cambridge.org/sus

Research Article

Cite this article: Ningrum D, Malekpour S, Raven R, Moallemi EA, Bonar G (2024). Three perspectives on enabling local actions for the sustainable development goals (SDGs). *Global* Sustainability 7, e22, 1–11. https://doi.org/ 10.1017/sus.2024.20

Received: 27 March 2023 Revised: 18 March 2024 Accepted: 8 April 2024

Kevwords:

policies; politics and governance; social value

Corresponding author:

Dianty Ningrum; Email: dianty.ningrum@monash.edu, diantywidyowati@gmail.com

© The Author(s), 2024. Published by Cambridge University Press. This is an Open Access article, distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike licence (http://creativecommons.org/licenses/by-nc-sa/4.0), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the same Creative Commons licence is used to distribute the re-used or adapted article and the original article is properly cited. The written permission of Cambridge University Press must be obtained prior to any commercial use.



Three perspectives on enabling local actions for the sustainable development goals (SDGs)

Dianty Ningrum¹ , Shirin Malekpour¹, Rob Raven¹ , Enayat A. Moallemi² and Gary Bonar³

¹Monash Sustainable Development Institute, Monash University, Clayton, VIC, Australia; ²Commonwealth Scientific and Industrial Research Organisation (CSIRO), Black Mountain, ACT, Australia and ³School of Curriculum Teaching & Inclusive Education, Monash University, Clayton, VIC, Australia

Abstract

Non-Technical Summary. Enabling local adoption of the sustainable development goals (SDGs) is important to accelerate global efforts to achieve sustainable development. However, local governments have plural perspectives on how to engage with the SDGs. In this paper, we identify three perspectives on how to enable local SDGs based on cases of nine local governments in Australia. We emphasize the need for seeing local SDG adoption as contextualized and actor-driven processes.

Technical Summary. Local governments worldwide are taking the initiative to engage with sustainable development goals (SDGs) despite the absence of a globally coordinated guideline on local SDGs actions. With less than a decade until its 2030 deadline, a more targeted and nuanced approach to enabling local SDG actions is needed. In this paper, we argue that there is a need to look at local SDG actions as an actor-driven process where agency, contexts, purpose, and dynamics co-evolve and shape the outcome of the process. Using Q-methodology, we explore different perspectives on what enables local SDGs actions in nine local governments in Australia. Three perspectives in enabling local SDG actions emerged from the study: (1) 'Enablers should support institutional embeddedness of the SDGs', (2) 'Enablers should support stakeholder coordination for the SDGs', and (3) 'Enablers should support community engagement for the SDGs'. Each perspective has preferred enablers, contextualized within certain ways of engaging with the SDGs, certain views of the SDGs, and specific local contexts and capacities. This study provides insights to contextualize knowledge in current literature to enable local SDG actions.

Social media summary. Many understand that the local adoption of the sustainable development goals (SDGs) is not a one-shoe-fits-all process, but what are some of the plurality in local SDG adoptions? In this paper, we identify three perspectives on enabling the SDGs based on nine local governments in Australia.

1. Introduction

Developed as part of the Agenda 2030 for sustainable development, the Sustainable Development Goals (SDG) is a set of 17 global goals proposed to guide the realization of interlinked economic, social, and environmental sustainability. Realizing the 17 Sustainable Development Goals (SDGs) requires a joint effort from all societal actors from global to local levels. In the interdisciplinary bodies of literature on sustainability governance, there have been discussions on the role of local governments in locally implementing actions to realize the global goals. Current interdisciplinary literature on the topic of the SDGs has specifically highlighted local governments' role in initiating, delivering, and monitoring local SDG actions (Reddy, 2016), emphasizing their institutional function in delivering basic services for local communities (Lucci, 2015) and intermediating engagements between key local actors who hold a stake in sustainability issue, as observed among local governments in Japan (Masuda et al., 2022).

Despite the absence of globally coordinated practical guidelines on local SDG actions, local governments worldwide are taking the initiative to engage with the SDGs in different ways. A common way of doing this is by localizing global targets and indicators and monitoring their progress, a process commonly manifested in a locally developed report called the Voluntary Local Review (VLR) (Ciambra, 2020). As of 2022, there are 95 VLRs produced by local governments across Europe, Asia, Latin America and the Caribbean, North America, and Africa (Ortiz-Moya & Kataoka, 2022). In some countries, local governments develop local SDG actions coordinated by a national body that aggregates progress at a country level, as seen in India (Guha & Chakrabarti, 2019), Indonesia (UCLG, 2018), and Japan (Masuda et al., 2022). In these nationally coordinated local SDG actions, there is an emphasis on holding (local) government accountable for progress towards achieving the SDGs through monitoring progress and relying

on local governments as direct providers for local-level SDG-related services (Lucci, 2015). In recent years, local SDG actions have grown to be more bottom-up and incorporate diverse forms of action. In countries like the United Kingdom and Australia, where clear national coordination to localize the SDGs is absent, local governments have started to voluntarily incorporate the SDGs into their local governance activities (Fox & Macleod, 2021; Perry et al., 2021). In Australia, local governments engage with the SDGs through local community visioning, analysis, and decision-making for policies and strategies, operationalizing strategies, and monitoring progress against the local community's visions (Ningrum et al., 2023). Some local governments across the world also develop local SDG actions through guidance from regional and international networks of local governments such as the ICLEI - Local Governments for Sustainability, United Cities and Local Governments (UCLG), and the Council of European Municipalities and Regions (CEMR). Given the voluntary nature of the SDGs and the flexibility in interpreting the implementation, the emergence of those bottom-up local SDG actions can be seen as local governments and trans-local networks stepping up to progress SDG actions and filling what Hajer (2003) referred to as the 'institutional void' in the governance process, particularly in countries where there is an absence of SDG leadership by national governments.

Despite the above examples, scholars have noted that the uptake for local SDG actions is uneven, with high uptake concentrated in Europe and sparsely in Latin America, Africa, and Asia-Pacific (except in countries with stronger national uptake of the SDG and decentralized governance such as Benin, South Africa, Colombia, and Indonesia) (Bilsky et al., 2021; Perry et al., 2021). Local SDG inaction remains an issue worldwide, while the ongoing local SDG actions leave room for bolder, more meaningful actions (Horn & Grugel, 2018), and more coherence across multiple levels of government to realize the global goals (Guarini et al., 2022; Tremblay et al., 2021). As such, there is an urgency to enable current and future local SDG actions in a way that is both globally connected and locally relevant. By enable, we mean giving the process (of local SDG actions) strength and competency to commence, sustain, and elevate to achieve its stated objectives.

Since the inception of the SDGs in 2015, the literature that suggests how to enable local SDG actions has been growing. Some examples of enablers suggested are developing institutional capacity for multi-level coordination (Mejía-Dugand et al., 2020), training city officers to learn integrative tools (Tremblay et al., 2021), developing guidelines to manage evidence-based reporting (Giles-Corti et al., 2020), nurturing political awareness of the SDGs among elected local officials (Guarini et al., 2022), establishing a dedicated department in local governments for sustainable development (Krellenberg et al., 2019), and supporting peer-to-peer learning between cities and alongside local partners (Leavesley et al., 2022). While these enablers are useful as a reference for ongoing and future local SDG actions, we argue that a more targeted and nuanced approach to enabling local SDG actions is needed.

It is often overlooked that local SDG actions are primarily an actor-driven process where agency, contexts, purpose, and dynamics co-evolve and shape the outcome of the process. Within the interdisciplinary literature of sustainability, actors and their agency in shaping actions and enacting changes have often been highlighted (see, for example, Fischer and Newig, 2016). Actors carry values and beliefs that shape their ideas of

a sustainable future, the actions to achieve it, and their roles within those actions (Patterson et al., 2017; Schulz & Siriwardane, 2015; Stirling, 2011). In the case of local SDG actions, different actors may come from different values and concerns about what matters in SDG actions and why, and thus have different perspectives of what enables local SDG actions. The expected outcomes set in each local SDG action are conscious decisions by local actors – influenced and shaped by not only local context and capacity but also their values, purpose, and view of the SDGs.

For a more targeted and nuanced approach to enabling local SDG actions, knowing the differences among local actors' perspectives (their purpose, vision, and views of the SDGs, and underpinning values and assumptions about what is important and why) is critical as different perspectives among local actors could lead to different preferences and contestations about ways of enabling local SDG actions. So far, there has been limited examination of enabling local SDG actions based on different perspectives among local actors. Some existing literature indeed mentions that there is no one-shoe-fits-all in enabling local SDG actions and that 'differences' exist (see, for example, Valencia et al., 2019). However, the 'differences' remain under-examined, and the analysis of actors' perspectives, as a lens that may explain these differences, remains implicit.

This study, therefore, aims to examine different ways of enabling local SDG actions from an explicit actor perspective lens. In unpacking the different perspectives on enabling local SDG actions, we want to investigate in more detail the variety of ways through which local SDG actions could be enabled. Without further examination, the current approach risks hegemonizing a portfolio of enablers that privilege the most visible actors and their perspectives in enabling local SDG actions. This has been reflected in the prevalence of documents, both scholarly works and gray literature, recommending steps to enable local SDG actions drawing from 'frontrunner' or 'progressive' local governments (see, for example, Ciambra, 2020; Oosterhof, 2018; Patel et al., 2017). Though there are enablers from those 'frontrunner' local governments that might work in others, there could be unpacked differences in how, at what stage, and by whom the enablers need to be mobilized or navigated. As such, local actors' perspectives on what enables local SDG actions may clarify some of these differences.

Against this background, this study asks what are the different perspectives on enabling local SDG actions among local government actors? Acknowledging that there are ambiguities around the notion of 'actors' as both individuals and individual organizations (Avelino & Wittmayer, 2016; Fischer & Newig, 2016), in this study, we define actors as individuals. Specifically, individuals involved in or whose works are related to local SDG actions in their local government.

This study specifically looks at cases from Australia. Local SDG actions in Australia are driven from the bottom up by local governments in the absence of national coordination, providing a unique context where local governments have more freedom to shape local SDG actions. The actions are driven by the perspectives of local government actors but are also facing challenges related to a lack of guidance and coordination. Additionally, the growing local SDG actions in Australia have been relatively diverse (Ningrum et al., 2023) in terms of local government size, geographical locations, and therefore their capacities and resources, and thus could reveal the diversity of perspectives of enabling local SDG actions. In addressing the research question,

we draw our research from local government officers who are involved in local SDG actions in Australian cities and municipalities. While this paper initially intends to cover the range of local SDG actions as wide as possible, including cases where local governments are not the leading actors, our preliminary research and previous studies suggest that the current experiences of local SDG actions in Australia are mostly led by local governments (Ningrum et al., 2023). Nevertheless, the local governments-led actions presented in this study reflect some key perspectives of local SDG actions and provide an important building block for further scholarly endeavor on this topic. This study employs Q-methodology, a mixed-methods approach suitable for research involving smaller numbers of participants in addressing the research question, Q-methodology offers a systematic way to identify their shared perspectives and the points of divergence related to enabling local SDG actions.

The paper is organized as follows. Section 2 outlines the conceptual background of enabling local SDG actions. Section 3 describes the step-by-step procedure of Q-methodology. Section 4 presents the three perspectives on enabling local SDG actions as the result of the study. Section 5 discusses the conceptual and practical implications of the findings, drawing on the inter-disciplinary bodies of literature on the topic of local SDG actions and sustainability governance. Finally, Section 6 outlines the conclusion.

2. Methods

2.1 Q-methodology

To address the research questions, Q methodology was chosen in this study due to its potential to uncover diverse perspectives towards a given topic, which in this case is enabling local SDG actions, and to explore the drivers of those perspectives to deepen the current understanding of that topic (Brown, 1980). Q methodology has been increasingly applied in environmental social science research to explore different perspectives among key stakeholders involved in environmental management and decision-making (Sneegas et al., 2021).

Data collection in Q-methodology involves asking participants to arrange several statements into a grid according to a specific instruction (for example, 'arrange the statements from the one you most disagree with to the one you most agree with'). A Q-methodology study follows a series of mostly standardized

steps (Robbins & Krueger, 2000; Watts & Stenner, 2005). First, researchers decide on the participants (the P-set) as the group whose perspectives toward a chosen topic of interest. Second, researchers develop the concourse; a list of statements representing the breadth of the subjectivity towards a chosen topic. The statements within the concourse are commonly sampled from interviews, documents, and scholarly literature relevant to the topic. Third, researchers refine the concourse to a smaller set of statements called the Q-set. During this process, researchers synthesize the concourse into a set of statements that are manageable in number while still broadly representing the entire domain of perspectives. Following this, researchers collect the data through Q-sorting activities with the participants, in which the participants are asked to rank-order the Q-set of statements on a grid. To contextualize the Q-sort result and gain insights into the participants' rationales for their placement of statements, exit interviews with participants are commonly conducted after the Q-sorting process. Finally, specialized software is used to run a by-person factor analysis of the Q-sorts to identify shared perspectives among participants (Figure 1).

The rest of this section outlined how Q-methodology is applied to address the research questions.

2.2 Participants (P-set)

Ideally, the P-set is selected because it can provide distinctive and well-formed opinions of the chosen topic (Webler et al., 2009). As stated in the introduction, this study focuses on the perspectives in enabling local SDG actions among Australian local government actors. The selection of the P-set was based on a previous study examining modes of SDG engagement in Australian local governments (Ningrum et al., 2023) which was conducted by some of the researchers in this study. In that study, 22 participants (consisting of staff and elected councilors) from 14 local governments were interviewed, representing a diverse portfolio of local governments in terms of size, location, and types and processes of local SDG actions.

From a total of 20 people (from 15 local governments) approached, 11 participants (from nine local governments) agreed to participate in this study (see Table 1). As mentioned in the introduction, Australian local governments are engaging with the SDGs through different means and forms despite the absence of national-level coordination. Local SDG actions in Australia are developing, and few have been identified. Given this background,

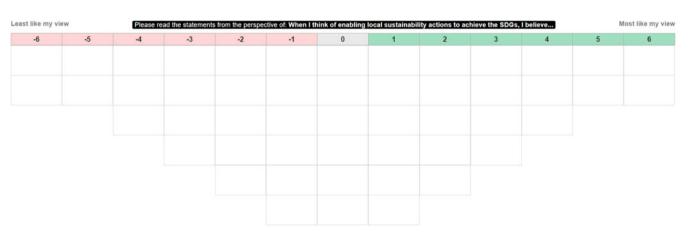


Figure 1. The grid for Q-sorting.

Table 1. List of local governments and the number of participants

Local government	Participants
Central Coast Council	1
City of Albany	1
City of Ballarat	1
City of Hobart	1
City of Melbourne	2
City of Newcastle	1
City of Singleton	1
City of Sydney	1
Eastern Metropolitan Regional Council	2

the nine local governments included in this study can be said to adequately represent the breadth of local SDG action processes in Australia. It is also important to emphasize that the number of participants required for a Q-methodology is less important than the breadth of potential perspectives since the aim is to uncover *the range* of the perspectives rather than their numerical prevalence (Brown, 1980). As an illustration, a systematic review of Q-methodology studies in environmental sustainability research by Sneegas et al. (2021) found that the range of participants in the corpus was between seven and 386.

2.3 Concourse and Q-set

In Q-methodology, a concourse is important to capture the full range of subjectivity on an issue 'to the greatest degree possible' (Sneegas et al., 2021). While a concourse can be drawn from various sources including scholarly works, interviews, media reports, focus group discussions, surveys, and workshops, in this study we chose to draw it from interview transcripts from the aforementioned study by Ningrum et al. (2023) which as mentioned before was conducted by some of the researchers in this study. It is important to note that the participants' consent was sought for their interviews to be used in future and related studies by the researchers. As the study by Ningrum et al. (2023) is situated in the same context as this research and includes an overlapping set of participants, we regard them to be most suitable to capture the full range of subjectivity on enabling local SDG actions in the context of this study. Additionally, the said study was exploratory, in which the participants were asked to describe the process of their local governments' engagement with the SDGs, which broadly included enabling conditions and challenges that local governments encountered in that process. In summary, we used the interviews as the basis for the concourse not only because they captured local SDG actions as different processes with contexts, purposes, and dynamics that are co-evolving and co-constituting but also because the statements have accessible and relevant meanings to the participants (as they are situated in Australian local government context), all of which are desirable characteristics of a concourse (Webler et al., 2009).

From the interview transcripts, 200 statements related to what enables local SDG actions or what prevents them from being enabled were chosen. To reduce the number of statements and align the Q-set with existing literature, the concourse statements were narrowed down systematically using a list of 30 enablers of local sustainability actions suggested in a study by Ningrum

et al. (2022). Situated in the context of Local Agenda 21 (LA21), a predecessor to the SDGs, the study is the only systematic review available that identified enablers to globally-informed local sustainability actions.

We conducted a series of thematic coding to turn the concourse into the Q-set. Firstly, we coded the 30 enablers from Ningrum et al. (2022) to identify common themes. Five themes were identified from this process: (1) Participation, (2) Resources and support, (3) Collaboration, (4) Capacities and leadership, and (5) Feasibility and long-term. We then coded the 200 statements in the concourse separately to identify common themes. From the concourse, 35 themes were identified. These 35 themes were then matched with the five themes from the LA21 study. While most of them aligned into the five themes, some do not fit anywhere (e.g. top-down, future, national government, incrementalism). The final statements were selected according to (a) relevance in the list of 30 enablers and (b) potential to elicit opinions and perspectives from the P-Set.

From 200 statements in the concourse, 46 statements were chosen based on theme relevance. Due to their potential to elicit opinions and enrich the study, particularly in the context of the SDGs, four statements that did not emerge from the LA21 study (top-down, futuring, national government, incremental action) were added. The total number of statements in the Q-Set was 50, which is within typical parameters for Q-sets (Watts & Stenner, 2005). All research team members checked the clarity and relevance of this provisional Q-Set. Further rigor was ensured by pilot-testing with five people knowledgeable in local SDG actions but not part of the P-set. The final 50 statements were assigned a random number to ease their organization during the analysis (available in the supplementary material).

2.4 Q-sorting process

Since the participants were located in different parts of Australia, the Q-sorting process was conducted online using the EasyHTMLQ tool. Participants were asked to first sort the 50 statements into three piles: *least like my view, neutral,* and *most like my view. Then* the participants were asked to place the statement onto a grid of 50 cells, ranking them in order of least like their view (–6) to most like their view (+6).

Once the participants sorted the statements onto the grid, we asked for their explanations and reasoning. We did this through exit interviews (verbally) whenever possible and alternatively through post-sorting questions (written). This study's qualitative data was important to explore the participants' underpinning values and assumptions that shape their views on enabling local SDG actions. In the interviews and post-sorting questions, we specifically asked them why they chose the statements at both extreme ends of the grid (+6, +5,and -6, -5). We also asked if there were other statements that they thought were relevant to be explained regardless of where they were placed in the grid. Finally, we asked whether there were other issues in enabling local SDG actions that should have been included in the Q-sorting and none of the participants reported any. Exit interviews were conducted with eight participants, while three wrote their responses.

2.5 Q-sort analysis

The Q-sorts were analyzed using KADE (Banasick, 2019), an open-source software package designed for the by-person factor

analysis utilized in Q. The number of factors, hence the number of perspectives, emerge after researchers look at the Q sorts and conduct a series of iterations. The O sorts should be iterated into most appropriate and meaningful numbers of factors, using factor analysis and rotation, applying criteria such as simplicity, clarity, distinctness between factors and stability (Webler et al., 2009). Using principal component analysis and varimax rotation and through a series of iterations, a three-factor solution was found to provide the best fit. This judgement was based on the following criteria. First, standard practice in Q analysis is to select factors with at least two significant factor loadings using the equation of $2.58 \times (1/\sqrt{\text{number of statements}})$. The second consideration is selecting factors with an Eigenvalue greater than the standard minimal value of 1 (Webler et al., 2009), commonly referred to as the Kaiser-Guttman criterion. The third consideration was that a three-factor solution gave a total explained variance of 53%, greater than the nominal threshold of 40% (Brown, 1980; Watts & Stenner, 2005). From the extracted three factors, two participants were loaded significantly on two or more factors known as confounded sorts and therefore excluded from the analysis as is standard practice in Q studies (Watts & Stenner, 2005).

2.6 Data interpretation

We interpreted the three factors using the composite Q-sorts associated with each factor, also called factor arrays. Each factor array represented the *idealized* worldview of participants with similar perspectives (Webler et al., 2009), meaning that it synthesizes a group of people who shared similar perspectives. An overview of the list of statements defining each factor, along with their corresponding Q-sort values and weighted averages (*z*-scores), is provided in the supplementary material.

We used the 'crib sheet' method to develop a coherent narrative for each factor array (Watts & Stenner, 2005). This method involved comparing all factor arrays based on four categories (statements ranked highest, ranked higher in that array than in others, ranked lower in that array than in others, and ranked lowest). With this method, we employed the logic of abduction, which means that we paid attention to the empirical data as signs or clues to generate and explore a series of likely hypotheses (Watts & Stenner, 2005). The data were further supplemented by interviews (eight exit interviews) and relevant documents (community visions, sustainability plans). From the analysis, we identified three coherent narratives that represent the diversity of perspectives in enabling local SDG actions, hereby we call 'perspectives'.

3. Result

This section presents the study results. First, it outlines the three perspectives as depicted in the three factor arrays. Second, this section analyses the three perspectives' salient points of consensus and disagreement.

3.1 Perspectives

Each perspective described here presents an ideal-typical narrative of how local SDG actions should be enabled according to the study participants. Each perspective consists of more preferred and prioritized enablers than others, contextualized within certain ways of engaging with the SDGs, certain views of the SDGs, and specific local contexts and capacities. The three perspectives are given the

following titles: (1) 'Enablers should support institutional embeddedness of the SDGs', (2) 'Enablers should support stakeholder coordination for the SDGs', and (3) 'Enablers should support community engagement for the SDGs'. Below is a summary of the three perspectives. Information about statement numbers and ranking in the factor arrays has been added every time a statement provides a basis for a particular interpretation ([#Statement number], [Ranking]). Quotes from qualitative data are provided whenever possible and relevant for the interpretation.

3.1.1 Perspective 1: enablers should support institutional embeddedness of the SDGs

Five participants shared this perspective. In this perspective, the preferred enablers are framed within the understanding that the SDGs should be institutionally embedded into the local government's operational framework (#44, +6), and thus what local government needs is an integrated system where different departments can easily coordinate for SDGs actions (#25, +6). One participant noted that the embeddedness was important for more certainties in local SDG actions, '(the SDGs are) ... endorsed by council. So these (embedded) actions, it's very hard to undo. Of course you could undo them but it would take significant effort to make that happen.'

Given the view that the SDGs should be institutionally embedded into local governments' operational framework, the enablers preferred by this perspective are directed to support that. Data for an evidence-based process is seen as important (#17, +5) because the local SDG action is directed towards monitoring and reporting on the actions and their progress. As one participant noted, 'You absolutely need an evidence base. You need to report because what doesn't get reported doesn't get done.' The orientation towards an evidence-based process demands clear communication between the decision-makers and implementors. Thus, this perspective values honest and straightforward advice from officers to elected local officials who make policy decisions (hereby referred to as councilors) (#21, +4),

Operational staff in local governments should be supported to have a good understanding of the SDGs (#13, +3), not only staff that directly manage sustainability issues. As one participant mentioned, 'If it (the SDGs action) doesn't get embedded, doesn't get reported as part of your standard, it becomes an additional piece of work...an additional hassle. So...you're going to get actions the more you can build it into what people do.' Because of the whole-of-government approach, this perspective sees top-down management – interpreted as active directing from local government executives and councilors – as an important enabler (#47, +3).

Since the SDGs need to be embedded into the institutional works and operations, this perspective considers reliable financial resources (such as a revolving fund) especially important (#11, +4). One participant noted that '…because a lot of the work that we do is operational in nature and it's just trying to get things done...if there's funding associated with it, it's going to get a lot more chances of getting done.' Given this consideration, being a big-size or historically well-resourced local government matters for holders of this perspective. When local governments are smaller, dedicated financial resources for SDG actions could be available because sustainability is a major issue in the area (e.g. the area hosts coal mines), and/or there are SDG champions who actively ensure the process has reliable funding.

Within this perspective, SDG 'champions' – local government staff who actively seek to promote SDG actions within the institution – are an integral part of the process (#39, +2). In this

perspective, SDG champions are understood to be different from topic-specific sustainability 'experts' in the institution. They can overlap, but not always the same people. As one participant noted, '...it's not my job in council to deliver the SDGs. It's my job to provide the tools, resources, support, mechanisms, and data to help the council make informed decisions about implementing the SDGs.' Given the importance placed on institutional embeddedness and the staff who drive it, local governments in this perspective typically have a dedicated sustainability team and/or put the person in charge of SDG works as a senior or lead staff member. Additionally, networking with other stakeholders, such as research institutions, is important to further the institutional embeddedness of the SDGs (#15, +2), gaining the local governments partnership-based innovative projects.

A point emphasized in this perspective is that the local government has a leading role in pioneering SDG work for their community. Local government actors see themselves as advocates for their community: translating evidence, enacting policies, managing projects, and presenting progress so SDG goals are realized locally. State and federal governments' support for realizing the SDGs is needed, but they should not be relied on. This is evident in one participant's comment: '...rather than relying on state and federal government... local government should be in control of its own destiny. (P8)'.

In this perspective, the community's role is to provide feedback on local governments' plans and actions. An enabler such as a community engagement platform is useful for providing feedback for local government plans in addressing SDG goals and targets. A participant stated that '...having the community voice (in local SDG actions) sometimes can help, but it's maybe not necessarily the main driver... (W)e know that what we're doing is for the community, but... a lot of the time it comes down to processes and capacity (of local governments).'

In summary, this perspective emphasizes enablers that could support the SDGs to be institutionally embedded into local governments' work. It has strong a preference for resources and mechanisms that facilitate inter-departmental coordination and reporting progress against locally prioritized SDG goals and targets.

3.1.2 Perspective 2: enablers should support stakeholder coordination for the SDGs

Two participants are associated with this perspective. In this perspective, the SDGs are seen as an agenda that provides space for stakeholder coordination within and beyond the local government. While there is already enthusiasm and ongoing actions to address locally prioritized sustainability issues among different stakeholders, they need to be enhanced through increased and better coordination. One participant noted that '...prior to the SDGs coming out, we already had a whole lot of priorities for environmental outcomes endorsed by the council, endorsed by the community, so I don't really need to use the SDGs to help justify why it's important... (but) some things we need to work together with, because we can't solve it on our own.' This perspective also highlights the absence of the federal and state governments in addressing SDG goals and targets, and thus the need for local governments to 'step up' together. As one participant suggested, 'We've had an absence of action (at the federal level).. for so many years that... local government and alliances of local government have absolutely stepped up'.

Given the understanding that the SDGs facilitate coordination among stakeholders, this perspective leans towards SDG engagements that privilege such a purpose. They include SDG-based partnerships, regional task forces for SDG actions, and regional alliances to deliver specific SDG goal(s). The 'regional groups' in the context of Australia are the association of several local governments that share borders and common resources. Those types of SDG engagement are seen as facilitating coordination and breaking down institutional silos. One participant noted, '(Local governments) are very good at promoting silos and there is often a culture of not wanting to help...or to work with others. To overcome this, senior management needs to promote SDG projects (where partnerships follow) to ensure that the silos are broken down.'

The enablers preferred by this perspective are directed to support that. Regional alliances with other local governments (#32, +6) and coordination workshops that bring different stakeholders together (#8, +5) are seen as important enablers because, as one participant noted, '... sustainability issues do not stop at the border of a local government.' Within this perspective, local governments are seen as disaggregated entities, having a specific body of jurisdiction but often composed of different groups. These different groups are facing, and are interested in, specific sustainability issues that could be governed by different local governments or multiple levels of government, for example, issues regarding water management of a river that covers different areas. Being a part of many regional alliances that contribute to the SDGs is seen as helpful. As one participant noted, 'We're part of many different things, we find that those are helpful in either just being a stronger voice, (for example) an advocacy or sometimes in a more practical sense, like doing group procurement (with other local governments).'

In this perspective, separate funding for integrated SDG actions (#10, +4) is seen as an important enabler, as there is often ' ... a lack of willingness to own a particular project, largely due to the strategy not coming with its own budget.' While having separate and dedicated funding is an ideal condition for those within this perspective, they often struggle to allocate such funding for various reasons, including being a small-size government and facing a regional financial crisis. Given this limitation, the local SDG actions that this perspective focuses on are regional projects that contribute to specific SDG goals, and provide learning support and incentives for the community to adopt practices that contribute to achieving the SDGs (#31, +6). Due to resource constraints, translating the SDGs into local policies is considered difficult (#45, -6), hence the stronger preference to rely on alliances and coordination for local SDG actions. For the same reason, benchmarking and reporting on local SDG actions are also less desirable (#22, -2) than coordinating and delivering on actions. As one participant noted, '(report for benchmarking) would just be a big waste of time for everyone. A lot of admin. For what purpose? We get asked to do a lot of reporting and it takes time and energy.'

Since coordination and alliances are meant to deliver actions for specific, locally prioritized SDG goals, having experts in sectors related to those goals is an important enabler (#19, +3), especially if they exist within the community. As one participant noted, 'You can't progress forward if you don't have the expertise, and you need it in-house. You can't just rely on consultants all the time, you need a sustained effort.' For a similar reason, having a progressive and open-minded community in responding to sustainability issues (#43, +3) is also valued in this perspective.

In summary, this perspective emphasizes enablers that can support stakeholder coordination for realizing the SDGs. Even

though financial resources are an important and preferred enabler, local governments often find themselves struggling to secure such funding. Hence, this perspective relies more on SDG-based partnerships, regional task forces for SDG actions, and regional alliances to deliver specific SDG goal(s). In doing so, the enablers that this perspective finds more useful are existing relationships with other local governments, coordination workshops, professionals and experts in the local community, and a progressive, open-minded local community.

3.1.3 Perspective 3: enablers should support community engagement for the SDGs

Two participants are associated with this perspective. This perspective emphasizes the local community as the center of local SDG actions. They need to be actively engaged in local SDG actions, not only to provide feedback but to drive the local SDG actions. Local governments should also integrate local SDG actions with existing community programs (#3, +6). However, this perspective believes that the local community may not always fully grasp the scale and the pace needed for meaningful SDG progress (#7, +3), including in issues with high uncertainty. As such, the local government's role is to be a conduit between local communities' aspirations and the science-informed priorities of the global community, which in this case is represented by the SDGs. One participant suggested that '...part of engagement is always providing different perspectives, (local governments) are always balancing community perspectives... with data, quantitative and qualitative data.' Within this perspective, the SDGs are primarily valued as a bridge between global goals and community aspirations. They are also useful as a thematic guide to inform community priorities and a global common space where knowledge and evidence related to these priorities are gathered and organized.

Given the strong community orientation, local SDG actions within this perspective can be quite varied according to the focus and preferences of the local community. However, since the local community typically focuses on visible projects that engage with them, the local SDG actions often manifest in local 'flagship' projects on locally prioritized SDG goals, such as community-based net zero projects, community-based climate adaptation, or circular economy projects, and advocacy on SDG-related policies.

As local SDG actions in this perspective are action-based and driven by the community, the enablers highlighted are those that facilitate wider public engagement and support community involvement at the grassroots level. This includes targeting various groups such as young people and linguistically diverse communities (#4, +6), encouraging different perspectives about the best way to achieve local SDG priorities (#5, +5), and involving grassroots-level community groups in discussing local SDG priorities (#36, +4).

Having active and diverse community groups, particularly in the context of more community-minded regional areas, builds and advances local SDG actions (#1, +2). In some cases, the local governments in this perspective are smaller and situated in regional areas. As one participant noticed, 'It's a smaller community...they're constantly knocking on the council's door saying 'you're not doing enough work'. They're really, really good at lobbying the (local) government, getting things into city plans, making appointments with directors and CEOs to want more actions, but they're also really good at delivering their own projects and leaving the (local) government alone. (P3)'

Resources availability also appears inconsistent, likely due to their small size and non-metropolitan location. It is inevitable to have some local government staff do extra work to push for SDG actions (#14, +3). As such, support from university researchers, in terms of funding and expertise, can greatly support local SDG actions (#15, +2). Despite inconsistent resource availability and external support, the local governments in this perspective are constantly explorative and forward-looking in local SDG actions, primarily because they believe local governments play a powerful role in facilitating and supporting the community to take action, regardless of their capacity. One participant remarked, '(We are) starting from scratch in this (local SDGs) space. We're kind of behind, which is one of the reasons why I'm working here, because it's kind of exciting about what we might be able to do. (P3)'. Because of this outlook, local governments in this perspective have bigger expectations for other stakeholders to provide support, particularly state governments' support in coordinating local SDG actions (#22, +4).

In summary, this perspective emphasizes enablers that could support and improve community engagement because the local community is important in driving and delivering on local SDG actions. Important enablers in this perspective include public engagement, targeted participation for various community groups, and support from university researchers and state governments.

3.2 Consensus statements

There are three notable points of consensus among all perspectives. First, all perspectives express neutrality (0, 0, 1) towards the statement 'high-level support from elected councilors is the most important thing for local SDGs actions' (#20). In the follow-up interviews, participants from different perspectives indicated that they did not have strong opinions about it. They agreed that high-level support from councilors is important for local SDG actions but not the most important. In perspective 1, councilors are important to endorse the overarching plan to institutionally embed the SDGs. In perspective 2, councilors are important to allocate budget for SDG-related projects, while in perspective 3, councilors have a role in voicing out the local community aspirations related to local SDG priorities. Thus, having supportive and progressive councilors elected and re-elected matters for local governments across all perspectives, though their influences on local SDG actions differ.

Second, all perspectives range from neutral to slightly disagree (0, -1, -1) to the notion that the federal government should be more proactive in coordinating SDG actions for local governments. In the follow-up interviews, participants from different perspectives mentioned that there should be leadership from the federal government on SDG actions and that support from the federal government for local SDG actions is helpful. However, reflecting on the history of national SDG (in)actions in Australia, they generally did not have high expectations for the federal government to coordinate nationwide local SDG actions, and thus they focused on other enablers that were considered more realistic. One participant particularly noted that beyond political leadership and resource support, federal government support was less relevant for them because Australian local governments have more engagement with the state government in operationalizing local SDG actions.

Thirdly, all three perspectives strongly disagreed (-6, -5, -5) that local SDG actions do not need an integrated plan that

explicitly synthesizes all local government strategic plans (#28). It means there is a consensus that an integrated plan is important in local SDG actions. This consensus could relate to the context of Australian local governments where an overarching local government strategic plan primarily drives strategies and policies in individual departments. An integrated plan endorsed by councilors can help secure budgets for cross-departmental projects and push for more coordination between different departments.

4. Discussion

4.1 Contextualizing enablers to local SDG actions

By presenting three perspectives toward enabling local SDG actions, including the divergence and consensus between them, this study has examined the different perspectives in enabling local SDG actions through a structured approach afforded through Q-methodology. Presented with a wide range of enablers, each perspective considers some enablers more important than the rest and thus prioritizes them. Furthermore, this study has demonstrated that the importance assigned to these prioritized enablers does not exist in isolation. They are framed within local actors' vision, purpose, and views of the SDGs, in addition to local governments' context and capacities.

Through the insights this study offers, enablers to local SDG actions suggested in current literature can be better contextualized for a more targeted application. For example, enablers such as training city officers to learn integrative tools (Tremblay et al., 2021), establishing a dedicated department in local governments for sustainable development (Krellenberg et al., 2019), and developing guidelines to manage evidence-based reporting (Giles-Corti et al., 2020) might be more relevant and effective for local governments whose actors have an understanding of local SDG actions similar to perspective 1 ('Enablers should support SDG institutional embeddedness'). On the other hand, developing institutional capacity for multi-level coordination (Mejía-Dugand et al., 2020) and supporting peer-to-peer learning between cities and alongside local partners (Leavesley et al., 2022) might be more compatible with local governments whose actors hold views similar to perspective 2 ('Enablers should support stakeholder coordination for the SDGs'), while participatory planning and co-creating local socioeconomic pathways to realize local SDG priorities (Szetey et al., 2021a, 2021b) might be more appropriate for local governments whose actors perceive local SDG actions similar to perspective 3 ('Enablers should support community engagement for the SDGs'). While most enablers suggested in existing literature generally can improve local SDG action processes in many places, prioritization is needed because of time and resource constraints. Different perspectives in enabling local SDG actions are likely the result of different contexts, experiences, and resources that local actors have access to. Thus, using local actors' perspectives can also help illuminate and improve the (sometimes contested) processes regarding how to locally implement the SDGs.

The insights from this study also help clarify how an enabler could have a different impact on local SDG actions if framed and situated differently. For example, nurturing political awareness of the SDGs among elected local officials, as suggested by Guarini et al. (2022), indeed can help initiate and strengthen local SDG actions, but it could have different effects depending on how local actors frame the local SDG actions. As demonstrated by the findings of this study, political awareness of the SDGs from

elected local officials could mean many things, from awareness of linking long-term community plans to the SDGs, awareness of advancing projects and policies related to local SDG priorities, to awareness of mainstream SDG partnerships within the surrounding regional area.

Beyond enablers specifically suggested to local governments, the insights from this study can also help contextualize enablers directed to actors outside of local governments. An example is the Council of European Municipalities and Regions (CEMR)'s suggestion to encourage political support for local SDG actions from national governments (Bentz, 2020). The findings from this study can aid us in further specifying what political support from national governments is most likely needed in local SDG actions when the actions are framed around certain perspectives. Support such as formally pushing state governments to engage with local SDG actions, giving incentives for the SDGs to be part of local reporting, or mainstreaming the SDGs to regional communities might all be useful for local SDG actions, but the extent to which they are useful are subject to certain conditions. The differences in enabling local SDG actions presented in this study could be one (of many) that help unpack this conditionality.

One important observation emerge from the result is the importance of highlighting SDG 17 (Partnership for the goals) as both the prioritized goal and an enabler to SDG implementation for local SDG actions regardless of the perspective. Indeed, Perspective 2 foregrounds multistakeholder coordination and partnership as the key driver for implementation. Beyond that, enhancing policy coherence through multistakeholder partnerships is crucial in institutionally embedding the SDGs in local governance (Perspective 1) while promoting accountability and effective civil society partnerships is important to support community engagement for the SDGs (Perspective 3).

By suggesting that the findings can help clarify perspectives in enabling local SDG actions and contextualize relevant literature, we do not imply that a local government holds a singular perspective. The perspectives outlined in this study represent the local governments' perspectives to a certain extent, given that in the Australian context, the local SDG actions are driven by a couple of 'key' staff who are most familiar with the process. However, this study did not delve deeper into the internal dynamics between local government staff and other local government actors (such as councilors) and how they may affect the enabling of local SDG actions.

Furthermore, we acknowledge that there could be other relevant perspectives on enabling local SDG actions beyond those covered in this study. More perspectives may exist outside of the Australian context, particularly in countries where national governments centrally coordinate local SDG actions (e.g. Indonesia and India) or where civil society groups drive the joint effort in local SDG actions (e.g. the UK and South Africa) (Bilsky et al., 2021). We position this study as the start for further inquiries into the contestations and disagreements in implementing local SDG actions. We suggest that future studies explore local SDG actions in other contexts and delve deeper into the dynamics and multiplicity of perspectives within a local government.

4.2 Enacting globally connected and locally relevant local SDG actions

In addition to contextualizing enablers to local SDG actions, the insights from this study are useful to inspect the current effort to realize the SDGs through local actions, specifically concerning

the question of how the current local SDG actions are (in) adequate for worldwide transformation to a socially, environmentally, and economically sustainable society.

The flexibility and voluntary nature of the SDGs indeed support the mainstreaming of the global agenda for local governments worldwide. They allow the SDGs to be engaged in different ways according to local governments' contexts and capacities, from embedding the SDGs with the city's spatial development (Fox & Macleod, 2021), linking the SDGs to ongoing local resilience strategies, drawing on the SDGs in integrating development plans (Croese et al., 2020), incorporating of SDGs into the local strategic planning process (Krantz & Gustafsson, 2021), to monitoring and reporting on local progress against the SDGs (Tremblay et al., 2021). All forms of SDG engagement are valuable and contribute to realizing the SDGs but leaving it to local actors to choose any SDG engagement (or combinations of them) is not enough. To accelerate SDG realization, we need local SDG actions to be more comprehensive in their engagement with the SDGs. By more comprehensive, we mean engaging the SDGs meaningfully in as many aspects of local processes as possible while retaining local relevance and allowing progress to be aggregated and monitored at national and global levels. While there are indeed steering effects in the SDGs that can influence governance processes (Ordóñez Llanos & Raven et al., 2022), the SDGs are primarily intended to consolidate sustainability actions and progress across different scales (Persson et al., 2016). In particular, the goals-and-targets model of the SDGs is intended to help track and communicate progress during monitoring and evaluation. This means encouraging SDG engagement needs to pay balanced attention to both the 'globally connected' and 'locally relevant' dimensions, i.e., encouraging more comprehensive local SDG actions.

This study extends the scholarly discussion on enabling more comprehensive local SDG actions in two ways. First, this study empirically demonstrates the diversity in perspectives on current local SDG actions, looking at the SDG engagement from each perspective. In perspective 1, local actors use the SDGs to integrate sectoral issues. In perspective 2, local actors use the SDGs to foster connections between stakeholders to deliver on SDG actions, while in perspective 3 local actors use the SDGs to shape local sustainability vision and to help the local community in the decision-making process. The kinds of SDG engagement illustrated in this study indeed help improve local governance processes to realize the SDGs. However, whether these SDG engagements allow local progress to be aggregated and monitored at national and global levels is still questionable. The empirical experience shown in this paper is consistent with current studies and reports of local SDG actions, which also hinted at the lack of engagement that allows for more global consolidation (see, for example, Ciambra, 2020 and UCLG, 2018).

Second, by clarifying how local actors' perspectives matter in enabling local SDG actions, this study offers a possible way forward for a more comprehensive local SDG action. Future research could explore how to enable specific forms of SDG engagement, for example by developing and testing interventions for local actors and their agencies in a way that could lead to a more comprehensive local SDG action. In addition to leveraging local governments' capacities and navigating local contexts, we need to be more active and deliberate in shaping local actors' understanding of the SDGs – introducing different ways of SDG engagement, clarifying how different types of engagement can promote sustainability transformation, and exploring ways to make them more compatible to be engaged in local governance. This study

suggests that such effort requires exploring their views of the SDGs, their values, and purposes, and how they make sense of their roles as local actors to realize sustainability objectives.

Using concepts from different bodies of literature, future research could explore questions on how actors and their agencies can contribute to shaping globally connected and locally relevant SDG actions. An example is the literature on sustainability transformation, where scholars have highlighted the role of exploring and addressing people's inner dimensions (i.e. values, worldviews, beliefs) and their relation to sustainability to support individual, collective, and systems change (Abson et al., 2017; Woiwode et al., 2021). Another relevant literature for enabling local SDG actions is on environmental and sustainability governance, where scholars have mapped different modes of governance for promoting sustainable development according to various dimensions of characteristics (Lange et al., 2013). An example of relevant work in this literature is a framework proposed by Driessen et al. (2012), where five modes of governance (centralized governance, decentralized governance, public-private governance, interactive governance, and self-governance) are identified based on actors features (initiating actors, stakeholder position, policy level and power base), institutional features (models of representation, rules of interaction, mechanism of social interaction), and features content (goals and targets, instruments, policy integration, policy-science interface). Indeed, the perspectives outlined in this study can reflect one of the modes of governance. The integration and embeddedness in perspective 1 use a similar rule of interaction with decentralized governance (where governance is done through formal rules and fixed procedures), and the focus on coordination and network in perspective 2 uses a similar model of representation and interaction with interactive governance (where governance is done through social learning and deliberations between various stakeholders), and the policy-science interface in perspective 3 is similar to the mode of self-governance (where sustainability issues are timeand place-specific, involving both experts and citizen knowledge). Building on insights across different disciplines, future studies can build transdisciplinary and actionable knowledge for globally connected and locally relevant local SDG actions.

5. Conclusion

Knowing the differences among local actors' perspectives is critical for a more targeted and nuanced approach to enabling local SDG actions. In current literature, the 'differences' remain underexamined and the analysis of actors' perspectives as a lens that may explain these differences remains implicit. Given this knowledge gap, this study asked the following question: What are the different perspectives on enabling local SDG actions among local actors? This study has addressed the question by identifying three different perspectives toward enabling local SDG actions among a sample of local governments in Australia. This study has also explored how each perspective has preferred enablers, contextualized within certain ways of engaging with the SDGs, certain views of the SDGs, and specific local contexts and capacities. By examining how to enable local SDG actions from an explicitly actor-perspective lens, we hope to extend the conversation of how SDGs can be enabled at the local government level and how current research that supports local SDG implementations can be better contextualized.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/sus.2024.20.

Acknowledgment. The authors thank Andrea Cuesta-Claros, Grace Rodgerson, Miriam Spano, and Michaela Lang for their help during the research design and data collection process.

Author contributions. DN led the research including research design, data collection, and data analysis. GB provided advice and guidance on research design, data collection, data analysis, and interpretation of Q-methodology. SM, RR, and EAM provided overall study supervision, advice, and guidance regarding research framing and discussion. CA wrote the paper with inputs from SM, RR, EAM, and GB.

Funding statement. This work is funded by The Ian Potter Foundation (grant number 20190016), Deakin University, and Monash University. E.A.M. received funding from the Ian Potter Foundation and Deakin University.

Competing interests. We declare no competing interest.

References

- Abson, D. J., Fischer, J., Leventon, J., Newig, J., Schomerus, T., Vilsmaier, U., Von Wehrden, H., Abernethy, P., Ives, C. D., & Jager, N. W. (2017). Leverage points for sustainability transformation. *Ambio*, 46(1), 30–39.
- Avelino, F., & Wittmayer, J. M. (2016). Shifting power relations in sustainability transitions: A multi-actor perspective. *Journal of Environmental Policy & Planning*, 18(5), 628–649.
- Banasick, S. (2019). KADE: A desktop application for Q methodology. *Journal of Open Source Software*, 4(36), 1360.
- Bentz, S. (2020). THE 2030 AGENDA Through the eyes of local and regional governments' associations. P. a. t. C. o. E. M. a. Regions. https://platforma-dev.eu/wp-content/uploads/2020/07/CEMR-PLATFORMA-SDGs-2020.pdf
- Bilsky, E., Moreno, A. C., & Fernández Tortosa, A. (2021). Local governments and SDG localisation: Reshaping multilevel governance from the bottom up. *Journal of Human Development and Capabilities*, 22(4), 713–724.
- Brown, S. R. (1980). Political subjectivity: Applications of Q methodology in political science. Yale University Press.
- Ciambra, A. (2020). Guidelines for voluntary local reviews. A Comparative Analysis of Existing VLRs, 1, 7–48.
- Croese, S., Green, C., & Morgan, G. (2020). Localizing the sustainable development goals through the lens of urban resilience: Lessons and learnings from 100 resilient cities and Cape Town. *Sustainability*, 12(2), 550.
- Driessen, P. P., Dieperink, C., Van Laerhoven, F., Runhaar, H. A., & Vermeulen, W. J. (2012). Towards a conceptual framework for the study of shifts in modes of environmental governance–experiences from the Netherlands. *Environmental Policy and Governance*, 22(3), 143–160.
- Fischer, L.-B., & Newig, J. (2016). Importance of actors and agency in sustainability transitions: A systematic exploration of the literature. Sustainability, 8 (5), 476.
- Fox, S., & Macleod, A. (2021). Localizing the SDGs in cities: Reflections from an action research project in Bristol, UK. *Urban Geography*, 44(3), 1–21.
- Giles-Corti, B., Lowe, M., & Arundel, J. (2020). Achieving the SDGs: Evaluating indicators to be used to benchmark and monitor progress towards creating healthy and sustainable cities. *Health Policy*, 124(6), 581–590
- Guarini, E., Mori, E., & Zuffada, E. (2022). Localizing the sustainable development goals: A managerial perspective. *Journal of Public Budgeting*, Accounting & Financial Management, 34(5), 583–601.
- Guha, J., & Chakrabarti, B. (2019). Achieving the sustainable development goals (SDGs) through decentralisation and the role of local governments: A systematic review. Commonwealth Journal of Local Governance, 2019 (22), 1–21.
- Hajer, M. (2003). Policy without polity? Policy analysis and the institutional void. *Policy Sciences*, 36(2), 175–195.
- Horn, P., & Grugel, J. (2018). The SDGs in middle-income countries: Setting or serving domestic development agendas? Evidence from Ecuador. World Development, 109, 73–84.
- Krantz, V., & Gustafsson, S. (2021). Localizing the sustainable development goals through an integrated approach in municipalities: Early experiences

from a Swedish forerunner. *Journal of Environmental Planning and Management*, 64(14), 2641–2660.

- Krellenberg, K., Bergsträßer, H., Bykova, D., Kress, N., & Tyndall, K. (2019).
 Urban sustainability strategies guided by the SDGs A tale of four cities.
 Sustainability, 11(4), 1116.
- Lange, P., Driessen, P. P., Sauer, A., Bornemann, B., & Burger, P. (2013).
 Governing towards sustainability conceptualizing modes of governance.
 Journal of Environmental Policy & Planning, 15(3), 403–425.
- Leavesley, A., Trundle, A., & Oke, C. (2022). Cities and the SDGs: Realities and possibilities of local engagement in global frameworks. *Ambio*, *51*(6), 1416–1432.
- Lucci, P. (2015). 'localising' the post-2015 agenda: What does It mean In practice? Overseas Development Institute London.
- Masuda, H., Kawakubo, S., Okitasari, M., & Morita, K. (2022). Exploring the role of local governments as intermediaries to facilitate partnerships for the sustainable development goals. Sustainable Cities and Society, 82, 103883.
- Mejía-Dugand, S., Croese, S., & Reddy, S. A. (2020). SDG Implementation at the local level: Lessons from responses to the coronavirus crisis in three cities in the global south. Frontiers in Sustainable Cities, 57, 1–6.
- Ningrum, D., Malekpour, S., Raven, R., & Moallemi, E. A. (2022). Lessons learnt from previous local sustainability efforts to inform local action for the sustainable development goals. *Environmental Science & Policy*, 129, 45–55.
- Ningrum, D., Raven, R., Malekpour, S., Moallemi, E. A., & Bryan, B. A. (2023). Transformative potential in sustainable development goals engagement: Experience from local governance in Australia. Global Environmental Change, 80, 102670.
- Oosterhof, P. D. (2018). Localizing the Sustainable Development Goals to Accelerate Implementation of the 2030 Agenda for Sustainable Development: The Current State of Sustainable Development Goal Localization in Asia and the Pacific. Asian Development Bank: The Governance Brief, 2018(33), 1–14.
- Ordóñez Llanos, A., Raven, R., Bexell, M., Botchwey, B., Bornemann, B., Censoro, J., Christen, M., Díaz, L., Hickmann, T., & Jönsson, K. (2022). Implementation at multiple levels. In Biermann F., Hickmann T., & Sénit Carole-Anne (Eds.), *The political impact of the sustainable development goals: Transforming governance through global goals* (pp. 59–91). Cambridge University Press.
- Ortiz-Moya, F., & Kataoka, Y. (2022). State of the voluntary local reviews 2022: overcoming barriers to implementation (Research Report, Issue. https://www.iges.or.jp/en/publication_documents/pub/researchreport/en/12331/State+of+VLR+2022+-+Final.pdf
- Patel, Z., Greyling, S., Simon, D., Arfvidsson, H., Moodley, N., Primo, N., & Wright, C. (2017). Local responses to global sustainability agendas: Learning from experimenting with the urban sustainable development goal in Cape Town. Sustainability Science, 12(5), 785–797.
- Patterson, J., Schulz, K., Vervoort, J., Van Der Hel, S., Widerberg, O., Adler, C., Hurlbert, M., Anderton, K., Sethi, M., & Barau, A. (2017). Exploring the governance and politics of transformations towards sustainability. *Environmental Innovation and Societal Transitions*, 24, 1–16.
- Perry, B., Diprose, K., Taylor Buck, N., & Simon, D. (2021). Localizing the SDGs in England: Challenges and value propositions for local government. Frontiers in Sustainable Cities, 3, 746337.
- Persson, Å, Weitz, N., & Nilsson, M. (2016). Follow-up and review of the sustainable development goals: Alignment vs. Internalization. Review of European, Comparative & International Environmental Law, 25(1), 59-68.
- Reddy, P. (2016). Localising the sustainable development goals (SDGs): The role of local government in context. African Journal of Public Affairs, 9 (2), 1–15. https://repository.up.ac.za/handle/2263/58190
- Robbins, P., & Krueger, R. (2000). Beyond bias? The promise and limits of Q method in human geography. *The Professional Geographer*, 52(4), 636–648.
 Schulz, K., & Siriwardane, R. (2015). Depoliticised and technocratic? Normativity and the politics of transformative adaptation.
- Sneegas, G., Beckner, S., Brannstrom, C., Jepson, W., Lee, K., & Seghezzo, L. (2021). Using Q-methodology in environmental sustainability research: A bibliometric analysis and systematic review. *Ecological Economics*, 180, 106864.

Stirling, A. (2011). Pluralising progress: From integrative transitions to transformative diversity. Environmental Innovation and Societal Transitions, 1(1), 82–88.

- Szetey, K., Moallemi, E., Ashton, E., Butcher, M., Sprunt, B., & Bryan, B. (2021a). Participatory planning for local sustainability guided by the sustainable development goals. *Ecology and Society*, 26(3), 1–10.
- Szetey, K., Moallemi, E. A., Ashton, E., Butcher, M., Sprunt, B., & Bryan, B. A. (2021b). Co-creating local socioeconomic pathways for achieving the sustainable development goals. *Sustainability Science*, *16*(4), 1251–1268.
- Tremblay, D., Gowsy, S., Riffon, O., Boucher, J.-F., Dubé, S., & Villeneuve, C. (2021). A systemic approach for sustainability implementation planning at the local level by SDG target prioritization: The case of Quebec City. *Sustainability*, 13(5), 2520.
- UCLG. (2018). Local and Regional Governments' Report to The 2018 High-Level Political Forum: Towards The Localization of The SDGs [Report]. https://www.uclg.org/sites/default/files/towards_the_localization_of_the_sdgs.pdf
- Valencia, S. C., Simon, D., Croese, S., Nordqvist, J., Oloko, M., Sharma, T., Taylor Buck, N., & Versace, I. (2019). Adapting the sustainable development goals and the new urban agenda to the city level: Initial reflections from a comparative research project. *International Journal of Urban Sustainable Development*, 11(1), 4–23.
- Watts, S., & Stenner, P. (2005). Doing Q methodology: Theory, method and interpretation. Qualitative Research in Psychology, 2(1), 67-91.
- Webler, T., Danielson, S., & Tuler, S. (2009). Using Q method to reveal social perspectives in environmental research. *Greenfield MA: Social and Environmental Research Institute*, 54, 1–45.
- Woiwode, C., Schäpke, N., Bina, O., Veciana, S., Kunze, I., Parodi, O., Schweizer-Ries, P., & Wamsler, C. (2021). Inner transformation to sustainability as a deep leverage point: Fostering new avenues for change through dialogue and reflection. *Sustainability Science*, 16(3), 841–858.