

ACTORS at the local or subnational level have a variety of competencies and often play unique roles in designing and implementing development policies and programmes, ranging from territorial or urban planning to building safe, inclusive and resilient infrastructure and the delivery of basic services. The 2030 Agenda for Sustainable Development particularly emphasizes the localization of the SDGs as key to the successful realization of its transformative vision, hence the importance of local actors to make development happen on the ground.

Localization of the SDGs begins with establishing local-level goals and targets that reflect place-specific economic, social and environmental conditions. In all cases, national- or subnational-level development requires a hierarchy of objectives and goals. When local-level SDGs are established, the objectives or goals in this hierarchical structure may be incompatible or inconsistent with each other (ICSU and ISSC 2015).

These goals and objectives, however, may not be entirely irreconcilable since there are diverse ways to create institutional and policy complementarity to achieve

multiple goals and objectives without sacrificing one goal or objective for another (Penouil 1981). It is indispensable, therefore, to identify and promote means of implementation of the SDGs which create synergies and minimize trade-offs between goals, targets and policies in an integrated and balanced manner.

This chapter examines the potential of SE in Seoul as a means of implementation of the Seoul Sustainable Development Goals (S-SDGs), outlined in the policy document *The Seoul Sustainable Development Goals: 17 Ways to Change Seoul* (see Seoul Metropolitan Government 2017b). It focuses on how multiple values, concerns and functions of SE in Seoul (as discussed in Chapters III, IV and V) contribute to achieving the social, economic and environmental dimensions of the S-SDGs in an integrated and balanced way. It will also identify tensions between goals and silo approaches which are the potential causes of synergy loss and trade-offs.

The scarcity of data on the functions and impacts of SEOEs remains a challenge for this kind of research (see Chapter V). To address this challenge,

the research for this report employed a network analysis method to identify the interdependence and connections between SEOEs and S-SDGs. We used the mission statements which explain the organizational goals and activities of 249 Certified Social Enterprises (CSEs) in Seoul (out of a total of 316) for the network analysis. The analysis sheds light on the potential of SEOEs as a means of implementation and what limitations they have in this respect.

Given the importance for successful SDG implementation of policy coherence and policy alignment across different levels of governance (local, regional, national, global) (see Chapter II), this chapter also compares the local-level S-SDGs and the global-level SDGs in the 2030 Agenda. Given that national-level SDGs for the Republic of Korea had not been established at the time of writing, it is not possible at this stage to integrate the national level in this analysis.

The chapter is structured as follows. The first section explains the S-SDGs, their development and structure. It pays particular attention to the interdependence of goals and targets of the S-SDGs, and how they differ from the global SDGs. It is followed by an explanation of the contribution of Seoul's SEOEs based on the network analysis. Findings and lessons learned for Seoul and beyond are presented in the conclusion.

Seoul's Sustainable Development Goals

Sustainable development before the 2030 Agenda

In the Republic of Korea, various activities were undertaken by public and civil society organizations working on sustainable development far earlier than the announcement of the 2030 Agenda. Influenced by the 1992 Earth Summit and its mechanism for local implementation known as Local Agenda 21, many CSOs and local governments started to collaborate with each other to establish local agendas and activities for sustainable development. Decentralization and local elected governments also had a positive impact on this public-civic partnership. As social movements diversified after the beginning of democratization (see Chapter III), many CSOs working on issues related to the quality of life and the environment emerged to engage with policy processes in various ways. The

activities undertaken by these environmental CSOs were further promoted by environmental protection and energy-related laws and associated regulations since 1992 (Lee et al. 2009).

By 2015, 210 out of 240 local governments in the Republic of Korea had established a Local Agenda 21 for Sustainable Development. Around 100 local governments, including the Seoul Metropolitan Government, created special organizations to implement their decisions.

The national government's organizational initiative to implement policies for sustainable development emerged later than those of local governments. In 2000, it established the national-level Presidential Council for Sustainable Development (PCSD) composed of government, civil society and business representatives. The PCSD was mandated to set major policy directions and formulate plans to promote sustainable development (Pawar and Huh 2014). From 2000 to 2008, the PCSD adopted a multistakeholder participatory decision-making process that included government and non-government actors. Although the PCSD emphasized the integrated approach (across the economic, social and environmental dimensions of sustainable development) that had been highlighted by the Earth Summit and follow-up activities, most of its policies were mainly environment-focused (Pawar and Huh 2014).

The Framework Act on Sustainable Development (FASD) came into force in 2008, eight years after the PCSD was set up, with the Ministry of Environment assuming responsibility for implementation. The Act became the legal basis for the implementation of the 1992 Agenda 21 and the 2002 Plan of Implementation of the World Summit on Sustainable Development. The Act stipulated that national and local governments establish an implementation plan for sustainable development every five years. It also allowed delegates of the local Councils of Sustainable Development to participate in the PCSD. A system of coordination between national and local governments was also established (Kim et al. 2014).

The Lee government (2008-2013), however, shifted the policy focus from one centred on the concept of sustainable development to green growth, which significantly undermined the follow-up activities of the government within the framework of the FASD. Although the concept of green growth emphasized the harmonization of economic growth and environmental

conservation, economic dimensions were central to the policy framework while social concerns were residual to environmental and economic concerns. In fact, during this time market-based green economy solutions associated with the green growth initiatives of the Lee government dominated policy debates (Lee 2010).

This policy shift brought about a significant change in the government organizations and policies associated with sustainable development. First, declaring low-carbon green growth a national vision, the government established a new Presidential Commission on Green Growth and the Framework Act on Low Carbon Green Growth in 2008 and 2010 respectively (Pawar and Huh 2014). The PCSD became the Ministerial Council for Sustainable Development, losing some of its previous influence. Government programmes which highlighted the economic dimension of green growth were mostly top-down, albeit with token stakeholder consultation. Governments, particularly the national government and local governments whose leaders were from the same political party as the president, provided wide-ranging support for the institutions and organizations established for the market-friendly green growth approach. In the context of this national government drive for green growth policies, many NGOs, even those in the provinces and areas whose leaders sided with opposition parties, carried out programmes funded by the government within the framework of green growth (Kim et al. 2014).

A particularly controversial green economy initiative was the Green New Deal. One of its flagship projects was the Four Major Rivers Restoration Project, which aimed to restore key rivers and to provide water security, flood control and ecosystem vitality through 213 river-related infrastructure projects at a total cost of KRW 6.9 trillion (Cha, Shim, and Kim 2011). Even before the launch of these projects, many experts raised concerns about their negative impact on the environment. Opposition parties organized political protests against the projects and against the Lee government. The flagship project itself heightened the political rift between the government and opposition forces (Han 2015). In this context, green growth became a political symbol of the Lee government. Civil society and political opponents used the green growth concept as a focus of their criticism of the Lee government, preferring instead the more encompassing and integrated concept of sustainable development. This helped to strengthen initiatives and organizations associated with it, such as Local Agenda 21 (Pawar and Huh 2014).

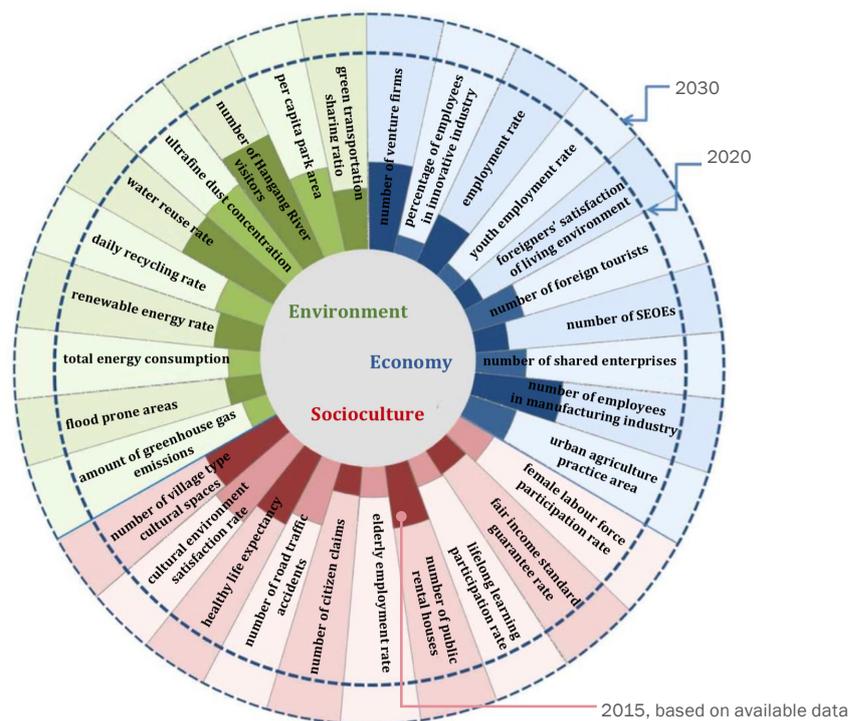
SMG initiatives for sustainable development before the 2030 Agenda

SMG initiatives for sustainable development began in the mid-2000s with the green growth concept led by Mayor Oh Se-hoon who was affiliated with President Lee's political party. His policies and programmes were similar to those of the Lee government in that they emphasized the economic dimension and green economy. The SMG established a Green Growth Committee composed of SMG civil servants, experts and representatives of business and civil society, which, however, rarely met. Most SMG programmes at this time were designed and implemented in a top-down manner.

A different approach emerged after the opposition leader Park Won-soon assumed office in 2011. In order to highlight social and environmental dimensions of sustainable development, the SMG abolished the ineffective Green Growth Council, and passed an ordinance on the Seoul Council for Sustainable Development (the SCSD) and established the Council itself in 2013. Composed of nine representatives from the SMG, including the mayor, three members of the Seoul Metropolitan Council, and 28 representatives from civil society and the business sector, the SCSD has three thematic working groups: Economy; Society and Culture; and Environment. Leaders of the SE sector, such as the head of the Seoul Social Economy Center and a representative of *Saenghyup* cooperatives take part in the working group on the economy.

The SMG had announced a Five Year Basic Plan for Sustainable Development (2015–2019) in 2015 even before the 2030 Agenda for Sustainable Development was launched. The Basic Plan identified 30 major targets related to economic, social, cultural and environmental goals which are to be achieved by either 2020 or 2030, largely based on the SMG's policy priorities. They were selected from a pool of 725 indicators used to monitor and evaluate the performance of the SMG policies (Seoul Metropolitan Government 2015). SE, together with the sharing economy, became one of the major economic strategies to achieve sustainable development. SMG projects promoting special SE districts, area-based cooperatives, and SE as a means of providing social services were explicitly mentioned as means of implementation (Seoul Metropolitan Government 2015). The main purpose of the Five Year Plan, however, was to monitor and evaluate existing projects in the 30 policy areas associated with sustainable development rather than establish a new policy framework for sustainable development (see Figure VI.1).

Figure VI.1. Five Year Basic Plan for Sustainable Development (2015–2019)



Source: Seoul Metropolitan Government 2015

Establishing a 2030 Agenda and SDGs for Seoul

Since the 2030 Agenda was announced, progress in setting goals and targets at the national level in the Republic of Korea has been limited. The fragmented structure of ministries dealing with selected goals and targets and the absence of strong coordination have been some of the main causes for the relatively slow progress of the national government. Local governments such as the SMG, however, are making significant progress.

The SMG moved quickly to adopt the SDGs and adapt them to the local context. The SCSD started drafting SDGs for Seoul (S-SDGs) via a series of participatory processes, including expert meetings and public hearings in which civil society organizations from a wide range of sectors that were already actively involved in participatory governance mechanisms organized by the SMG also took part. In comparison with the national government, relatively few tensions have arisen over which bureau and departments of the SMG should be responsible for implementing the S-SDGs.

The SMG, however, faced two main challenges in establishing the S-SDGs. First, participatory governance processes required a lot of time to discuss the vast

range of goals related to the economic, social and environmental dimensions of sustainable development. The process was slow partly due to organizational difficulties, as the SDGs were not a priority issue for many civil society organizations. Second, there were no clear guidelines on how to establish S-SDGs. Many members of the SCSD had expertise on their sectors but lacked the rigorous, comprehensive knowledge and expertise needed to identify multiple linkages between goals and targets in a balanced and integrated manner.¹

Establishing the S-SDGs was a process of learning by doing which took almost two years and was accomplished through a series of public hearings, discussions of commissioned research, and debate on which should be the priority goals and targets. The SMG announced the S-SDGs on 22 November 2017 (Seoul Metropolitan Government 2017a).

The S-SDGs contain 17 goals and 96 targets largely corresponding to the SDGs in the 2030 Agenda. Several features of the S-SDGs are notable in comparison with those of the 2030 Agenda.

- The S-SDGs have been designed to correspond to the 17 SDGs in the 2030 Agenda in a way that reflects the specific conditions in Seoul. For instance, social

development targets are set higher than the global targets. The Seoul target for under-5 mortality is less than 2.5 per 1,000 live births, whereas the global target is set at less than 25 per 1,000; similarly the Seoul target for maternal mortality is more ambitious than the global target. Seoul aims to halve the 2016 rate of 8.4 per 100,000, whereas the global target is 70 per 100,000 live births.

- Regarding the role of the private sector, social enterprises are specifically mentioned in S-SDG 8.3: “Encourage small- and medium-sized enterprises to create decent jobs and provide active support to social enterprises”. Similarly social economic zones and integrated support systems for social economy at the district level are suggested as policy tools to achieve S-SDG 10 “Reduce all forms of inequality”. Highlighting the role of SE for the reduction of inequality as well as economic growth and creation of jobs is notable in the S-SDGs, given that the 2030 Agenda mentions the role of cooperatives for productivity, inclusive economic growth and job creation.
- Specific policy initiatives and projects of the SMG are suggested as a key means of implementation of the S-SDGs. Many of the projects focus on human rights, solidarity within and beyond Seoul, participation, and SE.
- The S-SDGs incorporate specific policy concerns of the SMG as targets. For instance, S-SDG 3 includes gambling in the addictions which should be addressed, while S-SDG 11 has a target of reducing the concentration of fine dust levels to 70 percent of the 2016 level. S-SDG 12 includes halving per capita food waste from the level of 2016. These are all specific environmental concerns of Seoul.
- Notable is the effort to localize global goals in an urban context. One example of this is the emphasis on building a food distribution system with local agricultural producers and urban agriculture defined as a practice of growing plants and raising animals for food, and processing and distributing them within the urban area (FAO 2007, UNESCAP 2012). Target 2.4 of the 2030 Agenda, “By 2030, ensure sustainable food production systems and implement resilient agricultural practices”, corresponds to target 2.3 of the Seoul SDGs: “Establish a desirable distribution structure with the local agri-fishery producers, and support urban agriculture not only to

encourage small-scale food production but also to cope with poverty and mental health.”

- Some of the goals and targets do not express clearly enough the interdependence between economic, social and environmental dimensions. For example, target 2.3 (see above) mentions poverty and health impacts but not environmental benefits which local small-scale food production could generate. Shifting food production to a location with high demand tends to reduce greenhouse gas emissions caused by transporting food over long distances, and a study estimated that the available area for urban agriculture in Seoul is 51.17 km² (Lee, Lee, and Lee 2015).
- Goals and targets in the 2030 Agenda which are less relevant to Seoul have been reinterpreted for the S-SDGs. The question of whether Seoul, as a land-locked city, had to have a goal corresponding to the 2030 Agenda’s SDG 14 on life under water was a controversial issue in the process of deciding on the S-SDGs, for example. After a series of discussions including public hearings and SCSD meetings, it was decided to reinterpret SDG 14 as mainly concerning the protection and restoration of the natural quality of the Han River. This would serve as a means of implementation for the preservation of the ocean ecosystem into which the Han River flows. It is notable that S-SDG 14 suggests cooperation with neighbouring provinces such as Gyeonggi and Incheon City to achieve this goal.²
- Some key values have been highlighted throughout the S-SDG document while others have not. For instance, the principle of leaving no one behind underpins most targets, and universal provision of social services is strongly emphasized where relevant. However, the transformative vision which aims to change structures and institutions generating injustice has not been intensively discussed and is not reflected throughout the document.
- Every goal and target is based on empirical evidence of the current situation in Seoul and is linked with existing SMG projects and policies to tackle issues.
- In cases where the problem a particular S-SDG aims to tackle would be more effectively addressed at a higher level of governance (such as the central government), the S-SDG indicates both targets and the need for coordination mechanisms. Infectious and non-

Seoul's Sustainable Development Goals (S-SDGs), targets and related policies

● 1. Devote efforts to end poverty in all its forms

1.1 Make efforts so that no Seoul citizen lives below the national minimum through the national and Seoul social security system.

1.2 Prepare and Implement a social security system customized to Seoul to ensure the basic living of the vulnerable.

1.3 Ensure rights to utilize economic resources and opportunities to receive basic public services and financial services for Seoul citizens, in particular, the vulnerable.

1.4 Reduce exposure and vulnerability to economic, social, and environmental shocks and disasters for the vulnerable in Seoul.

SMG's main projects: Seoul citizens' welfare standards, Seoul basic security system

● 2. Improve the distribution structure between urban and rural areas and support urban agriculture for food security and nutritional balance of the citizens

2.1 Ensure safe, nutritious and balanced food for all citizens.

2.2 End all forms of malnutrition, and do utmost to manage the nutritional status of the biologically vulnerable class such as children under five, adolescent girls, expectant mothers, nursing mothers and the elderly.

2.3 Establish a desirable distribution structure with the local agri-fishery producers, and support urban agriculture not only to encourage small-scale food production but also to cope with poverty and mental health.

SMG's main projects: Food master plan, public meal support project for urban-rural coexistence, Nutrition Plus project

● 3. Ensure healthy lives and promote well-being for all citizens

3.1 Halve maternal mortality ratio from the 2016 level.

3.2 End preventable deaths, aiming to reduce under-five mortality to less than 2.5 out of 1000 live births.

3.3 Contain outbreaks of legal infectious diseases, and establish a comprehensive treatment system for infectious diseases for a swift management and treatment in case of outbreaks.

3.4 Reduce non-communicable diseases through prevention and treatment, and significantly cut down number of suicides through mental health and well-being enhancement policies.

3.5 Strengthen the prevention and treatment of all types of addictions including drugs, alcohol, smoking and gambling.

3.6 Halve the number of deaths and injuries from road traffic accidents from the 2015 level.

3.7 Provide professional nursing services and comprehensive health and medical consultation and information services for infants, expectant mothers, and seniors to prevent diseases and improve health.

3.8 Raise the proportion of public health and medical services to provide Seoul Universal Health Coverage (UHC).

3.9 Strengthen health care measures for the people and regions susceptible to hazardous substances.

SMG's main projects: Outreach Community Service Center, establishing safety net for public health and medical services, expanding the Citizen Health Management Centers, suicide prevention project

● 4. Ensure inclusive and equitable quality education and provide a lifelong learning opportunity for all

4.1 Ensure quality care and education for preschool children.

4.2 Ensure opportunity for all Seoul citizens to receive affordable and quality technical, vocational and college education.

4.3 Increase more opportunities for youths and adults in Seoul to obtain skills and knowledge required for employment and entrepreneurship.

4.4 Eliminate gender disparities in education and ensure equal access to education and vocational training for the vulnerable including the disabled and the poor.

4.5 No Seoul citizen should have difficulties in life due to insufficient literacy, numeracy, and basic information and communication technology skills.

4.6 Expand education on sustainable development to Seoul citizens.

SMG's main policies: Expanding national and public child care centers, running the Seoul Free Citizen College, establishing the School for All

● 5. Create gender-equal social environment and improve capacity of women

5.1 End all forms of discrimination against women and girls.

5.2 Eliminate all forms of violence against women and girls.

5.3 Recognize and value domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household.

5.4 Ensure equal opportunities for women to participate in the decision-making process and exercise leadership.

SMG's main projects: Creating Safe and Happy Town for Women, operating the Community Solidarity for Protecting Children and Women, planning the Seoul Comprehensive Measures for Preventing Child Abuse

● 6. Create a healthy and safe water cycle city

6.1 Replace obsolete water supply pipes and strengthen water quality analysis, enabling all Seoul citizens to safely drink Arisu.

6.2 Improve the water quality of the Han River system by conserving the river ecosystem, managing the total water pollution load, improving the quality of discharged water and replacing outdated sewer pipes.

6.3 Expand rainwater management facility, and manage groundwater in a sustainable way.

6.4 Manage the quality, quantity, and aquatic ecosystem of the Han River system in an integrated manner.

6.5 Create Han River forests, riverside wetlands and naturally protected shore to recover the natural properties of the Han River system.

6.6 Support the participation of the local community to improve water management.

SMG's main projects: Arisu (tap water) quality management, creating a water-cycle city (managing groundwater, reusing rainwater, etc.), creating an eco-friendly water purification plant, ensuring the safety of water quality for Han River and its tributaries

● 7. Ensure basic energy rights, increase share of renewable energy and raise energy efficiency

7.1 Ensure basic energy rights to the energy vulnerable.

7.2 Reach 20% share of renewable energy.

7.3 Increase energy efficiency in building and transportation sectors.

7.4 Expand support for green technology R&D including renewable energy technology sector, and promote the 7 major green industries (renewable energy, LED, green cars, green buildings, green services, green IT, urban resource circulation).

SMG's main projects: Distributing one solar panel per household, promoting the Building Retrofit Program (BRP), Phase 2 of One Less Nuclear Power Plant project

● 8. Promote inclusive and sustainable economic growth, and increase decent jobs

8.1 Pursue a sustainable gross domestic product and gross regional domestic product growth based on win-win relationship with other regions.

8.2 Support restructuring into a high value-added industry and bolster industry diversification through creativity and innovation to continuously improve productivity.

8.3 Induce small and medium-sized enterprises to create decent jobs and actively support social enterprises.

8.4 Reduce unemployment rate, create decent jobs and achieve equal pay for work of equal value.

8.5 Substantially reduce the proportion of unemployed youth who do not participate in education and training.

8.6 Protect labor rights for all workers including migrant workers, and promote safe and secure working environments.

8.7 Devise sustainable tourism policies that actively promote Seoul city's unique culture and products, and foster a high-quality tourism industry to contribute to more jobs.

SMG's main projects: Adoption of the worker-director system, creating the Changdong and Sangye New Economic Center, expanding the Seoul Living Wage system, Labor-valuing Seoul, creating the Seoul Start-up Hub, building the G-Valley Workers Culture and Welfare Center

● 9. Build eco-friendly and useful infrastructure, and encourage inclusive and sustainable industrialization

9.1 Expand quality and environmentally friendly infrastructure available for all citizens for economic activities and a happy life.

9.2 Bolster support for future technology-based manufacturing and high value-added businesses.

9.3 Increase workforce and investment on research and development, and raise the competitiveness of science and technology-based industries.

SMG's main projects: Formulating a public transportation plan focusing on railways, creating innovation cluster

● 10. Devote efforts to reduce all forms of inequality

10.1 No Seoul citizen should live below the 40th percentile of the median income through national and Seoul's social security system.

10.2 Empower and promote the social, economic and political inclusion of all.

Seoul's Sustainable Development Goals (S-SDGs), targets and related policies (cont.)

10.3 Improve discriminatory laws, policies and practices to ensure equal opportunity.
10.4 Achieve high level of equality through fiscal, wage, and social protection policies.

SMG's main projects: *Fostering Special Social Economic Zones, establishing an integrated support system for social economy at autonomous Gu districts*

11. Make cities inclusive, safe and sustainable for all citizens

11.1 Come up with a minimum living standard for Seoul citizens to improve the environment in low-income neighborhoods and obsolete residential areas, and ensure housing rights to all citizens by providing more affordable housing.
11.2 Establish safe, convenient and sustainable transportation systems for all citizens by linking with the capital region transportation system.
11.3 Formulate and implement socially integrative urban planning that expands citizen participation, includes the socially disadvantaged, and ensures diversity.
11.4 Protect the history and culture, and natural heritage of Seoul, create a city in which nature, history, culture, and the future coexist, and promote cultural diversity.
11.5 Strengthen disaster relief system for citizens who are vulnerable to disasters, such as the poor, children, women, seniors, and the disabled to create a safe city Seoul responding to large-scale disasters.
11.6 Reduce fine dust concentrations by 70% from the 2016 level.
11.7 Minimize areas that do not have access to parks and green areas, and ensure universal access to public green spaces for women, children, seniors and the disabled.
11.8 Strengthen economic, social and environmental links between Seoul and metropolitan areas for a balanced development in the capital region.

SMG's main projects: *Expanding public rental housing, bike-sharing system, carrying out traditional culture discovery support project, establishing an integrated preservation and management system for designated cultural properties of Seoul, planning fine dust reduction measures by emission sources.*

12. Support sustainable consumption and production patterns to become a way of life

12.1 Achieve a virtuous cycle of economic growth through environmental improvement, and devise a comprehensive measure for sustainable consumption and production.
12.2 Achieve the sustainable management and efficient use of natural resources.
12.3 Halve per capita food waste from the 2016 level.
12.4 Reduce the use of hazardous chemical substances and manage hazardous waste in a scientific and environmentally friendly manner to minimize the negative impact on the health of the citizens and the environment.
12.5 Substantially reduce waste generation through prevention, reduction, recycling and reuse.
12.6 Urge and support companies within Seoul to publish sustainable management reports.
12.7 Promote citizens' purchase of eco-friendly products, and promote sustainable public procurement practices such as purchasing eco-friendly products by government agencies.
12.8 Ensure that all citizens have the relevant information and awareness for sustainable

development and lifestyles in harmony with nature.
12.9 Review taxation and subsidy schemes that encourage environmentally unfriendly consumption and production, and improve them continuously and gradually

SMG's main projects: *Strengthening cooperation and networking in and outside Korea on shared economy, establishing the Seoul Upcycling Plaza, pursuing zero direct landfilling of domestic waste*

13. Create an exemplary city in coping with climate change

13.1 Identify risks related to climate change early on and come up with measures, and strengthen ability to swiftly recover in case of natural disasters.
13.2 Integrate climate change measures into SMG's policies, strategies and planning.
13.3 Raise awareness on climate change response by expanding the scope of people subject to climate change education, and strengthen local capacity by expanding autonomous Districts cooperation and community support programs.
13.4 Integrate climate change measures into SMG's policies, strategies and planning.
13.5 Reduce greenhouse gas emissions by 40% from the 2005 level and integrate greenhouse gas mitigation and adaptation policies.
13.6 Participate in international organizations' climate change mechanism, form partnerships to run climate change-related programs, and strengthen international cooperation

SMG's main projects: *Phase 2 of One Less Nuclear Power Plant-Seoul Sustainable Energy Action Plan, promoting the Energy Dream Center, strengthening international cooperation on climate change*

14. Conserve the marine ecosystem through recovering natural properties of the Han River

14.1 Prevent and drastically reduce pollution from waste and green algae in the Han River system.
14.2 Strengthen Han River's ecological health to improve the resilience of the marine ecosystem including that of the West Sea.
14.3 Cooperate with Gyeonggi-do and Incheon to raise the research capacity and scientific knowledge on the impacts of Han River on the marine ecosystem.

SMG's main projects: *Implementing the green algae alert system, recovering the Han River ecosystem, creating the Han River forests*

15. Promote biodiversity through conserving and recovering the natural ecosystem within the city

15.1 Manage forests, mountains, wetlands and streams in Seoul in a healthy manner and ensure sustainable use of the ecosystem service.
15.2 Sustainably manage mountains and forests in Seoul by planting native tree species in damaged parts of the forest, and strengthening forest fire prevention to protect trees.
15.3 Increase the nature and ecological protection areas such as the Ecological Landscape Conservation Area, Wildlife Protection Area, and Migratory Bird Protection Area by 17% from the 2014 level.
15.4 Improve biodiversity by creating small-scale biotops, restoring species and expanding habitats.
15.5 Strengthen the management of the influx of exotic species and illegal releases, and control the cause of the spread of invasive alien species.
15.6 Integrate the values of biotops and biodiversity into SMG's planning and development process.

SMG's main projects: *Strategies to improve biodiversity*

16. Build transparent and inclusive institutions for a just Seoul

16.1 Significantly reduce all forms of violence and violent crimes stemming from it.
16.2 Significantly reduce all forms of crimes against children including abuse and exploitation.
16.3 Set up social, cultural, and physical environments that ensure the human rights of the citizens, and pursue all municipal administration from a human rights perspective.
16.4 Significantly strengthen the recovery of stolen assets and the taxation on habitual tax delinquents and tax evaders.
16.5 Eradicate all forms of corruption and bribery.
16.6 Expand transparent and accountable administration and institutions.
16.7 Realize resident participatory administration to strengthen citizen participation in the whole policy process.
16.8 Enhance all citizens' information accessibility and ensure access to information for the information vulnerable.
16.9 Actively support each autonomous District of Seoul to realize sustainable development.

SMG's main projects: *Expanding resident participatory budgeting, pursuing the Human Rights City, Seoul, planning Seoul's Comprehensive Measures on Preventing Child Abuse, establishing citizen-focused platform for utilizing big data, promoting town communities*

17. Strengthen exchange and cooperation with foreign cities as a global leader of sustainable development

17.1 Bolster exchange and cooperation on science, technology, and innovation with foreign cities and strengthen knowledge and policy sharing based on mutual agreement.
17.2 Spread the achievements of the Seoul SDGs to developing countries and support them to implement the SDGs.
17.3 Share the achievements of the Seoul SDG with Korean and foreign cities and strengthen global leadership for a sustainable development.
17.4 Promote partnerships among Seoul Metropolitan Government, civil societies, and companies to implement sustainable development.
17.5 Devise and support ODA programs for the sustainable development of cities in developing countries

SMG's main projects: *Introducing outstanding policies to foreign cities, pursuing a sustainable and shared city, inviting international organizations and carrying out exchange and cooperation*

Source: Seoul Metropolitan Government brochure "Seoul Sustainable Development Goals (SDGs) 2030: 17 Ways to Change Seoul". January 2018. <http://gov.seoul.go.kr/archives/98727>

communicable disease-related targets 3.2, 3.3 and 3.4 are cases in point.

- All the goals and targets specifically focus on citizens of Seoul except for S-SDG 17 “Strengthen exchange and cooperation with foreign cities as a global leader in sustainable development”.
- Financing development is the weakest part of the S-SDGs. The only target which is potentially linked with financing is S-SDG 16.4. “Significantly strengthen the recovery of stolen assets and the taxation on habitual tax delinquents and tax evaders.” There is not a specific target associated with the role of the private sector in financing development, which is emphasized in the 2030 Agenda’s SDGs
- A system of indicators has yet to be established.

Connecting Sustainable Development Goals and their targets

SDGs and targets in the 2030 Agenda

Lack of integration across sectors when designing policies and implementing them has been one of the key problems of development interventions worldwide. Failures to create synergies, minimize trade-offs and avoid coordination failures, or the so-called silo approach, have resulted in incoherent policies and adverse impacts on development (Le Blanc 2015).

Designing and implementing development goals in an integrated and balanced manner is one of the major concerns of the 2030 Agenda. Despite the emphasis on the triple bottom line that aims to strike a balance between economic, social and environmental dimensions, the goals and targets have uneven connections with each other, partly due to the effects of political negotiations over priorities. Some goals are closely interconnected and mutually compatible, while others are less so.

Figures VI.2, VI.3, and VI.4 are based on a network analysis of the targets of 16 of the SDGs (Le Blanc 2015). The analysis excludes SDG 17, which relates primarily to the means of implementation for the other SDGs, as well as the specific means of implementation presented at the end of each SDG. This does not mean, however, that specific means of implementation do not have a potential to contribute to other goals.

Since this network analysis is a mapping of semantic relations between targets and goals as expressed in the wording of Agenda 2030, the figures do not represent rigorous scientific analysis of the concrete linkages between goals and targets. This method runs the risk of analysing buzzwords employed to dress up business as usual. However, statements of intent in development discourse do have a purpose. They not only lend legitimacy to justify developmental interventions but also provide a sense of direction regarding which development path policy makers might take (Cornwall and Brock 2005). The exercise can have a practical and political impact since the results help us to problematize dominant paradigms and explore alternative strategies and policy measures to maximize synergies and reduce trade-offs across sectors.

The bigger circles in Figure VI.2 represent the sixteen SDGs, while the smaller circles are the targets. The targets are the same colour as the goal to which they belong. Some targets are linked only to the one goal to which they belong, while others have lines linking with more than one goal, illustrating the interdependence between goals. For instance, target 16.1 “Significantly reduce all forms of violence and related death rates everywhere” is not associated with other goals, while 16.8 “Broaden and strengthen the participation of developing countries in the institutions of global governance” potentially also contributes to Goal 10 “Reduce inequality within and among countries”, particularly target 10.6 “Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions”. Out of 107 targets examined, 62 are associated with more than one goal; 19 targets contribute to two or three goals other than the one to which they belong.

Figures VI.3 and VI.4 illustrate how each SDG can be supported by the achievement of targets belonging to other SDGs. Figure VI.3 demonstrates how the individual SDGs are connected with the targets of other SDGs. Figure VI.4 illustrates how the connection of individual SDGs with the targets of other SDGs produces a hierarchical structure of SDGs composed of four clusters indicating degrees of interdependence: the closer to the centre, the more connections the SDG has with the targets of other SDGs. SDG 10 (Reduced inequalities), 1 (End poverty), and 5 (Gender equality) are the most densely connected goals while SDG 7

Figure VI.2. Connections between SDGs as seen through targets (2030 Agenda)

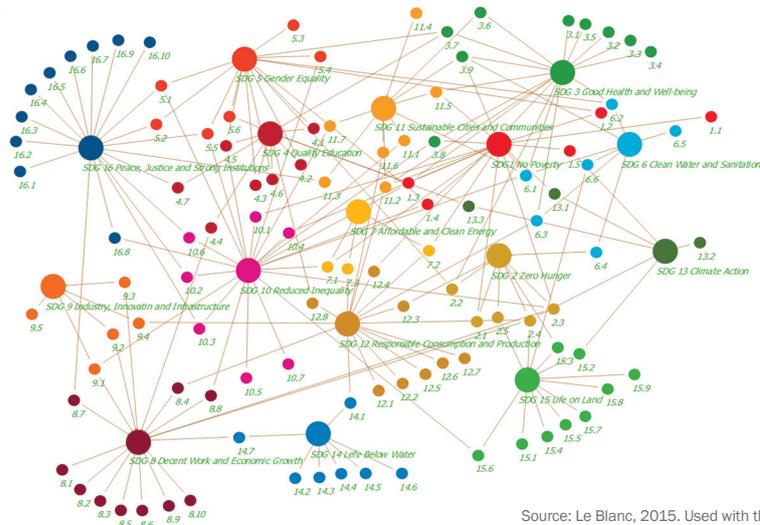


Figure VI.3. Interdependence between SDGs as seen through targets of other SDGs (the 2030 Agenda)

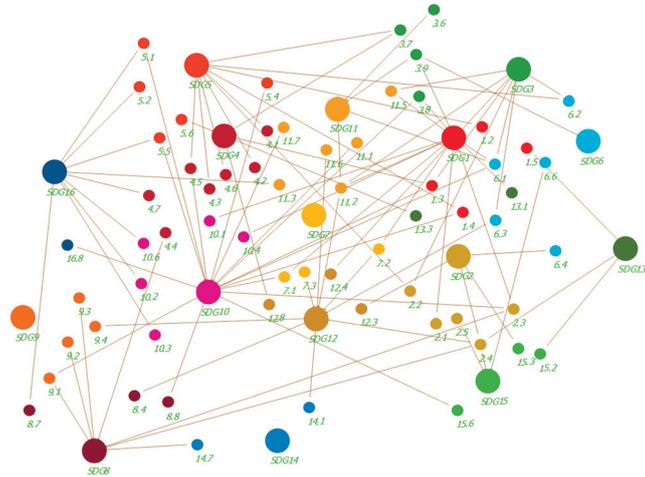
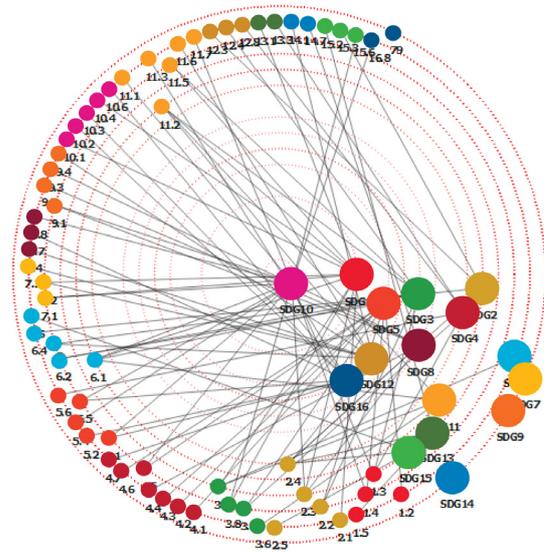


Figure VI.4. How SDGs are supported by targets of other SDGs



(Affordable and clean energy), 9 (Industry, innovation and infrastructure) and 14 (Life below water) have no direct connections with the targets of other SDGs (see Table VI.1).

The level of connection between each SDG with the targets of other SDGs indicates the opportunities to create synergies and minimize trade-offs between goals in the 2030 Agenda. It is understandable that SDGs 10, 1, and 5 are clustered as the most connected goals given the principle of leaving no one behind. It is disappointing, however, that despite obvious interdependence between SDGs 7, 9 and 14, there are fewer targets connecting these goals with each other (see Figure VI.3). The lack of connections between certain goals points to the need to develop more innovative measures to create synergies between these goals.

Table VI.1. SDGs connected with targets of other SDGs (the 2030 Agenda)

Strength of interconnections	SDGs	Number of connections with targets with other SDGs	% of total connections
Weakest	7	0	0
	9	0	0
	14	0	0
Weak	6	1	1.1
	13	3	3.3
	15	3	3.3
	2	4	4.4
	11	4	4.4
Strong	4	5	5.5
	8	7	7.7
	3	8	8.8
	12	9	9.9
	16	9	9.9
Strongest	5	10	11
	1	12	13.2
	10	16	17.6
Total		91	100

Source: Degree Prestige report of Le Blanc 2015, created by Social Network Visualizer v2.3 (February 2018)

Seoul’s SDGs and targets

The S-SDGs also have connections between the goals and targets. Since the targets of S-SDG 17 include tasks which may be interpreted as independent targets and not merely means of implementation for all other goals, such as the specific partnership with neighbouring provinces to restore the Han River, they have also been included in the analysis.

Compared to the 2030 Agenda, the S-SDGs have more connections between targets and goals. The nature of the connections between the targets and goals raises some unique features of the S-SDGs compared to those of the 2030 Agenda.

- First, compared to the 2030 Agenda, the S-SDGs have more targets addressing multiple goals. The proportion of targets contributing to the achievement of S-SDGs to which they do not belong is higher than that of the 2030 Agenda. In the S-SDGs, 72 out of 96 targets examined contribute to other S-SDGs, while in the 2030 Agenda 63 out of 107 targets examined address other SDGs. This indicates that the targets of the S-SDGs have more multiple concerns and functions than those of the 2030 Agenda.

- Second, there is no S-SDG which does not have support from the targets of other SDGs. In the 2030 Agenda, SDGs 7, 9 and 14 do not have connections with targets of any other SDGs.
- Third, the 2030 Agenda and the Seoul SDGs have different degrees of connection between goals and targets. S-SDGs 10 (Reduce all forms of inequality), 5 (Achieve a social environment with gender equality), 3 (Ensure healthy lives and promote well-being for all citizens) and 8 (Promote inclusive and sustainable economic growth and decent jobs) are more supported by the targets of the other S-SDGs than the corresponding SDGs in the 2030 Agenda. On the other hand, the number of targets which contribute to S-SDG 1 (End poverty in all its forms) is smaller than the number of target which contribute to SDG 1 in the 2030 Agenda. This partly reflects a greater policy concern about inequality and scarcity of jobs for youth (rather than poverty) in the case of the S-SDGs, due to the increasing political mobilization and influence of youth in the Republic of Korea (Park, Ahn, and Hahn 2013).

It is notable that the S-SDGs which have the strongest support from targets of other S-SDGs are directly associated with inequality, Seoul city and communities, health, economic growth and decent work, and gender equality. Compared with the 2030 Agenda, the S-SDGs have more support for the local context, health, and economic growth and decent work, while less for poverty.

The S-SDGs related to environmental objectives generally have weak support from the targets of other goals in S-SDGs; this is also the case of the 2030 Agenda. They are: S-SDG 12 (Support sustainable consumption and production patterns); 14 (Conserve the marine ecosystem through recovering the natural properties of the Han River); 15 (Promote biodiversity through conserving and recovering the natural ecosystem in the city); 7 (Ensure basic energy rights, increase the share of renewable energy and improve energy efficiency); and 13 (Create an exemplary city in coping with climate change).

More innovative approaches need to be designed and implemented to create synergies and minimize trade-offs between environmental goals and other goals, particularly economy-related goals such as S-SDG 8 which is strongly integrated with goals other than environmental ones.

Figure VI.5. Connections between S-SDGs as seen through targets

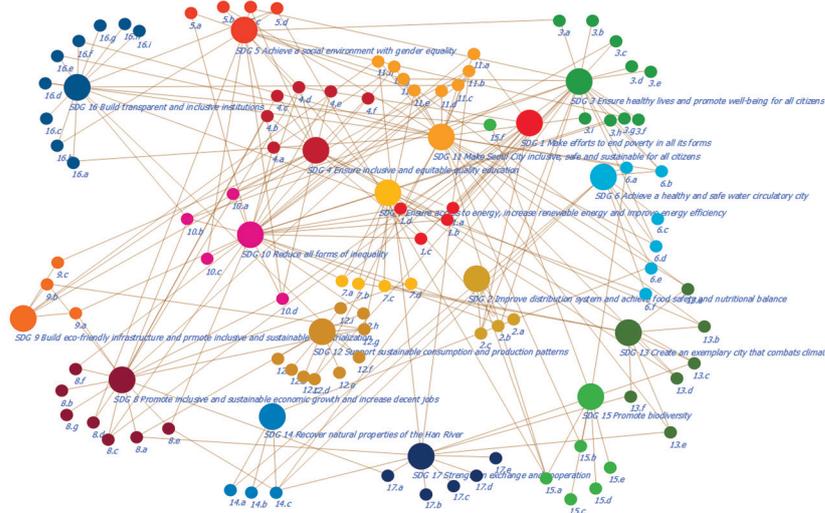
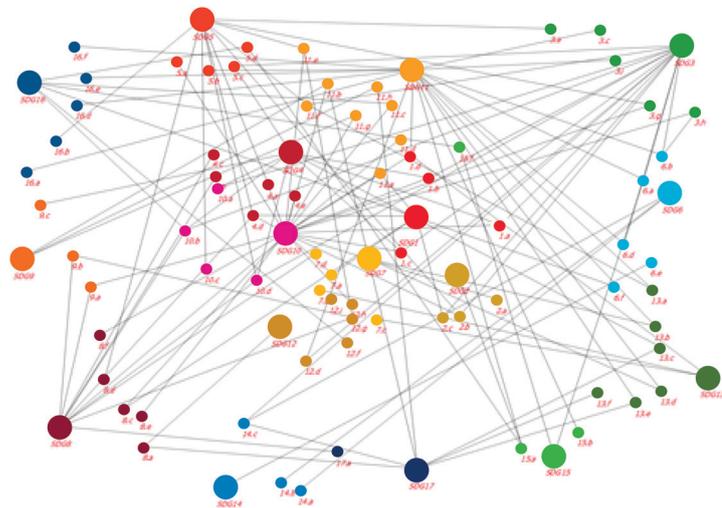


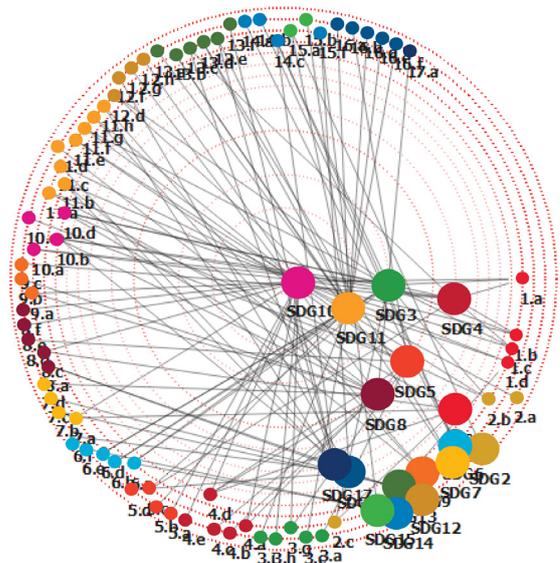
Figure VI.6. Interdependence between S-SDGs as seen through targets of other S-SDGs



How SE can contribute to achieving the S-SDGs

To successfully meet the goals and targets of the 2030 Agenda, policy makers need to look for means of implementation which can avoid some of the limitations experienced while implementing the Millennium Development Goals (2000-2015). SSE has the potential to meet this demand. It can mitigate the bias towards global and national averages, which increase the risk of masking deficits in achievement at the subnational level and diverting policy attention and resources from marginalized and excluded groups (UN Inter-Agency Task Force on Social and Solidarity Economy 2014). As we have seen in the previous chapters, the way that SE in Seoul is rooted in the local economy helps it to play a significant role in improving the economic, social and environmental conditions of poor and vulnerable people.

Figure VI.7. How S-SDGs are supported by targets of other S-SDGs



Source: Generated using software by S.P. Borgatti, M.G. Everett, and L.C. Freeman 2002.

Table VI.2. S-SDGs connected with targets of other S-SDGs

Strength of interconnections	S-SDGs	Number of connections with targets with other S-SDGs	% of total connections
Weak	12	1	0.8
	14	1	0.8
	2	1	0.8
	15	2	1.7
	7	2	1.7
	13	3	2.5
	6	3	2.5
	9	3	2.5
	1	5	4.1
Strong	16	6	5
	17	7	5.8
	4	9	7.4
Strongest	5	11	9.1
	8	11	9.1
	3	15	12.4
	11	18	14.9
	10	23	19
Total		121	100

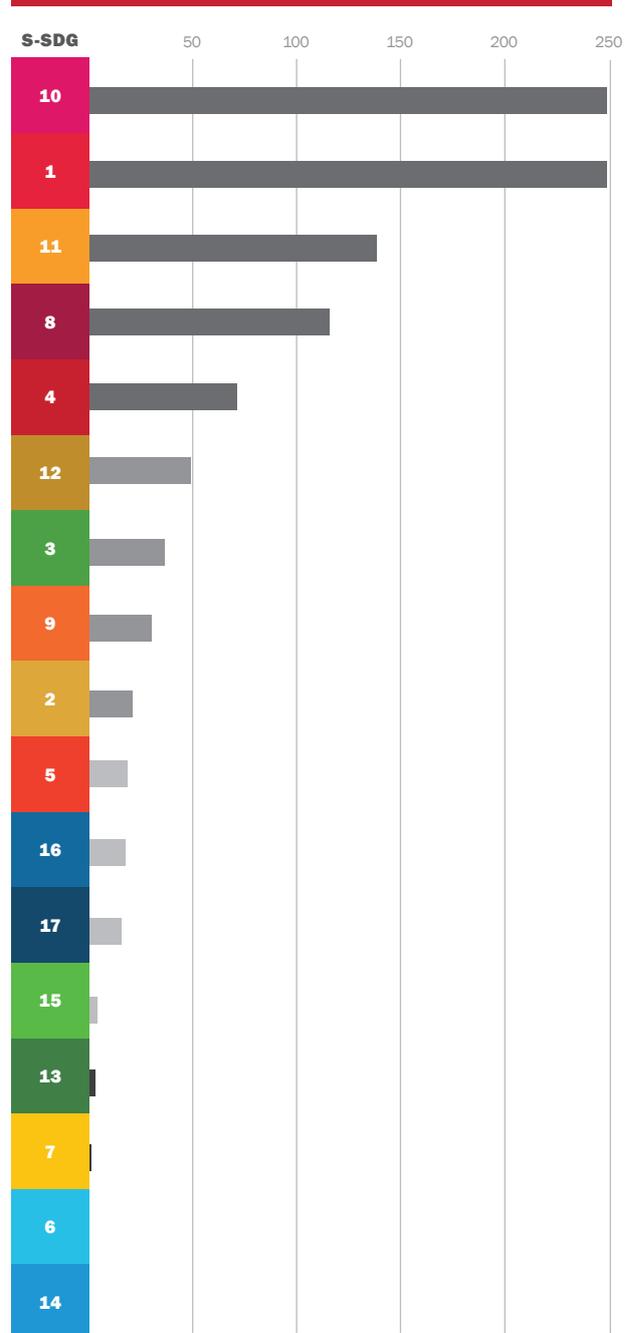
Source: Degree Prestige Report of S-SDGs, created by Social Network Visualizer v2.3 (February 2018)

SSE is also a powerful means of implementation to address a hitherto neglected aspect of development strategies, namely the structures which generate social injustice such as exclusion and inequality in multiple dimensions. The active citizenship and participatory democracy nurtured through SSE are essential tools to address problems associated with structural determinants of inequality and exclusion. The survey results on participation and inclusion within SE in Seoul (Chapter V) demonstrate its potential on this front.

Integrated and balanced approach of SSE to the SDGs

One of the unique features of SSE as a means of implementation of the SDGs in comparison with other development actors such as NGOs and private for-profit businesses is that it pursues explicit social and environmental objectives through the production and exchange of goods and services and relations with other economic entities. These multiple concerns and functions of SSE may be an answer to the key questions policy makers face when implementing the SDGs: how to achieve sustainable development in its three dimensions—economic, social and environmental—in a balanced and integrated manner; and how to address the nexus between multiple

Figure VI.8. Number of CSEs contributing to the S-SDGs



policy tasks and problems. Finding answers to these questions is particularly important since policy makers have to deal with an overwhelming number of goals and targets in the context of the 2030 Agenda (Boas, Biermann, and Kanie 2016). With its multiple functions and concerns, SSE is well-placed to address multiple goals and targets in ways that maximize synergies and minimize trade-offs among the goals. Its enhancement of democratic self-management and solidarity within and beyond SSEOs can also enhance the people’s ownership of the SDGs.

Different SSE entities and actors, however, place differing emphasis on a variety of functions, values and principles and engage in different economic activities and relations. Consequently they may take differing paths towards contributing to achieving the SDGs.

The following section demonstrates the results of an analysis of the potential of SEOEs in Seoul to contribute to the implementation of the S-SDGs taking into account the multiple goals and tasks they can address in a balanced and integrated manner.

The contribution of CSEs to the S-SDGs

To understand how SEOEs can contribute to the S-SDGs, we analysed public statements on their missions and activities using text mining and semantic network analysis methods. We retrieved relevant S-SDGs the SEOEs can potentially contribute to through qualitative semantic analysis, and visualized these functional connections using quantitative metrics and semantic network analysis software.

The focus was on CSEs, because they have several advantages for this analysis. First, since CSEs comprise diverse types of SEOEs, they are highly representative as a sample group of SE. Second, due to the rigorous screening and reviews undertaken by the KSEPA on the social functions and missions of these organizations, CSEs have less inclusion error and tend not to be for-profit enterprises claiming to be SE. Third, their management information and relatively well-systematized statistics are available to the public, which is crucial to an analysis of this kind.

Figure VI.9 illustrates the diverse ways in which CSEs in Seoul contribute to the S-SDGs. The size of the box indicates the number of SE functions and missions which support the S-SDG in question. The thickness of the line connecting the S-SDGs indicates to which extent the goals are supported simultaneously by the CSEs. For instance, because criteria for being recognized as a CSE require organizations to contribute to relieving poverty and to the economic empowerment of poor and vulnerable people, S-SDGs 1 and 10 have the largest boxes and the thickest connections.

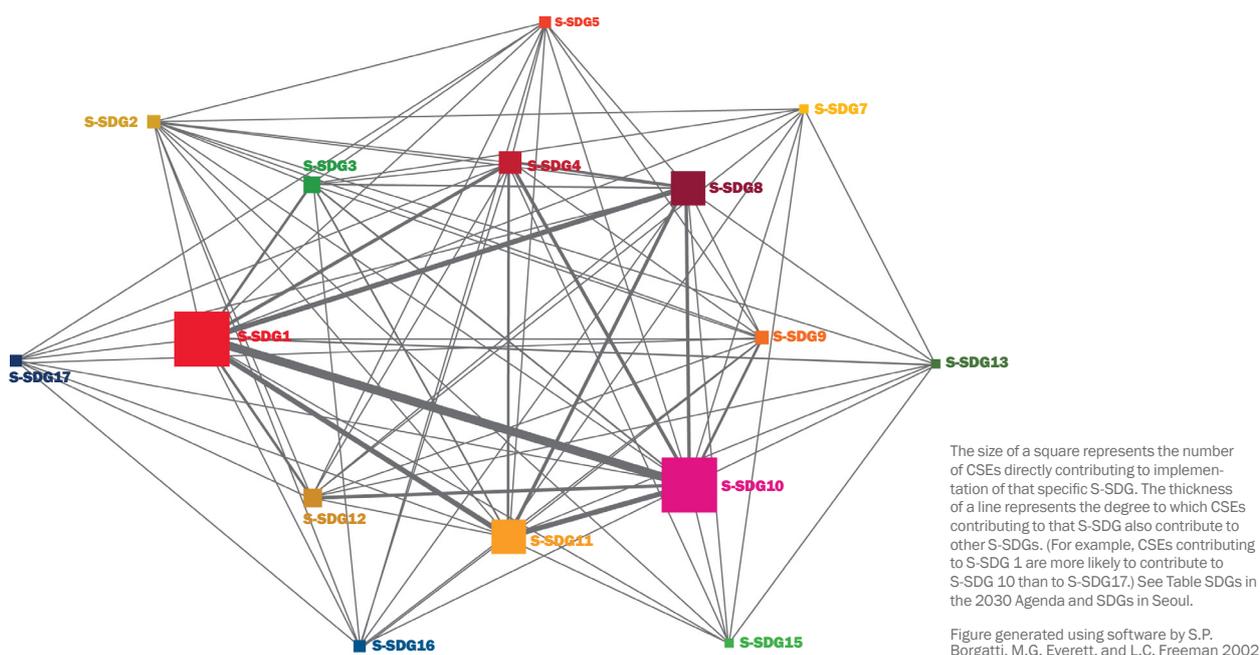
Through the network analysis of 249 CSEs (out of 316 in Seoul) for which data were available (as of 12 September 2017), we divided the S-SDGs into five tiers, according to how many CSE statements contributed to them.

- Tier I - S-SDGs 10, 1, 11 and 8 (more than 100 CSEs);
- Tier II - S-SDGs 4, 12, 3 and 9 (30 to 99 CSEs);
- Tier III - S-SDGs 2, 5, 16, and 17 (10 to 29 CSEs);
- Tier IV - S-SDGs 15, 13 and 7 (1 to 9 CSEs) and
- Tier V - S-SDGs 6 and 14 (no CSEs).

The following key findings can be drawn from this analysis.

- Since CSEs have to hire a certain number of people from vulnerable and poor groups in order to qualify as CSEs (see Chapter III), all the CSEs highlight in their functions and missions achieving S-SDGs 1 and 10. Many of the CSEs which contribute to economic, social and environmental improvement in Seoul (S-SDG 11) and to job creation (S-SDG 8) are also contributing to S-SDGs 1 and 10 by hiring poor and vulnerable people and improving living conditions in poor areas.
- Many CSEs contribute to Tier II S-SDGs. They often train and educate poor and vulnerable people to provide upcycled goods, IT infrastructure services and care services. Given that many recipients of elderly care services are poor and vulnerable people (see Chapters IV and V), the provision of care services is an important channel by which CSEs link S-SDGs 3, 10 and 1.
- CSEs which contribute to S-SDG 10 are more likely to have missions and functions which address S-SDGs 1, 4, 8 and 11, creating a functional nexus between the following goals: Reduced inequality—End poverty—Inclusive and sustainable city—Economic growth and decent work—Quality education and lifelong learning. They also frequently engage with S-SDGs 3 and 9. For instance, one CSE studied was an NGO providing counselling services to foreign migrant workers and multicultural families. In addition to its counselling service, it became a social enterprise providing education and health care services for its clients, contributing to S-SDGs 3, 4, 10 and 11.
- Far fewer CSEs address S-SDGs 2, 5, 7, 13, 15, 16 and 17 (Tiers III and IV). It is, however, notable that the CSEs contributing S-SDG 2 (Urban-rural distribution system

Figure VI.9. How Seoul's CSEs contribute to the S-SDGs: Tracing the pathways



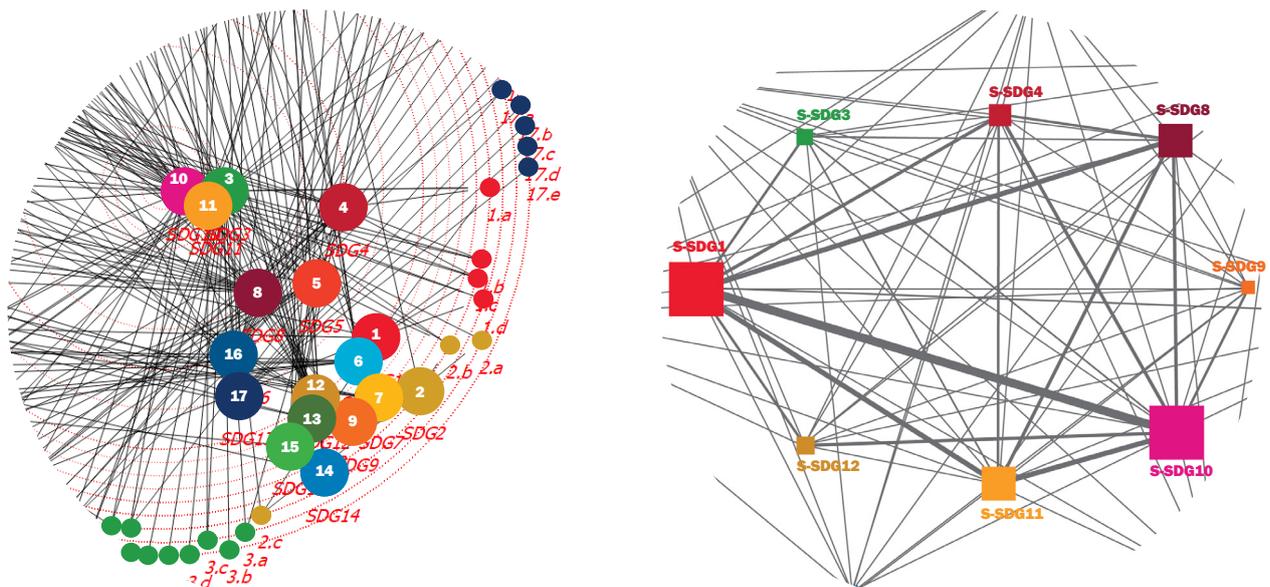
and urban agriculture), and S-SDG 5 (Gender equality) have diverse activities which potentially contribute to many other S-SDGs. In particular, the CSEs addressing SDG 5 (Gender equality) engage with a variety of activities associated with other S-SDGs. It indicates that although the number of CSEs addressing gender equality is small, they are trying to incorporate gender in a wide area of economic sectors. For instance, CSEs hiring women, particularly women from multicultural families, were active in a variety of business sectors. They include environment, care, manufacturing of eco-friendly goods, cafeterias and restaurants, art, agriculture and food distribution.

- The small number of CSEs contributing to S-SDG 17 seems to underestimate the contribution of SEOEs since it may be related to the selection criteria for CSEs which focus on poor and vulnerable people in the Republic of Korea. Many SEOEs working on fair trade supporting producers in developing countries are less likely to be selected because they primarily provide support for the poor and vulnerable in foreign countries.
- None of the CSEs' mission statements address Tier V S-SDGs 6 (Healthy and safe water) and 14 (Restoration of the Han River). Considering the variety of SMG projects associated with these goals, CSEs still have

ample opportunities to explore economic activities associated with them, such as quality control of piped water, groundwater control, recycling of rainwater, environmentally friendly water purification plant, and controlling the quality and safety of the Han River and other rivers (Seoul Metropolitan Government 2017a).

- Not many CSEs engage with health (S-SDG 3) and education (S-SDG 4) at the same time. CSEs addressing S-SDG 11 (Inclusive and sustainable city), mostly through economic activities in the housing sector, do not address S-SDG 12 (Sustainable consumption and production). There are unexploited synergies for SEOEs to explore here.
- Many CSEs do not intend to address S-SDGs even though their activities are potentially highly relevant to addressing them. As a consequence, there are many sets of the S-SDGs which are not often simultaneously addressed. They are 2<>17; 5<>7; 7<>9; 9<>13 and 15<>16.
- It is notable that CSEs mostly involved in activities associated with industrialization and innovation pay less attention to energy and climate change, which is a sign that CSEs do not contribute much to minimizing the trade-off between industrialization on the one hand and energy consumption and climate change on the other hand.

Figure VI.10. Juxtaposing density of S-SDG interconnections and pathways of CSE contributions to the S-SDGs



Software: Borgatti, Everett, and Freeman 2002

As Table VI.2 clearly demonstrates, there are many interlinkages between the targets for S-SDG 10 (Reduced inequality), S-SDG 11 (Inclusive and sustainable city), S-SDG 3 (Healthy lives and well-being), S-SDG 8 (Economic growth and decent jobs) and S-SDG 5 (Gender equality). Our analysis shows that the missions and functions of CSEs contribute to further strengthening the synergies between these S-SDGs, except for S-SDG 5. The small number of CSEs working on SDG 5 is disappointing, in particular considering the ample opportunities for CSEs' activities to contribute to multiple goals including S-SDG 5.

Conclusion

Many local governments and civil society organizations in the Republic of Korea were active in establishing policies and organizations for sustainable development long before the announcement of the 2030 Agenda for Sustainable Development. Early engagement with the Local Agenda 21 process by local governments and civil society organizations, for example, played a significant role in spreading policies and practices for sustainable development. From 2008 to 2013, however, the national government emphasized the economic aspect of green economy, and this constrained the active movement of civil society organizations for sustainable development by diverting resources away from the integrated vision

of sustainability towards a narrower focus on green growth. Resistance to this focus on the economic aspect served to position environmental initiatives as political symbols of the opposition parties. As a result, a sustainable development strategy was not put in place in Seoul until 2011 when the current mayor assumed power. Following a participatory process, the S-SDG framework of Sustainable Development Goals specifically for Seoul was announced in late 2017.

Reflecting the specific conditions of Seoul, the S-SDGs have a strong emphasis on the principle of leaving no one behind. They do not explicitly highlight the importance of realizing the 2030 Agenda's transformative vision, which is to change structures and institutions generating injustice. Our analysis finds that the S-SDGs are a well-integrated framework, with the targets for each S-SDG supporting other S-SDGs. The concern about how to address the nexus between the multiple problems that the goals aim to tackle has been reflected in the structure and contents of the S-SDGs and their targets. This points to a dense network of potential synergies.

In order to most effectively leverage these potential synergies, there should be more encouragement of social entrepreneurship, particularly in the sectors where the S-SDGs are closely interconnected. For example, more entrepreneurial efforts are needed to develop innovative models of SE. The practices of CSEs contributing to sustainable food distribution

provide insightful lessons. Although small in number, they engage with diverse S-SDG areas, including S-SDG 2, S-SDG 12 and S-SDG 15.

Analysis of the missions and functions of CSEs demonstrates that Seoul's SEOEs engage with multiple concerns and activities that can potentially create a far greater number of synergistic impacts in relation to various S-SDGs. There are still many areas for SEOEs to engage in innovative approaches to achieving both their mission and the S-SDGs in an integrated and balanced manner. For instance, despite the close relationship between the goals, SEOEs engage less with the nexus between S-SDG 11 and 12; S-SDG 2 and 17; and S-SDG 5 and 7. In short, despite environmental activism having been one of the driving forces behind the current sustainability agenda, the environmental dimension of SE in Seoul appears to be the weakest. CSEs prioritizing economic and social objectives need to pay more attention to their potential to contribute to environmental S-SDGs. SE linkages with goals and targets associated with gender equality also need to be strengthened. Given that S-SDG 5 is one of the goals supported by many targets of other S-SDGs, SEOEs working for gender equality could, for example, explore innovative ways to link their economic activities to energy-related goals.

While the local-level impacts of national policy, or the implications of policy coherence, have not been systematically analysed in this chapter, it can be noted here that the weaker aspects of both the S-SDGs and SE in Seoul largely reflect policy preferences at the national level. Over several years, attention nationally has focused on employment creation, with SEOEs playing a significant role in this regard. An important avenue for employment creation has been the provision of social services within a context of welfare state or social policy expansion. As such, these economic and social dimensions of sustainable development are core features of national development policy. Furthermore, the criteria for certifying SEOEs as CSEs relate primarily to economic and social aspects, which creates an incentive structure that promotes social enterprise activity in quite specific areas. A key question that remains open is whether the environmental dimension and gender equality can become stronger elements of SE at both national and local levels.

ENDNOTES

¹ Lee, Chang-Woo. Interview by Ilcheong Yi. Personal communication. Seoul. 5 March 2017; Lee, Eun Ae. Interview by Ilcheong Yi. Personal communication. Seoul. 7 July 2017.

² It is notable in suggesting the need for collaboration with other cities and local areas for successful implementation (solidarity beyond subsidiarity).

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