

Negotiation of Strategic Distance: A Smart City Project with Japanese Official Development Assistance in Bang Sue, Thailand

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Abstract

The existing critical literature constructs Smart Cities (SC) as sites of technocratic governance, hidden within a socio-technically imagined utopian discourse that originated in the “Global North” but has already deeply penetrated the “Global South”. The substantial inflow of SC-related foreign investment into emerging Asian countries, such as Thailand, has motivated this paper to shed new light on the extensive nature of investment in the region. The authors have chosen to examine a SC project supported by Japanese Official Development Assistance in Bangkok’s Bang Sue district. This case study enables them to investigate the SC concept within the broader context of international politico-economic power struggles, particularly between Thailand and Japan in the realm of international cooperation. Using the concept of strategy, this study conceptualises the establishment of Smart Cities as each nation’s approach to advancing both national economic interests and international security. The examination of the policy history of SC conception in Thailand and Japan reveals diverse motivations behind these initiatives. Thailand seeks to shift its economic weight to the digital and knowledge sectors, while Japan targets economic and security enhancements in the Indo-Pacific region. Despite the common strategy of developing SC infrastructure in the Bang Sue area, the analysis identified nuanced differences in their goals. Further scrutiny of project documents revealed: 1) strategic distancing within the project, 2) technocratic traits within the project process, and 3) the role of socio-technical utopian discourse beyond ideology.

Keywords: Smart City, urban development, Bang Sue Smart City, Japan-Thailand relationship, Official Development Assistance, strategies, international cooperation

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The concept of the Smart City (SC) has remained poorly defined due to the plethora of descriptions. The shared characteristics of SC may be its design to utilise digitally informed and technologically advanced solutions – e.g., Internet of Things (IoTs), Artificial Intelligence (AI), Big Data, and censoring devices – for its urban management. However, this definition has been criticised by social scientists because it gives the impression that cities managed without these technologies are not smart. Furthermore, this implies a reduction of human society from the pre-technology era as not smart as a whole (Kim et al. 2021, Visvizi / Lytras 2019). Despite these criticisms, the concept became trendy among the policymakers worldwide precisely because it enables the separation of social challenges from their historical and geographical contexts, reinterpreting them as technical troubleshooting on a global scale (Sanada 2023). The concept of Smart City originated and expanded in countries with established economies. However, it has also rapidly penetrated into countries with emerging economies (Alizadeh 2021, Kong / Woods 2021). In Asia, countries such as Japan, South Korea and Singapore have invested in Smart City development since the early 2000s. Later, in the 2010s, China and India also accelerated SC-related investments at the national level, while other emerging Asian countries began to invest heavily in this area (Alizadeh 2021, Joo / Tan 2021, Kim et al. 2021).

In 2018, the United Nations estimated that the urban population in emerging Asia would grow rapidly, from 2.3 billion in 2018 to 3.5 billion in 2050. While urbanisation levels in the region remain relatively low at 50 per cent (UN 2018), further rapid urbanisation is expected. SCs are seen as a promising solution for achieving sustainable urban development in the region. Tooran Alizadeh (2021) notes that while North America is currently the largest market for SCs, this may change due to increasing interest on the part of Asian countries.

This article examines SCs in emerging Asia while shedding light on their highly invested nature. The skyrocketing quantity of foreign investment in the region's SCs cannot be separated from international politico-economic power struggles. With this in mind, this article seeks to situate the concept of SCs in the political history of international cooperation. Specifically, it examines the Bang Sue SC project in Bangkok, Thailand, which is supported by Official Development Assistance (ODA) from the Japan International Cooperation Agency (JICA). Our case study shows that Thailand as the host country, and Japan as the donor country have been pursuing different national interests even as they currently share the SC project as a common strategy

Current research on political governance within Smart Cities

The existing literature on the general topic of SCs has long documented the heterogeneous and multidimensional descriptions of this urban phenomenon. The complexity of the field of study has led to a growing consensus to consider SCs as a “glocal” phenomenon (Dameri et al. 2019), yet with no single definition (Bibri / Krogstie 2017, Albino et al. 2015, Kitchin 2015), the concept of SCs will inevitably remain elusive. As the global trend of SC design and implementation continues its rapid expansion, a critical body of research on SCs, focusing on their governance style, has called for critical attention to SCs as a site of technocratic governance hidden within techno-utopian discourses, one that originated in the “Global North” but has already deeply penetrated the “Global South”.¹

Technocratic governance and moral implications

One notable characteristic of the SC development project process is its technocratic nature. From the earliest stages of the conception of SCs, the social sciences have criticised the lack of a citizen-centred perspective in the discussion (Hollands 2008, Kitchin 2015). Recent empirical studies of public SC initiatives in Western countries² as well as in Japan³ have demonstrated that the entire project process often excludes any meaningful citizen involvement. The underlying rationale for this style of governance is the need for a top-down political structure to enable more time- and cost-efficient urban management.

At the same time, the majority of public bodies currently engaged in SC projects promote public-private partnership (PPP), with public bodies relying on private partnerships to compensate for their lack of expertise in implementing technological and digital infrastructure and data-oriented solutions (Voorwinden 2021). This entails a transfer of moral responsibility from public bodies during the planning phase to private firms during the implementation phase of SC as far as opportunities for citizen involvement are concerned. Vendors of SC-related technologies and know-how facilitate citizen participation in the wired city through the utilisation of digital data via IoTs, AI, Big Data, and sensor devices (Alizadeh 2021, Sadowski / Bendor 2018, White 2016). Yet there is little structural alignment of democratic moral responsibility between public planning and private implementation. This shift is in accordance with the observations made by David Harvey (2017) regarding a turn towards entrepreneurial urban management. In our view, the SC initiative should be regarded

1 Cf. Kitchin 2015, Lim et al. 2019, Kim et al. 2021, Alizadeh 2021, Kong / Woods 2021.

2 Cf. Engelbert et al. 2019, Bibri / Krogstie 2017, Grossi / Pianezzi 2017, Kitchin 2015.

3 Cf. Sakuma et al. 2021, Zappa 2020, Granier / Kudo 2016.

as a matter of political governance rather than of cooperative city management, as it is promoted by public bodies with the intention of bringing solutions or enhancing improvements to existing societal issues. This situates SCs in the history of political governance, acknowledging technological infrastructure and digital solutions as its new instruments. When the moral boundary between public and private is being negotiated, any shifts must be reviewed accordingly, with the citizenry remaining at the centre with regard to social justice and political fairness.

The socio-technical imaginary and the “smart citizen”

The aforementioned critical efforts seem to have triggered a discursive shift among the SC promoters from both the public and private sectors “to reflect more human-centric objectives” (Sakuma et al. 2021: 1778), and “to embrace narratives of citizen engagement and inclusivity” (Trencher 2019: 118). Overtly techno-centric narratives have shifted to emphasise the significance of participatory and user-driven governance, which aims to co-create solutions to locally specific societal issues in a bottom-up manner (Visvizi / Lytras 2019, Trencher 2019, McFarlane / Söderström 2017). In order for this discursive shift to be accompanied by a practical one, active engagement to address the aforementioned structural lack of citizen participation is essential. However, the organisational, structural and legal reforms are proceeding without “discussions on issues such as social equity, social justice, inclusiveness and human capital” (Sakuma et al. 2021: 1785). On this basis, the credibility of the human-centred and citizen-focused claims of SC initiatives becomes questionable.

What dominates instead is the techno-utopian discourse of governance. This discourse is best captured by what Sheila Jasanoff and Sang-Hyun Kim (2015) call the “socio-technical imaginary”. The concept refers to “collectively held, institutionally stabilised, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order, attainable through, and supportive of, advances in science and technology” (Jasanoff / Kim 2015: 4). SC initiatives promote a normative and aspirational imagined future that is promised to result from the resolution of locally defined socio-economic challenges through the installation of selected technical solutions (De Waal / Dignum 2017, Alizadeh 2021, Kong / Woods 2021). It is socio-technical in the sense that technical progress is equated with social innovation (Kim et al. 2021, Luque-Ayala 2019). It is imaginary in the sense that the concrete pathways to realise the envisioned future are experimental, entrepreneurial and ultimately uncertain (Crivello 2014, White 2016, Tironi / Albornoz 2021). The imposition of socio-technical imaginaries in SCs through the implementation of digitally-informed advanced technologies, smart urban designs and urban planning is the exercise of disciplinary power over the city’s inhabitants (White 2016). In this socio-technical discursive construct, the “smart citi-

zen”, which points to the specific ontological nature of the citizenship of SCs, is implicitly prescribed in its envisioned societal future as an embracer of the scientific and technological development (De Waal / Dignum 2017). The smart citizen is detached from the spatio-temporal specificity of the locality, and thus detached from the democratic power to constrain public bodies to tailor urban governance to specific local needs.

Uneven geographic representation in Smart City research

Despite the historical and prospective significance of the Asian SC market, SC projects outside Europe and the United States remain severely underrepresented in academic discourse. In this context, scholars of urban studies have urged that greater scientific attention be paid to SC initiatives beyond the Euro-American context.⁴ The growing number of empirical studies submitted from the geographical context of the “Global South”, including emerging Asia, has challenged the Euro-American-centric view that has been dominant in the field of study. In this regard, the dedicated scientific effort to study SC initiatives from Asia is significant.

Elizabeth Thurbon and colleagues (2023) have recently observed that the green energy transition in China and South Korea is characterised by “developmental environmentalism”, which points to the notable presence of national agencies that aim to boost the national economy by creating a strong alignment between a shift towards green energy and national techno-industrial policy. A similar trend has been noted in Japan (Sanada 2023, Zappa 2020, Joo / Tan 2020) and other Asian countries (Joo / Tan 2020). Moreover, according to Tooran Alizadeh (2021), the objectives of SC initiatives in the “Global South” are more diverse than those of SCs in the “Global North”, reflecting the diversity of the regions not only in terms of economic, social and political configurations, but also in terms of regional security concerns.

Crumpton et al. (2021) recall here that SC initiatives in emerging Asia often rely on foreign investment such as Official Development Assistance (ODA) and foreign direct investment, to compensate for their lack of financial capacity to afford SC projects. In our view, the highly invested nature of SCs in emerging Asia means that scholars cannot ignore the power struggles entangled in international capital flows. Despite their extreme importance, contributions that discuss the diffusion of SCs as a policy idea in relation to international networks and capital flows, such as those by Hyun Bang Shin (2016) and Sarah Moser (2015, 2018) among others, are still quite rare.

To contribute to this research area, this article considers SC initiatives primarily as a matter of political governance. Building on this perspective, we proceed to situate SC projects within the policy history of international coop-

4 Cf. Alizadeh 2021, Kong / Woods 2021, Lim et al. 2019, Datta 2018, Shin / López-Morales 2018.

eration. Contractual projects of international cooperation do not necessarily imply a perfect alignment of interests between donor and host countries.⁵ On the one hand, donor countries are motivated to offer international development cooperation in line with their regional security, economic and moral interests; on the other hand, host countries orient their development policies towards the politico-economic interests of the donor countries to attract foreign capital inflows for the purpose of achieving their own developmental interests.

Here, the concept of interests refers to the overarching desirable future envisioned at the national level. In pursuit of their own interests, these actors “shape agendas and control information flows to steer strategic choices in a preferred direction” (Kaplan 2008: 729). The concept of strategy refers to a procedural scenario designed over time to manage the transformation of the current state of affairs towards the envisioned desirable future (Itami 2012). Interests are held collectively and are therefore open to interpretation; in practice, the relationship between interests and strategies is not static and rigid but dynamic, purposeful and political (Campbell 2005, Kaplan 2008).

Unlike many studies that examine SC projects in isolation, we consider them as a strategy rather than an interest in and of themselves. That is, while the host and donor countries may share the same strategy for building a SC, the interests that each party seeks to achieve through a given project are different. This is what we try to highlight with the concept of “strategic distance”. Against this background, our study poses the question: How is the strategic distance negotiated between donor and host countries? We will explore this question using publicly available official project documents on the SC project in Bang Sue, Thailand. By highlighting the strategic distance between Thailand as the host country and Japan as the donor country, we will discuss the site of democratic responsibility in an Asian SC project based on international cooperation.

Smart City conceptions in Thailand and Japan

In addition to Japan and South Korea, twelve emerging Asian countries have incorporated SC concepts into their national development plans: Brunei, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. Furthermore, six of these countries – China, India, Indonesia, Malaysia, Singapore and Thailand – have established specific SC strategies (Matsumoto et al. 2019). The ASEAN Smart Cities Network (ASCN), consisting of 26 SC pilot projects in 10 ASEAN member states, was launched at the 32nd ASEAN Summit in April 2018 with the intention of promoting SC development across the region. Singapore played a pivotal role in this initiative.

5 Cf. Hartley 2017, Brunner / Enting 2014, Nissanke 2008, Alesina / Dollar 2000.

In the Concept Note for ASCN, ASEAN members posit a vision of sustainable urban development, which they intend to realise through the application of technological and digital solutions to urban challenges such as “city congestion, water/air quality, poverty, rising inequalities, urban-rural divide, citizen security and safety” (ASEAN 2018).

It is noteworthy that the ASEAN Community Vision 2025, published in 2015, made only passing reference to SCs in the context of innovation policy. In contrast, the ASEAN Community Vision 2045, published in 2024, placed greater emphasis on the role of smart technologies as key elements to achieve a green and resilient future for ASEAN. As the future visions of ASEAN have shifted, the strategic significance attributed to SC initiatives has undergone a corresponding shift. Initially, SCs were viewed as a strategy for innovation policy and urban development. However, they have since been repositioned as a strategy for green and resilient (urban) growth.

In order to achieve these objectives, ASCN actively seeks foreign capital investment from external international, national and organisational partners. ASEAN’s efforts appear to be fruitful, with the amount of foreign investment increasing significantly. The objective of seeking external partnerships was welcomed at the 13th East Asia Summit, which took place in November 2018 (ASEAN 2018). Two days later, the US-ASEAN Smart Cities Partnership was launched, with an initial investment of 10 million USD (U.S. Department of State 2022). In November 2019, South Korea promised to support SC projects in ASEAN countries with 300 billion KRW (approximately 228 million USD; Kim 2019). Japan pledged approximately 250 billion JPY (approximately 1.8 billion in USD) in October 2020 (JASCA n.d. a). The European Union promised 5 million EUR (approximately 5.9 million in USD) for the construction of “smart green ASEAN cities” in November 2021 (ASEAN Post 2020).⁶ In 2022, 77 SC projects (ASEAN 2022) were active at various stages of advancement, while in 2023, the number of similarly active projects increased to 86, including Bangkok, Chonburi and Phuket in Thailand (ASEAN 2023).

Thailand

Since the late 1980s, Thailand has achieved significant economic growth under an export-oriented industrialisation policy, which has led to the development of one of the world’s largest automobile industries. In 2022, Thailand ranked 10th in the world in terms of the production volume of automobiles (OICA 2023). However, in contrast to Malaysia, which has implemented a production policy for its domestic companies, Thailand’s automotive production has been conducted by foreign companies, particularly Japanese ones (Intarakumnerd 2021, Natsuda / Thoburn 2013, Techakanont / Charoenporn 2011). This can

⁶ Currency conversions are given according to the exchange rate in April 2023.

be interpreted as evidence that Thailand's industrialisation has been influenced by the close relationship between the policies of the Thai government and the global strategies of Japanese firms.

Since the late 2000s, Thailand's economic growth has stagnated. This is in part due to the decades-long economic stagnation of Japan, which has contributed to this trend. However, more importantly, Thailand has fallen into the so-called "middle-income trap" (ADB 2017). This is a phenomenon in which a country that has achieved a medium level of GDP per capita through economic growth subsequently experiences a decline in growth rate or long-term stagnation. This occurs because the growth mechanism supported by capital accumulation, in terms of an increase in the volume of and efficiency of the labour force and infrastructure, has approached its limits (*ibid.*). In other words, a situation has emerged where the very industrial structure that has supported economic success to date is restraining its further growth.

Against this background, the Thai government launched its long-term socio-economic vision, Thailand 4.0, under the Prayut administration in 2015. This vision encompasses a long-term effort to upgrade the current manufacturing-centred industrial structure (NESDC 2017a). The Thai economy is envisioned to continue its transition from a reliance on agriculture (Thailand 1.0), to light manufacturing industry (Thailand 2.0), to heavy industry (Thailand 3.0) and finally to digital industry (Thailand 4.0). The Thai government is seeking to position the digital and knowledge sector as the primary driver of economic growth (Crumpton et al. 2021); the key objective is a shift from an input-based economic growth model, which relies on factors such as labour, capital and the maximisation of productivity gains from these resources, to an innovation and creativity-based growth model (NESDC 2017a).

This vision, as set forth in Thailand 4.0, is anchored in the Twenty-Year National Strategy 2018–2037. This document outlines the concrete policies that will be implemented to achieve Thailand 4.0 (OECD 2021, NESDC 2017b). The establishment of an innovation and creativity-based economic structure is a goal shared by many countries with advanced economies, including Japan. For Thailand, this goal is to be achieved by fostering manufacturing for next-generation target industries. The Thai government has identified a number of target industries for the next generation, including tourism, agriculture, biotechnology, food and fuel. These industries represent areas in which Thai companies already have a market advantage. In addition, the government has identified a number of other industries, including electronic vehicles, electronic components, robotics, aviation maintenance and digital industries, in which Thai companies have not yet established a market advantage (NESDB 2017a, b). These latter industries represent areas in which the government is seeking to foster growth. Thailand has boosted the growth of its former industrial sectors in close collaboration with the global strategies of Japanese firms. The latter

industrial sectors, which are experiencing growth in surrounding countries, particularly in China, present an opportunity for Thailand to establish infrastructure readiness to manufacture the relevant goods, thereby upgrading and restructuring the country's industrial structure.

In light of this industrial policy, the Thai government has defined the SC as “a designed and business-oriented city, in which the city management and use of resources are made more efficient via modern technology and innovation”. This should ultimately lead to a good “Quality of Life” and the “sustainable happiness of the citizenry” (DEPA 2023). The Thai government's initiative to develop SCs commenced with the establishment of the National Smart City Committee in 2017. This committee is managed by a joint secretariat comprising representatives from the Thai Ministry of Transport, the Ministry of Digital Economy and Society, and the Ministry of Energy. The Board of Investment of Thailand (BOI), the government agency responsible for formulating Thailand's investment policy, is prepared to grant tax benefits to vendors and developers of SC features.

In particular, the BOI (2023) has identified three goals related to SCs. The first objective is to develop industrial estates, which will enhance efficiency in terms of production, energy consumption and transportation. The second objective is to develop business-oriented real estate that will facilitate digital communication. The third objective is to build the capacity to develop and operate this industrial and business system infrastructure. It is apparent that Thai national agencies have assigned SCs a strategic role with the intention of implementing a shift towards Thailand 4.0, which is driven by Thailand's overall interest in escaping from the middle-income trap. In this context, Thailand conceptualises the promotion of SC initiatives as a strategy that aligns with its industrial developmental policy.

Japan

The current OECD definition of Official Development Assistance stipulates that it is provided by official agencies to “promote and target the economic development and welfare of developing countries” (OECD n.d.). The OECD's Development Aid Committee mandate (2018–2022) concretises this aim to be achieved based on the 2030 Agenda for Sustainable Development Goals (*ibid.*) and the fundamental principle of Japanese ODA has been agreed with this aim (MOFA 2003, 2015, 2023). Nonetheless, ODA plays a pivotal role in Japanese foreign policy with the aim of advancing Japanese national interests, irrespective of whether these are economic, political or security-related (Yoshimatsu 2017, Sudo 2001, Söderberg 1998).

Since the end of the 1980s, Japanese foreign aid has been oriented towards bilateral loan-based socio-economic infrastructure exports to middle-income

Asian countries (OECD 2022, Yoshimatsu 2017). During the 2000s, the market competitiveness of Japanese infrastructures and technical solutions gradually declined due to the increasing availability of cheaper and simpler market alternatives (Mori 2019). In order to regain competitiveness and to contain China's regional hegemony, Japanese international aid shifted its focus from the export of single infrastructural equipment to the development of infrastructure systems, including systems of transportation, water sanitation and waste management (Yoshimatsu 2017).

The Infrastructure System Export Strategy, launched by the Prime Minister's Office (2013) emphasises the importance of the strategic use of ODA for this purpose. It aims to enhance economic growth by expanding Japan's reach beyond the shrinking domestic market to include emerging foreign markets, while also ensuring access to the natural resources of countries in emerging economies. This strategy was updated in 2022 to include the security of the Indo-Pacific region as another overarching national interest (PMO 2022b). In order to advance this effort, the Japanese government launched the Spatial Planning Platform at the UN meeting "Habitat III" in October 2016 in Quito, Ecuador. Through this platform, Japan shares its accumulated experiences and knowledge of urban planning with other countries, including in the fields of eco cities, Transit-Oriented Development (TOD), resilient cities and, currently, SCs.

Japan's international cooperation has long been informed by its domestic regional policies, which encompass a range of infrastructural projects, infrastructural systems, urban locational cluster policies and SC building (MOFA 2003, 2015, 2023). In the domestic context, the Japanese SC is defined as a place where a new model of society – Society 5.0 – will be realised (CAO n.d.). The Cabinet Office of the Japanese government (CAO) posits that in a future Society 5.0, economic development and citizen well-being will be achieved simultaneously (ibid.). This future will result from the development and application of smart technologies to solve societal challenges, such as climate change, food and energy insecurity, an aging and low birth-rate society, regional inequality and social anxiety related to natural disasters and biological threats. The concept of Society 5.0 was introduced into the regional governance scheme – the Regional Vitalisation Policy – in a gradual manner. Its implementation proceeds by taking advantage of the decentralised politico-administrative responsibility at the municipality level (Sanada 2023). In order to promote Japanese SC solutions internationally, the Japanese government typically designates local model projects. Since 2013, the Japanese government has organised tours and symposiums to showcase the model SCs.⁷ These projects serve as exemplars,

7 Examples of these model cities include Kashiwa-no-ha Smart City, developed by Mitsui Real Estate and technologically supported by Hitachi in Chiba prefecture; Umekita district, developed by UR and technologically supported by Mitsubishi in Osaka prefecture; Panasonic provides technical support for Fujisawa Smart City; and Yokohama Minato Mirai Smart District, technologically based on Toshiba in Kanagawa prefecture; Ecoful Town with Toyota in Aichi prefecture (see MLIT n.d.).

which enable international guests to envision their own future cities. More recently, even a *Smart City Catalogue* was published (PMO 2022a). This catalogue introduces the concept of Society 5.0, highlighting model SCs, available technological solutions and cooperative measures that target the aid recipient countries.

Japan's urban development experiences have been enabled by the Japanese infrastructure system. Consequently, the adoption of this system by the target countries will help to minimise project risks. In this way, Japanese assistance in spatial planning leads to the promotion of the export of Japanese infrastructure systems (PMO 2022b). The Japanese government actively supports the development of SCs in emerging Asia through its international development cooperation programme, which includes ODA and the promotion of foreign direct investment.

In October 2019, the Japanese government established the Japan Association for Smart Cities in ASEAN (JASCA) with the objective of assisting the development of Smart Cities in the ASEAN region. This initiative has involved the Japanese government providing support to the ASEAN Secretariat and the ASCN in the publication of the *ASEAN Smart City Planning Guidebook*⁸ in March 2022. This guidebook is designed to assist various stakeholders in developing SC projects in ASEAN countries by sharing practical knowledge based on Japanese experiences. In December 2022, JASCA launched a new programme – Smart City supported by Japan ASEAN Mutual Partnership (Smart JAMP) – to support ASEAN's SC initiatives. This measure facilitates further collaboration between stakeholders from ASCN and Japan at varying stages of SC development. By 2023, 17 city governments and 2 central governments in 8 countries had been assisted (JASCA n.d. a).⁹

The Smart City project of Bang Sue district, Bangkok

Bangkok, the capital city of Thailand, was selected as one of the 26 pilot projects of the ASEAN Smart Cities Network (ASCN) in 2018. The city is home to numerous SC initiatives, one of which is supported by Japanese Official Development Assistance (ODA). The Japan International Cooperation Agency (JICA) has initiated a significant urban development project in Bangkok, situated in the Bang Sue district, which is located approximately 10 km north of the

8 Available at https://www.jasca2021.jp/pdf/ASEAN_SmartCityPlanningGuidebook_en.pdf (accessed 22 May 2024).

9 Bandar Seri Begawan in Brunei Darussalam; Battambang, Phnom Phenh and Siem Reap in the Kingdom of Cambodia; Banyu Wangi and Jakarta in Indonesia; Vientiane and Luang Prabang in Laos; Kuching, Kuala Lumpur and Johor Bahru in Malaysia; Cebu and Davao in the Philippines; Da Nang in Vietnam; and Bangkok, Chonburi, and Phuket in Thailand. In addition, support was also provided to two national governments in Thailand and Malaysia.

city centre of Bangkok. The development area covers 320 hectares and is primarily owned by the State Railway of Thailand (SRT). In the 1990s, the Ministry of Transport (MoT) conceptualised the development of a major station complex in Bang Sue with the objective of alleviating traffic congestion and the related environmental destruction around Bangkok. Since that time, a number of overlapping development plans have been launched in the Bang Sue area.

For example, SRT submitted a real estate development plan based on the Transit-Oriented Development (TOD) model in 2015; the Office of Transport and Traffic Policy and Planning submitted a mobility plan that emphasised the Bang Sue bus terminal as the central node of mobility in the area; and PTT Public Company Limited, a Thai state-owned company, developed a SC concept in collaboration with Chulalongkorn University. JICA was tasked with drafting a concept paper that would integrate the various existing development plans and multi-national socio-technical future visions. The final report *Information Gathering and Research Regarding Redevelopment of Bang Sue Area, Thailand* (or Final Report 2017) was submitted to Thai counterparts in July 2016 (JICA 2017). The plan comprised two main pillars of development: 1) the Bang Sue central station, which concerns the development of an infrastructural system in the mobility sector, and 2) TOD-based area development around the central station.

In 2018, the Thai MoT and the Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT) agreed to examine the potential of the SC concept in the same area. The objective was to seek a possibility to further develop the existing TOD plan, presented in the Final Report 2017, with SC elements (JICA 2020). In collaboration with a Japanese private consultancy firm, JICA published another final report entitled *Concept of Smart City to Promote Area Development around Bang Sue Station, Thailand* (or Final Report 2020) (JICA 2020). The following sections will examine these two JICA reports – that of 2017 and that of 2020 – in a comparative manner.

Strategic distance

In 2016, upon the request of the Thai MoT, the Japan-Thai Urban Development Working Group was established. This working group brought together national-level stakeholders from Thailand, including the MoT, the SRT, the National Economic and Social Development Council, and the Bangkok Metropolitan Administration, and from Japan, including the MLIT, the Japanese embassy in Thailand, the Japan External Trade Organisation, the Japan Conference on Overseas Development of Eco-Cities and JICA. In its 2020 report, JICA recommended three SC elements for prioritisation in the Bang Sue area: smart mobility, smart energy and smart environment. “Smart mobility” refers to a walkable city, where a well-managed mobility system facilitates people’s mobility in an environmen-

tally friendly way. This is to be achieved through the installation of a skywalk, parking spaces, an electronic-based public transportation system and a traffic management system. “Smart energy” aims at installing a decarbonising, local and resilient energy system and is to be achieved through the implementation of an Area Energy Management System (AEMS). Finally, the “smart environment” programme is focused on creating a green, clean and circular city through the implementation of an environment monitoring system and a sewage and waste management system, controlled from a SC management centre.

JICA’s recommendation actively incorporates Japanese examples of urban development with such technical elements. For instance, in the context of smart mobility the Final Report 2020 refers to the skywalk project developed by the Urban Renaissance Agency (UR) in Umekita, an area of the city of Osaka, and to the mobility technology used in the Ecoful Town, developed by Toyota, in Aichi Prefecture. The report also references the Kashiwa-no-ha City project with the AEMS and SC management centre, developed by Mitsui Real Estate, in Chiba in the context of smart energy. Furthermore, the report introduces sewage and waste management systems with a shared utility corridor, like those of the Yokohama Minato Mirai district, also developed by UR, in Kanagawa Prefecture, in the context of smart environment.

In May 2019, Thai officials were invited to Japan to visit the showcased cities and experience the existing examples of SC elements – with the intention of building a consensus to include these SC elements into the Final Report 2020. In this way, the Japanese export of SC-related infrastructure systems were promoted. It is noteworthy that the Final Report 2020 introduced examples of SC management centres not only from Japan but also from South Korea and China: the Japanese management centre was presented as an exemplar of a user-friendly system for the operation of AEMS and smart grid systems; the South Korean management centre as an example of traffic monitoring; and the Chinese SC management centre as an example of a systematic AI-based crime prevention system based on data collected with CCTV cameras. The most desirable SC management centre model for the project in Bang Sue is still open for future discussion.

In 2021, the Bang Sue central station commenced operations as an important transportation hub, facilitating connections between railway services provided by the SRT, the Metropolitan Rapid Transit (MRT) and the Bangkok Mass Transit System (BTS). In this mobility project, the majority of bids were awarded to local Thai firms (Toyo Keizai 2023). The BOI has a preference for utilising PPP for project finance, while setting limits on the amount of foreign investment. This entails inviting foreign investors through international bidding, but only as members of joint ventures with Thai companies. This arrangement benefits Thai firms by facilitating the transfer of skills, knowledge and technology, aligning with Thailand’s strategic goal of attracting foreign capital investment

and enhancing capacity building. The success of Japanese efforts to enhance the export of infrastructural systems in the Bang Sue SC project will be determined by the actual project implementation process.

In conclusion, the project process to formulate these reports involved high-ranking national officials from Thailand and Japan, who represented their respective nations' interests. Thailand regards SC developments as a strategy to advance its industrial developmental interests, whereas Japan views it as a means to bolster its economic and security interests. In this sense, the Bang Sue SC project exemplifies the alignment of these divergent perceptions towards desired outcomes, resulting in a concrete project plan. In other words, although both the host and donor countries collaborate on the project, their respective objectives for the strategy they pursue remain distinct. This is precisely what we aim to emphasise with the concept of "strategic distance". It reflects the differences in the actual developmental needs between the parties involved. These differences are anchored in the respective positions in the developmental stages. The Bang Sue SC project offers Thailand and Japan a locus for negotiation, allowing them to incorporate their distinct intended outcomes into the shared project of SC building

The technocratic structure of the project process

In the final reports of 2017 and 2020, concern for existing residents of the Bang Sue SC is not a prominent feature. The Bang Sue SC is treated as a green-field project, which is designing and building a brand-new city on mostly non-inhabited land owned by the SRT. The SRT estimates that only 1,931 households, comprising approximately 7,000 individuals, reside on their property of 320 hectares. They have promised to provide these residents with alternative accommodation (JICA 2020). This estimation is based on official records of resident registration. However, it should be noted that the population of the urban informal sector, including undocumented migrant workers, tends not to appear in official records. Nonetheless, consensus was reached in the exchanges among the members of the working group. With regard to these matters, it is not appropriate for JICA to address them beyond the scope of the working group, as doing so would have the effect of impinging on the domestic affairs of Thailand. The formulation of a technical consensus among high-level stakeholders without due consideration of the actual needs and concerns of the citizenry is indicative of a technocratic approach.

In March 2023, the *Bangkok Post* reported that a part of the project plan had already encountered legal obstacles due to the failure of state authorities to comply with a legal requirement mandating the holding of public hearings with local communities affected by the spatial planning of the state (Bangkok Post 2023). While the further implementation of the project plan awaits politi-

cal approval in Thailand, its feasibility study is advancing through the use of a public-private partnership. The project plan, proposed by JICA, is divided into single, bankable projects. The technical and organisational feasibility studies have been completed. Japanese government organisations were contracted to deliver studies in terms of technologies (JASCA n.d. b) as well as organisational structure (Smart JAMP 2021). JASCA and Smart JAMP have further incentivised Japanese private companies to undertake these studies on a competitive bidding basis.

In the project structure, the democratic responsibility to guarantee citizen participation is transferred from the Thai government to Japanese agencies, and then to Japanese private contractors, who are not legally obliged to comply with such values. In the feasibility studies, citizens are positioned at the core of this project, acting as data providers, with data collected through IoTs and CCTV cameras and analysed for the purpose of research and development. This highlights a structural vacuum of political responsibility to guarantee democratic fairness, social justice and human rights.

The socio-technical construct of the smart future

The Thai authorities have formulated a blueprint to connect the Bang Sue central station with three additional airport links, with the intention of strengthening its function as an international transit hub. This will not only connect Bangkok with domestic regions of Thailand but also with the ASEAN region and China. In this context, the TOD plan for the Bang Sue area, as presented in the Final Report 2017 (Chapter 6, p. 2), identified this area as a “gateway to the ‘City of Angels’”, described as a “dynamic and attractive super urban core where people from all over the world get together for joy and creation”. In order to realise this vision, JICA (2017) recommended the construction of a government centre, a Meetings, Incentives, Conferences, and Exhibitions/Events (MICE) facility and a new industry incubation centre. It presented Japanese examples that could be applied to the Bang Sue area, including government office buildings from Saitama Shin-toshin, Saitama prefecture, a symbolic landmark tower from Yokohama Minato Mirai in Kanagawa prefecture and a TOD plan with entrepreneur incubation space in Umekita district in Osaka. The Final Report 2020 (Chapter 4, p. 8) posits that the gateway functions of the Bang Sue central station will serve as the foundation for its SC concept. Consequently, the Bang Sue area is envisioned as becoming an “innovation platform”. As previously outlined, concrete recommendations were made to further include components from Japan, such as a skywalk, AEMS, a SC management centre, and sewage and waste management systems.

A comparison of the final reports from 2017 and 2020 reveals a shift in the temporal orientation of urban planning. Whereas the Final Report 2017 was

primarily concerned with resolving immediate urban issues, the Final Report 2020 adopted a future-oriented perspective. The Final Report 2017 presented a TOD plan for the Bang Sue area, which aimed to equip the city with the necessary infrastructure to become an international transit and business hub. It recommended the construction of facilities to host visitors, infrastructure that the Bang Sue area currently lacks.

In contrast, the SC plan outlined in the Final Report 2020 places greater emphasis on the role of the area as an innovation hub. In the specific case of Bang Sue SC, our call for greater consideration of the local population's livelihoods may be dismissed as irrelevant due to the official status of the target area of development as mostly uninhabited. In future research, we aim to monitor the project's development and empirically observe its interaction with local livelihoods. Due to their historical and localised nature, local livelihoods are inherently resilient. In their everyday interactions with the city, residents may resist and adapt smart urban spaces according to their genuine needs, in contrast to the expectations of the concept of smart citizens.

Conclusion

The objective of this study was to contribute to the scientific discussion regarding SCs as a matter of political governance, while shedding light on the heavily invested nature of SC initiatives in emerging Asia. For this purpose, the SC project of Bang Sue, Thailand, supported by Japanese Official Development Assistance (ODA), was selected as a case study. Two policy documents were analysed in detail: JICA's final report from 2017, *Information Gathering and Research Regarding Redevelopment of Bang Sue Area, Thailand*, and the final report from 2020, *Concept of Smart City to Promote Area Development around Bang Sue Station, Thailand* (JICA 2017 and 2020).

The analysis of these reports from 2017 and 2020 underscores a crucial observation: firstly, while Thailand and Japan shared a similar strategy for the construction of SCs, the underlying interests pursued by each party for the SC strategy were distinct, indicating what we refer to as "strategic distance". The development of SC infrastructure in the Bang Sue area reflects a joint effort by Thailand and Japan, yet with each country intent on maintaining its respective international competitiveness in the economy and industry. Secondly, strategic distance and technocratic policy structure may not be phenomena specific to SC projects. In the case of the Bang Sue SC project, technocratic policy structure was institutionalised in the policy process, rooted in the sphere of international cooperation. On the other hand, the socio-technical imaginary was much more prominent in SC planning, as presented in the Final Report

2020, than in the Transit-Oriented Development (TOD) plan, as presented in the Final Report 2017. Forward-looking techno-utopian ideological discourse appears to be an important element of SC initiatives. Rather than simply being dismissed as mere ideology, such discourse should be regarded as an important area to be explored by future research with regard to its concrete role in the realm of political governance.

In relation to international capital flows, the significant increase in foreign investment in SC projects reflects the growing competition not only among the host countries in emerging Asia to attract investment, but also among donor countries to allocate foreign capital investment. Thailand welcomes foreign capital investment at both the national (BOI 2023) and ASEAN levels (ASCN 2018). On the one hand, Thailand aims to develop its industrial structure to escape its structural economic stagnation, the so-called the middle-income trap. In our view, more consideration needs to be given to changing a development trajectory anchored in the accumulated human capital and infrastructure of the past, combined with services and digital industries; however, the idea of SCs for Thailand seems to be still informed by conventional export-led industrialisation policies.

In fact, SC planning is a strategy to establish industrial and business system infrastructure for the introduction of next-generation industries (NESDC 2017b). To attract investment, the Board of Investment of Thailand continues to offer incentives and benefits to foreign investors. Thailand is showing its willingness to build a new industrial sector alongside its existing market advantages (NESDC 2017a, b), which appeals to China's techno-industrial competitiveness. In a way, this can be seen as an example of Thailand's rationale for increasing its attractiveness as a host country – to take advantage of the ongoing Japan-China rivalry and as well as the US-China rivalry.

On the other hand, Japan is keen to promote its SC projects through international cooperation. In pursuit of this goal, officials at the national level have made active efforts to enhance the country's attractiveness as a donor. Offering its spatial planning capacity and showcasing domestic examples are some of the key elements of this strategy (MOFA 2023). To plan the Bang Sue SC, Thai officials were invited to visit and select existing examples in Japan to incorporate into their SC plan in Bangkok. At the same time, incentives are being offered to Japanese companies to participate in project implementation. The SC strategy in Bang Sue has already resulted in direct business advantages for Japanese companies involved in the feasibility studies (JASCA n.d. b, Smart JAMP 2021). If the promoted vendors are contracted in the implementation phase, it would also provide the Japanese government with a track record of exporting "quality infrastructure systems" (PMO 2013). From a security perspective, the project is in itself beneficial as it helps to counterbalance China's growing dominance in infrastructure development in the region.

From our initial standpoint of considering SCs as a matter of political governance, we would like to reflect on implications beyond the case studied. The Bang Sue SC project only covers the 320 hectares of land owned by the State Railway of Thailand in the Bang Sue area, but Bangkok as a whole has been nominated as one of the 26 pilot SCs of ASEAN. It should be noted that, in addition to the Japanese plan, there is another SC project in the area that is not included in the ASEAN pilot SC project. This project is called “One Bangkok” and is being developed by a private real estate developer based in Singapore. It aims to develop what they call the “Urbanverse”, a holistically integrated district within Bangkok for luxurious and prestigious urban experiences (ASEAN Post 2018, Frasers Property 2023). To date, the Bangkok Metropolitan Administration has not offered concrete suggestions on how to mitigate the systematic gap, for example in terms of AEMS or sewage and waste management systems, between these SC programmes in Bang Sue and the wider Bangkok Metropolitan context. This points to the ongoing fragmentation in terms of smartification within the Bang Sue area, which is concealed with the label “Bangkok SC”. The envisioned social future remains geographically disrupted and superficial, while economically benefiting a small number of established political and market players.

Emerging Asia is a politically diverse, economically distinct and culturally dynamic region. The variety of industrial histories and institutional constellations within this region gives rise to differences in the real developmental needs of its countries (Alizadeh 2021, Crumpton et al. 2021). Each country has its own unique national agenda for SC development, with each developmental interest attuned to a SC discourse characterised by its socio-technical, forward-looking and citizen-centric nature. The substantial investment in a transnational socio-technical future envisioned by ASEAN overlays and further obscures the concept of SCs. The donor and host countries bring their own strategic goals to the negotiation under the shared banner of a SC project.

This leads to the construction of a mosaic of smartness in terms of socio-technical imaginaries, applied technologies, perspectives and objectives, and capital. The high transaction costs in turn reduce the overall efficacy of investment. This is a point raised by Brunner and Enting (2014) in the context of international climate finance. In practice, what remains are digitally and technologically informed infrastructures that are fragmented on a multilateral level. The term “smart” is open to interpretation and may lead us to overlook the historically configured, locally specific livelihoods that exist within a given locality. The heavily invested nature of SCs across emerging Asia provides us with an opportunity to engage critically with the utopian promotion of SCs, whether on an international or domestic level. In this context, it is essential to pose the question: “SCs for whom?”

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