

Bangkok New Urban Agenda Through Urban Living Lab Model: Case Studies of Urban Studies Lab

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Abstract

In Thailand, the urban population reached 51.34% in 2020 (O'Neill, 2021). Like other megacities, the capital, Bangkok, faces immense urban and global challenges – aging society, climate change impacts, PM2.5 pollution, urban mobility, urban inequality, etc. – and the government cannot overcome these challenges alone. Most efforts to implement urban change in Bangkok come in the form of top-down policies or private-driven projects, and many are inefficient, lack adequate data, and fail to engage local communities. Moreover, academic research in the field of architecture and related fields often goes unnoticed by decision-makers, leading to a large gap between good urban policies and practical implementations for Bangkok's urban development. One solution to this problem is the urban living lab concept, a model that aims to include academic experts, government agents, and private enterprises to work directly with urban communities to achieve more sustainable and equitable urban development. This paper introduces the urban living lab (ULL) model actively applied by Urban Studies Lab (USL), a team of diverse academic experts and professionals based in Bangkok, Thailand. The model places local communities as equal partners in the planning, design and transformation of their cities, and strategically convenes a broad range of actors to test new methods of neighborhood-scale urban development. This focuses on co-creation aiming to expand the organizational capacity of the city, sharing the responsibility that falls on government, and makes a direct impact by changing urban policy, enhancing community power, applying practical and theoretical knowledge, and actively employing a bottom-up approach. By exploring example projects that have resulted from the ULL approach, including placemaking interventions, a social innovation hackathon, and an ongoing COVID-19 relief effort, the authors will demonstrate and evaluate the urban living lab concept as a new tool and mechanism for Bangkok and other cities to achieve the new urban agenda.

Keywords: New Urban Agenda, Urban Living Lab, Place Making, Urban Studies Lab, Bangkok

1 Introduction

The 21st century is the world urbanization. Like many megacities have become the major magnet of opportunity, Bangkok is the capital and primate city of Thailand drawing population of more than 10 millions living in Bangkok or 13% of the total national population (World Population Review, 2022). This causes the increase of populations and urban sprawl development through the past decades. In 2020, Thailand urban population reached 51.34% (O'Neill, 2021). These result in many challenges for the government and citizens to face immense urban and global challenges – aging society, climate change impacts, PM2.5 pollution, urban mobility, urban inequality, etc (see figure 1 and 2). Even though, urbanization can be viewed as the cause of the problems, it should be viewed as the potential and opportunity for solving the world problems (United Nations, 2017).



Figure 1. Flooding problems in Bangkok during the heavy rain days due to the lack of sewage system maintenance. (photo source: <https://www.siamnews.net/environment/19862-four-factors-blamed-for-flooding-problem-in-bangkok/>)



Figure 2. Bangkok sky on the serious PM 2.5 pollution conditions. (photo source: <https://www.it24hrs.com/2018/bangkok-air-pollution-pm25-warning/>)

Thai government has also launched the Thailand's 20-year National Strategy aiming to promote sustainable and continuation of the policy to ensure that the political party will continue along with this path of development. However, due to the process of developing this strategy, the citizens have not participated. This is top-down process of military government. Similarly, the development plans lack the citizen's participation (iLaw, 2017). Most efforts to implement urban change in Bangkok fall in the form of top-down policies or private-driven projects, and many are inefficient, lack adequate data, and fail to engage local communities. Thus, the government cannot solve these urban challenges alone, but stakeholders, professionals, academia, privates and communities must synergize to the encounter these urban challenges.

In addition, the Thai academic researches, especially architecture and related fields, go forward to understand the urban phenomena and to propose urban solutions. However, the data and knowledge are somehow either obsolete when the research project is done, or undergone without being realized by the policy makers or public awareness. Furthermore, the government or university research data has not been consolidated so it is hard to search for and access to the information (Shinpong, 2015). As a result, the research on the urban phenomena and solutions has a large gap between urban research policies and practical implementations.

To suggest urban solutions and promote the New Urban Agenda in Thailand, especially, Bangkok, the study reviews and focuses on the case study of the Urban Studies Lab (USL) which applies Urban Studies Lab (ULL) model as the team approach. The model aims to include academic experts, government agents, and private enterprises to work directly with urban communities to achieve more

sustainable and equitable urban development. Thus, the USL's goal, operation, approach, and activities are investigated and evaluated, especially, the impacts and applying of Urban Living Lab model for further suggestion on the urban Bangkok development.

2 Urban Living Lab (ULL)

The New Urban Agenda (NUA) aims the spatially efficient sustainable urban development and lays the action-oriented plan and strategy for assuring the SDGs implementation in all levels (UN Habitat, 2021). However, the NUA, as blueprint for states to adapt, could not be one size fit all, especially the developing countries. As the urban development has hardly dealt with the professional urban designers' or planners' action; on the other hand, it evolves and is organically developed by the informal settlements or local communities (Caprotti et al., 2017). Furthermore, Caproitti et al. (2017) argues that NUA focuses heavily on the measurable city data and indicators. Therefore, the role of citizens and behavior are often reduced to measurable data for policy making.

Therefore, Von Wirth et al. (2018) argues that the technological innovation is inadequate but socio-technological innovation is more appropriate. Thus, the open platform for solution experiments on an impermanent, adaptable, revisable, vibrant, and open methods is demanded. Moreover, the local communities have knowledge and experience to identify what suits the localities and their people. They know best of what action directly implies to their local conditions and context comparing to the top-down policies and procedures. The ULL model is then an approach to bring the stakeholders to act, experiment, and learn from the urban challenges to seek dynamic and specific site solutions through participation, experimentation and learning on the specific urban area.

However, the challenge for the ULL is how the ideas and solutions can be replicated and reapplied to other places. Thus, there are three stages of ULL: embedding, translating, and scaling. The embedding focuses on the design or application of the existing local context. The translating is an expansion of the knowledge or replication of the design or solutions somewhere else and/or different actors. This stage involves different stakeholders and networks to assist the learning process. The scaling is the application of the experiment on a the different scale (Von Wirth et al. 2018).

3 Urban Studies Lab, Bangkok

Urban Studies Lab (USL) was found in 2018 as a living lab in Bangkok. The USL is a center of independent researchers from various universities and urban practitioners. They focus on inclusive urban development and the impacts on community's lives. Besides from the multidisciplinary and diverse team members, USL divides its teams into four pillars: resilient urban system, urban classroom, inclusive placemaking, and socio-cultural heritage. Through ULL, USL promotes solutions through facilitating collaborative activities to construct a understanding of the urgent issues among the stakeholders and locations while focusing on three impacts areas: direct design or policy interventions, open data and knowledge sharing, and new urban leader education (see the figure 3).



Figure 3: The conclusion of the area of interests, impact areas, and organization activities. (photo source: USL Impact Report 2021)

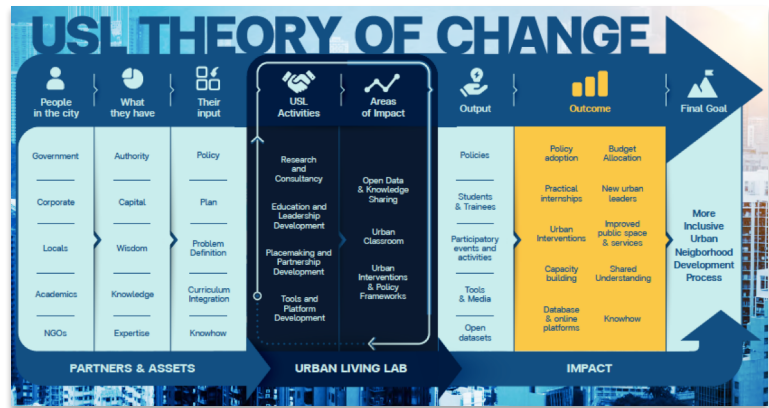


Figure 4: The diagram presents the USL theory of change: who, how, and what to achieve the goal of New Urban Agenda. (photo source: USL Impact Report 2021)

In Thailand, there are other urban changing agents who apply different urban development models. However, USL applies the ULL model to create an approach and platform for collaboratively innovative urban socio-economic, environmental and political solutions. The ULL offers the experimental areas with stakeholders' participations in real time situation. This plays a key role in USL's idea on who, how, and what of the urban problems should be reacted and urgently responded in order to receive the solutions and urban impacts (see figure 4).

4 USL Case Studies Reviews

4.1 Nang Leong Pocket Park

The project is the first placemaking project involved with USL. It was initiated from the International Program in Design and Architecture (INDA), Chulalongkorn University. The studio under the subject of Urban and Architecture was conducted during the summer school. The studio was to understand the urban context while implementing the design-built project intertwining in the urban setting. Through the network, the INDA staff and USL discussed an opportunity for the students to learn about the urban community conditions; cultural, social, and economic conditions (see figure 5 and 6). As working with the community at Nang Leong Community, one of the oldest markets community in Bangkok, USL discussed this opportunity with local leaders and the Pomprabsatrupai District vice officers for the operation and management. Therefore, a committee of park management with representatives from both the district and community was established. As a result, this committee was promoted and supported by a written policy of the Bangkok Metropolitan Administration (BMA).

The supports from various parties has been accounted. The studio students were interested in the empty space nearby the market with ideas of creating the shaded pocket park for community's activities and social events (see figure 7). FREC offer the operational space and labor forces. SOS Foundation proposed plants and gardeners. USL, in this project, acts as a front-end facilitator to the District, the Crown Property Bureau (CPB: landlord), and Nang Leong community.



Figure 5-6: (above left and right images) USL team briefed the INDA students for the community background and answer to the students' question while they provided the students' community trip. (photo source: Pongpisit Huyakorn)



Figure 7: The final proposed design by the INDA students; however due to the CPB's restriction, the roof structure were eliminated causing problematic BMA's registration. (photo source: Pongpisit Huyakorn)

However, with the CPB's regulation control, the original pocket park with the roof to prevent the excessive heat has been cancelled. Unfortunately, as the roof has not been built as a permanent structure, the park could not be registered with BMA for water and electrical supply. This causes problematic issues to the park committee. Finally, the issue was solved by the community. A resident living nearby the park helps supply the water while using the solar cell system to produce lighting system. The BMA regulation is inflexible to permit the community-based project to be registered.

4.2 Mahanak Canal Wall Painting.

In further collaboration with the District, during the pandemic decrease, the Covid-19 and lockdown in Thailand, USL has collaborated on a project, Mahanak Canal Wall Painting, under FREC and the Pomprapsatrupai District, Bangkok. Since the BMA has focused on developing the canals in old town Bangkok, the District also focused on Mahanak Canal to promote the BMA's policy. The project aims to activate/reactivate the abandon canal sidewalk along Mahanak Canal through community participation and engagement. The operation of this project was supported by the District with funding support from FREC. USL worked as a facilitator and ran the engagement process with 3 Muslim communities and schools along the canal.

For this project, USL fulfilled the role of facilitator in order to know the community's requirements and the District's goal through community participation. However, the process was uneasy since during the pandemic and lockdown period. People could not gather and meet in a group according to the government policy. Therefore, the challenge of the project is how USL overcome this unfortunate incidence. Otherwise, the project would have been proposed and unfinished. The USL team decided to have an online meeting instead, send tool boxes to the kids and teenagers in the community, and

invite them to share their ideas and imaginary wall with the USL team. The children in the community are pleased with the process as, as it was a good activity at home (Pin, 2020).



Figure 8: Community children participated in wall painting with the team. (photo source: Pin Udomcharoenchaikit)



Figure 9: During the Covid-19 lockdown, the artists and team continued the painting from the community ideas. (photo source: Pin Udomcharoenchaikit)

Both USL and community youth discussed the ideas behind those images, related to their beliefs in religion mostly. The USL team collected and selected those sketches and drawings from the community youth. Finally, three images from each community were chosen for the final wall painting under the theme of dream, toy, and home. Before the lockdown, a group wall painting with the school kids were conducted (see figure 8). They painted the wall by their hands, after lockdown, the artists using the selected images to continue and finished the project (see figure 9). The flexible of the participation process and tool are the key success in this project to work under the uncertain conditions – Covid-19 lockdown.

4.3 UK Hackathon: Nang Leong Community

In 2020, during the Covid-19 situation, British Council Thailand and USL organized and facilitated the “Social Innovation Hackathon: Creative Placemaking in Nang Loeng. The hackathon emphasized the collaboration between different stakeholders, specifically, the local community and UK creative hubs aiming for social innovations on the local level. This encouraged the community’s participation in Nang Leong community. USL also provided community baseline study. The hackathon invited four Thailand creative hubs (Weave Artisan Society, Factopia, Prayoon for Art, and E-Learng) to receive input from more than 100 local participants with various backgrounds: market community, local district agencies, school students, local leaders in art and craft, new generation business owners, and FREC staffs.

The project offered the participants to explore their ideas and involved first-hand experiences with the community (see figure 10). This process supports each team to validate their propositions. Furthermore, USL provided and trained them to apply the USL’s Social Impact Assessment toolkit to their projects. The proposed projects included a local enterprise digital platform, a virtual tourism experience and local heritage treasure hunt, development of a local pocket park and community center, and a plastic upcycling station for street shading device. There were four criteria for the project: viability, impact, sustainability, creativity, and implementation plan. As a result, the winning team was the Weave Artisan Society with the idea of plastic upcycling bank to create a job on drapery shading device production. The result of the project not only created an urban phenomenon impact on public space, but also supported the job opportunity and reduced plastic waste in the community (see figure

11). The project is also ongoing in the community. However, the rest of the proposal projects were still collected as project banks for the future community development.



Figure 10: The UK Hackathon participants interviewed with one of the Nang Leong Market leaders. (photo source: USL Impact Report 2021)



Figure 11: The proposal design of the plastic bank in the Nang Leong Market. (photo source: USL Impact Report 2021)

The diverse group of participants are very helpful. With the healthy debate and ideas from various professions. It brings out the good lesson from this project. While, the engagement is the main key, the data and information sharing among the participants are also exceedingly important. Moreover, FREC is the physical platform for an idea and information sharing. It provides the neutral ground for all parties to freely share ideas without political and social pressures. In addition, the Covid-19 could be the main obstacle for the participatory workshop causing the expansion of the hackathon; somehow, it prolongs the ideas to be nurtured and customised for the suitable solution based on the local context and experiences they had.

4.4 Covid 19- Relief Bangkok

During 2020, the city lockdown impacted all the people in Thailand. Many voluntary parties and government parties launched the activities to assist effected people. There were vulnerable groups without registration to BMA, so they could not access the public health facilities and living supports. USL, as a co-founder of the Covid Relief Bangkok (CRB), operated with partners from NGOs, academia, privates, and government agencies (SATI Foundation, SOS, Ford Fund, Social Giver, Public Health Center and Local Health Volunteers, Bangkok 1899, RISE Impact, Community Organization Development Institute (CODI), and Brandthink) to aid these afflicted groups.

The USL approach was gathering consensus data and analysed them to identify the vulnerable groups from Covid-19 within Bangkok. This urban data analysis assisted the Public Health Center with crowdfunding (4,000,000 Baht or 150,000 USD.) to initiative aids for these groups (see figure 12). Furthermore, the initiative plan has developed into phase two and three; training mental health first aid for public health volunteers; community base booster camp with CODI focusing on food enterprises (see figure 13).

The ULL framework benefits the urban impacts during the pandemic. The risk management is crucial in this situation. All parties share their skills, expertise, knowledges which offers dynamic coordination among teams. The decision of the team is critical; thus shared data and knowledge assured the team's procedures. Furthermore, the ULL model provides the flexibility and adaptability in real-time and crucial pandemic situations. Moreover, the community also feedbacks the live data to the team after the remedies are applied. This is valuable to evaluate the processes and products; thus, the responses

and remedies are specific and redirect to the current community conditions. The USL is continue collecting and analysing the data from the vulnerable communities with local volunteers in Bangkok for further health and well-being community statistics and relief development plan in the future.



Figure 12: USL and partners are preparing the Covid Relief packs at FREC before sending to the vulnerable communities. (photo source: USL Impact Report 2021)



Figure 13: The phase 2 and 3 of the Covid Relief Bangkok are to promote the community food businesses developing from one of the community's skills. (photo source: USL Impact Report 2021)

4.5 Urban Classroom

One of the USL activities is Urban Classroom aiming to be a channel for the public and academia that are interest in urban issues to explore and learn their potentials, and be part of the solution provider for urban development opportunities. This Urban Classroom is in collaborated with School of Architecture and Design (SoA+D), King Mongkut's University of Technology Thonburi (KMUTT); Faculty of Architecture, Chulalongkorn University (CU), Urban Design and Development International Program (UDDI), Thammasat University (TU) during the summer period. The USL's Urban Classroom now mostly focuses on the university level from various built environmental design; landscape design, architecture, and urban design. The projects or ideas from this Urban Classroom are collected as USL's project bank for the future use.

The activities raise the pressing urban issues in specific areas as the main learning issues. One of the projects in Nang Leong community was tentatively evicted due to the new transportation system development in Bangkok; the orange line subway. The architecture students from KMUTT investigate the cultural, social, and economic conditions of the area in order to propose the projects and programs. The final projects were also exhibited and presented to Ford Foundation for the urban classroom and placemaking projects in the community (see figure 14). Another urban Bangkok development issue is Hua Lampong Station (HLS) (or Bangkok Station) by the State Railway of Thailand (SRT). As the completion of the new Bangkok station at Bang Sue Station, the HLS operating for over 100 years with an area of 192,000 m². is preparing to change the programs and renovation. However, the program and area changes affect the nearby communities which working and doing businesses for generations. USL with TU and KMUTT students also proposed the study of the program and activities for the master plan of the new renovation of HLS. The process used data from the main government research included the SRT officers' interviews, the public participations from the communities and school

nearby, a live online on Facebook for public hearing, online media collaboration, and a design completion (see figure 15).



Figure 14: The students are presenting their design proposal for Nang Leong Community development to the Ford Foundation team. (photo source: Chamnarn Tirapas)



Figure 15: The USL team and research team setting up the online live session on the HLS renovation at its main hall. (photo source: Chamnarn Tirapas)

The Urban Classroom is the activity that USL applies the ULL with academic realm linking the theories and researches into the current urban issues. The participating students learn the impact of the data towards design decisions. Besides, they learn great deal on urban issues and understanding the impacts of the urban development on the communities. In addition, the partners or stakeholders reviewed the proposed projects and were inspired by the possibilities of the projects.

5 Conclusions

The reviewed projects illustrate how the ULL model promotes the inclusive urban development. The ULL model opens to different parties to engage together on the pressing urban issues. Similarly, the USL approach of ULL tackles the urban issues on the specific areas and engage the stakeholders, government agents, academia, privates, NGOs, and especially the community to participate on the project. The projects achieved their goals at different level. Like the Nang Leong pocket park, ULL encourages the top-down policy makers to realize and raise awareness on the constraints and BMA opens the opportunity for the first time to promote the co-operation between the community and district over the public space. The Mahanak Canal Wall Painting suggests the flexibility of approach and methodology of community engagement. The communities also raise the sense of belonging of the space along the canal. The UK Hackathon workshop promotes the collaboration of the local and international points of view to respond to the local urban conditions. Furthermore, its results create new urban job and public space phenomenon. The Covid Relief Bangkok integrate the various skills of experts and using the urban data to identify the sensitive area in Bangkok. From the data, it supports the team to tackle the vulnerable areas more precisely. The Urban Classroom is the activity that opens to the participants to learn and raises the urban awareness. Moreover, the activity enhances the students to explore their design possibility.

To sum up, USL case study has shown that the ULL model emphasizes local communities as the main equal partners in the planning, design and transformation of their cities, and strategically convenes a broad range of actors to test new methods of neighborhood-scale urban development. The model is still in the embedding stage, however, the successful cases are now recognized from the various parties viewing that engagement and participation are the key of the urban sustainable development. This is a

good opportunity to promote the model to be one of the key models of driving urban solutions to respond to Bangkok New Urban Agenda.

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