Exploring the role of local governments as intermediaries to facilitate partnerships for the Sustainable Development Goals

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ABSTRACT

Implementation of the Sustainable Development Goals (SDGs) requires localization and multi-stakeholder partnerships, and local governments have the best potential to act as intermediaries to facilitate partnerships. This study examines how local governments have facilitated partnerships for the SDGs, especially partnerships with private sectors. It focuses on how local governments conducted their intermediary roles from the perspective of sustainable transitions and analyzes Japanese cases. The results of our analysis provide the following suggestions for local governments to enhance their intermediary roles to facilitate partnerships for the SDGs. First, the SDGs should be recognized as a driver of sustainable transitions. Second, there needs a balance in terms of the level of the public sector’s involvement in partnerships, so that local governments can maximize the benefits of informal networks in relation to SDG localization. Third, new intermediaries can be created by local governments. The findings of this study contribute to the growing body of literature on SDG localization and partnerships by identifying possible roles and suggestions that local governments can adopt as transition intermediaries.

1. Introduction

The 2030 Agenda for Sustainable Development (the 2030 Agenda1) and the Sustainable Development Goals (SDGs2) highlighted the importance of local stakeholders (UN General Assembly 2015). Especially, local governments are recognized as being in an important position to implement intermediation strategies for the localization of the global agenda (Gustafsson & Mignon, 2019; Palermo et al., 2020). Local governments are expected to play a leading role in achieving the SDGs by assessing the local situation, identifying the needs and resources, developing partnerships with stakeholders, and implementing appropriate policies and projects (Lucci, 2015; Reddy, 2016; Satterthwaite, 2017). They have already promoted the re-formulation of institutional systems, reflecting the 2030 Agenda in their visions and plans, and it is crucial for SDGs implementation to enhance the role of local governments (Oosterhof, 2018). Although research is becoming increasingly aware of the importance of discussing the various roles of local governments in implementing the SDGs at the local level, there is a further need to understand how these roles materialize in practice (Reddy, 2016; Satterthwaite, 2017). Empirical elaboration of roles that local governments play to achieve goals for a sustainable society, including the SDGs, is particularly helpful to understand the complex network of local governance for sustainable development.

On the other hand, SDGs implementation at the local level requires multi-stakeholder partnerships, with increasing numbers of public, private and not-for-profit organizations involved. The limited capacities of various local actors, including their financial and human resources, have been identified as a major challenge to SDG localization (Satterthwaite, 2017), and partnerships can be one of the solutions to cope with this insufficiency (Masuda et al., 2021). The 2030 Agenda itself attaches great importance to partnerships and collaborations among various actors (Biermann et al., 2017), and partnerships are expected to lead the transition to sustainable development by enabling the sharing of knowledge in relation to cross-sectoral challenges. However, many previous studies on partnerships to pursue the 2030 Agenda have centered on the global and international level, and there is a need to

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close the gap between partnerships and SDG localization (Okitasari et al., 2020). Looking back, local actions and changes have been highlighted as a core element in the pursuit of sustainable development and multi-stakeholder processes, as seen in Local Agenda 21 (Fudge et al., 2016). Considering the expanded scope of the 2030 Agenda entailing the need for cross-sectoral collaboration and policy integration (Biermann et al., 2017; UN General Assembly, 2015), it is crucial to pursue partnerships for the SDG at the local level.

Although collaboration among various stakeholders is expected to contribute to achieving the SDGs, it is difficult to manage how multiple activities led by different sectors can be coordinated and encouraged. Pätzberg & Widerberg have reviewed studies on multi-stakeholder partnership for sustainable development and suggested that successful partnerships require several conditions, including partner mix, leadership, goal-setting, finance, management, monitoring and evaluation (Pätzberg & Widerberg, 2016). More specifically, in arguing the involvement of public-private partnerships in the sustainable development field, Scheyvens et al. identified several concerns: a) critiques based on a neoliberal agenda leading to unsustainable outcomes; b) failing to address the causes of poverty; c) issues with partnerships including conflicting values and goals; d) a preference for short-term and elastic approaches; e) the perception of sustainability as an ‘add-on’; and f) inconsistency among private actors (Scheyvens et al., 2016).

To deal with the above difficulties and promote multi-stakeholder collaboration to reach the SDGs, intermediary functions are necessary to link respective activities at the local level. Studies on sustainable transitions have focused on the local level, examining the advantages and constraints in relation to multi-stakeholder processes designed to facilitate collaborative action (Barnes et al., 2018; Frantzeskaki & Rok, 2018; Nevens & Roorda, 2014). At the same time, some of these studies on sustainable transitions have identified various intermediaries as key actors linking multiple stakeholders to accelerate sustainable development (Hodson et al., 2013; Kivima & al., 2019a). Especially, local governments have been recognized as one of the intermediaries to facilitate sustainable development (Bush et al., 2017; Gustafsson & Mignon, 2019; Kundurpi et al., 2021). Local governments are ‘the only local actors with responsibilities and interests across all the sectors’ (Bush et al., 2017, p145) and have the best potential to act as intermediaries considering their mandates, legitimacy, existing networks with different sectors, and accumulation of local experiences (Gustafsson & Mignon, 2019). This entails a necessity to understand how local governments as intermediaries are often placed in-between collaboration or network governance with increasing needs for resources and funding opportunities and the growing number of stakeholders involved in the SDG localization process (Okitasari et al., 2020).

To overcome the challenges related to cross-sectoral collaboration for sustainable development and the lack of literature examining the local context on partnerships for the SDGs, this study aims to increase our understanding of how local governments can establish partnerships with private sectors for the SDGs, with a focus on the intermediary roles of local governments. The main research question is: how do local governments intermediate in facilitating partnerships with private sectors in efforts to achieve the SDGs?

In the following section, we review studies on the roles of intermediaries in sustainable transition theories. Based on these literature reviews, we develop a framework regarding the roles of transition intermediaries to analyze how local governments currently play intermediary roles in facilitating partnerships with private sectors aimed at achieving the SDGs. We then use the framework to analyze Japanese cases as an example of the national initiative to localize the SDGs. We chose Japanese cases because the country has strongly promoted SDG localization, highlighting “regional revitalization” in its national SDG Action Plan (Prime Minister of Japan and His Cabinet, 2020) and setting quantitative policy targets as 60% of all local governments in efforts to achieve the SDGs by the fiscal year 2024 (Cabinet Office Government of Japan 2019). The analysis of this study provides suggestions to enable local governments to better materialize their intermediary roles to facilitate partnerships with private sectors for the SDGs at the local level.

2. Research method

2.1. Literature review and development of an analytical framework regarding the intermediary roles of local governments in partnerships with private sectors for sustainable development

The concept of intermediaries has long been recognized in innovation studies, as well as science and technology studies, and has been developed in the context of sustainable transitions (Kivima & al., 2019a). Studies on ‘transition intermediaries’ have defined these intermediaries as ‘actors and platforms that positively influence sustainability transition processes by linking actors and activities, and their related skills and resources, or by connecting transition visions and demands of networks of actors with existing regimes’ (Kivima & al., 2019a, p1072). Intermediaries can emerge in the form of various organizations, such as governments, businesses, research institutes, citizen organizations, and networks (Kundurpi et al., 2021). Among them, local governments have been regarded as intermediaries in diverse areas of sustainable transition studies, such as supporting small and medium-sized companies’ sustainability actions (Kundurpi et al., 2021) and low-carbon transitions (Bush et al., 2017).

The core concept underlying sustainable transition theories, namely, a static multi-level framework, identifies three key levels of transition: the macro-level (landscape), the meso-level (region), and the micro-level (niche) (Geels & Kemp, 2000). In linking these levels, Kivima & al. (2019a) suggested the following five types of transition intermediaries: systemic, regime-based, niche, process, and user. They suggested that existing actors, including government agencies, tend to belong to the second type (regime-based transition intermediaries) which can develop new networks of systemic and niche intermediaries such as government-owned companies (Kivima & al., 2019a). They also focused on long-term sustainable transitions, examining case studies that have progressed through three phases: pre-development and exploration, acceleration and embedding, and stabilization (Kivima & al., 2019b).

The roles of intermediaries have been suggested by several sustainable transition studies as a contact point for the creation of new policies and processes (Kivima, 2014; Sovacool et al., 2020). Of the three levels of sustainable transitions, the micro or niche level is often the most accessible for multi-stakeholder networks (Monkelbaan, 2019). Applying the strategic niche management approach, Kivima (2014) divided the roles of intermediaries into four categories: internal processes, articulation of expectations and visions, building social networks, and learning processes and exploration at multiple dimensions. In addition, Sovacool et al. (2020), who analyzed low-carbon transitions, identified 18 functions of intermediaries and divided them into six categories: knowledge and learning; networking; brokering; innovation and diffusion; visioning; and institutional processes. Furthermore, Kundurpi et al. (2021) suggested the following supporting roles: facilitation of learning and knowledge exchange; resource provision or guidance; brokering; and supporting accountability and transparency. While intermediary roles have been studied, research on their practices is limited -how intermediaries act (Matschoss & Heiskanen, 2017). Matschoss and Heiskanen (2017) analyzed how intermediaries have contributed to experimentation by identifying practices: aggregation of lessons, deviation from existing practices, and making a difference.

Based on the above literature review, we applied the knowledge regarding the roles of intermediaries to the development of a framework to analyze the intermediary roles of local governments to facilitate partnerships with private sectors for SDG localization. As shown earlier, studies on the SDGs and partnerships are limited at the local level (Okitasari et al., 2020). By linking transition intermediaries to SDG localization, this study contributes to both the literature on the SDGs at
the local level and the literature on transition intermediaries. We suggested the analytical framework of the intermediary roles of local governments in relation to partnerships with private sectors for SDG localization, as shown in Table 1. Table 1 was developed mainly based on studies on the roles of transition intermediaries in relation to innovation and technology, which covered various levels (landscape, regime, and niche) (Boon et al., 2011; Bush et al., 2017; Howells, 2006; Kivimaa, 2014; Matschoss & Heiskanen, 2017; Sovacool, et al., 2020). While previous studies on sustainable transitions have suggested macro, meso, and micro levels of intermediaries (Geels & Kemp, 2000), studies related to the SDGs need to adopt a wider perspective to cover multiple regimes and niches. Table 1 was also developed based on previous studies of multi-stakeholder partnerships, including public–private partnerships (PPPs) aimed at promoting sustainable development that identified success factors, including actors, processes, and governance perspectives (Fattberg & Widerberg, 2016; Pinz et al., 2018). Our framework (Table 1) includes the following four categories: expectations and visions, building networks and managing resources, knowledge and learning, and supporting policy implementation and renewal. Compared to the previous studies on the roles of transition intermediaries, some descriptions of the roles of transition intermediaries have been modified. While the methodology used in previous studies on intermediaries was applied to case-specific sectors using particular technologies (i.e., energy production and use (Kivimaa, 2014)), we excluded some technology-focused roles of intermediaries (i.e., technology assessment and evaluation, and prototyping and piloting) because the 2030 Agenda has a wider scope. In addition, the category ‘Supporting policy implementation and renewal’ was included because this study focuses on local government actions, and most of the elements in this category are related to policy implementation by local governments.

Regarding the development of the framework (Table 1), several points should be noted. First, the strength of the role varies depending on the organization (Kivimaa, 2014). Second, perceptions of the role of the organization will differ depending on the interviewee’s affiliation (i.e., inside or outside the organization) (Kivimaa, 2014). Third, there is a wide range of relationships between organizations and roles (e.g., the organization may coordinate the projects of other organizations, even though it does not undertake projects itself) (Kivimaa, 2014). Finally, while sustainable transitions require a long-term perspective (Kivimaa et al., 2019b), we were unable to adopt this perspective because SDG localization has only existed for a few years.

2.2. Application of the analytical framework to case studies

In applying our framework (see Table 1) to an analysis of the intermediary roles of local governments to facilitate partnerships with private sectors to achieve the SDGs, we consider the following points. First, local governments have often been portrayed as regime-level actors with regulatory roles, while they can play intermediary roles at different transition levels (landscape, regime, or niche) (Fudge et al., 2016). This study focuses on the intermediary roles that local governments have played at the niche level. This is because the niche level provides opportunities for experimentation and collaborative cross-sectoral development, one of the main features of sustainable urban transitions (Loorbach & Shiroyama, 2016). Second, intermediaries are not always aware of their roles (Hodson et al., 2013). Following a systematic review of the literature on transition intermediaries, Kivimaa et al. (2019a) found that many studies focused on existing actors that were not originally established to play an intermediary role but nonetheless were expected to take on such a role. Considering these points, in this study we analyze the policy tools and initiatives of local governments in partnerships with private sectors related to the SDGs to examine the intermediary roles played by local governments. As this study focuses on

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3 PPPs: public–private partnerships

| Table 1 | Analytical framework of the intermediary roles of local governments in relation to partnerships with private sectors for SDG localization. |
|-----------------------------|-------------------------------------------------------------------------------------------------|
| Intermediary roles | Application to partnerships with private sectors for SDG localization | References |
| 1 Expectations and visions | (1a) Articulation of needs, expectations and requirements | Express needs and expectations regarding SDG localization | [A], [G], [H] |
| 2 Building networks and managing resources | (2a) Creation and facilitation of new networks | Facilitate new networks, e.g., the establishment of new platforms, the provision of spaces for SDG localization | [A], [F], [H] |
| 3 Knowledge and learning | (3a) Knowledge gathering, processing, generation and combination | Support the aggregation, processing, generation, and combination of knowledge to promote SDG localization | [A], [D], [F], [G], [H] |
| 4 Supporting policy implementation and renewal | (4a) Arbitration based on neutrality and trust | Promote trust building, recognize the need for neutrality in relation to partnerships with private sectors for SDG localization | [A] |
| (4b) Long-term project design, management, and evaluation | Articulate project design, management, and evaluation in relation to SDG localization | Implement policies regarding partnerships with private sectors for SDG localization | [A], [G], [H] |
| (4c) Policy implementation | Create certification systems and standards, provide awards for empowerment in relation to SDG localization | Create certification systems and standards, provide awards for empowerment in relation to SDG localization | [A], [H] |
| (4d) Accreditation and standard setting | Empower transformation of policies, e.g., institutional | Empower transformation of policies, e.g., institutional | [A], [C], [F], [H] |

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local governments, it defines local level as local government units with various population sizes; municipalities (such as cities, towns, villages) as well as regional level governments.

In terms of case studies, we examined Japanese cases of SDG localization, more specifically, cases from the SDGs Future City Initiative, launched in 2018 by its national government (through the Office for the Promotion of Overcoming Population Decline and Vitalizing Local Economy in Japan (OPOV)\(^4\) within the Cabinet Office). The SDGs Future City Initiative has designated local governments through an open selection process, encouraging local governments to develop policies to achieve the SDGs involving multiple stakeholders. The initiative is also supported by the national-level program “SDGs for Regional Revitalization Public–Private Partnership Platform” (OPOV Cabinet Office. Government of Japan, 2020a). The analysis of Japanese accumulated case studies could provide valuable insights and lessons for other countries that promote the SDGs localization and the development of partnerships for the SDGs.

In this study, we selected 18 case studies out of 93 SDGs Future Cities designated during fiscal years (FYs) 2018–2020 (OPOV Cabinet Office. Government of Japan, 2020h). These cases are selected based on the following steps (see Figs. 1, 2 and Table 2). First, we highlighted the designated 93 SDGs Future Cities and then focused on “model projects” of the SDGs Future Cities, which were selected by the national government and represented leading activities that fulfill 1) integration of economic, social and environmental aspects, 2) development of partnerships with various stakeholders, and 3) creating an autonomous business in the future, with independent financial resources (OPOV Cabinet Office. Government of Japan, 2018). Next, we classified them into four categories based on the Local Autonomy Act, differentiating population size and public affairs jurisdictions (Ministry of Internal Affairs and Communications. Government of Japan, 2022). This is based on the assumption that the population size of the local governments can impact the type of policy tools they adopt (Palermo et al., 2020). Then we selected four or five local governments for each category. When there were more local governments with model projects in a category, we prioritized the earliest designated local governments to capture their previous experience. In cases where several local governments were designated in the same year, we selected cases considering regional balance. This process resulted in the selection of 18 cases, which correspond to approximately 1% of the total number of local governments (1718 municipalities) in Japan (Ministry of Internal Affairs and Communications. Government of Japan, 2022).

The data used in this study were 1) SDG-related policy documents published by local governments and 2) interviews with local governments. As for 1), the main data are SDGs Future City Plans published by the designated local governments. SDGs Future City Plans are required to be published by all of the designated local governments in the format to be published by all of the designated local governments in the format provided by the national government, which clarify their visions for 2030, policies and initiatives contributing to the promotion of the SDGs, and institutional structures for implementation, including partnerships with stakeholders (OPOV Cabinet Office. Government of Japan, 2018).

As for 2), the interviews with local governments were conducted online from January to March in 2021. Interviewees are the practitioner level staff from respective departments in charge of developing SDGs Future City Plans. Many of the roles listed in Table 1 were expected to be covered by analyzing contents described in 1) SDG Future City Plans; visions, building networks, knowledge dissemination opportunities, and policy implementation including various policy tools. However, contents regarding some roles in Table 1 need to be supplemented by the interviews: coordination and managing processes, expectations for knowledge processing, arbitration strategies, and policy renewal aspects. Thus, interview questions included the following: expectations for the SDGs implementation, progress and challenges in partnerships with private sectors, possible policy changes, and facilitation strategies (i.e., management of resources and neutrality). Based on the above 1) and 2), we analyzed the data, examining how the intermediary roles listed in Table 1 are satisfied by local governments to facilitate partnerships with private sectors for SDG localization. It should be noted that while the findings of this study are based on the abovementioned data and interviews, information is being updated daily, including updates of SDGs Future City Plans.

3. Results

This section presents a result of application of the abovementioned analytical framework (Table 1) to Japanese cases to explore intermediary roles in relation to partnerships with private sectors for SDG localization, focusing on how local governments play specific intermediary roles. The results are presented in Fig. 3: an overview of the observed intermediary roles. When either of the items listed in the ‘Application to partnerships with private sectors for SDG localization’ column in Table 1 is observed, the corresponding intermediary roles are accounted as ‘observed’. In addition, Table 3 provides case descriptions as examples of how intermediary roles are played by some local governments. Most of the intermediary roles listed were observed in all 18 case studies, with local governments taking various approaches with different characteristics. The only exceptions are 2d (Identification and management of human resource needs (skills)) and 4d (Accreditation and standard-setting), which were not observed in some local governments. The following sections present a detailed analysis of the results to identify how local governments can play intermediary roles to facilitate partnerships for the SDGs.

All of the local governments conducted the role of ‘Articulation of needs, expectations and requirements’ (1a) through provision of their visions, initiatives and structures for SDG localization in their SDGs Future City Plans (OPOV Cabinet Office. Government of Japan, 2020h). As the main local problems to be solved in relation to the SDGs, the interviews revealed that 14 of the 18 local governments cited a decline in the working-age population as a result of the falling birthrate and the aging population. This was also linked to ‘Advancement of sustainability aims’ (1c).

In addition, local governments have taken the role of ‘Strategy development’ (1b) by developing new initiatives regarding SDG implementation and published their related plans, including model projects. These initiatives and model projects were also included in their SDGs Future City Plans.

Moreover, local governments played the role of ‘Advancement of sustainability aims’ (1c), by expressing the aim related to sustainability in their SDGs Future City Plans, with the use of partnerships with private sectors to achieve the SDGs. For instance, Kitakyushu City further developed this role by requesting private companies joining the city’s SDGs registration scheme, to clarify which goals, indicators and actions listed in the city’s SDGs Future City Plan that private companies can contribute to (Kitakyushu City, 2021). At the same time, our results illustrate the importance of articulating sustainability objectives to the private sectors in relation to SDG localization, given the differences in

Table 1 (continued)

| Intermediary roles | Application to partnerships with private sectors for SDG localization | References |
|--------------------|---------------------------------------------------------------|-------------|
| Changes, promotion of new policies, and development of long-term policies to promote innovation | Sources: [A] (Kivimaa, 2014); [B] (Boon et al., 2011); [C] (Bush et al., 2017); [D] (Howells, 2006); [E] (Natschoss & Heiskanen, 2017); [F] (Patberg & Widerberg, 2016); [G] (Pinz et al., 2018); [H] (Sovacool et al., 2020). | |

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4 OPOV: The Office for the Promotion of Overcoming Population Decline and Vitalizing Local Economy in Japan
values between the public and private sectors. Several local governments reported that, unfortunately, some private companies viewed partnerships for SDG localization simply as a means of increasing revenues. In contrast, the local governments did not always link partnerships with financial tools. These differences in values regarding sustainability objectives and financial performance make it difficult for local governments to identify appropriate partners with whom they can collaborate to achieve the SDGs. Many local governments pointed out that they did not have sufficient financial resources to devote to SDG localization. Some had tried to convey this information to potential private sector partners at the earliest opportunity to avoid generating unrealistic expectations.

3.1. Building networks and managing resources

Local governments have taken roles of ‘Creation and facilitation of new networks’ (2a) and ‘Gatekeeping, brokering and coordination’ (2b) either directly or indirectly, making efforts to facilitate networks and to broker relationships among various stakeholders. They have provided appropriate forums (e.g., events and workshops), and supported the development of joint projects to promote brokering and matchmaking among actors in relation to SDG localization. In addition, all 18 case studies revealed the use of comprehensive cooperative agreements with the private sectors as a tool for aligning interests in relation to policies and projects aimed at achieving SDG localization. 14 local governments had established institutional networks, creating platforms for multi-stakeholder partnerships in pursuing the SDGs at the local level (including both newly created institutional structures and those based on existing platforms). For example, Matsuyama City developed an SDG promotion consortium based on one created in 2015 when the national government designated the city as an Eco-Model city, a predecessor of the SDGs Future City initiative (interview). Conversely, some local governments reported that they lacked networks with the private sectors for developing policies related to the SDGs. Iki City mentioned that they had initially suffered from a lack of networking with the private sectors, but a collaboration with one large company solved the problem, enabling other private companies to collaborate more easily and securely with the local government (interview). Local governments have taken the role of ‘Managing financial resources’ (2c), linking the local government’s budget with the SDGs, either through the development of a budget with the aim of achieving the SDGs or identification of existing local government projects to associate with the SDGs. Some managed funds related to the SDGs and provided subsidies for private sector businesses. For instance, Kitakyushu City created the SDGs Future Fund to support the public and private implementation of projects (interview). Furthermore, the local governments provided policies to help create systems whereby various organizations could provide financial support to businesses promoting the SDGs. Osaka Prefecture’s SDGs business support fund provides institutional financing where financial sectors can directly support small
and medium-sized enterprises that prepare and implement business plans for the SDGs (Osaka Prefecture, 2021). Kanagawa Prefecture initiated a new project related to the SDGs in conjunction with Odawara City and Kamakura City that encouraged the direct and indirect participation of residents and private companies by offering reward points for activities aimed at solving social problems at the local level (Kanagawa Prefecture, 2021). On the other hand, six of the 18 local governments cited limited access to adequate financial resources as one of the main challenges to establishing partnerships with private sectors for SDG localization, suggesting difficulty in locating potential sources of funding for projects.

Some local governments have taken the role of ‘identification and management of human resource needs (skills)’ (2d) using human resource exchanges with the private sectors as a partnership tool for SDG localization (five of the 18 local governments). The results showed that the smallest category of the local governments used this tool compared to other categories. Several local governments reported that the partnerships made it possible for the public and private sectors to combine resources, including human resources. Nishiawakura Village pointed out the importance of finding and developing human resources to commercialize businesses with the necessary skills and expertise to solve local problems. The village had launched a local venture school and invited young people in Tokyo to move to the village (Nishiawakura Village, 2019). On the other hand, some local governments reported difficulties regarding human resource management, especially in relation to the roles of facilitation (2a) and brokering (2b). Six of the 18 local governments reported increased overall costs, including coordination and public administration costs, as one of the possible drawbacks of partnerships in relation to SDG localization. However, it should be noted that in relation to this role, our analytical framework is focused only on whether local governments have had human resource exchanges with the private sectors, even though the field of human resource management includes a range of activities. Some local governments suggested that they did not have human resource exchange opportunities with private sectors but had with other local governments in relation to the SDGs (e.g., Oguni Town was supported by Iki City’s staff in the event of a disaster, with the background of communication on the SDGs (interview)).
### 3.2. Knowledge and learning

Local governments have taken the role of ‘Knowledge gathering, processing, generation and combination’ (3a) directly or indirectly, supporting aggregation and combination of knowledge towards SDG localization, providing spaces for stakeholders to gather and share information on activities (together with 2a), as well as offering information-sharing opportunities. Multi-stakeholder partnership platforms (2a) were expected to provide the space for this role through the development of the knowledge hub function. Furthermore, most local governments outlined their expectations regarding using the private sectors’ knowledge and know-how as one of the advantages in partnerships with private sectors for SDG localization. These high expectations from local governments concerning the private sectors’ knowledge are related to policies and projects involving specialized fields, including Information and Communications Technology, public transport, renewable energy, fundraising, disaster risk reduction, and research activities. Numerous complex local sustainability challenges are difficult for local governments to address alone.

Local governments have played the role of ‘Communication/dissemination of knowledge and education’ (3b) clearly by providing various communication and education opportunities, including outreach events enabling a wide range of stakeholders to communicate and disseminate knowledge on SDG implementation (linked to 2a). In addition, information on ‘Actions to disseminate information and awareness raising’ was requested to all the designated local governments to articulate in their SDGs Future City Plans (OPOV Cabinet Office, Government of Japan, 2018). Information related to the SDGs was disseminated in various ways, including SDG-focused tours in cooperation with media (Shimokawa Town), a curriculum at universities.

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Fig. 3. Overview: observed intermediary roles of local governments in relation to partnerships with private sectors for SDG localization.

*The percentage of the total in each category (A-D) is averages, where 100 indicates that the role was observed in all the local governments in that category, and 0 indicates that it was not observed.*

| Percentage of the observed intermediary roles in each category [%] |
|---------------------------------------------------------------|
| (1a) Articulation of needs, expectations and requirements     |
| (1b) Strategy development                                      |
| (1c) Advancement of sustainability aims                        |
| (2a) Creation and facilitation of new networks                |
| (2b) Gatekeeping, brokering and coordination                  |
| (2c) Managing financial resources                              |
| (2d) Identification and management of human resource needs (skills) |
| (3a) Knowledge gathering, processing, generation and combination |
| (3b) Communication/dissemination of knowledge and education   |
| (3c) Provision of advice and support                          |
| (3d) Facilitating experimentation                              |
| (4a) Arbitration based on neutrality and trust                |
| (4b) Long-term project design, management, and evaluation     |
| (4c) Policy implementation                                    |
| (4d) Accreditation and standard setting                        |
| (4e) Policy renewal                                           |

- A Prefectures and designated cities (5)
- B Core cities and special cities (4)
- C Other cities (5)
- D Towns and villages (4)
Table 3
Case description as examples of how intermediary roles are played by some local governments.

| Intermediary roles | Case description as examples |
|--------------------|-------------------------------|
| (1a) Articulation of needs, expectations and requirements | Case of Kumamoto City (Population: 740,822) [I] The city’s SDGs Future City Plan presents three priority challenges/needs (rehabilitation and reconstruction from the Kumamoto earthquake 2016, response to population decline and super-aging society, sustainable local communities) (1a) and expresses its sustainability objectives as “Resilient and sustainable town development based on the experience and lessons learned from the Kumamoto earthquake” (1c). The plan also shows initiatives regarding SDG promotion (various policies and activities, information dissemination, etc.) as well as model projects (new initiatives) to improve regional (disaster resilience) capacities in partnership with citizens, private sectors and academia (1b). |
| (1b) Strategy development | Case of Iki City (Population: 27,103) [J] The city has coordinated joint activities with private sectors, using comprehensive cooperative agreements on SDGs, regional revitalization, etc. (2b). It created a general incorporated association involving private companies in fiscal year 2017 and locates this association as one of the important channels to coordinate various partners for SDG promotion, arranging a model project to utilize the Internet of Things and Artificial Intelligence for improving agriculture processes (2a). The city manages financial resources by identifying SDG-related budgets (2c) (interview). It also manages human resources by using staffs exchanges between the above association and the city council (2d) (interview). In addition, the city has held dialogues with citizens in partnering with a private company, providing opportunities for human resource development, where more than 1000 high school students joined as of March 2021. |
| (1c) Advancement of sustainability aims | Case of Nishiawakura Village (Population: 1472) [K] The village has supported aggregation and combination of knowledge through the development of different platforms for partnerships with private sectors, providing spaces for stakeholders to gather and share information; launch of a local venture school and a local invention laboratory, collaboration with multiple universities on SDGs, etc. (3a). It has also promoted communication and education through these approaches, including provision of events for children (3b). Its local venture school has provided advice and supported entrepreneurship and migration to the village, which eventually resulted in development of its model project under SDGs Future City Plan (model project to change an approach for forest management) (3c). The village also has facilitated experimentation through establishment of local invention laboratories where new ideas or joint projects are encouraged to be tested (3d) (interview). |
| (2a) Creation and facilitation of new networks | Case of Odawara City (Population: 194,086) [L] In Japan, the Local Public Service Act stipulates the political neutrality of local government officials. The interviewees expressed that local governments are required to keep their neutrality (4a). On the other hand, they shared that one of the challenges is how to show clear accountability for the selection of partners. For instance, they tried to keep its neutrality by concluding equal assignment contracts with multiple regional media companies when promoting the dissemination of the SDGs concept (interview). |
| (2b) Gatekeeping, brokering and coordination | Case of Odawara City (2019). For the policy renewal (4e), the city has promoted a new model project under SDGs Future City initiative (focusing on its Citizens School) (4e). The interviewee also shared that since its designation as SDGs Future City, they have more opportunities to collaborate with stakeholders in different fields. On the other hand, the city council also received concerns from its local communities that public sector might promote implementation of a brand-new concept (the SDGs) with its citizens. Thus, the city has tried to involve citizens into SDG localization by explaining that they will support development of existing activities rather than starting new things, as the city has long worked towards sustainable development before the SDGs (interview). |
| (2c) Managing financial resources | Sources: [I](Kumamoto City, 2019) [J] (Iki City, 2018) [K](Nishiawakura Village, 2019) [L] (Odawara City, 2019) |
| (2d) Identification and management of human resource needs (skills) | (Mitsuke City), and comedy shows aimed at local businesses (Osaka Prefecture). 12 local governments reported that they expected that partnerships with private sectors would be effective for announcing local government’s activities and sharing SDG related information to the wider public. These expectations were evident in local governments with larger populations that were struggling to reach out to many stakeholders. Some local governments emphasized the value of outreach, with eight pointing out the need to raise citizens’ awareness of SDGs as one of the challenges they faced. Furthermore, many local governments promoted the development of partnerships with educational institutions such as schools and universities. Local governments have also provided educational opportunities for citizens through partnerships with private sectors. For instance, Odawara City developed a Citizens School as a model project to train local citizens to solve sustainability problems (Odawara City, 2019). Toyama City introduced a training program to nurture SDGs Promotion Communicators, who were equipped to put the SDGs concept into practice and share information throughout the local community and workplaces (interview). |
| (3a) Knowledge gathering, processing, generation and combination | Local governments have also conducted the role of ‘Provision of advice and support’ (3c) by providing opportunities to share information with the private sectors regarding SDG localization and possible partnerships. For instance, Kitakyushu City developed SDG-related |
| (3b) Communication/dissemination of knowledge and education | |
| (3c) Provision of advice and support | |
| (3d) Facilitating experimentation | |
| (4a) Arbitration based on neutrality and trust | |
| (4b) Long-term project design, management and evaluation | |

Table 3 (continued)
Intermediary roles | Case description as examples |
|--------------------|-------------------------------|
| (4c) Policy implementation | |
| (4d) Accreditation and standard setting | |
| (4e) Policy renewal | |

Sources: [I](Kumamoto City, 2019) [J] (Iki City, 2018) [K](Nishiawakura Village, 2019) [L] (Odawara City, 2019)
Local governments have tried to take the role of 'Facilitating experimentation' (3d) through the development of model projects under the SDGs Future City initiative. Model projects are expected to have a certain impact on SDG localization in other local areas through aggregation and dissemination of their experiences and lessons learned. Moreover, all the local governments reported the existence of pilot projects in their SDGs Future City Plans, which they were using to test relatively new technologies or schemes in various fields (e.g., Internet technologies, heating, and the circular economy). For instance, some local governments had facilitated pilot projects in relation to mobility as a service (e.g., Maizuru City), while other local governments had encouraged collaboration among various stakeholders to develop new ideas or undertake joint projects using city laboratories (e.g., Toyama City and Nishiawakura Village).

3.3. Supporting policy implementation and renewal

Local governments have taken the role of 'Arbitration based on neutrality and trust' (4a) as a matter of course, based on the Local Public Service Act, which stipulates the political neutrality of local government officials (Government of Japan, 2021). Many interviewees expressed a shared understanding that local governments need to make efforts in relation to trust-building, recognizing that they are expected to be fair and neutral organizations when localizing the SDGs and facilitating partnerships with private sectors. Conversely, six local governments mentioned that dealing with neutrality is one of the difficulties. Local governments are required to achieve a balance between flexible collaboration and public accountability when explaining the reasons for selecting partners. Several local governments reported experiencing difficulties after initially collaborating with private companies to develop ideas for new projects and later being forced to abandon the collaboration at the implementation stage when required to implement a competitive bidding process.

Local governments have taken roles of 'Long-term project design, management and evaluation' (4b) and 'Policy implementation' (4c), by articulating their visions for 2030, policies and initiatives for SDG implementation (as noted in 1a) in their SDGs Future City Plans, as well as managing and evaluating the progress of policies in relation to SDG localization. Many local governments had already incorporated the SDGs into their high-level agendas and sectoral policy plans. In addition, all the local governments were required to undertake periodic policy evaluations under the national initiative (OPOV Cabinet Office. Government of Japan, 2020b). Conversely, interviewees indicated that local governments experienced difficulties in relation to the limited time they were given to plan and prepare the necessary financial and human resources under the current administrative framework. Some local governments pointed out that the requirement to prepare a single-year budget makes local governments submit their budget to the local parliament every year, which can cause delays in securing the budgeted funds and makes it difficult to develop long-term plans for SDG implementation (interview). In addition, it often takes several months for local governments to confirm the budget because of the limited frequency of local parliaments’ meetings. Moreover, periodic changes in local governments’ personnel make it difficult to develop long-term plans involving the continuous development of projects with private sectors for SDG implementation. These difficulties are also raised by some previous studies on local sustainability, suggesting that local governments tend to have short-term related difficulties; budgets, election cycles, etc. (Khare et al., 2011).

Some local governments have taken the role of the 'Accreditation and standard setting' (4d) by providing certification systems and awards for empowerment. Our results revealed that the larger the local government, the more likely they were to undertake this role. A good example of creating certification systems and standards is Yokohama City, which launched its SDG certification system in the fiscal year 2020. Certified organizations with higher evaluations can access the city’s small business loan program and obtain additional points in relation to the public procurement process (Yokohama City, 2021). In addition, many local governments have developed local SDG award programs acknowledging leading stakeholders at the local level (e.g., Koriyama City). On the other hand, it should be noted that our analytical framework in relation to this role is focused only on developing certification, standards, and awards. Still, there are other ways in which local governments can acknowledge the efforts of the private sectors. For instance, Kumamoto Prefecture, with Kumamoto City, Oguni Town and Minamata City, has initiated an SDGs registration system where private sectors can join and plans to link this with the local bank’s loan menu (Kumamoto Prefecture, 2021).

Local governments have taken the role in the ‘Policy renewal’ (4e), publishing their SDGs Future City Plans, which include promoting new policies and developing institutional structures for SDG implementation. 15 local governments mentioned that since their designation as SDGs Future Cities, their collaborations with stakeholders have significantly increased, including those with private companies, schools, and other cities. For instance, SDG-related projects could provide an opportunity for local governments to become involved with industries and younger generations that have not previously been involved in municipalities’ community development projects (e.g., Kamakura City). Furthermore, eight local governments mentioned that citizens’ awareness of the SDGs has increased, developing their knowledge regarding sustainable development.

4. Discussion

In this section, we take a more in-depth look at the preceding analysis of the intermediary roles of local governments in Japan, and present suggestions based on the knowledge learnt to enable local governments to enhance their intermediary roles to further facilitate partnerships with private sectors for SDG localization.

4.1. Locating the SDGs as a driver of transitions

The interviews indicated that although local governments have promoted SDG localization through various intermediary roles, they face several challenges in achieving transitions to sustainable development. The degree to which local governments achieve these transitions through SDG localization is partly dependent on how they perceive the international framework in relation to their local situation. Six of the 18 local governments reported that all their administrative activities were related to the SDGs. Some local governments indicated that they had been working towards achieving sustainable development for a long time, and they did not find something new in the 2030 Agenda and the SDGs. One interviewee expressed a concern that many SDG-related activities appeared to be merely extensions of previous efforts aimed at regional revitalization, making it difficult for local governments to develop new policies and projects to pursue the SDGs. Such perception implies that some partnerships created towards achieving the SDGs may not fully contribute to the transition process.

To deal with the abovementioned challenges, we suggest that local governments can expand their intermediary roles by locating the SDGs as a tool for sustainable transitions. Our analysis showed that some local governments already see the SDGs as a driver of transitions. Local governments have brought numerous changes in terms of facilitating partnerships with private sectors for SDG localization (4e) by articulating their expectations and sustainability-focused perspective (1a and 1c). Some local governments also reported a change that general awareness of the SDGs had increased, while this had not necessarily resulted in behavioral changes among private companies and citizens, and the next step needs to involve accelerated implementation. Our
4.2. Balancing the level of public-sector involvement in partnerships with private sectors

We also noted that the public sector when they are required to practice neutrality (Kivi

The importance of local govern-

ment neutrality and trust have enabled the development of policies such as the creation of standards (Sovacool et al., 2020). On the other hand, studies on sustainable transitions have also emphasized the need to consider the extent to which intermediaries are distanced from public administration and politics, finance, or technology neutrality (Kivi

For instance, a local cable TV show related to the SDGs was developed by high school students and broadcasted (e.g., Maniwa City). Such processes can be supported by previous studies reviewing the literature on urban sustainability, which suggests that accountability can be enhanced by collaboration in the government-led initiatives for stakeholder participation (Soma et al., 2018). In addition, in our study, one interviewee in a local government noted that “Particularly in rural areas, citizens have something against public sector’s officials. The same information is better transmitted from citizen to citizen, rather than from public officials” (personal communication).

4.2. Balancing the level of public-sector involvement in partnerships with private sectors

The results of our analysis showed that local governments struggle to play some of the intermediary roles in relation to partnerships with private sectors for SDG localization, especially those related to maintaining their neutrality (4a), even though they perceive themselves as a neutral institution. Previous transition studies have also found that public sector neutrality and trust have enabled the development of policies such as the creation of standards (Sovacool et al., 2020). On the other hand, studies on sustainable transitions have also emphasized the need to consider the extent to which intermediaries are distanced from the public sector when they are required to practice neutrality (Kivi

They have suggested that a strong public sector commitment to neutrality might weaken the advantages offered by informal networks, highlighting the importance of “independence from public administration and politics, finance, or technology neutrality” (Kivi

This implies that local governments might face difficulty operating as neutral institutions.

Thus, we suggest that local governments need to achieve an appropriate balance in terms of their level of involvement when facilitating partnerships for SDG localization. Some local governments have started to establish new structures in partnerships for achieving the SDGs by maintaining an appropriate distance while continuing to benefit from informal networks. For instance, Matsuyama City has established the SDGs Promotion Council as a voluntary organization outside the local government (Matsuyama City, 2020). While the city bears the council’s administrative and operating costs, the council’s subcommittee is not provided with budgets for developing specific projects and activities, which require member organizations to share human, physical, and financial resources. This financial structure was established to avoid excessive reliance on public sector finance and in response to previous experiences in relation to the Eco-Model City (interview). In another case, Odawara City established an SDGs executive committee comprising representatives of local businesses, citizen organizations, and local governments to promote the dissemination of the SDGs concept. As a private sectors-led organization, the committee enabled a more rapid introduction of SDG-related projects compared with the process of consignment contracts (interview).

Moreover, local governments have started to link these approaches with human resources management. For instance, Nishiwakura Village has been keen to facilitate partnerships with private sectors and to develop human resources (included in 2d) and has changed the approach to forest management from direct contracts between the village and forest owners to consignment by the local government to a local venture company that coordinates interactions with the forest owners (interview).

4.3. Creation of new intermediaries

The results of our analysis showed that local governments are required to achieve a balance between accountability and flexibility, as noted in the discussion on neutrality (4a). Accordingly, local governments tend to take a relatively longer time to make decisions, while the private sectors are more likely to respond quickly and display greater agility. This is related to the findings of previous sustainable transition studies, which have suggested that intermediaries may need a “strong, biased” voice rather than neutrality for the purpose of “empowering and destabilization” of the current regime, especially when responding to urgent challenges (e.g., climate change and financial crises) (Kivi

To further strengthen local governments’ intermediary roles, we suggest the creation of new intermediaries as an additional possible role to facilitate partnerships with private sectors for SDG localization. Some local governments reported that they had made efforts to create new intermediary organizations for better governance and management of resources to overcome the abovementioned challenges. For instance, Yokohama City has launched its SDGs Design center with the business partner selected through the open bidding process with their proposals. It has entered into an initial three-year agreement that specifies the roles, financial commitments, and responsibilities of both the public and private sectors (interview). In another case, Iki City has established a general incorporated association involving private companies under the consignment by the city to coordinate various partners involved in the development and implementation of a range of SDG-related activities. The association adjusts the budgets across the various projects depending on the degree of progress, enabling them to respond more flexibly to support SDG-related projects (interview).

Furthermore, some local governments have established town development companies. For instance, Niseko Town has established a town development company in conjunction with local businesses and a general incorporated association to develop plans for local energy projects and create sustainable, low-carbon community development (Niseko-Machi, 2021). This approach is designed to avoid public- led implementation of programs to make each organization actively involved in order to develop new businesses with private sectors’ know-how. By reducing the involvement of the town to a relatively low investment ratio of 38%, the town company has been able to demonstrate the advantages of private sectors involvement, such as rapid decision-making and clarification of responsibilities (interview).

5. Conclusion

While many local governments have developed partnerships with private sectors for SDG localization, studies on this topic are scarce. In this study, based on previous research on transition intermediaries in the context of sustainable development, we identified how local governments played their roles to facilitate partnerships with private sectors for SDG localization. Analyzing Japanese case studies, we found that local governments have played various intermediary roles that can be categorized into the following areas: articulating expectations and visions;
building networks and managing resources; facilitating knowledge and learning processes; and supporting policy implementation and renewal. Based on our findings, we offer the following suggestions for local governments to consider in relation to their intermediary roles to facilitate partnerships with private sectors for SDG localization. First, using the SDGs as tools to drive transitions may lead to the development of new and innovative policies. Second, balancing the degree of public sector involvement will help local governments to maximize the benefits of informal networks in relation to SDG localization. Third, local governments can play an additional role as intermediaries by creating new intermediaries such as general incorporated associations and town development companies to provide more flexibility in relation to SDG localization.

The analytical framework we developed based on the studies on transition intermediaries contributed to identifying the roles of local governments and providing suggestions for facilitating partnerships with private sectors for SDG localization. This study is the first combination of its kind to link the studies on transition intermediary roles and those of studies on SDG localization and thus adds to the literature on both fields, addressing the gap between previous studies on partnerships and SDG localization. It provides knowledge of how local governments can exercise and strengthen their intermediary roles to develop partnerships with private sectors to achieve the SDGs at the local level, which could be applicable to the promotion of SDG localization in other countries and regions. It also contributes to the study on transition intermediaries by suggesting additional roles such as creating new intermediaries.

This study also has some limitations. First, there is a need to expand the scope to include a variety of SDG localization approaches. While this study is based on 18 local governments in Japan, there are numerous other cases of SDG localization both within and beyond the country, which have different backgrounds. Some of our findings might only be relevant to Japan: e.g., the difficulties that local governments face the principle of single-year budgets, strict rules for the issue of public sector’s neutrality. Second, data from external stakeholders (e.g., businesses, academia, and civil society) is necessary for further exploration of the roles of local governments. As the interviewee’s positions might have affected their perceptions of their intermediary roles (Kivimaa, 2014), further studies are required to examine the local governments’ roles to facilitate partnerships with private sectors for the achievement of the SDGs, including how other stakeholders than local governments view the public sector. Third, it is necessary to adopt a long-term perspective, as this is essential in relation to sustainable transition studies (Kivimaa et al., 2019b). Given that it has been less than a decade since the announcement of the SDGs, there has been insufficient time to fully implement the localization process. Our findings suggest that some local activities related to SDG localization had already been established in response to earlier initiatives related to sustainable development. Thus, more research is required to clarify the relationship between intermediaries’ roles and long-term transitions. Fourth, it should be noted that the roles of local governments are constantly changing. The expectations for local governments could change from time to time, and it is important to continuously analyze the changing roles that local governments can play.

Declaration of Competing Interest

The authors declare that they have no conflicts of interest.

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