participation is mandatory and included in legislation, without the provision of adequate resources, time, and professional experience. In the words of the Commission on Poverty, Participation and Power (quoted in Smith 2009, 19), “If those responsible only carry out consultation because of the need to satisfy funding conditions, it will be poorly executed and half-hearted.” This could be remedied by devolution of participation platforms to the lowest government units, which would reduce the costs of participation for people at the grassroots, especially those from rural areas. The balance of costs and benefits of participation is highly contextual and needs to consider the perceived interests of individuals to engage, as well as the perceived costs and benefits of not engaging citizens in decision-making processes (Smith 2009).

Because the perceived costs of participation arise from observed patterns of citizen engagement, transparency is central to incentivizing citizen engagement and changing citizens and public servant's attitudes toward it. Transparency focuses on the openness of the proceedings to both participants and the wider public. Smith (2009, 25) discusses internal and external considerations of transparency. Internal transparency refers to the need of individuals to have a clear understanding about the conditions under which they are participating, including who is organizing the process, how the outputs will be used, and how the issue under consideration was selected. External transparency refers to the transmission of information about the decisions taken. The Open Government Partnership includes the empowerment of citizens to monitor government spending and responding to citizen needs as part of their six-pillar strategy to enable civic engagement (Pradhan 2020).



Challenges from the Individual and Collective Political Capabilities

Unequal political capabilities for climate action. Legitimate and meaningful citizen participation depends on the ability of citizens to make informed judgments. Citizens have different political skills, self-confidence, ways of communicating, senses of entitlement, and levels of awareness about climate change, all of which affect their ability to engage and contribute meaningfully, even when their presence in citizen engagement is granted by law. Warren (1996, 242) describes this challenge: “When individuals lack the opportunities, incentives, and necessities to test, articulate, defend, and ultimately act on their judgements, they will also be lacking in empathy for others, poor in information, and unlikely to have the critical skills necessary to articulate, defend, and revise their views.” Political capabilities are essential for political decision-making. Narayan (2005, 9–10) considers political capabilities a central constituent of the “agency of the poor,” which she defines as the ability of an individual to represent oneself or others, access and use information, form associations, and participate in the political life of a community and country. This concept is relevant for climate-related decision-making, where participants need to be able to not only represent and effectively articulate and communicate their interests, but also to access climate information and be able to use that information to explore robust decisions given a range of potential futures. The Open Government Partnership, established in 2011, highlights the role of providing citizens with meaningful, genuinely useful, and usable information to enable civic engagement as part of a six-pillar strategy to enable civic engagement (Pradhan 2020).

Reed et al. (2010) note that good citizenship can be learned, not from a formal curriculum but through social learning—positive experiences of active involvement within society. Social learning has the potential to widen the range of stakeholders involved in climate decision-making and action. This approach stresses the importance of creating conditions and processes that link experiences, reflection, and experimentation between individuals and groups. The approach focuses on demonstrating a change or understanding that goes beyond individuals or small groups to become situated within wider social units or communities of practice.

Low digital literacy and low access to and use of climate information. Digital inequalities not only reproduce social inequalities but they also tend to exacerbate them. In turn, infrastructural development deficits exacerbate digital inequalities. Groups that are socially disadvantaged—based on age, gender, ethnicity, location (urban or rural), and disability—tend to use the internet less than more advantaged groups (Ragnedda 2018). For example, while digitalization is supporting farmers and companies to become more efficient and productive, some researchers are concerned this will negatively affect labor equity and fairness, especially for vulnerable groups like racialized migrant workers, who are likely to be more adversely affected by labor disruptions due to digitalization (Rotz et al. 2019).

Another challenge is getting available, relevant climate-related information at an appropriate scale is also a challenge. The lack of such information can prevent some individuals or groups from fully participating in decisions that affect them. Datafication, or “Big Data,” allows for the rapid analysis of large amounts of heterogeneous information and has been used to improve social and environmental sustainability in supply chains and improve the allocation and use of natural resources. This approach to climate information can help improve mutual governmental and civic understanding and planning, thus embodying principles of digital governance as a viable public management model (Sebestyén, Czvetko, and Albonyi 2021). However, this approach is also associated with more formal systems of information capture, quantification, and utilization. By comparison, open-source data are often user-generated and readily available, which invites associations with a more transparent and collaborative form of governance that might support citizen agency because it removes any government monopoly on data and can help validate data from official sources. Given the deluge of raw and processed data, to ensure public access, intermediaries need to process the data into a usable format (Baack 2015).

Access to and use of digital tools should not be seen as a panacea for equitable participation. Although they enable a certain type of participation, they still require literacy and equitable access, so significant barriers remain. Yet, communities have learned how to address unequal power relations using analog methods (Di Gessa, Poole, and Bending 2008). For example, geographic information system (GIS) mapping is often not as accessible or as empowering as traditional paper-based mapping exercises in some informal settlements. There continues to be a lag as



communities gain access to and understanding of digital tools, so in-person, offline participation and engagement remains important.

Being informed also involves having the necessary tools and climate information to engage in multiple forums and appropriately plan for and respond to specific risks. For scientific climate information to inform such climate risk management it must flow through several stages, including climate data acquisition and analysis, interpretation, communication and dissemination, and use by different actors (Harvey et al. 2019). The complex, probabilistic, uncertain, and sometimes incomplete climate data, coupled with the range of priorities and capacities of relevant actors requiring climate information, creates a need for brokering and translating data.

At the same time, the data needed to adapt to climate change often exist at the local level through direct experience of impacts and is often informed by Indigenous forecasting methods that have historical reliable. Organized communities are well placed to report the ongoing and dynamic impacts of climate change, but they rarely have knowledge of medium- to long-term climatic trends, so they could also benefit from long-term sources of data provided in a usable format. On a larger scale, some cities have developed digital platforms that pool data from across the city to respond to the immediate impacts of climate change and for longer-term planning (Lawrence et al. 2017, 10). Communities in Dar es Salaam are beginning to use GIS mapping of urban risks and planning deficits (Osuteye et al. 2018) that exacerbate or are exacerbated by climate events such as flooding (Jack, Pasquini, and Ziervogel 2019). Communities work with local urban stakeholders, planners, municipal representatives, and utilities to develop a shared understanding of climate risks.

Social Learning as a Way to Balance Power Dynamics

Some challenges described in this section are manifestations of systemic power imbalances between people vested with decision-making authority (duty bearers) and citizens (rights holders). As previously noted, social learning is one mechanism for participation that allows balancing power dynamics and enables collaborative governance—that is, citizens joining with officials to make plans and policies or develop strategies for public action—and has been found useful in addressing the challenges of climate change. Social learning has been defined as learning that occurs through situated and collective engagement with others, through an in-depth, iterative, participatory process, to reconceptualize the nature of the issue itself and how it might be addressed, creating collective solutions (Collins and Ison 2009, 364–69). Social learning develops shared ways of knowing or “a shift from ‘multiple cognition’ to ‘collective cognition’” as individuals shift their perception of a situation and, through their interactions, develop shared perspectives, insights, and values (Roling et al. 2002 quoted in Harvey et al. 2013). Frequently, this will engage actors from multiple geographic or governance scales, bringing to bear different perspectives and effecting broader transformative change through networks of actors at those scales, but this requires the negotiation of power differentials (Armitage et al. 2011; Harvey et al. 2013). Thus, engagement in a social learning context allows stakeholders to form better relationships and a more nuanced understanding of the issue, enabling more effective co-learning (Harvey et al. 2013). This multiscale characteristic makes it different from peer-to-peer learning, which can also be embedded in larger social learning processes.

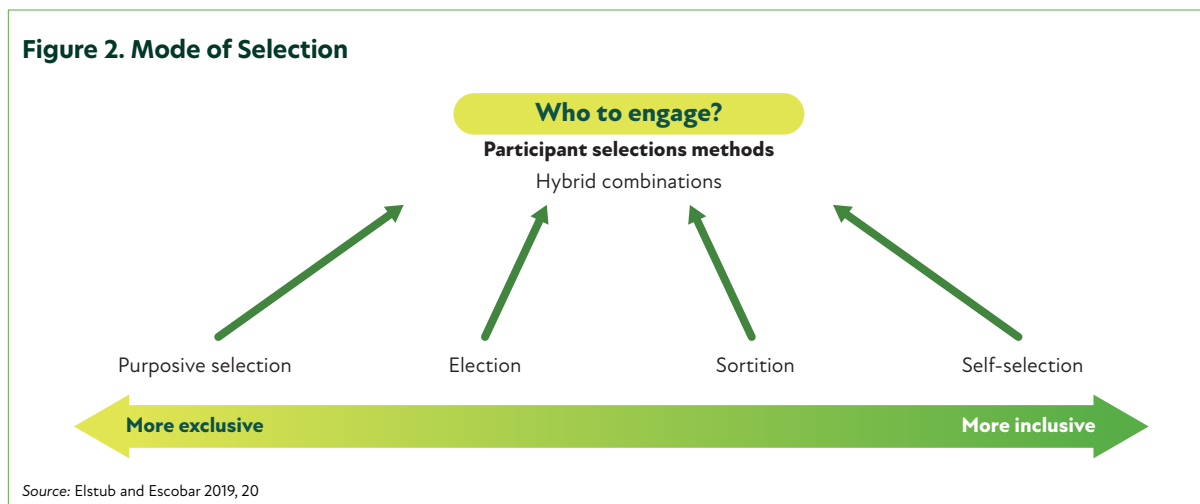


Typology of Citizen Engagement for Climate Action

Through the analysis of political concepts employed to reimagine and deepen the role of citizens in governance and processes, Elstub and Escobar define “democratic innovations” as “processes or institutions that are new to a policy issue, policy role, or level of governance, and developed to reimagine and deepen the role of citizens in governance processes by increasing opportunities for participation, deliberation and influence” (2019, 11). This concept provides a comprehensive typology of citizen engagement processes that is useful for clustering the challenges associated with meaningful citizen engagement arising from the context, as well as the way in which citizen engagement processes or democratic innovations are designed and are contingent upon contextual features. Contextual features refer to the cultural, social, and political background to citizen engagement, which constrains the possibilities of citizen engagement and democratic innovations. Elstub and Escobar identify three key contextual elements: the **type of issue or policy arena** that a citizen engagement process is addressing (for example, if the citizen engagement is required to respond to a climate risk in the short term or to plan under uncertainty to adapt for long-term climate impacts); the **level of governance** in which the citizen engagement is embedded (local, subnational, national, global), and the **stage of policy process** (agenda setting, decision-making, implementation).

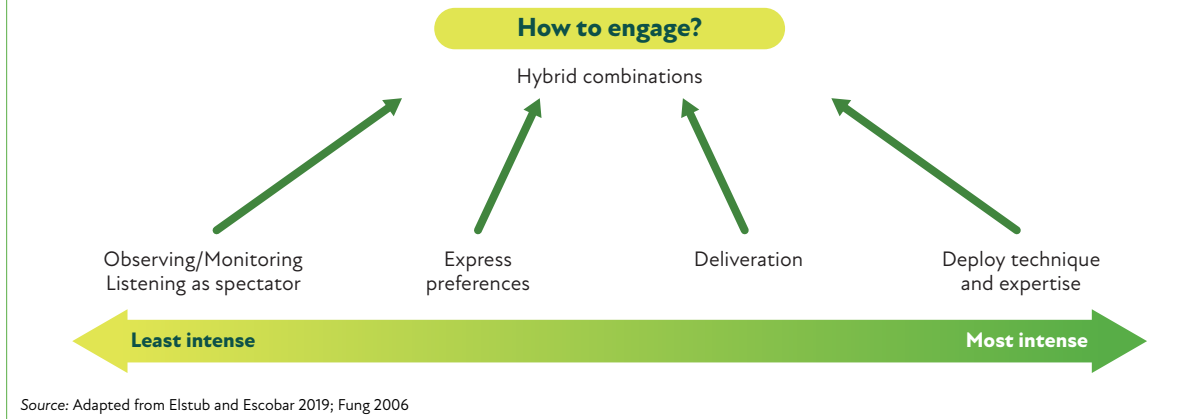
Contingent features depend on the context and depict various institutional possibilities for public participation. These possibilities answer the questions **who participates?** (participant selection); **how do they participate?** (mode of participation); **how are decisions made?** (mode of decision-making); and **what effect does the participation have on policy and action** (influence). For each element, there is continuum of options for participation from the least intense and inclusive to the most intense and inclusive. Hybrid combinations of some or all of these options can occur in any given citizen engagement process (Fung 2006; Elstub and Escobar 2019). In addition to these contingent elements, this analysis adds **where (location)** and **when and for how long (time) are citizens engaged?**

- **Who to engage? (Mode of selection):** The first feature relates to the citizens who participate, so how they are selected becomes important (Figure 2). Methods include self-selection, theoretically the most inclusive, although still affected by socioeconomic capabilities to participate; sortition, randomly selecting a group; elections of representatives; and purposive selection of citizens according to characteristics or experiences.



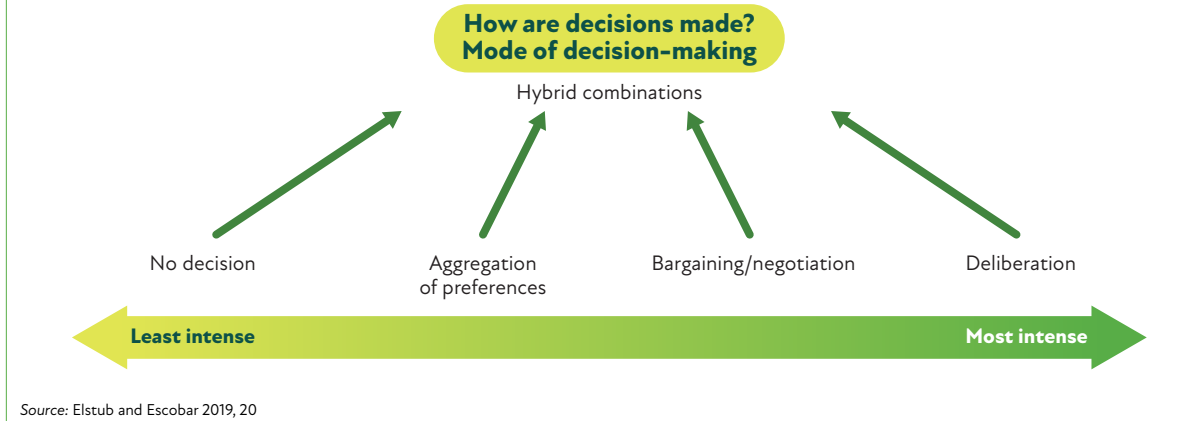
- **How to engage? (Mode of participation):** The second feature is the mode of participation, that is, what skills citizens are expected to use in the process (Figure 3). This can range from observing, monitoring, and listening (the least intense modes of participation), to voting (expressing preferences), to expressing and arguing for complex ideas, or offering and demonstrating an alternative way to address a certain problem, which can then be institutionalized, deploying technique and expertise (the most intense modes of communication) (Horn et al. 2020).

Figure 3. Mode of Participation

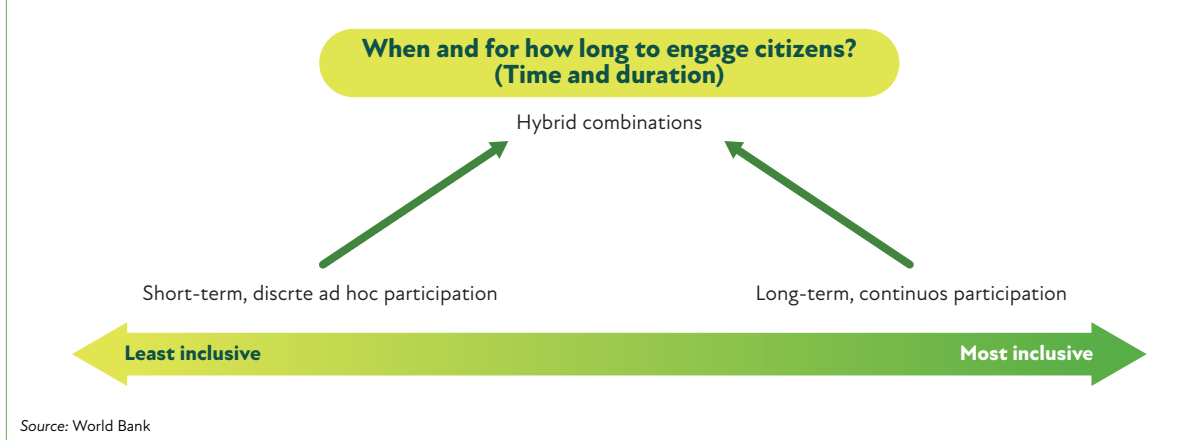


- **How are decisions made? (Mode of decision-making):** The third feature is the mode of decision-making, which can range from aggregating preferences, the least intense decision mode, to voting, bargaining, and deliberation as the most intense form of interaction (Figure 4).

Figure 4. Mode of Decision-Making



- **What level of power and influence will citizens have? (Influence):** The fourth feature is the level of power and authority that citizens have in decision-making (Figure 5). The spectrum of influence and authority goes from participatory mechanisms that give citizens very little power in decision-making to instances where citizens have direct authority. The most common forms of citizen engagement are at the lowest level of citizen power and authority, where participation affects participants rather than policy. In such cases, a citizen may have little expectation of influencing policy or action and instead participates for personal benefit. In these forums participants usually employ the least intense modes of engagement—listening and expressing preferences. Then there are participatory mechanisms where citizens exert some influence on authorities, for

Figure 7. Time and Duration of Citizen Engagement

Elstub and Escobar (2017, 21) describe five “families” of mechanisms that increase the opportunities for citizen engagement and influence:

- **Mini publics** use random sampling to bring citizens together to discuss matters of public concern. Examples include citizens’ juries and assemblies, consensus conferences, and deliberative polls (Fishkin 1991). The characteristic features are the use of sampling and intense discursive expression among participants. Mini publics have been used at various stages of the policy process and across local, regional, national, and transnational levels of governance.
- **Participatory budgeting** invites citizens to participate in deciding the allocation of public expenditure. Self-selection and purposive selection are often the main modes of participant selection. Voting, listening, and discursive expression is the common mode of participation (Elstub and Escobar 2017, 23).
- **Collaborative governance** is the “most internally diverse and includes public forums to collaborative partnerships and various participatory arrangements that seek to ensure cooperation and coproduction between citizens, public authorities and stakeholders” (Elstub and Escobar 2017, 24). The predominant modes of participation are listening and discursive expression, with decisions usually made through bargaining, negotiation, or deliberation. The mode of participant selection tends to be self-selection or purposive selection of participants. These modes can be found across multiple policy areas and stages and at the local, regional, national, and transnational levels. Examples include collaborative partnership and diverse range of public and stakeholder forums and initiatives (De Souza Briggs 2008).
- **Direct legislation** encompasses mechanisms where citizens have equal decision-making powers through the ballot box, such as popular referendums. Voting is the core mode of participation and decision-making (Smith 2009).
- **E-democracy or digital participation** (used interchangeably in this paper) is the engagement of citizens using information and communication technology or digital tools and includes diverse designs, such as town meetings, deliberative polls, and ICT-enabled direct legislation, among others. This mechanism removes the limits of time and space, and other physical barriers to participation (Hacker and van Dijk 2000). However, the definition of e-democracy is wide, and engagement occurs on a spectrum. At one end, e-democracy means citizens enjoy electronic access to government information and are offered the opportunity to interact with government officials and conduct online transactions. A more substantial conception of e-democracy implies more active citizen involvement, with the ability to act both directly and through representatives to govern themselves and their communities. The degree to which technology solutions alter the calculation of costs and benefits for citizens to participate depends on the precise definition of e-democracy, as different degrees of engagement are found in different e-democracy practices (Tuzi, Padovani, and Nesti 2007). The degree to which digital participation promotes increased citizen engagement—e-democracy opportunity—is also contingent on access to ICT. Despite global progress toward e-democracy opportunities, the digital gap is growing in some parts of the world, limiting e-democracy (Shirazi 2009).



Three of the families of citizen engagement identified by Elstub and Escobar (2019) are relevant to this paper (Table 1): mini publics, direct legislation, and collaborative governance. Social learning (see p. 13) can be considered a mode of citizen engagement as well, one that builds the trust relationships and learning needed to move toward collaborative governance. Social learning refers to situated and collective engagement with others within and across scales, through an in-depth iterative participatory process, to reconceptualize the nature of the issue itself and how it might be progressed, creating collective solutions (Collins and Ison 2009, 364–69).

Table 1. Families of Citizen Engagement Processes or Democratic Innovations

Mode	Definition	
Mini publics—invited consultation	Mechanisms of public participation that intentionally gather citizens in discrete bodies to discuss or decide matters of public concern (Fung 2003). Invited consultation in a predefined process where inputs are limited to a specific issue and framing.	Digital participation and the features of engagement cut across all families
Participatory budgeting	Process where citizens can participate in deciding the allocation of public expenditure.	
Direct legislation	Mechanisms, such as popular referendums, where citizens have equal decision-making powers through the ballot box (Smith 2009).	
Social learning	Collective learning that occurs through situated and collective engagement with others within and across scales, through an in-depth iterative participatory process, to reconceptualize the nature of the issue itself and how it might be progressed, creating collective solutions (Collins and Ison 2009, 364–69).	
Collaborative governance	Includes public forums, collaborative partnerships, and various participatory arrangements that seek to enable cooperation and coproduction between citizens, public authorities, and stakeholders.	

Source: Adapted from Elstub and Escobar 2019

Digital Participation

A critical success factor for digital participation is that the technology must be accessible, easy to use, and not itself become a barrier to participation. Any tool used must not only lower the barriers to participation by making it easy to contribute but also improve the quality of engagement. The design of the tools is key. Hence, open-source tools are considered optimal for improving transparency (Simon et al. 2017). The tools can be used in the different contingent features of citizen engagement, for example to accompany the modes of communication, decision-making, and influence, and in a variety of participatory designs, such as town meetings, deliberative polls, and ICT-enabled direct legislation, but they can also be broadened to facilitate collective action to respond to specific risks. For example, Climathon,¹ a hackathon on climate issues, takes place simultaneously in multiple cities worldwide and seeks to tackle local climate change issues through co-creation of responses by cities and citizens. Each participating city sets specific climate challenges, which local participants then seek to address using open-source data.

Digital platforms have been used to enable citizens to engage in monitoring public funds (observing, one of the modes of participation). For example, the Budget Monitor² web platform of the State Audit Office of Georgia is a two-way communication platform that equips citizens with information for external public scrutiny and enables them to engage throughout the audit cycle. Other examples include the ProZorro³ platform in Ukraine and the OpenCoesione⁴ open government web portal in Italy. Community scorecards or voice cards and citizen report

1 <https://climathon.climate-kic.org/>
 2 <https://wsa-global.org/winner/budget-monitor/>
 3 <https://prozorro.gov.ua/en>
 4 <https://opencoesione.gov.it/it/>



cards are also used to secure responses to citizens' needs (citizens participate by expressing preferences) (CIVICUS 2006). In Uganda, the Civil Society Budget Advocacy Group is a coalition formed in 2004 to bring together CSOs at national and district levels to influence government decisions on resource mobilization and utilization for equitable and sustainable development. The group collectively influences government in setting national budget priorities and challenges officials to be accountable and transparent in resource allocation and utilization (an example of co-governance as a mode of decision-making).

Globally, social movements have integrated digital connectivity to increase their influence through organizing, gaining visibility, and effectively communicating. Internet-supported actions are a continuation and extension of more traditional forms of mobilization; instead of handing out leaflets, meetings or civil action events are organized online via e-mail or social media. This allows rapid dissemination of information. For example, nothing can match the speed of a hashtag campaign (Roth 2018). However, as social media, such as blogs, Facebook, and Twitter has become a new way to network and communicate it has also become a catalyst in the formation of social movements. Some authors have highlighted the risks associated with the fast pace of digital activism—for example, the risk that shortcuts will be taken in forming a movement without developing a strong foundation of leaders. Purely digital participation sees movements burn out before achieving lasting change (Tufekci 2014). Bonilla and Rosa (2015) argue that although social media can amplify a voice and effectively create sociopolitical turbulence, often nothing results from an online movement due to its fast-paced and fleeting nature and the phenomenon known as “slacktivism”—the passive engagement of people liking or sharing a story that does not lead to productive social or political impact. Much debate has surrounded the potential of digital tools to strengthen ongoing grassroots efforts to understand and prioritize local risks and bolster community-driven efforts to adapt to climate change (Osuteye et al. 2018). Ideally, digital tools galvanize and promote collective action and participation in response to specific risks, which in turn has the potential to mitigate the unequal power dynamics that underpin inequality and broader development challenges.

How Can Citizen Engagement Influence Policy to Support Community Needs?

Understanding the Policy Process and Points of Engagement

Creating opportunities for participation or sharing of local experiences beyond the local level—such as in national policy processes or international negotiations—often involves an intermediary or network creating a platform and amplifying voices, as in the case studies discussed in this paper. In some cases, those networks or movements might influence actors directly on the national stage. In others, they may generate credibility and visibility through international work, which can improve their potential to influence national processes. When assessing the influence of community groups and representatives on the policy process, it is important to have a theoretical framework for how citizen engagement and policy making occurs. This has been a topic of considerable debate within literature in policy studies, political science, and geography, with initial models conceptualizing policy development as a linear, technical process, while more recent interpretations understand it as a clash of ideas, framing, and power (Fisher 2012; Hajer 1995; Weible and Sabatier 2018).

The policy cycle is a useful heuristic for understanding the stages of policy development. The cycle breaks down policy development into agenda setting, policy formulation, decision-making, implementation, and evaluation (Jann and Wegrich 2007). While there have been critiques of this framing of the cycle, with concerns over the linear nature of the process and the perceived uniform nature of the process, used broadly it can provide a way to break down the stages of policy activities. However, it is important to recognize that this is not a linear or one-way process and there are multiple formal and informal ways to influence outcomes through the cycle (Fisher and Shakya 2018). For example, in a review on policy influencing, Oxfam identifies two types of strategies to target policy makers: insider and outsider strategies. It argues that “both strategies may entail helping strengthen civil society organizations to expand civic space or influence policy, for example by reframing the problem or bringing attention to new or previously marginalized interests, grievances, and legitimate groups within their constituency. Each of these strategies, or a combination of both strategies—be it simultaneously or in sequence—can help to focus the attention of policymakers on a given challenge or solution” (Shephard et al. 2018, 6). Cornwall (2002, 6) distinguishes between



the invited and uninvited spaces of policy, with some actors influencing from within the process, through formal invitation and spaces, and others influencing through their own created spaces that might challenge or provoke policy makers as well as offering spaces where citizens have more control. Mechanisms to influence policy through outside strategies and uninvited spaces include changing public or elite discourse through the media, bringing new ideas and solutions from outside the policy space, normalizing new approaches, and pressuring governments through economic or political tactics.

The nature of the community messages coming from invited and uninvited spaces and how they align with existing narratives is important to how government actors receive them (Rigon 2014). In the policy cycle, this will often happen during agenda setting, when communities have the most potential to alter the framing of an issue. Rigon (2014, 27) argues that “government authorities can have welcoming or hostile attitudes depending on how much the issue at stake represents a challenge to them.” Brugnach, Craps, and Dewulf (2014) also argue this is particularly salient when incorporating Indigenous knowledge into climate discussions as the “knowledge systems...are so different in nature, whose rules of production, acquisition and shareability, as well as the ontological assumptions they embed, amply differ.” They go on to highlight how by shifting their discourse to fit with national and international debates, Indigenous peoples risk losing the “specificity of their knowledge.”

Climate Information and Digital Tools for Policy and Decision-Making

Decision-makers at local and national levels need climate information in formats that are specific to context, relevant to particular sectors, and provide actionable information (Care International 2014). NGOs are increasingly filling the role of broker and translator in such situations, with varying degrees of coordination (Jones, Harvey, and Godfrey-Wood 2016).

Climate services increasingly recognize and respond to several challenges. The usability gap, the gap between what scientists understand as useful information and what users recognize as usable in their decision-making, has dominated the agenda (Lemos, Kirchhoff, and Ramprasad 2012; Vincent et al. 2020). Another challenge is the uncritical use of long-term climate projections by decision-makers working in systems without coordination or much capacity, which risks maladaptive behavior (Hansen et al. 2019). A further challenge is “reaching the last mile,” that is, getting into the hands of local actors usable climate data that realistically reflects the impacts at the local level and provides interpretive or advisory information suited to the context and local forms of communication (Hansen et al. 2019). This last issue is compounded by gendered, uneven access to different types of climate information, particularly in rural areas (Gumucio et al. 2020). From a local perspective, other challenges limit the uptake of climate information by individuals and local community organizations due to the lack of location specific climate information; lack of understanding of the terminologies used by scientists; and lack of communication between the climate producers and users of climate information (Kipkoge, Ogallo, and Lore 2020). Digital tools that seek to address these challenges are proliferating, often targeting specific user groups, though with great diversity in form and function.

One such effort by the Intergovernmental Authority on Development (IGAD) Climate Prediction and Applications Centre (ICPAC) is the Agricultural Climate Resilience Enhancement Initiative (ACREI), which is improving the delivery of climate services by the National Meteorological and Hydrological Services to local communities in East and West Hararge, Ethiopia; Taita Taveta County, Kenya; and Isingiro and Sembabule, Uganda.⁵ ACREI is marrying meteorological data with local understanding and co-producing climate information via collective localized interpretation of seasonal forecasts (Participatory Scenario Process [PSP]), as well strengthening communication channels used to share the resulting forecast and advisories (Seasonal Media Action Plan [S-MAP] approach). These coproduction efforts enhance the local knowledge of smallholder farmers with national weather and climate information to develop a more panoramic picture. Critically, approach also makes the resulting information useful for the local communities, as well as creating space for dialogue and feedback between climate information producers and users.

5 <https://icpac.medium.com/involving-farmers-and-other-local-stakeholders-in-producing-seasonal-climate-advisories-f1d3c95377d5>



Numerous freely accessible data-sharing websites are available from a range of sources including Google, NASA, universities, and national meteorological agencies that target national decision-makers and policy makers (Hewitson et al. 2017). The Enhancing National Climate Services (ENACTS), currently active in eight countries, uses its Map-room tool to draw together multiple data sources and produce maps useful to decision-makers despite incomplete in-country data (Dinku et al. 2016) across sectors.

Various technology-driven decision-support tools are emerging that encourage decision-makers operating at different scales to consider climate risk or at least guide discussions so that they recognize how future uncertainty and risk might affect current decisions. The first step for many has been to amalgamate the many climate information sources into usable sector or hazard-specific formats. Rainwatch-AfClix, for example, offers rainfall monitoring in West Africa. Other tools draw from multiple public and private databases and projection models to present information in accessible formats (Miller and Swann 2016). However, for many web-based decision-support tools the resolution of the data used is too low, meaning that models are not sufficiently downscaled to effectively support local planning and decision-making. Nonetheless, they can still be used for the development of visual aids to support outreach and engagement (Ernst and Blaha 2015).

Big Data and artificial intelligence⁶ are beginning to inform how climate information is collected and interpreted and are thought to have future potential (Ford et al. 2016). One example is Africa Risk Capacity, a specialist African Union agency established to help governments improve their capacities to better plan for, prepare for, and respond to extreme weather events and disasters. The agency already offers satellite-driven drought monitoring tools, and future tools will draw on Big Data that can inform finance and insurance instruments. The CGIAR Platform for Big Data in Agriculture is exploring new initiatives that offer artificial intelligence-driven solutions for decision-makers as well as for individual smallholders. In mainstreaming new climate information tools into policy and planning, coproduction has emerged as an effective approach—co-designing tools, information, and accessibility platforms with meteorological agencies. For this purpose, engagement with local communities is essential to understand what will work best. The type of technology and the actors who need to use it will vary depending on the challenge that needs to be addressed and the context. People's needs, and their level of digital access and literacy, will differ based on where they live, their gender, and whether they are able-bodied or disabled and will affect how they interact with technology.

Users involved in project planning are another target of digital tools, which support their assessment of multiple climate risks, hazards, and uncertainty. Tools such as the Community-based Risk Screening Tool—Adaptation and Livelihoods (CRiSTAL) are downloadable project planning tools aimed at practitioners who seek to incorporate community perspectives in climate risk screening and planning. Such tools typically recognize the need to engage communities that may have little technical capacity to interact with scientific data, or indeed already hold faith in Indigenous weather forecasting. In such cases, digital tools are used to support qualitative, participatory exploration of climate change impacts on local livelihoods that is ultimately nondigital in nature (see, for example, Care International 2019). It is worth noting that many of these tools focus on shorter-term weather forecasts and are aimed at increasing disaster preparedness or enhancing agricultural productivity. Digital tools that focus on the decadal projections needed for long-term planning are less well developed due to lack of reliable data and less demand than for short-term needs.

⁶ Big Data: large, complex data sets often gleaned from new data sources. Such sources typically have greater diversity of information than simpler data sets. Artificial intelligence: the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

2 Purpose, Framework, and Methods

Photo: WCCI





This paper documents the ways in which three grassroots networks, representing federations of the urban poor (Slum Dwellers International), women's groups (Women's Climate Centers International), and pastoralists groups (Paran Alliance), have engaged citizens to address climate change issues and to coordinate urgent responses to COVID-19. It also documents the strategies used to influence decision-making levels and the use digital tools and climate information. The analysis of citizen engagement mechanisms used in response to COVID-19 aims to offer insights into key elements for responding to disasters as well as lessons applicable in urgent responses to climate-linked hazard events.

The aims of the study are to:

- Assess citizen engagement processes in use by civil society networks and social movements to address climate change and the COVID-19 pandemic, make collective decisions, and influence relevant stakeholders to respond to their needs;
- Identify digital tools used by grassroots networks to assess risks and provide local communities with access to risk information, and explore how technology can support social inclusion in decision-making and the strengthening of resilience; and
- Strengthen the evidence base on how citizen engagement processes can be designed to enable meaningful engagement of individuals and groups traditionally distant from the locus of decision-making and power.

Purpose and Framework

The study draws from the literature on citizen engagement and democratic innovations, social learning, and policy influence to develop a framework for analysis. As described in the previous chapter (p. 13), the framework applies the typology proposed by Elstub and Escobar (2019), which includes (a) **contextual features**, such as: (a.1) the type of issue or policy area, (a.2) the level of governance, and (a.3) the stage in the policy process of citizen engagement processes. To address the challenges associated with citizen engagement described in chapter 1 (p. 5), in addition to these three aspects, the framework adds the **level of openness of the public space** (including the presence of a regulatory framework that allows or encourages citizen participation and the attitudes of public servants to citizen participation), as well as the **level of digital connectivity and digital divide** (which helps explain how viable digital solutions are for re-imagining and deepening citizen engagement).

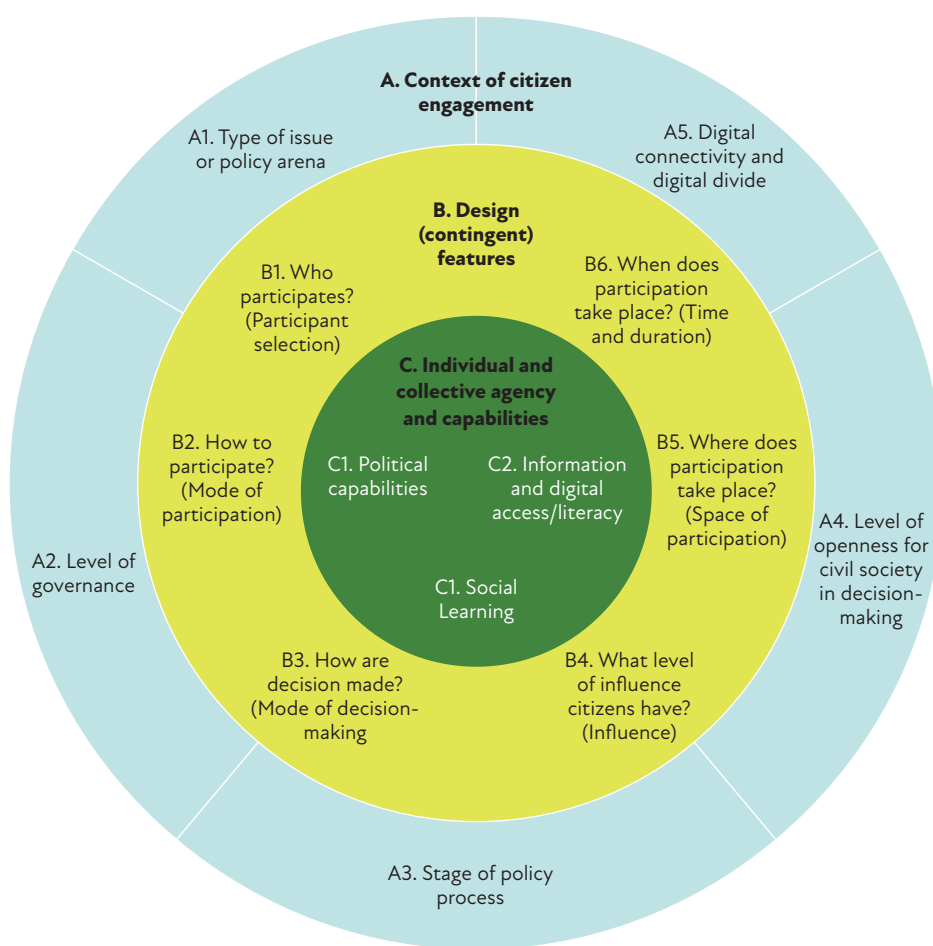
Key contingent features depend on both the contextual features and the characteristics of the individuals and groups who participate. These dependent-contingent aspects can be managed by public servants designing citizen participation actions. Contingent features can be managed more directly by designers of citizen engagement processes and offer more rapid responses than changes targeted at the systemic or contextual level or at the individual or collective level. Elstub and Escobar (2019) identify four groups of contingent features (b): (b1) participant selection, (b2) mode of participation, (b3) mode of decision-making, and (b4) the extent of power and influence that citizens have. In addition to these contingent elements the framework used in this paper adds (b5) location and (b6) time and duration for citizen engagement.

Meaningful citizen engagement relies on recognizing, understanding, and accounting for the agency, knowledge, and capabilities of individuals and groups, which is key for the design of effective and socially just responses both in the short term in the context of risk reduction and in the long term for effective adaptation. For this reason, the



framework (Figure 8) includes a circle in the center that represents the agency⁷ and political capabilities (political voice) (c) of individuals and groups furthest removed from decision-making spaces. Socially just participatory designs must have mechanisms to counteract the participation challenges of these groups. At the citizens' level, drawing on the literature review described in chapter 1, three related aspects need to be considered: (c1) Political capabilities for climate action; (c2) Digital literacy and the generation of, access to, and use of climate information; and (c3) social learning. As described in chapter 1 (p. 13), social learning is a process to support stakeholders from both local communities and policy arenas to work together to implement and test solutions through iterative cycles of learning, action, and reflection (Van Epp and Garside 2016). Social learning approaches help facilitate knowledge sharing, joint learning, and co-creation experiences between stakeholders for a shared purpose, taking learning and behavior

Figure 8. Framework for the Analysis of Citizen Engagement Processes for Climate Policy and Action



Challenges

Context-derived

- Space for civil society
- Scale
- Digital connectivity and digital divide

Design or Contingent features

- Unequal presence
- Unequal power to influence
- Perceived high costs and low efficiency

Individual and collective agency and political capabilities

- Unequal political voice (political capabilities)
- Unequal digital literacy and access to digital tools and climate information

Source: Adapted from Elstub and Escobar 2019, 23

⁷ We use Amartya Sen's definition of agency: "what a person is free to do and achieve in pursuit of whatever goals or values he or she regards as important. A person's agency aspect cannot be understood without taking note of his or her aims, objectives, allegiances, obligations, and—in a broad sense—the person's conception of the good." Agency freedom is freedom to achieve whatever the person, as a responsible agent, decides he or she should achieve" (Sen 1985, 203–4).



change beyond the individual to networks and systems. Spreading the learning from this iterative process to wider stakeholder groups and networks allows for change on a larger scale, ultimately challenging the status quo in policies and institutions.

The framework has three levels of analysis. The first level depicts (a) the context in which citizens engage in the designed processes. In the climate change context, there are specific challenges to engagement and the type of issue under consideration. For example, (a1) has an influence on the extent of citizen authority or power in decision-making. The level of governance (a2) refers to the scale at which the participatory processes take place and includes local, regional or subnational, national, transnational, and global. Citizen engagement processes can be used at different stages of the policy cycle (a3), which can also influence the choices in design features (Elstub 2014). The level of openness for civil society (a4) refers to the presence or absence of legal and regulatory frameworks that promote citizen engagement and the culture and attitudes toward meaningful citizen engagement from governmental authorities and citizens. Digital connectivity and the digital divide (a5) are also contextual aspects that need to be understood to assess the viability of using digital tools to reach out most marginalized individuals and groups.

The second level addresses design features of citizen engagement processes (b) and includes: participant selection (b1); mode of participation (b2); mode of decision-making (b3); extent of power and influence (b4), which relates to the influence participants have in decision-making; the space of participation (b5); and the time and duration of participation (b6).

The third level refers to the agency and political voice of citizens (c) and encompasses the individual and collective political capabilities for climate action (c1); digital access and literacy in relation to the generation, access to, and use of climate information for decision-making (c2); and the use of social learning as a process to strengthen the agency and recognition of the knowledge and capabilities of individuals and groups by shifting power dynamics and attitudes toward citizen engagement of authorities and citizens (Van Epp and Garside 2016).

Methods

The research for this paper used an action research process, working in partnership with three grassroots networks. The networks were chosen for their active engagement in citizen-led processes for climate action, ongoing work in East Africa, and existing relationships with the research team. An iterative design was adopted. In each case study, a scoping semi-structured interview was used at the secretariat or organizing level. Based on the findings from the interviews, a revised schedule was established for national and local stakeholders. Interviews were conducted remotely with a member of the research team and the secretariat of the network present. Between June and August 2020, the team conducted 49 semi-structured interviews. Focus groups were conducted with local communities by network partners. All research was carried out under COVID-compliant conditions. Findings were coded according to the study framework, and again for social learning dimensions within those broader categories.

The Case Study Networks

Women's Climate Centers International

Women's Climate Centers International (WCCI) is a network led by women development professionals in Kenya, South Africa, Uganda, and the United States. Founded in 2018, it is co-creating community hubs—called Climate Centers—to empower women as climate movement leaders and to promote sustainable climate solutions. Working with vulnerable communities, WCCI emphasizes low-cost environmentally appropriate technologies, advocacy, and leadership. Climate Centers address climate change through programming in four areas: environmental conservation and restoration, climate-smart water sanitation and hygiene, biointensive farming technologies, and advocacy and



entrepreneurship training. The aim is for the centers to be hubs and provide local peer-to-peer training in climate-resistant agriculture, water, health, and sustainability. The first Climate Center is being developed in Tororo district in Eastern Uganda.

A core group of four women-led organizations in Kenya and Uganda are part of WCCI. In Kenya, the local partners are Community Mobilization for Positive Empowerment and Women in Water and Natural Resources Conservation (WWANC). In Uganda, the local organizations are Uganda Women's Water Initiative (UWWI) and Osukuru United Women's Network. They are supported by a loose coalition of partners.

Paran Alliance

PARAN Alliance is a movement of pastoralist communities and their organizations working in Northern Kenya to amplify their collective advocacy voice. The alliance was founded by 5 organizations in 2017 and now has 23 member organizations. This movement promotes learning and adaptation to build resilience. The alliance works to address the complex issues affecting pastoralist communities in Northern Kenya, such as climate change risks, ecosystem degradation, loss of land and territories, and socioeconomic marginalization that affects food and livelihood security. The movement supports the adaptation efforts of Indigenous peoples and their organizations and builds their capacity to form and mobilize grassroots alliances and networks across the diverse constituents and sectors. The founding members of the alliance are:

- Waso Trust Land, which works in Isiolo County to protect and defend land and human rights of pastoralists
- Samburu Women's Trust, which advances and promotes Indigenous women's rights in Laikipia, Isiolo, Samburu, and Marsabit counties
- Indigenous Strategies and Institution for Development (ISID), which focuses on capacity-strengthening for organizations and communities in Marsabit and Isiolo
- Kivulini Trust, which works to empower a network of grassroots organizations, particularly women in Isiolo, Marsabit, and Samburu
- IMPACT, which focuses on peace building, human and land rights, governance, and policy advocacy and strengthening the capacity of community grassroots organizations.

Slum Dwellers International

Slum Dwellers International (SDI) is a network of community-based federations of the urban poor. It was founded in 1996 and now has presence in 32 countries across the global South, although predominantly in sub-Saharan Africa. The organizational structure consists of a secretariat; a management committee, which acts as the board; and a council of federations made up of elected grassroots leaders. These federations share their origin in the fight for recognition, including to resist forced eviction and land grabs, and to promote people-led slum upgrading approaches. Climate change accentuates the dynamics of exclusion and aggravates the challenges already faced by people living in informal settlements. SDI data show that evictions in coastal areas of West Africa are linked to climate change.

The Kenyan slum dweller federation Muungano wa Wanvijiji emerged 20 years ago to resist forced evictions in Nairobi. The Federation of the Rural and Urban Poor of Malawi is a countrywide grassroots network of saving clusters set up in 2003. This federation works in alliance with the Centre for Community Organization and Development (CCODE) with the aim of empowering poor communities to address tenure security and lack of services in slum communities and build economic self-reliance of members.

3 | Findings

Photo: WCCI





This section presents the findings corresponding to the three levels of analysis presented in the framework. It explores the contextual elements, the design features of the citizen engagement used by the three networks, and the individual features that support the nature of citizen engagement. It also describes the response of the grassroots networks to COVID-19 and extracts lessons that could be applicable to broader disaster risk management, including climate-related impacts that require rapid citizen engagement and response.

Contextual Features

Type of Issue or Policy Arena

Citizen engagement on climate change requires an understanding of processes that address different time frames, both rapid mobilization and engagement to respond urgently to disasters and climate shocks, in addition to sustained citizen engagement processes that enable planning and implementing longer-term adaptation actions necessary to increase resilience.

The nature of specific risks also determines how a community can act collectively, and what facets of the existing structures, relationships, and behaviors support an appropriate response. For example, COVID-19 required a very fast response. As detailed later in the section Grassroots Networks' Responses to COVID-19 (p. 47), community action built on existing relationships and groups and detailed local knowledge of vulnerabilities and priorities. For climate change, the longer-term, uncertain nature of the risk requires a diversity of perspectives, integration of different forms of knowledge, and socially agreed priorities and risk thresholds. The response therefore involves making links to longer-term climate risks in local priorities and using a climate lens to consider other relevant decisions and policies—not only those labeled “climate change.”

Level of Governance

While the three grassroots networks engage in a variety of approaches to engagement and community organizing, all focus on organizing through a multilayered structure spanning scales of governance. They build up from very local groups that may self-organize or be autonomous, to larger gatherings at regional levels, and eventually elevate messages to the appropriate level of decision-making. In most cases the very local groups are self-organizing savings groups, women's groups, or existing local institutions.

SDI's experience provides insights into how grassroots networks representing individuals regularly excluded from decision-making have managed to build a structure that spans several scales of governance. The professional supporting organization or federation plays a role in aggregating local groups and providing a platform to amplify their voices in different forums, national or international, and at the same time disaggregating and interpreting technical information for the grassroots. SDI is organized in nested tiers where the information and decisions flow from the lowest level up through the entire system. SDI members use a bottom-up, layered approach to come together and plan collective action in response to constituents' needs. The identified priorities flow from bottom-up processes along SDI's international structure. Engagement occurs at five levels: settlement, city or regional, national, supra-national, and international. The settlement level is the space where the constituent membership of SDI resides—slum residents organized in savings groups, most of which are women-led.



Agenda setting within SDI starts with a very local issue raised by communities or savings groups and navigates upward. Most SDI issues relate to evictions and struggles for secure tenure, access to services such as sanitation and water, and, recently, developing long-term ways to address the challenges brought about by climate change. Issues are managed at different levels because each level has a range of what may be possible to achieve. Thus, SDI follows the principle of subsidiarity⁸ by which different types of risks are managed at different levels. Issues managed at the local level usually include more direct household needs but may also include addressing domestic violence, fighting eviction, supporting more vulnerable members of the community such those living with disabilities, and the rights of young people and children. Depending on the issue to be solved, they move up to higher levels, such as the settlement or city.

Table 2. Levels of Engagement in the Three Case Studies						
Case study	Description	Secretariat or hub role	Level of engagement			
			Local	Regional	National	International
SDI	Bottom-up multilayered (five levels) approach from the settlement level to regional, national, multinational, regional (“hub” level) and global levels	Strategizing through regional hubs Aggregating information upward and disaggregating/interpreting information downward	X	X	X	X
WCCI	Community conversations to broader dialogue to higher-level meetings; local, national, and international policy engagement	National and international secretariat secure funding, build capacity, and link to wider policy discussions	X		X	X
Paran Alliance	Starting through existing structures and community events, representatives go to larger meetings, participate in an Advisory Council, and participate in local and national policy engagement	National member organizations learn from each other and amplify messaging in policy forums	X		X	

Source: World Bank

Stage of Policy Process

When the tactics and strategies of the three case study networks are mapped onto the policy cycle, it is evident that most activity is related to policy formulation and implementation, with some activity related to agenda setting and policy evaluation. The types of knowledge used to inform policy depend on context. Rural networks focus more on using Indigenous knowledge and local priorities to inform local or national policy. This is rooted in the belief that decisions made without recognizing local knowledge and priorities will be less effective, or harmful to the community. It is also tacit acknowledgment that this kind of knowledge informs community approaches to local decision-making and natural resource management. By contrast, SDI takes a more explicitly data-driven approach bolstered by digital tools in recent years. Citizen surveys carried out regularly have collected data that can directly inform decisions of municipalities. Recently, these have been standardized in some places into the Know Your City platform, providing transparent datasets of direct value to decision-making.

⁸ Subsidiarity is a principle of social organization that holds that social and political issues should be dealt with at the most immediate (or local) level that is consistent with their resolution.



Level of Openness for Civil Society in Decision-Making

Presence of legal framework

One contextual enabler that can shift the power dynamics between state and nonstate actors, among nonstate actors, and between groups with different levels of entitlement is the presence of a legal and regulatory framework that encourages citizen engagement. Kenya's constitution, for example, gives citizens the opportunity to take part in decision-making processes in government, especially in the budget process, legislative process, and public procurement. Section 113 of the constitution makes public participation in county planning processes compulsory and Section 87 stipulates the principles of public participation, including timely access to information and reasonable access to planning and policy making. Uganda's constitution stipulates the right to development, and to facilitate rapid and equitable development, the state encourages private initiative and self-reliance. The state commits to take all necessary steps to involve the people in the formulation and implementation of development plans and programs that affect them. Over the years, nongovernmental organizations have been recognized as contributors to service delivery. Accordingly, the constitution ensures rights for civil society action, though the legal and political environment has become more restrictive in recent years.

While a legal framework creates an enabling environment for meaningful engagement, it is insufficient by itself. Zilire Luka⁹ describes the challenge of ensuring meaningful participation—in contrast to participation that meets the minimum legal requirements but does not create the conditions for the instrumental and constructive benefits of citizen participation to be manifested: “Participation for us has to be wider, you have to consult as many people as you can. If you ask the city council, if they speak to two chiefs, or three or 10 selected people in the community they will call it participation. That’s not participation for us. If you want to make sure that the voice and the interests of every individual in the community is protected you have to ensure that there’s a wider participation, but it takes time. It starts with building the capacity and confidence of people and with very small groups, like the savings groups to have dialogues around what they need, their interests, their vision. It takes time but it’s the best way to do it.”

Citizens’ attitudes toward engagement in the context of climate change

In terms of direct community engagement, within SDI in Kenya the federation initially saw the climate change discussion as overly abstract. Since 2020, the federation has had multiple discussions with communities to gather their perspectives on climate change. When talking about climate risks at the community level they do not talk about climate change in an abstract way but link it to tangible problems like food, drought, and water. They talk about patterns and start by thinking about how to solve these problems, which are aggravated by climate change. In Kenya, the informal settlements are located close to rivers, so flooding has been a common feature in community meetings. Through community initiatives they have worked with flood zones. They reclaimed riparian reserves and tried to connect to the Green Climate Fund through Kenya's designated national authority, the National Treasury.

Interviewees from WCCI said that communities already experience climate change impacts and those impacts relate to many challenges they face. With some community engagement approaches, climate change came up as the core issue behind all the others. WCCI seeks to focus on increasing ownership and agency around the issue and to disseminate information and provide training to enable communities to engage with the issue. As Rose Wamalwa, WCCI Regional Coordinator, explained, “At WCCI we are championing community ownership. It is not just all about the government, we have a role to play.”¹⁰

The focus of the Paran Alliance is on raising pastoralist voices and supporting them to respond to existing stresses, which are exacerbated by climate change. Droughts and floods were flagged as the main issues, and techniques such as songs and the use of community vernacular radio platforms were used to disseminate information, secure land, and enhance COVID-19 awareness. There was wide discussion of engaging with policy areas relevant to climate change, the Climate Change Act, disaster risk reduction policies, gender policies, and land and rangeland policies.

⁹ Zilire Luka, SDI Malawi. Interview, 21.07.2020

¹⁰ Rose Wamalwa, WCCI. Interview, 20.07.2020.



Perceived attitudes of public servants toward citizen engagement on climate change

Some interviewees reported that the perceptions of government representatives were barriers to citizen participation. For example, some in government resisted participation due to the perceived high cost and slow pace of participation processes carried out by local organizations. The rationale typically involved a perception that community engagement through deliberation is time-consuming and that technical government processes do not have time to spare. Zilire Luka reflects, “To ensure a bottom-up approach, communities start building leadership, networks, expertise and then the opportunity to engage lost. The perception is that is a costly process. ‘Why don’t you reduce the meeting? Why 10 instead of 5?’ In those ways you compromise the level of engagement.”¹¹

Grassroots networks described two manifestations of the lack of recognition of the value of their engagement and their assets and capabilities: stigmatization and perceptions of low legitimacy of community-generated data. SDI reported stigmatization of youth groups in informal settlements, who are traditionally associated with antisocial behavior, and thus, marginalized and excluded from engagement. WCCI described stigmatization of grassroots women, who are traditionally considered passive beneficiaries, thus misrepresenting their agency, local knowledge, and capabilities, and undervaluing the importance of their engagement in decision-making. SDI reported that some people in the government discredit the information produced by the settlement and only trust information produced by city officers. To counteract this challenge, SDI engages city officers to produce information (social learning), but it’s difficult in terms of staff and costs.

Digital Connectivity and Digital Divide

The downside to the digitalization of data as a tactic to engage with decision-makers is that it can become less accessible to individual community members. Access and connectivity remain barriers in the global South, and the existence of a digital divide is evident on both regional and global scales. Furthermore, internet filtering and state censorship on ICT content negatively affect citizens’ participation in e-democracy processes, and thus exacerbate the digital divide (Shirazi 2009). While smartphone and internet use is rising in the global South—for example, the Global System for Mobile Communication Association (GSMA) reports that there are 747 million subscriber identity module (SIM) connections in sub-Saharan Africa, representing 75 percent of the population (GSMA 2020)—disaggregated data on usage are limited. It can be difficult to get an accurate estimate of the number of unique subscribers and more difficult still to determine who has access to a mobile phone, even if they do not own one. In sub-Saharan Africa this can be attributed to multiple factors related to phone usage. For example, it is common for individuals to own multiple SIM cards, switching between them to take advantage of a particular network’s deals or to maintain service when one network goes down. At the same time, if an individual does not own a phone, they may have access to someone else’s (Geopoll 2019).

Some disaggregated data are available on the barriers to access across rural and urban areas and according to socio-economic status. In Sierra Leone, for example, although 83 percent of the population has access to a mobile phone, half of those phones cannot access the internet. A quarter of mobile phone users require assistance to make calls, many of them women and older people in rural areas. Only 33 percent use their phones to send text messages and 13 percent to use social media and messaging such as WhatsApp (Wittels and Maybanks 2016, 3). Pew Research Centre found that in six sub-Saharan countries (Ghana, Kenya, Nigeria, Tanzania, Senegal, and South Africa) there were significant educational, financial, generational and gender divides in smartphone ownership. Younger, more educated, and higher-income Africans are likely to own a smartphone (Silver and Johnson 2018).

The overall trend toward increased mobile and smartphone penetration (though not uniform across geographies) has enabled more citizens to access weather information and other platforms far more easily either by SMS or through apps. Farmerline, WeFarm, and 2Kuze all deliver climate information direct to farmers or pastoralists (Greene, Soanes,

¹¹ Zilire Luka, SDI Malawi. Interview, 23.07.2020



and Walnycki 2019), although there is little attention to how the information is used for adaptation. National meteorological agencies are improving their communication tools to support smallholders (and other users) as well. ACREI for example, is not only improving communication but also enabling farmers to give feedback on what is useful and what they need, and it brings in other factors such as social dimensions and community dynamics that will influence the uptake of information so that it can be used alongside Indigenous knowledge. The Uganda National Meteorology Agency, for example, downscales weather information and interprets the seasonal climate forecasts in local languages. It conducts climate outlook forums with key stakeholders to develop advisories based on downscaled forecasts, which are disseminated to the communities by different agencies using different methods (Irish Aid 2018). A study in Karamoja, Northeastern Uganda, found that respondents who received climate information were more likely to make adaptation changes (Byekwaso et al. 2017).

Design Features

Participant Selection

The three networks use a combination of mechanisms to counteract systematic exclusion of marginalized voices in policy and decision-making. This relates to ensuring a broad and legitimate representation of the priorities of different members in a community. Instead of seeing communities as homogenous entities, the grassroots networks favor mechanisms to open spaces for traditionally excluded or underrepresented individuals and groups.

For SDI, some of the barriers to citizen engagement at the local level in informal settlements in Malawi are issues of “representation as denial of participation”; conflicting interests; the “capture of the engagement process” by the most eloquent individuals within the communities; and the perceived high costs of the process of community engagement among the authorities. Wonderful Hunga and Zilire Luka from CCODE, the supporting NGO of SDI Malawi, describe these challenges: “Sometimes people say that communities are ‘represented’ in an effective way by bringing only few individuals that don’t necessarily represent the interests of the whole community.... Sometimes the whole notion of representation is rooted in denying others to participate in decision-making....At community meetings there are ‘noise makers’ who capture meetings. They are usually more eloquent than other members of the community. When city council officials organize meetings in the settlements, the most vocal persons organize the meetings and at the end it’s the same group of people speaking in these fora.”¹²

To overcome the challenge of representation, SDI adopts self-selection as a mode of participant selection at the settlement level. The saving groups and community meetings bring members together to engage in dialogue. In the saving groups, individuals, mainly women, self-select and self-organize. At this level, the conversations involve immediate needs, creating localized safety nets structured to address household needs such as livelihoods, food security, and health. Saving groups would normally bring together cash savings that can be used to address members’ needs. Members would be able to access such support either through withdrawing their own savings or through soft loans.

WCCI works through existing groups such as women’s self-help groups, opinion leaders in communities, or traditional forms of authority and leadership that members perceive to enable their work. Traditional authority and political representatives differ in their perceived legitimacy to represent the interests of community members.

Paran Alliance members use a variety of structures to support representation of different groups in participatory decisions, such as the council of elders, women, youth groups, water resource user’s groups, community forest associations, and fisher groups, to give a platform to amplify their views and priorities. Representatives then attend the larger assembly meetings to share the processed views of their groups. An advisory council, which includes

¹² Wonderful Hunga, CCODE. Interview 23.07.20



representatives of persons with disabilities, women, widows, young men, youth, and pastoralists from diverse ethnic communities also supports the alliance members. The engagement of communities is both vertical and horizontal within or across community hierarchies and institutions. The use of traditional institutions is often preferred, but members of the alliance are allowed to engage communities according to the cultural norms of the areas they work in, if inclusion is observed. Table 4 summarizes participant selection in each case study.

Table 3. Mode of Participant Selection	
Who to engage? Mode of participant selection	
SDI	Individual self-selection to form community or savings groups Representation: Selection of representatives of community groups in larger clusters who relay information from higher governance scales to the local level
WCCI	Representation: Opinion leaders in communities and traditional forms of authority and leadership that are perceived as legitimate forms of community representation Purposive selection
Paran Alliance	Representation: Existing traditional institutions and traditional forms of authority and leadership, such as council of elders, women, youth groups, water resource user groups, community forest associations, and fisher groups Purposive selection

Mode of Participation

For SDI, local engagement is mainly through savings groups that hold community meetings. The saving groups and community meetings bring members together to engage in dialogue. In the saving groups, individuals, mainly women, self-select and self-organize. At this level, the conversations involve immediate needs, creating localized safety nets structured to address household needs such as livelihoods, food security, and health. Saving groups would normally bring together cash savings that can be used to address members’ needs. Members would be able to access such support either through withdrawing their own savings or through soft loans.

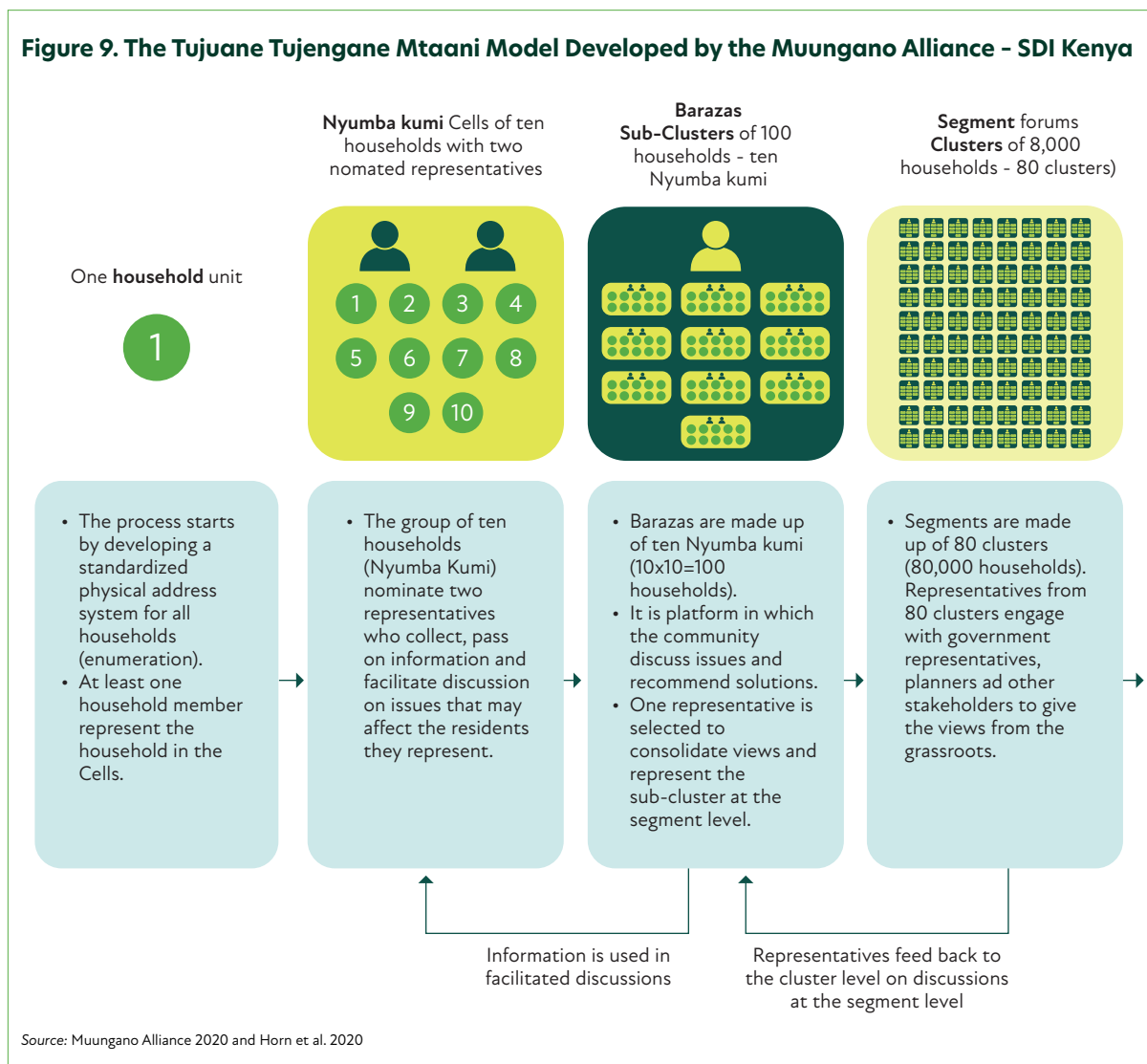
In Malawi, SDI combines two approaches to secure inclusive engagement: a layered approach that starts with small units at the cluster level (10 people in the neighborhood who know each other and are not shy to talk about issues) and, depending on the issue to be addressed, moves upward to higher levels of organization. The second approach involves simultaneous meetings of multiple small clusters throughout a settlement, which yields more inclusive results than a bigger meeting where only few community representatives are invited. The result is very rich as it captures the voices of the block, rather than that of a few people.

In Kenya, at the settlement level, the Muungano Alliance combines two models of community participation: the community savings model, which covers 10–20 percent of residents of informal settlements with a stronger representation of women (54:46 ratio of women to men) (Horn et al. 2020); and the Tujuane Tujengane model, which engages all residents according to geographically divided units in a bottom-up approach, starting by forming *nyumba kumi* (cells of 10 households), with increasingly larger units of public participation—*barazas* (subclusters of 10 cells: 100 households) and segments (clusters of 80 subclusters: 8,000 households). This structure seeks to overcome the challenge of scale by ensuring that representatives truly relay the views of people at lower levels of engagement.

The Tujuane Tujengane model is being used for the first time as the citizen participation model for a planning process in the Mukuru Special Planning Area in Nairobi. It is engaging 100,561 households, 10,000 cells, 1,000 subclusters, and 13 segments across Mukuru. Consultations take place at community planning forums at the segment level to



Figure 9. The Tujuane Tujengane Mtaani Model Developed by the Muungano Alliance - SDI Kenya



enable discussions across clusters. Depending on the issue, consultations at the subcluster are more desirable. However, sometimes a decision is made to consult only at segment level because of lack of resources to hold meetings at subcluster level (Horn et al. 2020).

Organizations working with WCCI at the local level in Kenya and Uganda use existing structures, cultural norms, and small groups in a form of organizing they call community dialogues. To ensure all voices are heard, the women leaders sometimes disaggregate different groups of the community before bringing them together.

Paran Alliance uses traditional forms of engagement such as chiefs’ public gatherings, called *barazas*, and an event called the Camel Caravan to engage communities. Paran Alliance collects perspectives from informal and customary institutions and meetings to inform collective decision-making and advocacy. They also use approaches such as ranking priorities, representation, and holding the meetings in the community themselves. The approach is deliberately open-ended and fluid, starting with the community’s problems and issues. The interaction is informal, with more members joining each time they see a meeting happening. The engagement and community organizing has several levels, starting with community conversations or local self-organizing groups such as women’s self-help groups. The views from these conversations are brought together in a dialogue where different groups have a representative. In some cases, there can then be another more formal engagement with policy makers.



Table 4. Mode of Engagement			
	Level	Type of citizen engagement	Mode of participation
SDI	Local/settlement	Community and savings groups meetings	Express preferences and deliberation
		Community group meetings	Data collection and self-monitoring
	Regional/national	Federation meetings Co-governance (e.g., Muungano Alliance)	Accountability, deliberation, strategizing; use community data for joint planning with government authorities
		Multinational	“Hubs” meetings (Asia, South Africa, West Africa, East Africa)
WCCI	Local	Community dialogue—disaggregated men’s and women’s groups	Express preferences and deliberation
	Regional/national	Cross-county discussions	
Paran Alliance	Local	Traditional forms of engagement: Chiefs’ <i>barazas</i> (public gatherings—mini publics) Camel Caravan	Express preferences
		Community meetings, forums, workshops	Express preferences and deliberation
	Regional/national	Invited consultation	Aggregate preferences for decision-making and advocacy at higher governance levels

Mode of Decision-Making

SDI uses argumentation to reach consensus on decisions. But consensus often hinges on who has the loudest voice. Savings groups strengthen the voices of participants and, over time, individuals (mainly women) develop the capability to represent their own interests. Some federations appoint leaders by voting, but the majority understand that the voting system replicates power dynamics or works against those who are marginalized. In Kenya, communities use consensus building and try to convince members of priorities by giving reasons for why a matter is relevant to them after hearing other’s opinions (deliberation). The communities then agree on urgent, mid-term, and long-term needs. To manage dissenting views, SDI applies dispute resolution mechanisms at different levels using the leadership and structures in the groups. If there are conflicts within neighborhoods, between groups, or at national level, the procedure is that the next level manages the conflict. If two community leaders are in dispute, the association becomes the mediator. Peers usually facilitate dialogue between conflicting parties. “Every problem helps to understand risks,”¹³ reflects Sheela Patel, which highlights the constructive role of engagement through deliberation. If the discussion is technical, SDI NGOs may provide professional support.

WCCI uses approaches such as prioritization through ranking and voting and uses games to reach decisions that align with priorities. The engagement and decision-making processes are deliberately open-ended and fluid, starting with the problems and issues the community faces. Paran Alliance also uses approaches such as ranking priorities, representation, and community meetings. A few member organizations used voting. Conflict mechanisms involved taking each group separately to work through issues and develop social contracts.

13 Sheela Patel. Interview 12.08.21



Table 5 summarizes decision-making processes in each case study.

Table 5. Decision-Making Processes	
Case study	Decision-making processes
SDI	<ul style="list-style-type: none"> • Consensus • Some voting but recognized as problematic especially in ensuring gender parity in patriarchal societies • Layering up from local groups • Resolving disputes through local leaders and structures
WCCI	<ul style="list-style-type: none"> • Prioritization, voting, and ranking • Consensus and games • Decisions largely consensual with priorities aligned
Paran Alliance	<ul style="list-style-type: none"> • Consensus • A few organizations used voting • Conflict mechanisms work through issues with each group separately and developing social contracts; can escalate to police involvement water or other common resources are involved

Level of Citizen Influence in Policy Making

All three networks are active in grassroots communities, as well as local and national policy making. SDI and WCCI also extend to regional and international forums. The three networks engage on climate-specific policies and negotiations, but also on policy areas that mediate the risk for local communities, such as housing issues, land rights, and disaster risk management. Both SDI and WCCI focus on harnessing grassroots experience to ground-truth high-level policy discussions. SDI focuses on data, while WCCI seeks to demonstrate effective climate change solutions, and Paran Alliance aims to amplify voices and provide a platform for a range of groups.

SDI uses international spaces to affect international agendas. The national government uses international agreements as a basis for their own country programs, so SDI feels it is critical to participate in those forums. Their strategy is to bring what is happening on the ground to the international forum to ensure that the conversation is informed by what ordinary people experience and grounded in lived experience. Beth Chitekwe-Biti gives an example: “In 2005, when Zimbabwe informal settlements faced a major eviction where nearly 1 million people were left homeless, SDI was present at the World Urban Forum in Vancouver, the Zimbabwe minister was there and claiming to be very progressive in development. SDI took him aside and exchanged ideas of what urban poor actually required. Out of the meeting they got a MoU with the city of Harare and with the national government to use the data collected by the federations as the basis for cities to begin to plan.”

To make such connections, SDI collects data to map risks and generate settlement profiles. The data provide substance for conversations at the local level, including for the development of solutions and ways to engage with other stakeholders. Data collected by communities may be perceived to lack legitimacy, but when members of the SDI federations back it directly it is better able to influence policy making. To give the data more legitimacy, SDI involves city officials, such as the city council’s community engagement officer in the production of information, but budget and staff limitations can make it difficult to sustain this process. Community-level data have always been central in grassroots responses to urban poverty and upgrading strategies.

Communities have used such data to negotiate with local governments on housing, land, and basic service needs, as well as to broker coproduction partnerships with local government. Under such arrangements communities can provide labor and some resources from their savings groups, while local governments might provide land or trunk infrastructure. As an example, in 2017, Muungano Alliance used community data to negotiate with the county government to have Mukuru categorized as a Special Planning Area (Box 1). A series of integrated cross-sectoral plans

were developed with an associated governance structure, which enabled the government to work with communities to transform Mukuru using resilience-enhancing multisectoral strategies (Sverdlik, Mitlin, and Dodman 2019). Wide-range partnerships legitimize SDI federations and supporting NGOs as stakeholders in certain urban planning and upgrading processes, but also give informal communities influence and legitimacy beyond a specific project. The digitalization and standardization of data enables SDI to engage with national and global policy processes and forums.

WCCI focuses on local engagement with policy makers and relevant processes (largely land, gender, and disaster management), through either representation on committees or groups, informal connections to programs and resources, or requests from local officers. Some local organizations have received training on engaging policy makers and leadership, but WCCI's model of operation focuses on building capacities and confidence. The WCCI network and WCCI organizations in Kenya and Uganda use a variety of strategies to influence policy (Box 2). These range from using the WCCI model to demonstrate what is possible to UNFCCC forums and philanthropic organizations, to very local engagement on service delivery, disaster and gender policies, and access to programs that could improve the livelihoods of local women. WCCI also uses direct representation of grassroots women. Godliver Businge, Director of the Uganda Women's Water Initiative, described how "Grassroots leader representatives at international level are more effective because they live in the community and experience all the challenges. When community issues are identified, the grassroots leaders speak to high-level people."¹⁴

WCCI aims to influence policies by helping decision-makers understand the role of women when it comes to climate change, and how climate change affects women differently than it does men. When this message is passed to government officials it is easier for women to further challenge policies. WCCI also influences policies by providing policy makers with feedback on policies and projects. "[WCCI] can also get feedback about how what's been done is being useful, e.g., infrastructure. We need to hear how it has worked. For example, the management and maintenance of WASH [water, sanitation, and hygiene] programs is community-based, so we cannot understate the importance of the engagement of the communities/WCCI from the start."¹⁵ "We used to fear government, we used to not go to government. But

Box 1. SDI: Multidisciplinary and Multisectoral Partnerships to Blend Knowledge and Resources

The Mukuru Special Planning Area in Nairobi shows how multistakeholder partnerships can be useful. Development of the Integrated Development Plan drew on inputs from settlement residents using the Tujwane Tujengane model and blended the knowledge of multidisciplinary and multisectoral consortium members. The lessons collected by the Muungano Alliance emphasized the importance of dedicating time and resources for community organizations to secure mass buy-in and ownership of the planning process, and for creating institutional and procedural mechanisms that integrate community participation into all stages and allow for interdisciplinary and multisectoral collaboration (Horn et al. 2020).

Box 2. WCCI: Using Women to Support Political Engagement

WCCI's policy engagement depends on demonstrating the proof of concept of the first climate center in Tororo. The WCCI board has taken the approach of using "women of influence" to support their political engagement processes. In Uganda they work with a retired UN staff member who supports their strategic planning and has relationships with government ministries where she can lobby for space for WCCI to engage. During the floods in Tororo, she helped engage the office of the prime minister responsible for disaster management. This resulted in the communities getting early warning information, which enabled them to respond before the seasonal flooding.

¹⁴ Godliver Businge, Uganda Women's Water Initiative. Interview, 29.07.2020.

¹⁵ Martha Naigaga. Ministry of Water and Environment, Uganda. 05.08.2020



once we formed this network, our eyes are opened, we are doing a lot of work on the ground [to give confidence to women to speak to government].”¹⁶

Members of Paran Alliance engage with government processes as individual organizations and as a movement. They have, for example, engaged with disaster risk management and land policies, and rangeland management issues in several counties, often directly engaging with the county assemblies and executive members. As a founding member explained: “Each alliance member is active in a particular community and in particular areas. But the aim of the alliance is to take the voices to higher decision and policy-making levels. Within the alliance, we also get the opportunity to engage in higher regional and international-level processes. We bridge these levels, local to national and to international. In this we bring our teams voice together.”¹⁷

Alliance members engage in policy development through formal and informal mechanisms (Box 3). Formally, they are sometimes invited to support in drafting policies and to attend and bring community representatives to formal consultation processes. In doing so, they seek to strengthen the participatory nature of government processes. Informally, they also collaborate to organize community dialogue and events such as the Camel Caravan, where policy stakeholders attend and learn, sharing experiences with priorities and emerging issues. Alliance members seek to keep the relationship with authorities consensual and see devolution as a policy opportunity to improve the functioning of the state. They work through a variety of partners, including other civil society networks, and work in partnership with the government to improve and deliver basic services.

Box 3. Paran Alliance: Influencing Policy

In engaging policy makers, Paran Alliance works at three levels:

- **County level:** through public participation meetings for the development of the County Integrated Development Plans. For example, the *Disaster Risk reduction policies* for Samburu and Laikipia, Isiolo County *Climate Change Policy* by collective of Isiolo County CSOs Forum.
- **National level:** by influencing the members of the assembly to present a bill to address pastoralists’ issues. For example, anti-FGM policy adopted by Samburu County through the Paran Alliance member Samburu Women Trust.
- **Regional or intercounty level:** through memos and petitions related to land, litigation, and recommendations to avoid violation of the forest communities’ rights.

¹⁶ Constance Okollet, WCCI, Uganda. Interview, 24.07.2020

¹⁷ Mohamed Dida, ISID. Interview, 14.07.2020.



Enablers and constraints

Table 6 identifies the enablers and constraints to community engagement and influence on policy from the case studies.

Table 6. Enablers and Constraints to Policy Influence	
Enablers	Constraints
<ul style="list-style-type: none"> • Building longer-term relationships with policy makers • Policy makers understanding the value of community inputs • Equitable, multidisciplinary, and multisectoral partnerships • Consensual and collaborative approach with local constituencies • Community data • Engaging on the terms of the community • A shared and joint voice • Informal networks • Invitations and positions in formal consultation processes • Shared meetings and data collection with policy makers 	<ul style="list-style-type: none"> • Challenges in communication • Long distances and costs of transport and food • Policy makers seeing the relationship as purely instrumental rather than about wider engagement • Very formal bureaucratic engagement that does not allow for community framings and knowledge • Systemic challenges—connectivity, cost of mobile phone, literacy—in using digital tools to capture and analyze local climate information to inform decision-making

Space of Participation

The space where participation takes place is essential for the design of citizen engagement processes. To ensure the inclusion of all voices, all three case study networks select the most familiar spaces, including both physical and cultural spaces (language, traditional ways; Table 7). For SDI, community savings groups regularly meet in the same informal settlement. Similarly, community data collection is done in the same settlement. For peer-to-peer learning, which is essential for knowledge and skill sharing, SDI uses exchanges between members of different settlements. In some cases, SDI involves government authorities as a strategy to increase the perception of legitimacy and establish trusting relationships. This is described in more detail in Social and Collective Learning (p. 42).

WCCI also seeks to make meetings part of daily life by meeting in local places and using local norms of interaction rather than meeting in a hotel or workshop setting. For the Paran Alliance, the practical considerations of language differences, long distances, and cultural paradigms were all brought up as challenges to engagement. For pastoralists, factors that enable community organizing included using informal local mechanisms in their own contexts (such as herding grounds, watering points, and cultural ceremony sites) and working with the grain of the community rather than imposing new ways of organizing. Paran Alliance member organizations worked with bespoke approaches for different subgroups or cultural groups to fit with their own methods and cultural expectations. The experience of these organizations in the alliance is that some groups need separate meetings to be able to fully express their needs and priorities, and other groups, such as women, are self-organizing at the local level around their own priorities but do not have a platform to amplify their views.

Some members of the case study networks see the seminars and workshops favored by more established development actors as too formal and exclusive of many community members. Instead, the alliance promotes and runs informal meetings in open community spaces allowing engagement with all segments of the communities. This way they hear more and divergent views, concerns, and priorities.

**Table 7. Space of Engagement**

Case study	Physical space	Cultural space
SDI	<ul style="list-style-type: none"> • Organizing: Informal settlement • Engaging with authorities: Informal settlement • Data collection: Informal settlement • Peer learning: National and international learning exchanges 	<ul style="list-style-type: none"> • Local context, local language
WCCI	<ul style="list-style-type: none"> • Local places 	<ul style="list-style-type: none"> • Local norms of interaction
Paran Alliance	<ul style="list-style-type: none"> • Local context: open community spaces 	<ul style="list-style-type: none"> • Local norms of interaction, bespoke approaches, local languages

Time and Duration

Time, specifically the time needed to build meaningful engagement mechanisms, was an important issue in several case studies. Zilire Luka, from CCODE–SDI Malawi, highlights the central role of long-term processes to secure a meaningful citizen engagement: “The process of community engagement through deliberation is time-consuming and technical government processes usually don’t have time. To ensure a bottom-up approach, communities start building leadership, networks, expertise. This takes time and the perception is that it is a costly process.”¹⁸

WCCI interviewees also pointed out the need for a slower pace to set a foundation for real impact. It can take much more time to be serious about community leadership but doing so builds ownership and real impact. Rose Namukasa of the Katosi Women Development Trust described this change in pace: “When we went back to the community and decided to be very participatory, our work was greatly slowed down. We had to patiently wait for everyone to be on the same page with us. But the positive is that we have now arrived at a common agreement, and we have action points that we jointly agreed upon that we are now implementing. The planting of trees by households was a participatory action point.”¹⁹

For Paran Alliance, meaningful engagement is considered part of cultivating an ongoing relationship. Some Alliance members mentioned the importance of engaging with groups right from the beginning of a process, using ongoing relationships that are maintained throughout projects and beyond, and building capacity for engagement. Timing for engagement was also important for maximizing the availability of participants, for example, seasons when stresses are high, such as planting or pasturing seasons, are best avoided.

¹⁸ Zilire Luka, CCODE. Interview 23.07.20.

¹⁹ Rose Namukasa, Katosi Women Development Trust. Interview, 08.07.2020.



Individual and Collective Political Capabilities

Political Capabilities for Climate Action

Individuals need political capabilities and networks need those with the greatest skills to legitimately represent the constituents' interest across higher governance scales. This is important when government and development actors are working with a range of grassroots organizations. For inclusive climate action, these groups would include farmers, forest dwellers, fisherfolk, and people working through community-based projects that are vulnerable to climate change impacts.

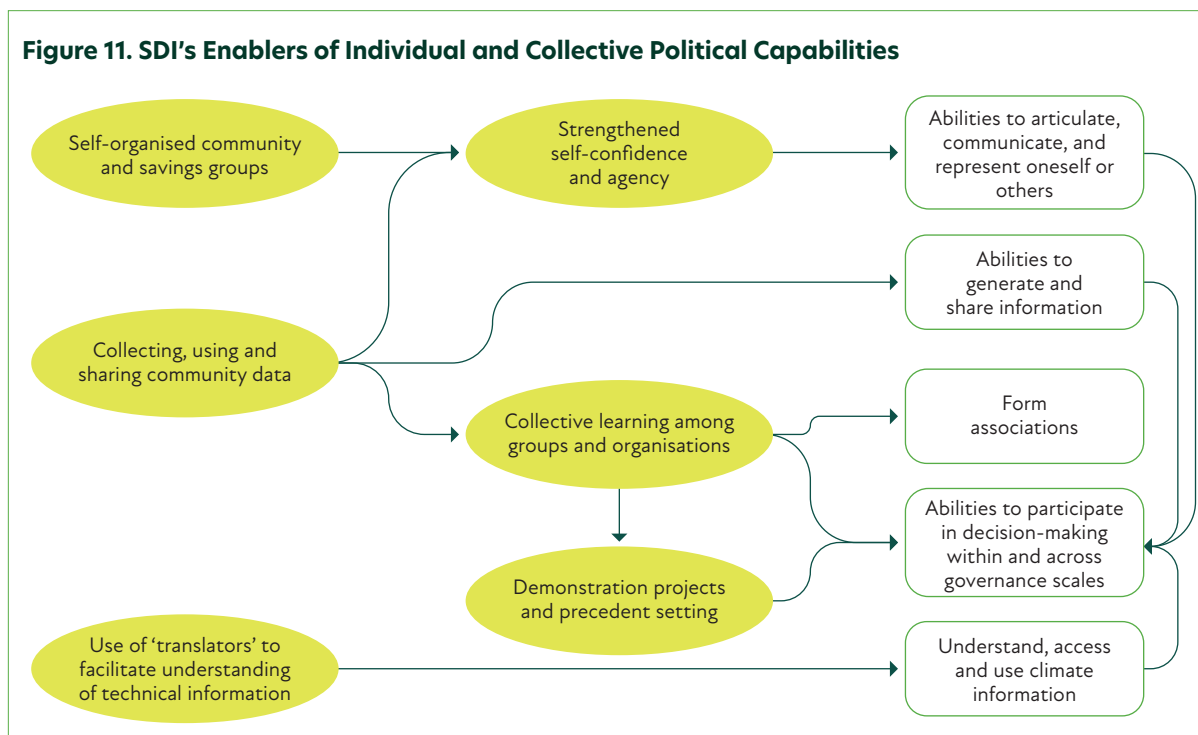
Based on Narayan's definition of political capabilities (2005, 9–10) and Sen's idea of human agency (2005, 9–10), we understand the term *political capabilities for climate action* as “the ability of people to articulate and represent oneself or others, generate, access and use climate information, form associations, and participate in climate-related decision-making within and across governance scales.” Strengthening political capabilities depends on a compound of interrelated individual capabilities, including self-confidence, the access and ability to understand and use climate information to explore robust decisions given the range of potential futures, and the ability to communicate eloquently and effectively. Such skills ultimately influence rebalancing unequal power dynamics, so they are important for strengthening political voice. Each case study network or movement identified a range of enablers and barriers operating at the individual and group levels to strengthen individual and collective political capabilities.

SDI uses a combination of enablers to strengthen individual and collective political capabilities: (1) small self-organized community and savings groups; (2) collecting, using, and sharing community-generated data; (3) use of “translators” to facilitate understanding of technical information; and (4) demonstration projects and precedent setting. This section briefly describes each of these and Figure 11 shows the linkages to different elements of the “political capabilities” definition.

Organized community groups to strengthen self-confidence and agency: The self-organizing process starts by building people's capacity and confidence to engage in a participatory process through which they can identify their challenges and propose and prioritize solutions. Participating in the small group community meetings is the means through which capacity is built. SDI understands that influencing policy requires redressing the power and information imbalances frequently encountered with decision-makers. The best way to do this, SDI believes, is to empower individuals and groups by strengthening people's agency and capabilities and the organizing capabilities of groups. Savings groups, like community groups, strengthen voices and develop people's capability, in this case mostly women, to represent their own interests. “People [who] have grown in self-esteem, grow themselves.”²⁰ In Zimbabwe, the slogan “The voices of the women should be prioritized” is repeated in each meeting. In time, women who were not used to being asked for their opinion gain confidence to speak at meetings. Savings groups not only change the power dynamic for women and the marginalized, they also act as a collective and can use funds to respond to risks, including domestic violence. The nature of savings schemes ensures that leaders are the ones who manage them. Through savings groups and urban poor funds, communities have their own resources and do not expect governments to bear the costs of upgrading informal settlements by themselves. SDI affiliates come as partners, shifting the power dynamic, and communities can respond to their own needs. For example, in Zimbabwe, the community did all the sanitation and piping installation in their own settlement. “When comparing with the resources of the government, SDI affiliates covered 30% of the infrastructure.”²¹ Through self-organization, communities actively suggest solutions, for example changing a drainage system, which shifts attitudes of decision-makers from perceiving people in informal settlements as passive beneficiaries to proactive, organized knowledge holders.

²⁰ Sheela Patel, SPARC. Interview 21.08.2020

²¹ Beth Chitekwe-Biti, SDI Secretariat. Interview 20.07.2020

**Figure 11. SDI's Enablers of Individual and Collective Political Capabilities**

Collecting, using, and sharing community-generated data: A significant theme from the interviews was the need to build women's confidence and agency to engage with decision-makers. Zilire Luka, from the Chipembere Community Development Organization (CCDO), the SDI support organization in Malawi, explains that the process starts by building the capacity of the community members to collect their own data. Through the production of information, people can clarify their needs and present them at the settlement level, where the process enables them to identify solutions. This works because community members can go places that may be closed to outsiders. "Collecting data and gathering information changes individual understanding and the way in which individuals see themselves. They gain skills to manage data, to map. In the youth program, people become journalists."²² At the local level for SDI Malawi, the community engagement process starts by building the capacity of people to collect their own data. Through the production of information (such as community risk mapping), people can identify their needs and articulate them in community meetings. Then community learning is shared across the groups. Through a continual process of engagement, capacity building, and learning, a collective voice is found. A central lesson is that governments, as well as the community, engage in collective learning—for example, officials learn alongside slum residents. Even at the global level, SDI organizes side sessions where officials from cities work in collaboration with SDI to share their views and the value of programs. Wonderful Hunga, from CCDO Malawi, explains, "at the city level, the main outcome is the real data collected by communities (e.g., updated information of informal settlements), which is used to make decisions and for programming at the city level. The challenge now is to link with climate information."²³ Risk mapping exercises have been useful to address community issues.

Use of "translators" to facilitate understanding of technical information and "aggregators and disaggregators" to facilitate the flow of information: The provision of information from trusted sources is key for SDI, as the network facilitates the delivery of information to and from the community to aid in understanding the community's challenges. This is the role of supporting NGOs that act as trusted "translators" of technical information to the community members. The systems and processes SDI has developed serve different needs. The collected information is aggregated across settlements to engage with stakeholders at the national level and at the same time disaggregated to the settlement or group level to complement decision-making.

22 Zilire Luka, CCDO, SDI support NGO in Malawi. Interview 21.07.2020

23 Wonderful Hunga, CCDO Malawi. Interview, 23.07.2020



Demonstration projects and precedent setting: SDI uses “precedent setting” to establish collective competence and capacity through demonstration projects. Local organizations use this strategy to display their leadership and skills to government agencies, funders, and other community organizations. The approach aims to counteract top-down approaches and put local communities in the lead on changes in their own contexts.

Within WCCI, trust and good facilitation were considered key enablers of individual engagement and determined the success of the engagement. Facilitation, like SDI’s “translation” role, involves familiarizing local people with technical information, in WCCI’s case by working through existing groups to share knowledge and skills and to build agency, confidence, and self-esteem. Several WCCI members emphasized the importance of engaging with communities as equals and not as project beneficiaries. This reframing involves a shift in the purpose of deliberation and power dynamics. WCCI in Uganda worked with communities to build water tanks using locally available materials in ways that are not harmful to the environment. The water also supported kitchen gardens. The active experimentation and reflective observation have built skills in the community to access water using locally available materials while conserving the environment. The skills are passed on by WCCI technical staff. WCCI’s learning process also links women across geographies with different understanding and perspectives on issues. Through engagement and their relationships, they have found common ground for advocacy. As a member of the secretariat said, “It is definitely a learning process. The initial stage was all the excitement. We have hit some rough spots, miscommunication, and misunderstandings. We needed to have discussions of how we work together.”²⁴

For Paran Alliance members, enablers for political capabilities build capacity for engagement as part of ongoing relationships. Jane Meriwas from Samburu Women Trust, a Paran Alliance member organization, told us that “For individuals it is building skills and knowledge of what is happening, for the network it builds a collective voice, and we see here the interconnection between building individual agency and voice, and the broader collective aims of the networks.”²⁵

Use of Digital Tools and Generation, Accessibility, and Use of Climate Information

Digital tools for engagement and decision-making

In some instances, digital tools are being used for engagement and decision-making. For example, the Ngare Ndare Forest Trust (part of Paran Alliance in Kenya) uses smartphone apps, such as the open-source Spatial Monitoring and Reporting Tool, to easily collect georeferenced field data that is transferred to a database in real time. These data are used for discussion and analysis of various aspects of community lands, such as cropping changes and market trends. The app is also used to collect, analyze, and share data on issues such as illegal logging, wildlife, and livestock clusters, as well as to aid decision-making on effective conservation.

Digital tools for risk identification

Some SDI affiliates (in Kenya, Malawi, and Nigeria) have started to incorporate climate indicators such as frequency of floods, fires, and windstorms into enumeration processes and profiling surveys. In Malawi, the CCODE trains local people to use GPS to build risk maps for areas that they perceive to have high risks. People in the community use digital cameras and smartphones to take photos related to the perceived risks. They record and collect information about frequency and likelihood of the risks. The photographs are used to construct narratives showing the effects of the risks on community members and the damage caused. The photo stories are then used to anchor dialogue about building resilience among the community members and as conversation currency with external agencies and local authorities. Kobo toolbox is used to collect georeferenced data, and open-source mapping software such as Q-GIS is used for mapping.

²⁴ Suzanne York. Interview, 28.07.2020.

²⁵ Jane Meriwas, Samburu Women's Trust. Interview, 18.07.2020.



Digital tools for sharing information among community members

Mobile phones (not necessarily smartphones) are often used for rapid communication of local climate information between community members and within the networks, but digital tools are not typically available for widespread, inclusive decision-making. WhatsApp groups have sprung up to share information. This allows for the exchange of video and pictures, which can help where literacy is an issue. However, the cost of internet data can be prohibitive for many people, as is the cost of purchasing a smartphone. In rural areas, internet coverage for mobile phones is nonexistent in some places, and even Wi-Fi connections can be unreliable or dependent on available power supplies. In the three case studies, relative to other priorities, digital tools were not typically considered an essential first step in supporting communities. The current focus is on storytelling, informal meetings, and Camel Caravans for sharing information.

Digital tools for sharing information across scales

SDI has uploaded significant amounts of information to its Know Your City platform, but community members may not have good access to the internet. Consequently, analog forms of information sharing must be maintained. This poses the risk that efforts are duplicated and the information gathering process becomes extractive, or accessible only to those able to afford internet data or who have had appropriate training to access key information—creating a local digital elite. In principle, this problem can be solved: local federations could continue to share data in multiple ways to maximize public access, provided they have the resources and can establish a reliable system for doing so. In time, it is likely that the cost of both smartphones and internet access will come down, making data more accessible. Accessible, affordable platforms for sharing data would be useful. However, given the urgency with which responses to climate threats are needed, this time lag is a problem. Community engagement in policy making and decision-making is needed now.

Access to climate information and digital tools

Access to climate information and digital tools also enables the inclusion of community members in citizen engagement processes. The way climate information is generated differs slightly by context, but the case studies suggest that climate information gathered and shared at the local level is regarded as more relevant, and more credible, than information that comes from official sources. Representatives of rural communities in Kenya and Uganda identified locally generated, Indigenous knowledge as a primary source of climate information that informs their risk responses. Hajra Mukasa, founder and country director of UWWI, mentioned storytelling as a key source of information. Weather forecasting based on Indigenous knowledge by local elders and collected experience from decades of accumulated knowledge are often the first port of call for communities. Rural communities may triangulate their local knowledge with meteorological data from national forecasts, or through trusted links to local government authorities.

In urban areas, information about potential risks and seasonal change runs through informal networks, informed by meteorological data disseminated by national agencies and support NGOs. However, in both rural and urban areas, climate information is predominantly seen through a short-term lens—data are typically used to inform short-term decisions in response to impending risks and threats, or to inform seasonal agricultural decisions. Long-term planning against climate scenarios does not appear to be a significant factor at present.

At the secretariat level, the issues of concern to SDI affiliates—evictions, sanitation, and water, among others—have a climate dimension. As a network, SDI wants to understand how climate change affects the communities and the risks for further marginalization. Through the data it has collected, SDI realizes that in coastal areas of West Africa, for example, the reasons for evictions are linked to climate change. In Sierra Leone, evictions are linked to landslides, also related to climate change. They now understand the need to see everything with a climate lens in all informal settlements and to adapt their tools to include this perspective, for example, by integrating climate risks into the profiling tool.

At the local level, in Malawi, community members get climate risk information from block leaders. The support NGO in Malawi is working in seven settlements to map climate risk and strengthen community resilience. Settlements are



using the data collected to develop measures to make them more resilient. As part of the climate change project they are implementing, they use the Know Your Customer campaign and engage the ward development committees. One of the challenges identified by SDI Malawi is that when governments launch documents, they do not engage communities: “There is an assumption that people understand and are aware of the issues of climate change, but that’s not the case. Another challenge is that central and local governments have guidelines of issues of climate change but are not disseminated to communities.”²⁶

National meteorological agencies regularly share information, but the case studies confirmed an ongoing “usability gap” for most people alongside other barriers. Meteorological data are often short term, difficult to understand, and rarely downscaled to local contexts and decisions relevant to local livelihoods. There is some mistrust of meteorological agencies due to the political nature of disaster information—movements expressed suspicion that an agency may not announce a drought for political reasons. When meteorological agencies are incorrect, people are more likely to revert to their trusted forms of local knowledge. Hajra Mukasa (WCCI) stated that there is often mistrust of weather forecasts, and often the information from the government is inaccurate or difficult to understand, which exacerbates mistrust.²⁷

Some available, good quality information is expensive to access. Other barriers to the use of meteorological agencies for seasonal information include limited literacy, lack of access to the information, and lack of technical knowledge to interpret the data where it is available through open-source platforms. Where forecast information is disseminated online or through an app, those without smartphones, or the literacy to use them, cannot access it easily.

While bundling local knowledge and meteorological data was noted in some cases, it was not common across the case studies. WCCI regional coordinator Rose Wamalwa described how WWANC in Kenya sends out SMS messages with local climate knowledge and government data processed into a format tailored for communities.²⁸ The SMS message is sent to Women Climate Accelerators—community members in different counties that have been trained on climate issues. They can understand and, if necessary, translate the information that they receive, then communicate it to households in local languages. Grassroots women work directly with mobile phone network providers to send out the messages. Liban Golicha, chief executive officer at Waso Trustland Project, said that they work with appointed community weather monitors.²⁹ These are community members that have been taught to interpret meteorological data and can marry it to local knowledge. This combined data can then be shared in community forums and social gatherings.

Digital literacy

Digital tools are more likely to be used when associated with disaster risks and threats, and when they are coupled with trained individuals within communities. All networks identified the role of “climate champions,” such as the Woman Climate Accelerators and community weather monitors, with extra knowledge in collecting and disseminating information in response to potential risks and threats. These individuals have received training and are at the center of networks through which they can share urgent information, typically through WhatsApp but often by SMS message.

Social and Collective Learning

Social learning takes place through facilitated, iterative processes where actors exchange learning, frame issues, and work together, which can overlap with deliberation and collaborative governance. Through processes such as interactive dialogue, exchange, learning, action and reflection, and ongoing partnership, new shared ways of knowing emerge that lead to changes in practice. All three case study networks engage in forms of social learning by engaging different stakeholders, through iterative learning, or with capacity building. However, different levels of the

²⁶ Wonderful Hunga, CCDO, SDI support NGO in Malawi. Interview 23.07.2020

²⁷ Hajra Mukasa, WCCI, Interview 17.07.20

²⁸ Rose Wamalwa, WCCI. Interview, 20.07.2020.

²⁹ Liban Golicha, Waso Trustland Project. Interview, 06.08.20



networks do not always include all three components, which can limit the level of collective social learning. When capacity building, engagement, and iterative learning processes are all used together toward social learning goals, clear learning outcomes result in positive changes in values and practice. These changes can first be seen in individual behaviors, capacities, and knowledge, which then lead to collective understanding of problem setting and risk assessment, direction setting, and implementation. The three organizations all take a nonlinear approach to learning, which is primarily informal and experiential and happens in a variety of ways from direct instruction to peer learning, dialogue, exchanges, games, and songs. In structuring activities and agendas with the specific purpose of learning, it is essential to include reflective moments and capacity building to internalize the learning and thereby create the change needed in individuals and wider communities.

Learning is central for SDI and is embedded in various levels of the SDI structure. Learning happens mainly through peer learning and experimenting, testing solutions, and seeking to institutionalize solutions that work (demonstration projects and precedent setting). For example, settlement profiling started in India, and now other federations are using it; in India, peers learned how to access subsidies from South Africa. Malawi had questions about regularization of land and Zambia and Uganda had gone through similar processes but with different tenure domain models. The secretariat connects and keeps the information in the archive for future reference.

Iterative learning through peer-to-peer exchanges is central to a learning approach that starts by strengthening individual and collective capabilities. Regional hubs meet annually to discuss what they are doing and then discuss what might be helpful for different countries. At the local level, if SDI affiliates identify a country with a similar program addressing a similar challenge, they can ask for an exchange and the SDI Secretariat will facilitate the exchange (Box 4). The hubs are for people to share what is working and show others who want to replicate it.

At the local level, “Learning happens immediately after meetings.”³⁰ Community learning is shared across groups. In Kenya, Muungano collects learning through blogs. They have partners in different programs to harvest stories and to document and collate in Know Your Customer data management at the SDI Secretariat. They share information through Facebook and YouTube. A central lesson for SDI is that the community is not alone in collective learning, that learning works best when communities learn together with government officials. Even at the global level, SDI organizes side sessions in global forums where officials from various cities work in collaboration with SDI to share their views.

In Uganda, WCCI has created spaces for the active experimentation and reflective observation that have built skills in the community to access water using locally available materials while conserving the environment. The skills are passed on by WCCI technical staff. WCCI’s learning process also links women across geographies with different understanding and perspectives on the issues at hand. Through engagement and their relationships, they have found common ground for advocacy. Tracy Mann of Climate Wise Women reported that, “There are challenges in terms of mixing women with different educational backgrounds and different economic backgrounds. There are women

Box 4. The Connecting Role of the Secretariat for Iterative Learning in SDI

Since 2020, SDI has systematically embedded learning across its different levels of activity and its structure. It collects annual reports of all affiliates and uses them to program what works. SDI collects stories about the learning collected by affiliates and collates them in the Know Your City database. The Secretariat connects and keeps the information in the archive for future reference. Before COVID-19, SDI had WhatsApp groups organized in teams to share information and a climate change thematic forum to share and ask questions to the federations. They use WhatsApp because it is accessible in terms of connectivity and data. Federations have relied on Zoom, but WhatsApp is still the most used, even for advocacy.

30 Joe Muturi, Kenya National Federation – Muungano wa Wanavijiji, Interview 28.07.2020



who feel judged, or less secure, power dynamics that need to be adjusted. Age is also a factor, leads to a certain difference.”³¹

Through its demonstration work, WCCI has been able to engage decision-makers in government and change their attitudes toward the participation of local groups through increased understanding of the role women can play in addressing climate change, and how climate change affects women differently than men. “The government can now see community members not just as victims and beneficiaries, but also believe they have something to share.”³²

The policy makers interviewed in Kenya and Uganda noted instances where government policy drafts had been validated by CSOs and, where there are areas of contention, they appeal for changes, verbally or through written petitions. However, some perceived this as a community request for the government’s help, especially where land or security issues are involved and the government has a responsibility to explain. This highlights the need to engage policy makers to change attitudes about the role of community engagement. While participation can sound like a potentially sensitive and confrontational process, our case studies show that challenging institutions can be done successfully through a cooperative and learning-centered process.

Paran Alliance also uses traditional authorities and institutions to create both legitimacy and further engagement. This leads to a more bespoke approach to community learning, using creative channels, such as song, to accelerate learning. A founding member told us: “They can have processes of reflecting and sharing learning, scaling up to other areas. The learning can be in the form of songs, a lot of messages we are sending through the songs. We are using local radio to disseminate information...songs on drought and climate change on traditional language.”³³

For social learning to occur within networks and by stakeholders, interviewees focused on the need for both individual and institutional openness, and on support for these processes. A member of the WCCI secretariat spoke of the importance of learning within secretariat relationships: “This is something we are committed to, not related to geography. The thing I would say is it takes a lot of patience and willingness to be wrong.”³⁴ This quote emphasizes another key theme from the interviews: that learning was needed at all levels of engagement and was not a unidirectional transfer of knowledge to community members but an active process that required openness to learning among those working at national and international levels as well. As Jane Meriwas of Samburu Women Trust also emphasized, “The alliance is new and we are trying to build the structures that will work. So, we share examples and learning...The value is the collective voice. It is not easy to work together when you want to address sensitive issues. Within the alliance you are stronger and you have more voice than an individual entity.”³⁵

The case study evidence suggests that achieving learning outcomes requires a long-term social process that situates the individual within broader community learning, network building to strengthen interactions and influence, knowledge management to capture learning as it happens, and reflection to track normative and practice change. All three networks recognize that to move from influencing to challenging institutions requires consensual, mutually supportive relationships with policy makers. While influencing and challenging the operationalization of policies can be done through short- to medium-term engagement, achieving changes in attitudes, behaviors, and institutional norms requires long-term engagement. Toward this end, the networks have developed clear spaces and processes through which local voices can be channeled, creating established and trusted spaces and specific times for learning. This includes both engaging with governments in policy-specific processes (or spaces) and including government officials in local dialogue as a way of raising awareness and advocating for community support.

31 Tracy Mann, Climatewise Women. Interview, 27.07.2020.

32 Rose Wamalwa, WCCI. Interview, 20.07.20.

33 Jane Meriwas, Samburu Women’s Trust. Interview, 18.07.2020

34 Tracy Mann, Climatewise Women. Interview, 27.07.2020.

35 Jane Meriwas, Samburu Women’s Trust. Interview, 18.07.2020.



Grassroots Networks' Responses to COVID-19

Responses to climate change follow different timelines. Immediate responses are needed to address the disaster management dimension, and responses that allow for risk identification and medium- to short-term planning of adaptation and resilience measures. Some features of engagement design support responses that address sudden-onset disasters, including climate extremes. Citizen engagement and grassroots networks' responses to COVID-19 offer lessons that can be applied to climate change, particularly to the responses needed for disaster risk reduction.

Across all three case studies, the efficient flow (horizontal, upward, and downward) of reliable information and resources through existing relationships with decision-makers and funders, already-established trust relationships with local groups and engagement mechanisms for supporting local action, and digital platforms and apps such as WhatsApp and SMS, were key to enabling local communities to organize quickly to address COVID-19.

Self-Organized Groups and the Efficient Flow of Information, Resources, and Knowledge

For SDI, self-organized groups, including savings groups, are considered an *ex ante* resilience measure that marginalized individuals use to cope with diverse shocks and stressors, from gender-based violence to illnesses such as COVID-19. The mechanisms and tools that allow these groups to cope rapidly with various risks include: hyper-localized individual knowledge of the local situation (who is most vulnerable, where); up-to-date data that allow them to manage and share such highly localized information with power holders or decision-makers; horizontal and vertical trusted social networks and communication channels for mutual aid; and community savings for emergencies and access to additional funds from the national or global levels of the organization.

SDI savings groups were able to coordinate immediate responses. The social network became critical to ensuring that communities supported each other. Through established social networks, community members were able to self-organize around markets and water provision (youth groups installed water points for people to wash hands), and to negotiate cash grants based on data collected, which is perceived as verified information of vulnerable individuals. The mechanisms and tools identified by SDI that allow them to cope rapidly with different risks include the possession of individual, in-depth knowledge of the local situation (who is most vulnerable and where); up-to-date data that allow them to manage and share with decision-makers highly localized data identifying vulnerable community members, such as persons with disabilities and chronic conditions, the elderly, single parents, teenage mothers, and pregnant women; trusted social networks and communication channels for mutual aid; and the possession of community savings for emergencies and the access to more funds from SDI at the national and global levels of the organization.

A key enabler of the rapid COVID-19 response from grassroots networks was the efficient flow of reliable information both upward (information from communities) and downward (information from government). This dual flow was enabled by the presence of *pre-existing trust relationships within the community and with decision-makers and funders*. In all three case studies the secretariats or supporting NGOs acted as interlocutors for resources or services from either government or nonstate actors. For example, WCCI and Paran Alliance had existing relationships with local government officials, which allowed them to act as an interlocutor with government services during the pandemic to ensure more marginalized communities were included in the response.

For SDI, the aggregated information flowing from the settlements was critical in negotiating for additional support in informal settlements. Through the federation in Kenya, the community produced aggregated data, which they used to create a report to engage with authorities. The federation now sees more community engagement informing government structures on what they need.



Godliver Businge described how WCCI built “awareness and skills to build tippy taps (local taps) and supported women to make soap. This was all done with the government for buy-in and it’s still ongoing. They also used influential people, for example, a businessman who knows his peers and can mobilize support, then the government supplement with relief items.”³⁶

A member of the Paran Alliance, Ngare Ndare Water User’s Association, remarked how “when COVID-19 came around, most of the people were afraid of meetings. We created WhatsApp platforms for those who could access it to share information. When there is a meeting where people are engaged in health issues, we assist those health officials to translate the issues.”³⁷

All three case studies strongly demonstrated how their response to COVID-19 built on existing relationships and community mechanisms, as well as the importance of digital platforms such as WhatsApp and SMS in these contexts. In WCCI, for example, Stella Wanjala noted how WWANC was able to capitalize on existing networks and extend its reach through networks of networks during the pandemic: “[We have] embraced a lot the use of WhatsApp — a number of women have smartphones — leaders of the groups. For example, we found a network of women who could then access other women without smartphones. So, we share out our information, and then share, for example, how to use masks and wash hands.”³⁸

In Kenya, the SDI federation reached out to community members to discuss how to respond to COVID-19. The federation developed a mobile phone tool to monitor the health and social impact of COVID-19 in 400 communities that agreed to report daily. The process maps local responses, encourages the development of solutions like hand-washing stations, and shares its findings within Kenya and beyond. In July 2020, during the COVID-19 response, Muungano Akiba Mashinani Trust sent 10,000 SMS messages to reach people living in the settlements for cash transfers, ask about challenges faced, and identify vulnerable people. They got responses via SMS with assistance requests, expressed needs, and receipt confirmation of cash transfers. Social distancing made community meetings challenging, but communication was possible using WhatsApp groups and SMS bulk messages.

Enablers for the Rapid Allocation of Resources: Targeting, Delivery, and Distribution

The SDI Secretariat established an Emergency Relief Fund (ERF), which was accessible by SDI affiliates. Funds previously allocated to slum upgrading projects were repurposed and made available for humanitarian assistance and disaster risk management initiatives. Funds were disbursed to affiliates via digital financial infrastructure—by bank transfers from SDI to an NGO affiliate and then to the Urban Poor Fund, which then transferred the funds by mobile money to the settlement mitigation initiative or federation treasurer. SDI affiliates applied for the ERF via the submission of a Rapid Needs Assessment. The ERF used Google Docs to create and complete forms and to get about 15 SDI federations support for COVID-19 response within a few weeks.

³⁶ Godliver Businge, Uganda Women’s Water Initiative. Interview, 29.07.2020.

³⁷ Phaniel Kitonga, Ngare Ndare Water User’s Association. Interview, 29.07.2020.

³⁸ Stella Wanjala, Women in Water and Natural Resources. Interview, 29.07.2020.

**Table 8. Building on Autonomous Action for COVID-19 Risk Management**

Case study	COVID-19 actions
SDI	Community members self-organized around markets, water provision (youth groups installed water points for people to wash hands), negotiating cash grants based on data collected.
WCCI	Groups in Uganda and Kenya engaged with communities over public health messaging, soap production, and working with the government task force. They used digital platforms and mobile network providers to send SMS messages to spread awareness. They also collected information, created a database, and shared a newsletter.
Paran Alliance	Undertook research to understand the nature of impacts on the community. Some members established WhatsApp groups and used them to disseminate information, others produced information to support community self-organizing.

4 | Discussion and Conclusions

Photo: Paran Alliance





Meaningful engagement of citizens on climate action and risk management requires not only removing contextual barriers but also leveling the participation playing field. That means selecting inclusive citizen engagement design options; reducing gaps in political capabilities for climate action, especially of politically marginalized individuals and groups; and considering the specific nature of climate and other risks. The efficient flow of information and resources through vertical and horizontal relationships enables rapid and appropriate responses to risks as they emerge. Collaborative governance arrangements can be supported by social learning, which provides an established framework to achieve these objectives and provides a forum to engage decision-makers in deeper forms of influence and change. Digital tools and climate information are not yet providing as much support as they could to inclusive citizen engagement, an area that needs further work.

Designing Engagement Processes for Inclusive Climate Action

Citizen engagement processes are affected by contextual features that need to be analyzed and understood when designing citizen engagement mechanisms. It is important to analyze the context in which citizen engagement will take place before designing the process. This should include whether the right legal framework exists, the openness for citizen participation, the opportunity for e-democracy (as it may be affected by the digital divide or state intervention to filter and limit communication), and the viability of using digital tools (as it may be affected by users' knowledge of their utility, availability, and cost). If there is no shared perception of the constructive or instrumental value of citizen engagement, it would be necessary to adopt measures to change these perceptions, which could include strategies to cultivate trust in citizens and raise awareness of authorities on the value of participation. Otherwise, there is a risk that, even if the right legal frameworks are in place, citizen engagement is no more than a compliance exercise without meaningful participation.

Collaborative governance: Democracy as an effective joint problem-solving community

The case study findings confirm the idea put forward in the literature review that collaborative governance is an inclusive and diverse form of citizen engagement based on cooperation and coproduction of solutions between citizens, government authorities, and other actors (Elstun and Escobar 2017, 24). De Souza Briggs (2008) conceives of democracy as an efficacious community where community life is defined by effective joint problem solving. This resembles Elinor Ostrom's polycentricity concept where information and resources flow and blend effectively across scales to address changing risks within dynamic social conditions.

SDI's experience in Kenya with the establishment of the Mukuru Special Planning Area (SPA) in Nairobi offers an example of collaborative governance and joint problem solving using the Tujuane Tujengane model. Following Muungano Alliance's policy engagement work using community data, the county government in 2017 categorized Mukuru as an SPA, resulting in a requirement for an integrated development plan. Developing the plan has drawn on inputs from the settlement residents using the Tujuane Tujengane model and blends knowledge with multidisciplinary and multisectoral consortium members. The lessons collected by the Muungano Alliance emphasize the importance of dedicating time and resources for community organization to secure mass buy-in and ownership of the planning process; creating institutional and procedural mechanisms that integrate community participation into all stages and allow for interdisciplinary and multisectoral collaboration (Horn et al. 2020). The three grassroots networks demonstrate a variety of approaches to citizen engagement with differing modes of decision-making, participant selection, and engagement. These partly reflect the maturity of the civil society networks. Some have only been established since 2019, and are still developing and refining working modalities, whereas others, such as SDI, have a long history to draw on. All three case studies used elements of invited consultations, direct legislation, deliberation, social learning, and collective self-organizing. However, SDI had the greatest focus on self-organizing as the core principle, while Paran Alliance and WCCI were often able to use existing self-organizing groups as conduits to access specific



groups. This highlights the need to invest in strengthening existing civil society networks that can dedicate time and resources to strengthen individual and collective political capabilities, social learning processes, and self-organized groups.

Collective learning to change attitudes toward citizen engagement

The study highlights certain preconditions for these joint problem-solving arrangements and emphasizes that collaborative governance is not a short-term process. Such arrangements require organized and informed individuals and communities who are able not only to articulate and express preferences but also to engage with decision-makers through more intense forms of deliberation, negotiation, bargaining, and deploying knowledge and technical expertise (for example, through demonstrative projects and precedent setting in the case of SDI). Joint learning among actors across scales can be used to leverage collaborative governance, which involves engaging a variety of stakeholders in learning processes, changing attitudes, and creating trust and communication channels between state and nonstate actors. Peer learning is part of the joint cross-scale learning but can be differentiated. While peer learning is valuable for strengthening individual and collective capabilities, cross-scale joint learning happens by engaging stakeholders across scales and sectors and is valuable for increasing mutual recognition and fostering shared understanding of issues that allow joint problem solving. To be effective, joint learning requires the engagement of government actors in learning processes alongside organized community groups. To trigger learning processes, government actors can design spaces for joint learning, for example deliberative dialogue, deliberative polls, or other options for shared learning. Another entry point for cross-scale joint learning is to explore whether and how communities generate their own data, and how the data can be used, particularly in the context of community-driven development operations to jointly identify challenges and propose solutions through deliberative, community organization processes.

Importance of Individual and Collective Political Capabilities

As described in chapter 3 (p. 37ff), individuals need political capabilities and networks need those with the greatest skills to engage with other actors across scales. This is important when governments and development actors are working with a variety of grassroots organizations. For climate action, these groups may include farmers, forest dwellers, fisherfolk, and anyone working through community-based projects that is vulnerable to climate change impacts. Projects that engage with these groups should not only engage them to accomplish project objectives but also to help them strengthen their own individual and collective capabilities beyond the project, to continue to learn and advocate on behalf of their communities.

The case studies revealed some potential tensions between using representatives of specific groups to convey messages and relying on existing gatekeepers to access the community versus wider inclusivity allowing individuals to self-select. Some research shows that self-selection is likely to be more inclusive, but this only occurs if all individuals have the time, resources, and capabilities to engage with the processes. This highlights the importance of supporting and developing political capabilities, or the ability of people to articulate and represent themselves or others; generate, access, and use climate information; form associations; and participate in climate-related decision-making within and across governance scales. They depend on a compound of interrelated capabilities, including self-confidence, the access and ability to understand and use climate information to explore robust decisions given the range of potential futures, the ability to communicate eloquently and effectively, and the time and resources required to participate in decision-making spaces.

Strengthening individual and collective political capabilities has been a way to level the participation playing field for individuals and groups who have been traditionally marginalized and excluded from decision-making. This is often overlooked in designing citizen engagement. Enablers for strengthening individual and collective political capabilities include: (1) small self-organized community and savings groups; (2) collecting, using, and sharing community-generated data; (3) use of “translators” to facilitate understanding of technical information; and (4) demonstration projects and precedent setting.



This requires changes not only within community members but also in how organizers and facilitators perceive the role of citizen participation. From a government perspective, a systemic approach to building political capabilities for climate action in individuals and groups would require mobilizing simultaneous processes, including, for example:

- Supporting groups' self-organization processes;
- Supporting communities for the collection and monitoring of community data; and
- Engaging and supporting climate facilitators, which could be either individuals or organizations that translate technical information to communities and translate local and traditional knowledge to higher scales and that can support individuals and groups to organize and articulate their needs.

To move from the articulation of needs as a mode of engagement to more intense forms of citizen engagement, such as deliberation, negotiation, and deployment of expertise and knowledge, the role of self-organization in small groups should not be underestimated. It is the continued practice of deliberation and argumentation that strengthens communication skills needed for meaningful engagement, not only the possession of technical knowledge. For this purpose, governments should develop and institutionalize channels for sustained engagement.

Digital Tools and Climate Information

Because of the current barriers for significant numbers of community members to access digital and data services—including climate information—representatives of grassroots networks focus on tools that systemize data collection and sharing, rather than tools for widespread information gathering or internal, online opinion forming or decision-making. There are limitations not only related to access but also in the use of climate information, which includes inaccessibility of the language, mistrust of official climate information in favor of more traditional knowledge, and complexity of the information.

Communities are using social media, such as WhatsApp, to capture and communicate issues via pictures or video. This helps overcome literacy issues and information can be shared easily across the network, and with neighboring communities. The focus for all the grassroots networks was on tools that could record and store information from informal meetings—such as the gender and numbers of people attending, notes from the discussions, or survey information—and make it available to policy makers and donors to inform adaptation decisions.

Accurate, reliable, and accessible climate information needs to be in usable formats that have been downscaled for local users to plan for climate uncertainties, and local actors need guidance on how to effectively use that information to influence decisions. However, significant barriers in accessing data from official sources remain. Where it is readily available it can be difficult to interpret without technical training. Climate change is altering weather patterns, and it is becoming more difficult to rely solely on Indigenous knowledge to predict climatic trends at the local level. To overcome this, some communities in Kenya are using government weather information provided through short-term and mid-term seasonal forecasts or accessed directly in conjunction with their own knowledge to triangulate and better understand risks, but this is not universal across the case studies. There is still potential to collaborate with national meteorology agencies to facilitate a hybrid of scientific information and local and traditional knowledge to create climate information that helps local actors to understand the range of uncertainty and to interpret the implications for decisions, informed by their own knowledge of their environment. Forums or processes like the ACREI coproduction process could be explored. The process of Participatory Advisory Planning and the development of the Seasonal Media Action Plans demonstrates how communities can work directly with meteorological and hydrological services to develop climate advisories that will not only be useful for local actors in decision-making but also allow the end user to fully interrogate the information and develop a deeper understanding. This process is useful as all stakeholders are involved, including the producers of national weather and climate information, intermediary institutions, local leaders, knowledgeable local experts, community-based organizations, and media, as well as the local community.



Local-level data generated through observations of climate change impacts reported by Indigenous peoples and local communities and local risk assessment information could also be captured and cascaded upward to help adaptation planning and responses. This aggregated information would help create more accurate climate information at the national level. WWANC already collects local information and feeds it back to the national level, where it can be aggregated and interpreted to help develop a more comprehensive picture of climate risk across different counties.

There was some interest among the networks in creating online spaces for sharing dialogue and information such as meteorological forecasts, but these are subject to the limitations of infrastructure, cost, and resources. It is likely that COVID-19 has forced a greater openness to digital tools for communication such as WhatsApp, Facebook, SMS messages, Zoom, and mobile money. Some interviewees identified greater opportunities for digital tools by integrating with already widely accepted tools such as mobile money, bulk SMS messaging, miniature radios, and information sharing.

One limitation is the relative lack of exposure to and education about the possibilities within digital technology that could enhance the work of civil society networks and social movements. Outreach of the latest technologies including distributed ledgers, artificial intelligence, or other digital technologies is limited in rural spaces and informal settlements except where some NGOs have run trials with them. There are few working, successful, and transformative examples in the locations where the social movements interviewed are based. Interviewees do not see digital tools as the central solution to the challenges the social movements and community networks were established to address. Technologies, while useful, cannot address the messy realities of influencing policy in local contexts, where having the right voice in the room can matter more than the quality of the data they are able to share.

5 Recommendations and Research Needs

Photo: Paran Alliance





The case study findings support recommendations for governments, development organizations, and other stakeholders on the design of citizen engagement innovations to reimagine and deepen the role of citizens in decision-making for climate policy and action.

Recommendations

For governments

1. **Understand systemic challenges to citizen engagement.** For more robust and effective climate outcomes, in designing inclusive citizen engagement processes, account for systemic enablers or barriers. Emphasize removing the participation challenges faced by individuals and groups that are more distant from the locus of power. Systemic barriers, although the most complex barriers to address, are also the ones that have the greatest impact. Governments could design legal and policy frameworks that allow and secure the right of citizens to engage in climate policy and decision-making. Positive attitudes and trust for citizens to engage with governments could be built through deliberative dialogue and transparency to contribute to a whole-of-society response to climate and development priorities.
2. **Shift mindsets by raising awareness within government systems and structures on the importance and contributions of citizen engagement.** Attitudinal change requires a change of mindset and approach among those convening the citizen engagement processes. One of the challenges documented in the literature review and the case studies is the perceived high cost and slow pace of participation processes conducted by local organizations. Government officials perceive the process of community engagement through deliberation as too time-consuming for rapid-paced technical government processes. Hence, there is value in raising awareness of decision-makers on the critical importance of citizen engagement in co-designing climate actions to reduce the likelihood of unintended consequences and increase the chance the intervention will be effective and robust given the range of climate and societal changes ahead.
3. **Address systemic challenges to digital access.** Even when network connectivity is available, internet access is often prohibitively expensive for most people, a problem linked to regulatory challenges and a lack of incentives to subsidize access for people living in rural areas. Addressing these systemic challenges with service regulators would have great value in reducing the digital divide. Doing so requires careful analysis because communities are not homogeneous, and the digital divide has an acute gendered and social difference dimension. The type of technology and the people who need to use it will vary depending on the challenge to be addressed and the context. Governments could also promote closer collaboration between public and private sector actors, for example involving transparent investing in infrastructure, as well as the need for open access and shared networks.
4. **Enhance access to and use of longer-term climate information for better long-term decision-making.** Climate information needs to be accurate, reliable, and accessible in usable formats that allow local users to plan for climate uncertainties. Local actors also need guidance on how to effectively use the information to influence decisions. However, there remain significant barriers in accessing data from official sources. Where information is readily available it can be difficult to interpret usefully without technical training. Climate change is altering weather patterns, and it is becoming more difficult to rely solely on traditional knowledge to predict climatic trends at the local level. To overcome this, national meteorology agencies could support access to weather and climate information through local institutions and CSO information hubs in rural areas, which would help rural communities not only to access information but also to strengthen their ability to use the information and tackle uncertainty in making robust decisions. WCCI's women-led climate hubs model is a locally led solution to enhance access to and understanding of climate science and adaptation technologies. These physical spaces have the potential to strengthen individual and collective capabilities to use climate information when paired with peer-to-peer learning and combining different knowledge sources



- that are brokered and “translated” by bringing in understanding of local contexts, experiences, and livelihoods to ensure effective application.
5. **Develop subnational coproduction processes for localized interpretation of seasonal forecasts.** Collaborate with citizens to facilitate a hybrid of scientific information and local and traditional knowledge to create climate information that helps local actors understand the range of uncertainty and to interpret the implications for decisions. This process should occur regularly to allow for a meaningful exchange on dynamic social dimensions of climate change. Weather forecasts can collect data that farmers and other local actors can use to generate near-term forecasts. The process can create space for discussion about their interpretations of the data to create community-specific forecasts that can be communicated via appropriate means. Traditional and Indigenous knowledge can be interpreted and compared to scientific information to help individuals and groups to self-organize and articulate their needs based on contextual understandings of risk.
 6. **Design citizen engagement processes to deliver instrumental and constructive benefits by maximizing participation, deliberation, and influence.** Deepening the role of citizens in climate governance processes involves designing engagement processes that shift the perception of citizens as beneficiaries to co-producers and problem-solvers. To achieve the broadest range of benefits from citizen engagement, including instrumental benefits (democratic legitimacy, effectiveness, improved governance, and delivery of services) and constructive benefits (shared societal values, citizens’ agency), increase opportunities for participation, deliberation, and influence. Depending on the context, hybrid processes for citizen engagement can be used, combining modes of engagement, modes of decision-making, locations, and timelines to blend both participatory (to increase inclusion) and deliberative principles (to increase thoughtfulness). Designing inclusive citizen engagement spaces requires actively engaging individuals and groups in decision-making, avoiding participation tokenism, and analyzing the level of inclusivity of context-specific citizen engagement design decisions: who to engage (participant selection); how to engage (mode of participation and communication); how decisions will be made (mode of decision-making); what level of agency in agenda setting and authority in decision-making citizens will have (influence); where to engage (location); and when and for how long (time and duration).

For development partners

7. **Invest in strengthening individual, collective, and institutional political capabilities for climate action.** The design of citizen engagement processes should seek to actively invest in reducing the gap in climate political capabilities affecting individuals and groups who have been historically marginalized from climate decision-making processes. Correcting these inequalities involves both active support and attitudinal change toward citizen engagement mechanisms. Active support includes strengthening individuals’ and groups’ political capabilities, which needs to be built into climate policy and program design processes. Increasing policy engagement skills and capacity to use climate risk information and digital tools would support inclusive climate action. Governments and donors supporting climate policy engagements could adopt a systemic approach to building political capabilities for climate action in individuals and groups through policy dialogue, planning, implementation, social learning, effective coordination, and collaboration with communities on building resilience to climate impacts.
8. **Create incentives to encourage long-term and sustained citizen engagement rather than discrete, project-based, short-term engagement.** It helps to see citizen engagement as a process rather than a discrete activity that takes place when decisions need to be made. Seen as a process, meaningful citizen engagement is a function of preconditions; the presence of individuals with political capabilities and organizations that can effectively represent the interests of their constituencies. Thus, governments can understand the adequate intervention areas within the system as leverage points to improve the quality of climate policies informed by citizens affected by the climate impacts. The focus for engaging citizens should therefore not be on just the immediate engagement, but the longer-term networks and capabilities being built, which can enable rapid responses to shocks. This requires trust through transparency and accountability for sustained engagement.
9. **Support dialogue between digital tech developers, climate information producers, and grassroots users for useful and usable information flows and digital solutions.** Digital tools and climate information are not



yet providing as much support as they could to inclusive citizen engagement due to a lack of infrastructure, lack of access to phones, and limited understanding of the potential of these tools. They are also not currently offering a means to support citizen-led data collection. To support this, it is essential to engage local communities to find out what will work best. However, communities are not homogeneous, and this area requires significantly more dialogue to build understanding of grassroots users' needs among tech developers and climate information producers.

10. **Pilot and scale processes that allow for the integration of old and new knowledge to improve planning and response to climate change.** There is evidence of successful, although disparate, projects such as ICPAC's Agricultural Climate Resilience Enhancement Initiative (ACREI) and a Climate Resilience Justice Fund (CJRF) project in India³⁹ that are creating processes for climate information producers and users to have more effective dialogue on climate information, which leads to more targeted and usable information that has increased salience for the challenges communities face, and consequently allows them to respond. There is the opportunity to replicate or scale up and out these examples.

For social movements and other CSO networks

11. **Promote voice and agency to engage in climate policy processes and catalyze functional inclusion of those who are furthest behind.** Social movements and CSOs should refocus on their role in influencing government policy to secure citizen participation given the shrinking civil society space for participation. Based on the study's findings, the more intense and inclusive modes of engagement (social learning, collaborative governance using modes of participation such as deliberation, negotiation, deployment of knowledge and expertise) deliver better outcomes. In contrast, less-intense modes (listening, observing, or articulating preferences and needs) take long to deliver change but can be useful for learning. More inclusive options need to be explored, including using local structures, local spaces, traditional norms of engagement, favorable timing for participation, and in some cases, disaggregation by groups (gender and youth, among others).
12. **Strengthen individuals' and groups' skills to understand climate impacts and interpret longer-term climate information for robust decisions suited to uncertain futures.** All networks identified the role of "climate champions," such as WCCI's Woman Climate Accelerators and Paran Alliance's community weather monitors, in collecting and disseminating climate information in response to potential risks. These individuals have received training and are at the center of networks through which they can share urgent information when it is known. SDI federations have support NGOs that work with them in each country. Climate facilitators could be either individuals or organizations present at community level to support individuals and groups to broker and translate technical information to communities. The technical translation would allow communities to understand climate impacts and interpret longer-term climate information for robust decisions considering uncertainty.
13. **Enhance legitimacy through contribution and use of community-generated innovations and data for engagement and joint problem solving.** The case studies indicate that social movements like SDI have strong community-generated information that is useful for planning. WCCI has been able to influence government to support eco-friendly hygiene and sanitation facilities through demonstration of their value. Strengthening capabilities of social movements and CSO networks, as well as continued collaborative learning with government actors, can improve the role of CSOs in influencing climate policy processes and decision-making. Locally led innovations in the context of community-drive development and collaboration with government can support climate action through deliberative, community-organized processes.
14. **Strengthen nascent and existing constituent-based civil society and grassroots networks.** Study findings suggest that the maturity of civil society networks influences the degree and mode of citizen engagement. Stronger local networks would enable more effective community risk response. There is a need to invest in strengthening existing civil society networks that can dedicate time and resources to strengthen individual and collective political capabilities, social learning processes, and self-organized groups. Individuals and groups with sustained engagement in constituent-based networks develop skills that enable them not only

39 <https://www.climatechangenews.com/2019/05/30/indian-farmers-tap-old-new-knowledge-cope-erratic-monsoons/>



to articulate and express preferences and needs but also to engage with decision-makers through more intense forms of engagement, as well as self-organizing and engaging in collaborative governance for joint problem solving.

Research Needs

15. **Design of citizen engagement spaces and investing in vertically connected organizational structures.** Further work is needed to understand how the different features of citizen engagement support action on different types of risks, and under what conditions these are most effective. For example, a cross-geographical study of enablers and disablers of self-organization with a larger sample of grassroots networks to understand under what conditions collective responses are particularly effective. This initial analysis was not able to explore the effectiveness of different approaches due to time limitations, but insights will be highly relevant to green, inclusive, and resilient recovery from the COVID-19 pandemic as well as long-term climate strategies.
16. **Collective learning to strengthen collaborative governance and peer-to-peer learning.** Study findings show that convening actors across scales in iterative joint learning can be important for accountability and for structuring engagement with policy makers, changing the operationalization of policies and the attitudes, values, and behaviors surrounding their delivery. Gathering insights from joint, cross-scale learning processes would help identify the features that most contribute to producing deep changes in social norms and institutions through peer learning and engagements that challenge policy makers to respond to citizen's needs and priorities.
17. **Addressing systemic challenges to digital access.** Continued research is required on how to enhance use of digital tools among Indigenous peoples and grassroots and local communities in a manner that enables access to information, collecting their own data, and understanding and using it in decision-making. This would entail further examination of the gendered access to climate information and digital tools.
18. **Processes for co-design for digital tools.** Bringing together different knowledge sources and translating them to relate to local livelihoods, context, and experiences was shown to be important for usability and credibility. Further work is needed to explore what digital tools could fill the gaps identified in the current context, their limitations, and what infrastructure needs should be prioritized for this. It is imperative to ensure diversity and inclusion in the design and development of technologies to ensure they meet the specific needs of communities, and in the user-testing and monitoring of such platforms. The next stage of work could explore what training can be developed and delivered related to sensitization on usage and uptake of digital tools within communities, especially in local languages.



References

- Alidemaj 2020.
- Alkire, S. 2005. "Subjective Quantitative Studies of Human Agency." *Social Indicators Research* 74 (1): 217–60.
- Armitage, D., F. Berkes, A. Dale, E. Kocho-Schellenberg, and E. Patton. 2011. "Co-Management and the Co-Production of Knowledge: Learning to Adapt in Canada's Arctic." *Global Environmental Change* 21 (3): 995–1004.
- Arnesen, S., and Y. Peters. 2018. "The Legitimacy of Representation: How Descriptive, Formal, and Responsiveness Representation Affect the Acceptability of Political Decisions." *Comparative Political Studies* [Online] 51 (7): 868–899.
- Arnstein, S. R. 1969. "A ladder of citizen participation." *Journal of the American Planning Association* 35 (4): 216–224.
- Baack, S. 2015. "Datafication and Empowerment: How the Open Data Movement Re-articulates Notions of Democracy, Participation and Journalism." *Big Data & Society*, July–December 2015: 1–11.
- Batliwala, S. 2002. "Grassroots Movements as Transnational Actors: Implications for Global Civil Society." *Voluntas* 13 (4): 393–409.
- Beukes, A. 2015. Making the Invisible Visible. Generating Data on "Slums" at Local, City and Global Scales. Working Paper. IIED. <https://pubs.iied.org/10757iied>.
- Bohman, J. 2000. *Public Deliberation. Pluralism, Complexity, and Democracy*. MIT Press, Cambridge, Massachusetts.
- Bonilla, Y., and J. Rosa. 2015. "#Ferguson: Digital Protest, Hashtag Ethnography, and the Racial Politics of Social Media in the United States." *American Ethnologist* 42 (1): 4–17.
- Brechenmacher, S. and T. Carothers. 2018. *Examining civil society legitimacy*. Washington, DC: Carnegie Endowment for International Peace.
- Brugnach, M., M. Craps, and A. Dewulf. 2014. "Including Indigenous Peoples in Climate Change Mitigation: Addressing Issues of Scale, Knowledge and Power." *Climatic Change* 140: 19–32.
- Byekwaso, F., M. Semambo, G. Mujuni, J. Bantaze, M. Nyasimi, D. Chaplin, E. Wabyona, et al. 2017. The Impacts of Climate Change on Food Security and Livelihoods in Karamoja. Sweden: UNMA, CGIAR, CCAFS, WFP, C-ADAPT Initiative.
- CARE International. 2014. Facing Uncertainty: The Value of Climate Information for Adaptation, Risk Reduction and Resilience in Africa. www.careclimatechange.org.
- CIPESA. 2019. *Digital Rights in Africa: Challenges and policy options* [online]. https://cipesa.org/?wpfb_dl=287.
- CIVICUS. 2006. Community Score Cards.
- CIVICUS. 2019. *State of Civil Society Report 2019: The Year in Review* [online]. <https://www.civicus.org/index.php/state-of-civil-society-report-2018>.
- CIVICUS. 2020. *State of civil society report 2020* [online]. https://www.civicus.org/documents/reports-and-publications/SOCS/2020/SOCS2020_Executive_Summary_en.pdf.
- Collins, K., and R. Ison. 2009. "Jumping off Arnstein's Ladder: Social Learning as a New Policy Paradigm for Climate Change Adaptation." *Environmental Policy and Governance* 19: 358–73.
- Cooke, B., and U. Kothari. 2001. *Participation: The New Tyranny?* London: Zed Books.
- Cornwall, A. 2002. Making Spaces, Changing Places: Situating Participation in Development. Working Paper, No. 170. Brighton: IDS. <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/3932>.
- Cornwall, A., and V. S. Coelho. 2007. Spaces for Change? The Politics of Citizen Participation in New Democratic Arenas. In A. Cornwall and V. S. Coelho (eds) *Spaces For Change? The Politics of Citizen Participation in New Democratic Arenas*. London: Zed Books.
- DCF Alliance. 2019. The Devolved Climate Finance Mechanism. Principles, Implementation and Lessons from Four Semi-Arid Countries. The DCF Alliance, working paper. <https://pubs.iied.org/G04424/>.
- Dewey, J. 1927. *The Public and Its Problems*. New York: H. Holt and Company.



- De Souza Briggs, X. 2008. *Democracy as Problem Solving*. Cambridge, Massachusetts: MIT Press.
- Di Gessa, S., P. Poole, and T. Bending. 2008. *Participatory Mapping as a Tool for Empowerment: Experiences and Lessons Learned from the ILC Network*. Rome: ILC/IFAD.
- Dinku, T., R. Cousin, J. Corral, P. Ceccato, M. C. Thomson, R. Faniriantsoa, I. Khomyakov, et al. 2016. "The ENACTS Approach: Transforming Climate Services in Africa One Country at a Time." *World Policy Papers* 1–24.
- Drèze, J., and A. Sen. 2002. *India, Development and Participation*. New Delhi: Oxford University Press.
- Dryzek, J. S. 2009. "Democratization as Deliberative Capacity Building." *Comparative Political Studies* 42 (11): 1379–1402. <https://doi.org/10.1177/0010414009332129>.
- Elstub, S. 2014. "Deliberative Pragmatic Equilibrium Review: A Framework for Comparing Institutional Devices and Their Enactment of Deliberative Democracy in the UK." *British Journal of Politics and International Relations* 16 (3): 386–409. <https://doi.org/10.1111/1467-856X.12000>.
- Elstub, S., and O. Escobar. 2017. "A Typology of Democratic Innovations." In *Political Studies Association's Annual Conference*, Glasgow, 10–12 April 2017, 1–31.
- Elstub, S., and O. Escobar (eds.). 2019. *Handbook of Democratic Innovation and Governance*. Edward Elgar Publishing Ltd. <https://doi.org/10.4337/9781786433862.00009>.
- Ernst, C., and K. Blaha. 2015. *Decision Support Tools for Climate Change Planning*. The Trust for Public Land's Climate-Smart Cities Program. https://www.tpl.org/sites/default/files/files_upload/ClimateSmart%20Decision-Support.pdf.
- Fisher, S. 2012. "Policy Storylines in the Indian Climate Change Regime: Opening New Political Space?" *Environment and Planning C* 30 (1): 109–127.
- Fisher, S. 2015. "The Emerging Geographies of Climate Justice." *The Geographical Journal* 181 (1): 73–82.
- Fisher, S., B. Garside, M. Van Epp, D. Dodman, S. D'Errico, S. Anderson, and L. Carlile. 2016. *Planning and Implementing Climate Change Responses in the Context of Uncertainty*. IIED Working Paper. London: IIED.
- Fisher, S., and C. Shakya. 2018. *Gendered Voices for Climate Action, a Theory of Change for the Meaningful Inclusion of Local Experiences in Decision-Making*. IIED Working Paper. London: IIED.
- Fishkin 1991
- Ford, J. D., S. E. Tilleard, L. Berrang-Ford, M. Araos, R. Biesbroek, A. C. Lesnikowski, G. K. MacDonald, et al. 2016. "Big Data Has Big Potential for Applications to Climate Change Adaptation." *Proceedings of the National Academy of Sciences of the United States of America* 113 (39): 10729–10732. doi: 10.1073/pnas.1614023113.
- Fraser, N. 1998. *Social Justice in the Age of Identity Politics: Redistribution, Recognition, Participation*. WZB Discussion Paper No. FS I (98–108). Berlin: Wissenschaftszentrum Berlin für Sozialforschung.
- Fung, A. 2006. "Varieties of Participation in Complex Governance." *Public Administration Review* 66 (SUPPL. 1): 66–75. <https://doi.org/10.1111/j.1540-6210.2006.00667.x>.
- Fung, A., and E. Olin Wright. 2003. "Thinking about Empowered Participatory Governance." In *Deepening Democracy*, 3–42. New York: Verso.
- Ganz, M. 2000. "Resources and Resourcefulness: Strategic Capacity in the Unionization of California Agriculture, 1959–1966." *American Journal of Sociology* 105 (4): 1003–62.
- Gaventa, J., and G. Barrett. 2010. *So What Difference Does It Make? Mapping the Outcomes of Citizen Engagement*. IDS Working Paper 347. Brighton: IDS. https://doi.org/10.1111/j.2040-0209.2010.00347_2.x.
- Geopoll. 2019. "Mobile Phone Penetration throughout Sub-Saharan Africa." *Market Research, Tech & Innovation*. <https://www.geopoll.com/blog/mobile-phone-penetration-africa/>.
- Greene, S., S. Soanes, and A. Walnycki. 2019. *Reimagining the Climate Finance System with Digital Technology*. London: IIED.
- GSMA. 2020. *The Mobile Economy Sub-Saharan Africa 2020*. <https://www.gsma.com/mobileeconomy/sub-saharan-africa-2020/>
- Gumucio, T., J. Hansen, S. Huyer, and T. van Huysen. 2020. "Gender-Responsive Rural Climate Services: A Review of the Literature." *Climate and Development* 12 (3): 241–54.
- Hacker, K., and J. van Dijk (eds.). 2000. *Digital Democracy: Issues of Theory and Practice*. London: Sage.
- Hajer, M. A. 1995. *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford University Press.



- Hansen, J., J. Furlow, L. Goddard, H. Nissan, C. Vaughan, A. Rose, F. Fiondella, et al. 2019. *Scaling Climate Services to Enable Effective Adaptation Action*. Rotterdam and Washington, DC: GCA.
- Harvey, B., L. Jones, L. Cochrane, and R. Singh. 2019. The Evolving Landscape of Climate Services in Sub-Saharan Africa: What Roles Have NGOs Played? *Climatic Change* 157 (1): 81–98. doi: [10.1007/s10584-019-02410-z](https://doi.org/10.1007/s10584-019-02410-z).
- Harvey, B., J. Ensor, B. Garside, J. Woodend, L. O. Naess, and L. Carlile. 2013. *Social Learning in Practice: A Review of Lessons, Impacts and Tools for Climate Change*. CCAFS Working Paper no. 38. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Hewitson, B., K. Waagsaether, J. Wohland, K. Kloppers, and T. Kara. 2017. “Climate Information Websites: An Evolving Landscape.” *Wiley Interdisciplinary Reviews: Climate Change* 8 (5): 1–22.
- Holmes, R., and N. Jones. 2013. *Gender and Social Protection in the Developing World: Beyond Mothers and Safety Nets*. New York: Zed Books.
- Horn, P., J. Kimani, J. Makau, and P. Njoroge. 2020. *Scaling Participation in Informal Settlement Upgrading. A Documentation of Community Mobilisation and Consultation Processes in the Mukuru Special Planning Area, Nairobi, Kenya*. DOI:10.13140/RG.2.2.10636.54407
- Irish Aid. 2018. *Uganda Country Climate Risk Assessment Report*. 44. https://www.climatelearningplatform.org/sites/default/files/resources/uganda_climate_risk_assessment_report_-_final_version.pdf.
- Jack, C., L. Pasquini, and G. Ziervogel. 2019. *From Global Climate Narratives to Local Urban Adaptation Decisions*. Briefing No. 21. Urban Africa Risk Knowledge. https://www.urbanark.org/sites/default/files/resources/UrbanArk_briefing_21_web_1.pdf.
- Jankowski, N., and M. van Selm. 2000. “The Promise and Practice of Public Debate in Cyberspace.” In K. Hacker, and J. van Dijk (eds.) *Digital Democracy: Issues of Theory and Practice*, pp. 149–165. London: Sage.
- Jann, W., and K. Wegrich. 2007. “Theories of the Policy Cycle.” In F. Fischer, G. Miller, and M. Sidney (eds.) *Handbook of Public Policy Analysis: Theory, Politics, and Methods*. New York: CRC Press (Routledge).
- Jones, L., B. Harvey, and R. Godfrey-Wood. 2016. *The Changing Role of NGOs in Supporting Climate Services*. London: Overseas Development Institute. <https://odi.org/en/publications/the-changing-role-of-ngos-in-supporting-climate-services/>.
- Jones, N., and F. Tembo. 2008. *Promoting Good Governance through Civil Society–Legislator Linkages*. 44 (0). London: Overseas Development Institute. https://cdn.ymaws.com/www.istr.org/resource/resmgr/working_papers_barcelona/jones.tembo.pdf.
- Kilvington, M. 2007. *Social Learning as a Framework for Building Capacity to Work on Complex Environmental Management Problems*. Working paper. https://www.landcareresearch.co.nz/uploads/public/researchpubs/Social_learning_review.pdf.
- Kipkogei, O., L. Ogallo, and C. Lore. 2020. *Involving Farmers and Other Local Stakeholders in Producing Seasonal Climate Advisories*. <https://icpac.medium.com/involving-farmers-and-other-local-stakeholders-in-producing-seasonal-climate-advisories-f1d3c95377d5>.
- Klein, R. J. T., G. F. Midgley, B. L. Preston, M. Alam, F. G. H. Berkhout, K. Dow, and M. R. Shaw. 2014. “Adaptation Opportunities, Constraints, and Limits. In C. B. Field, V. R. Barros, D. J. Dokken, K. J. Mach, M. D. Mastrandrea, T. E. Bilir, M. Chatterjee, et al. (eds.) *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK, and New York, NY: Cambridge University Press.
- Lawrence, S., L. Doody, J. López Ventura, and P. Peracio. 2017. “Polisdigitocracy: Citizen Engagement for Climate Action through Digital Technologies.” *Field Actions Science Report Special Issue* 16: 58–65.
- Lee, Y., and H. L. Schachter. 2019. “Exploring the Relationship between Trust in Government and Citizen Participation.” *International Journal of Public Administration* 42 (5): 405–16.
- Lemos, M. C., C. J. Kirchhoff, and V. Ramprasad. 2012. “Narrowing the Climate Information Usability Gap.” *Nature Climate Change* 2 (11): 789–94.
- Lijphart, A. 1997. “Unequal Participation: Democracy’s Unresolved Dilemma.” *The American Political Science Review* 91 (1): 1–14.
- Lopes, A. R. 2014. *The Impact of Social Media on Social Movements: The New Opportunity and Mobilizing Structure*. *Journal of Political Science Research*: 1–23.



- Miller, A. S., and S. A. Swann. 2016. "Climate Change and the Financial Sector: A Time of Risk and Opportunity." *The Georgetown Environmental Law Review* 29 (1): 69.
- Moser, C., and D. Satterthwaite. 2008. *Toward Pro-Poor Adaptation to Climate Change in the Urban Centres of Low- and Middle-Income Countries*. London: IIED.
- Muungano Alliance 2020
- Narayan, D. 2005. "Conceptual Framework and Methodological Challenges." In D. Narayan (ed.) *Measuring Empowerment: Cross-Disciplinary Perspectives*, 39–51. Washington, DC: World Bank. <https://doi.org/10.1596/0-8213-6057-4>.
- Narayan, D., R. Chambers, M. K. Shah, and P. Petesch. 2000. *Voices of the Poor. Crying Out for Change*. Oxford University Press for the World Bank, USA.
- Nussbaum, M. C. 2001. *Women and Human Development: The Capabilities Approach*. Cambridge, UK: Cambridge University Press.
- Opalo, K. 2013. *Which Way Forward for Kenya's Civil Society?* [online]. <https://africanarguments.org/2013/05/which-way-forward-for-kenyas-civil-society-by-kennedy-opalo/> (Accessed 19 April 2020).
- Ostrom, E. 1990. *Governing the Commons. The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Osuteye, E., H. Leck, C. Johnson, T. Ndezi, F. D. Makoba, and M. Pelling. 2018. *Communicating Risk from the Frontline: Projecting Community Voices into Disaster Risk Management Policies across Scales*. Briefing No. 19. Urban Africa Risk Knowledge.
- Otzelberger, A. 2011. *Gender-Responsive Strategies on Climate Change: Recent Progress and Ways Forward for Donors*. Institute of Development Studies. <https://resource-centre-uploads.s3.amazonaws.com/uploads/5798.pdf>
- Patel, S., S. Burra, and C. D'Cruz. 2001. "Slum/Shack Dwellers International (SDI) - Foundations to Treetops." *Environment and Urbanization* 13 (2): 45–60.
- Pattie, C. 2005. *Citizenship in Britain: Values, Participation and Democracy*. Cambridge, UK: Cambridge University Press.
- Phillips, A. 1995. *The Politics of Presence*. Oxford University Press.
- Pradhan, S. 2020. *An Open Government Approach to Rebuilding Citizen Trust*. Open Government Partnership. <https://www.opengovpartnership.org/trust/an-open-government-approach-to-rebuilding-citizen-trust/>.
- Ragnedda, M. 2018. *The Digital Divide in the Age of the Internet. The Equality Trust*. <https://www.equalitytrust.org.uk/blog/digital-divide-inequality-age-internet-guest-blog>.
- Reed, M. S., A. C. Evely, G. Cundill, I. Fazey, J. Glass, A. Laing, J. Newig, et al. 2010. *What Is Social Learning?* *Ecology and Society* 15 (4).
- Rigon, A. 2014. *Participation of People Living in Poverty in Policymaking. Lessons for Implementation of Post -2015*. London: CAFOD.
- Roth, S. 2018. *How Digital Communication Transformed Activism*. Southampton University.
- Rotz, S., E. Gravely, I. Mosby, E. Duncan., E. Finnis, M. Horgan, J. LeBlanc, et al. 2019. "Automated Pastures and the Digital Divide: How Agricultural Technologies Are Shaping Labour and Rural Communities." *Journal of Rural Studies* 68: 112–122.
- Schlosberg, D. 2004. "Reconceiving Environmental Justice: Global Movements and Political Theories." *Environmental Politics* 13 (3): 517–40.
- Schlosberg, D. 2007. *Defining Environmental Justice. Theories, Movements, and Nature*. Oxford University Press. DOI:10.1093/acprof:oso/9780199286294.001.0001.
- Schusler, T. M., D. J. Decker, and M. J. Pfeffer. 2003. "Social Learning for Collaborative Natural Resource Management." *Society and Natural Resources* 16 (4): 309–26.
- Sebestyén, V., T. Czvetko, and J. Abonyi. 2021. "The Applicability of Big Data in Climate Change Research: The Importance of System of Systems Thinking." *Environmental Sciences* 17 March 2021.
- Sen, A. 1985. "Well-Being, Agency and Freedom: The Dewey Lectures 1984." *The Journal of Philosophy*. [Online] 82 (4): 169–221.
- Sen, A. 1999. *Development as Freedom*. Oxford University Press.



- Shephard, D., A. Ellersiek, J. Meuer, and C. Rupietta. 2018. *Influencing Policy and Civic Space: A Meta-Review of Oxfam's Policy Influence, Citizen Voice and Good Governance Effectiveness Reviews*. Oxfam Great Britain. <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/620462/er-influencing-policy-and-civic-space-meta-review-200418-en.pdf;jsessionid=4200FFB24F0D1A6B05EE2EFD9AFCC0BB?sequence=1>.
- Shirazi, F. 2009. "Measuring E-Democracy Opportunities: A Global Perspective." A. A. Ozok and P. Zaphiris (eds.). *Online Communities*, LNCS 5621: 700–709.
- Silver, L. and C. Johnson. 2018. *Internet Connectivity Seen as Having Positive Impact on Life in Sub-Saharan Africa... but Digital Divides Persist*. Pew Research Center. <https://www.businesstelegraph.co.uk/internet-connectivity-seen-as-having-positive-impact-on-life-in-sub-saharan-africa/>.
- Simon, J., T. Bass, V. Boelman, and G. Mulgan. 2017. *Digital Democracy—The Tools Transforming Political Engagement*. London: Nesta. https://media.nesta.org.uk/documents/digital_democracy.pdf.
- Smith, G. 2009. *Democratic Innovations: Designing Institutions for Citizen Participation*. Cambridge, UK: Cambridge University Press.
- Sverdluk, A., D. Mitlin, and D. Dodman. 2019. *Realising the Multiple Benefits of Climate Resilience and Inclusive Development in Informal Settlements*. New York: C40 Cities Climate Leadership Group. <https://www.citiesalliance.org/sites/default/files/2019-12/JWP%20%282019%29%20Realising%20the%20Multiple%20Benefits.pdf>.
- Tiersky, A. and E. Renard. 2016. *Closing Space: Restrictions on Civil Society Around the World and U.S. Responses*. [online]. www.crs.gov/R44458.
- Tufekci, Z. 2014. "Social Movements and Governments in the Digital Age: Evaluating a Complex Landscape." *Journal of International Affairs* 68 (1): 1–18.
- Tuzi, A., C. Padovani, and G. Nesti. 2007. "Communication and (e)democracy: assessing European e-democracy discourses."
- UN. 2020. *Inclusion and More Public Participation, Will Help Forge Better Government Policies*. *UN News*. <https://news.un.org/en/story/2020/09/1073742>.
- UCC. 2013. *Public Notice Registration of Online Data Communication and broadcast service providers*. 6. [online]. http://www.ucc.co.ug/wp-content/uploads/2018/03/UCC_ONLINE-DATA-COMMUNICATIONS-SERVICES.pdf.
- UNFCCC. 1992. *United Nations Framework Convention on Climate Change*. https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf.
- Van Epp, M., and B. Garside. 2016. *Solving 'Wicked' Problems: Can Social Learning Catalyse Adaptive Responses to Climate Change?* London: IIED.
- Verba, Sidney, Norman H. Nie, and Jae-on Kim. 1978. *Participation and Political Equality: A Seven-Nation Comparison*. New York: Cambridge University Press.
- Vincent, K., D. Conway, A. J. Dougill, J. Pardoe, E. Archer, A. G. Bhave, R. Henriksson, et al. 2020. "Re-Balancing Climate Services to Inform Climate-Resilient Planning – A Conceptual Framework and Illustrations from Sub-Saharan Africa." *Climate Risk Management* 29(July) 100242.
- Warren, M. E. 1996. "What Should We Expect from More Democracy? Radically Democratic Responses to Politics." *Political Theory* 24 (2): 241–70.
- Weatherford, M. S. 1992. "Measuring Political Legitimacy." *The American Political Science Review*. 86 (1): 149–166. [online]. <https://www.jstor.org/stable/1964021>.
- Weible, M., and P. Sabatier. 2018. *Theories of the Policy Process*. New York: Routledge.
- Wilby, R. L., and S. Dessai. 2010. "Robust Adaptation to Climate Change." *Weather* 65 (7): 180–85.
- Wittels, A., and N. Maybanks. 2016. *Communication in Sierra Leone: An Analysis of Media and Mobile Audiences*. BBC Media Action.
- World Bank. 2002. *Empowerment and Poverty Reduction. A Sourcebook*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/15239>.
- Young, I. M. 1990. *Justice and the Politics of Difference*. Princeton, New Jersey: Princeton University Press.



Annex. The Intrinsic Importance of Citizen Engagement

	Argument	Description
Intrinsic value	Participation as a right and an aim in itself	People have the right to have a say in decisions that affect their lives, a right recognized and reflected in many international and national normative and legal frameworks, such as the SDGs, UNFCCC Article 6, Paris Agreement Article 12, the Aarhus Convention, country legal frameworks.
	Intrinsic value for the quality of life and <i>human agency</i> *	Being able to do something for oneself but for other members of society is one of the elementary freedoms which people have reason to value (Drèze and Sen 2002, 9).
Instrumental reasons	Effectiveness	By blending different sources of knowledge, groups and processes can generate better, more actionable ideas than top-down approaches; therefore, participation enables more effective collective problem solving (Ganz 2000).
	Democratic legitimacy	Democratic legitimacy resides in the right, ability, and opportunity of those subject to a collective decision to participate in deliberation about the content of that decision (Dryzek 2009).
	Transparency, accountability, and trust	Increasing and deepening citizen participation in political decision-making could be a strategy for re-engaging disillusioned and disenchanted citizenry (Smith 2009, 4). Empowered participatory governance involves going beyond citizen advice or review of policy to make public decision-making more transparent, and public agencies more accountable and inclusionary (Fung and Olin Wright 2003).
	Improved governance and delivery of services	Citizen participation in planning, budget allocation, and rulemaking can improve governance (World Bank 2002, 41).
	Advancement of social, environmental, and climate justice	Meaningful participation in decision-making is key for procedural justice, which is the third leg of the environmental justice triad that also includes distribution and recognition (Fraser 1998; Schlosberg 2007).
Constructive role	Citizens' empowerment and agency	The World Bank's "empowerment sourcebook" identifies participation and inclusion as one of the four preconditions to increase empowerment, alongside access to information, accountability, and local organizational capacity (World Bank 2002). Participation is a key political capability, necessary for individuals to ensure functioning (Nussbaum 2001; Sen 1999). Participation and empowerment of persons strengthen the political capabilities of communities and marginalized groups that enable them to articulate political demand (Alkire 2005).
	Generation of informed and reflected choices	Amartya Sen argues that "political and civil rights, especially those related to the guaranteeing of open discussion, debate, criticism, and dissent, are central to the processes of generating informed and reflected choices."
	Formation of shared societal values and priorities	The practice of deliberative democracy gives citizens an opportunity to learn from one another, and helps society to form its values and priorities" (Sen 1999, 3).

* We follow Amartya Sen's use of human agency as: "people's ability to act on behalf of goals that matter to them. An aspect of individual freedoms and a core ingredient of positive social change."

