

Engaging Citizens in Public Service Co-production: Lessons from Volunteer-Based Road Construction in Thailand's Local Government

by

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Abstract

This study takes advantage of a natural experiment to compare building costs and outcomes of two manners of road building: citizen co-production road construction and traditional contracting for road construction. This study explores the genesis and outcomes of citizen co-production of infrastructure relative to contracting with the private sector using a case study of co-production road construction projects in Nongwaeng³ Sub-district Administration Organization, a local government in Thailand. Nongwaeng SAO came to the authors' attention when it received recognition for co-production of roads.

This study addresses several key questions. First, how did the citizen co-production road construction projects emerge and develop? Second, what were citizen motivations for participation? Third, how did citizen volunteers participate in the road construction projects? Fourth, what were the costs and outputs of the projects compared with traditional contracting? Last, what were the conditions—politically, economically, and socially—conducive to the success of the road co-construction projects? The subsequent sections provide a literature review of public participation, methods, data, and analysis. Findings and conclusion are presented in the final sections.

Keywords: Thailand, Nongwaeng SAO, Public Participation, Local Governance

Introduction

Public participation—also known in the literature as popular participation, citizen involvement, citizen participation, citizen engagement, civic engagement, and stakeholder engagement—is widely considered an important aspect of democratic governance (Bovaird, 2007; Creighton, 2005; Irvin & Stansbury, 2004; Rowe & Frewer, 2000). Public participation is more than voting (Mattson, 1986), which allows citizens to express their choice, usually framed as a yes/no question, at the end of a policy discussion process. Public participation is broader:

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the role of citizens is recognized as a key element in public policymaking and public service delivery. Citizens, as individuals or members of groups, are involved at all stages of the policy process, from determining which issues are put to voters to co-producing public services. Recently the subfield of citizen co-production—in which citizens are involved in the delivery of public services—has been reinvigorated as citizens become more involved in the provision of public services (Brandsen & Pestoff, 2006; Pestoff, 2009). Among the ongoing questions of public participation in general and citizen co-production in particular are: why citizens participate, citizens' role(s) in the production and delivery of public services, and conditions conducive to the success of co-production projects (Bovaird, 2007; Jakobsen, 2013; Thomas, 2013). There are also calls for more assessments of the outcomes of citizen co-production relative to conventional ways of public services provision (Brandsen & Pestoff, 2006; Pestoff, 2006; Verschuere, Brandsen, & Pestoff, 2012).

Citizen co-production research has focused on the provision of social services (Bovaird, 2007; Pestoff, 2012). Citizen co-production of public infrastructure (Wiewiora, Keast, & Brown, 2015), such as roads and bridges, has not received as much attention. Infrastructure may require technical skills and expertise that impede citizen co-production. The general argument in support of the conventional market-based approach of contracting with the private sector focuses on standardized practices and potential economies of scale (Ostrom, 1996; Wiewiora et al., 2015).

Public Participation and Citizen Co-production

A set of frameworks from the public participation literature are used in formulating the research questions, designing data collection methods, and analyzing the results. The following subsections discuss each of the frameworks used in the study: levels of public participation, conditions conducive to public participation, and motivations for public participation.

Spectrum of Public Participation

To better understand the extent to which Nongwaeng SAO recognized citizen's roles and citizens recognized their own roles, a framework to examine the levels of public participation from the public's perspective is necessary. There are three main strains in the public participation literature: 1) the importance of diverse stakeholders; 2) the citizen's role in decision-making; and 3) the range of citizen's activities in policy process beyond decision-making—including, implementation, benefit sharing, and evaluation.

The first strain emphasizes the involvement of a range of stakeholders as a key to public participation. Smith (2003) emphasizes the importance for democracy of the full spectrum of stakeholders, "those who will be affected, may be affected, are interested in a policy, or who have the ability to affect the policy process. They may be individuals, groups, governments, government departments, associations, companies, communities" (p. 22). Smith (2003) emphasizes the responsibility of citizens who participate to be informed and willing to listen to others, not just voicing their own opinions. Kokphon (2009) similarly argues that good public participation is based on citizens having freedom, knowledge, and competency, and, more importantly, is voluntary. Smith (2003), Kokphon (2009), and Puang-ngam (2010) recognize that citizens having varying motives for participation: they may choose to participate in different ways and governments will need various participation options to encourage citizens to participate. Citizens' motivations are addressed below.

The second strain of literature emphasizes decision-making as the essence of public participation. Decision-making refers to the process of choosing among competing responses to a policy issue (England, Pelissero, & Morgan, 2011, p. 90). Thus, public participation serves both as an arena for government to inform citizens, hear citizens' opinions and preferred solutions, and place final decision-making in their hands (Arnstein, 1969; Creighton, 2005). Arnstein (1969) proposes a ladder of public participation in which the first five are not participation, but attempts by government to minimize citizen participation, co-opt and placate. The next two rungs are more akin to what is now called citizen participation—partnership with the ability to negotiate with government and delegation of powers to citizens. The final rung is when the marginalized citizens have become an integral part of the formal government structure.

The International Association for Public Participation (IAP2, 2007) divides the public participation process into five levels based on the magnitude of government's recognition of the citizen's role. The lowest level is informing, through such mechanisms as websites, fact sheets, and open houses. The second level is consultation to obtain public feedback on analysis, alternatives, and/or decisions. The third level is citizen involvement, in which government works directly with the public throughout the process to ensure that the public's voice is understood and considered. The fourth level is collaboration, in which government and the public become partners and together make decisions that are acceptable to both entities. The highest level is empowerment, in which final decision-making is in the hands of the public and government implements accordingly (IAP2, 2007). However, the levels of public participation as outlined by Arnstein (1969) and IAP2 (2007) are from the government's perspective; public participation is given to citizens by government. In addition, they focus on the role of citizens in decision-making and do not include the possibility of citizens implementing the decisions in which they participated.

The third strain in the public participation literature highlights a range of activities and goes beyond decision-making. Cohen and Uphoff (1980a, 1980b) propose a continuum of public participation in rural development from the public's perspective. They argue that citizens can participate in four different levels of the public policy process: decision-making, implementing programs, sharing the benefits of programs, and evaluating such programs (Cohen & Uphoff, 1980a, 1980b). Kokphon (2009) similarly argues that public participation is a continuous process, starting with citizens realizing their role in the community, to sharing their problems and alternatives, planning, collaborating (including in production), monitoring, and receiving the benefits.

In addition, there is a literature that focuses specifically on citizen participation in implementation of policy. Citizen co-production is one activity in a broad range of activities that constitute public participation (Bovaird, 2007; Frieling, Lindenberg, & Stokman, 2014; Jakobsen, 2013; Joshi & Moore, 2004). While there are diverse definitions and school of thoughts (Whitaker, 1980), Bovaird (2007) argues that policy making is no longer regarded as a top down process from the government but is rather a negotiated process with citizens. Similarly, services are no longer delivered just by government employees, but may also be co-produced by citizens. Bovaird (2007) offers a matrix of government as sole decider and provider, to citizen participation, to co-production. The matrix includes a range of co-production from delivery of public services with professionals and citizens acting in concert to citizens acting independently of government. Bovaird's (2007) definition of citizen co-production is adopted for this study. He

defines citizen co-production as “the provision of services through regular, long-term relationships between professionalized service providers (in any sector) and service users or other members of the community, where all parties make substantial resource contributions” (Bovaird, 2007, p. 847).⁴ While citizens may have various motivations, the voluntary participation of citizens is a crucial part of co-production (Mattson, 1986).

As Ostrom (1996) has pointed out, based on studies of traditional irrigation systems in Nepal, co-production is not new. Bovaird (2007) argues that co-production is often overlooked because it is ubiquitous, ranging from juries, to citizen watch groups, school volunteers and volunteer elected officials. Normann (1984) argues that the service user is both a consumer and a producer in the service delivery system. As a producer, the service user can participate in various ways—physically, intellectually, and emotionally—including co-production of the service, i.e. the user does some of the work which otherwise would be done by government employees or a contracted service provider. He also notes that the increasing competence of service users makes co-production possible across an increasingly broader range of services.

This study draws on both the public participation literature and the citizen co-production literature to explore Nongwaeng local government and citizens co-producing local road networks. Public participation is the process in which the role of citizens and/or stakeholders is recognized as a key element in public policy making with citizens’ participating in many forms and at different levels. The highest level in IAP2’s (2007) spectrum is empowerment, in which final decision-making is in the hands of the public and government implements accordingly while for Cohen and Uphoff (1980a, 1980b) participation continues through to co-production and evaluation. This study, therefore, employs a combination of IAP2’s (2007) and Cohen and Uphoff’s (1980a, 1980b) continua of public participation that includes both the government’s and the public’s perspectives. The term “co-production” emphasizes citizen’s contribution in producing/delivering public services (the planning, etc. of which also may be developed through citizen participation). In this way, co-production is implementing or executing the final decisions of a policy making process (Whitaker, 1980). Based on the above continuum, we can examine how the Nongwaeng people participated in the initiation of the citizen co-production project, their contribution to road construction, and their involvement in evaluating the road and other outcomes of their participation.

Conditions Conducive to Public Participation

Because public participation does not come with guarantees, the question arises: What are the conditions conducive to public? Irvin and Stansbury (2004) argue that the conducive conditions can be described by two sets of indicators: low-cost indicators and high-benefit indicators.⁵ The costs are lowest when citizens are willing to volunteer, there is stakeholder

⁴ There is a literature on co-production that focuses on services that offer citizens the opportunity to change, such as education, second language acquisition, drug cessation, etc. (Whitaker, 1980; Jakobsen, 2013). The active participation of the individuals is essential for these services to be successful and the benefits are mainly to the individuals that participate, not benefits to the public. This literature is not relevant to the current case.

⁵ To the authors it seemed that some of the high-benefit indicators, such as representatives willing to serve and credibility of the facilitator, are not benefits per se. Rather, they are circumstances that lower

geographic proximity, citizens have financial capacity to participate, the community is homogeneous, the representatives who are willing to serve have influence with the community, the group facilitator has credibility with the citizens' representatives, and the issue is not a complicated technical issue. The potential benefits of public participation are highest when public participation can break policy gridlock, can decrease hostility toward government, and the policy issue is of high interest to stakeholders (Irvin & Stansbury, 2004).

Public participation, nevertheless, is not a panacea as problems can arise because of differences in values and incentives, ambiguous role assignment, free-riders, and burnout of community members (Bovaird, 2007). Irvin and Stansbury (2004) also list some caveats of public participation, which we summarize. First, while public participation may enhance service delivery, there are costs that should not be ignored, such as the time of officials and citizens, as well as potential delays in policy implementation (Percy, 1983). Second, certain groups may have more incentives to participate or have more access to decision-making and not take the larger public good into account (Olson, 1971). Third, if citizens are satisfied with the decisions of local officials, working to increase public participation will not improve outcomes and the time spent will be inefficient. Fourth, citizen's lack of authority to make decisions, either because the consultation is advisory only or the government is attempting to seek support for a decision it has made (not true participation as Arnstein (1969) points out), can backfire and increase public dissatisfaction.

To investigate the conditions conducive to the volunteer-based co-production projects, this study employs the framework of ideal conditions for public participation as developed by Irvin Irvin and Stansbury (2004). The framework allows us to investigate potential conditions from various perspectives—e.g. political, administrative, economic, demographic, geographic, and cultural. For instance, it may shed light on how cultural traditions of the people in the Northeast of Thailand affected the project, or how rice farming—which is the major local occupation—hindered or enhanced public participation.

Citizen Motivations for Public Participation

The above conditions which may be most conducive to public participation provide guidelines for understanding the diverse factors affecting the success of public participation, but they do not explain motivations that lead citizens to participate. A traditional view is that self-interest is the motivation for public participation (Olson, 1971; Ostrom, 1990). People participate in public services provision when they see that they can attain higher material or other benefits through their participation. However, people are also motivated by: 1) intrinsic values, the enjoyment from participating; 2) social values, such as acceptance and approval by others; and 3) normative values, such as democracy and equity (Alford, 2009; Pestoff, 2012; Verschuere et al., 2012).

In addition to behavioral motivations, there may be environmental or contextual factor that motivate citizens. Joshi and Moore (2004) are concerned with why citizens participate in co-production in poor countries. They argue that citizens participating in public service co-production may respond to logistical motivations and governance motivations when government

the costs, increasing the net benefits of public participation. For this reason, our categories do not exactly follow those of Irvin & Stansbury (2004).

faces obstacles. Logistical motivations refer to settings that make it difficult or impossible for government to provide certain public services without co-production. For example, provision of irrigation systems in mountain areas of East Asia was difficult without organized farmers' co-production (Bovaird, 2007; Joshi & Moore, 2004).

The governance motivations occur because of declines or gaps in governance capacity to provide effectively certain public services. Contrary to the above argument that gaps or lack of capacity motivate citizens, Ostrom (1990, 1996) emphasizes the active role of government in opening up opportunities for and institutionalizing public participation and citizen co-production. She finds that without active government co-production is unlikely to be feasible.

Using a randomized field experiment to measure the effect of government initiatives on citizen co-production, Jakobsen (2013) finds that active government initiatives play an important role in motivating citizens' participation by providing them with basic resources. In a grounded theory study using interviews with subject-matter experts and focus group discussions with citizens and public administrators, King, Feltey, and Susel (1998) find that institutional arrangements—such as the roles of public administrators, administrative structures, and managerial processes may facilitate or act as barriers that prevent citizen participation. In order to improve public participation, government agencies have to recognize the public's interest, change their relationship with citizens, and allocate resources for participation efforts (King et al., 1998).

To investigate the origin, motivation, and development of the co-production projects, this study employs a combination of the frameworks developed by Joshi and Moore (2004), Jakobsen (2013), King et al. (1998), and (Ostrom, 1990, 1996). It examines the motivations of the citizens to participate in co-production. It also examines the context within which citizens participate, both governmental arrangements and environmental settings as potential motivations for Nongwaeng SAO to initiate and for local citizens to participate in projects.

Theoretically, this study integrates the literature of public participation and that of citizen co-production, furthering our understanding about the role(s) of the citizens in providing public services. In addition, it recognizes the multifaceted nature of public participation and brings together studies that investigate aspects of public participation—especially, in terms of levels at which citizens participate, conditions conducive to public participation, and citizen motivations.

Methods and Data

Case Selection

Since the 1990s, Thailand has embedded the concept of good governance, in which public participation is a key element, in its public administration through a number of laws (Kokphon, 2009). Governmental agencies and local governments are expected to use public participation in their policy process. However, use of, and attention to outcomes of, public participation varies across the country (Kamnuansilpa & Wongthanavas, 2006).

To encourage the use of public participation, the Royal Thai Government devised a number of mechanisms, including seminars, workshops, performance standards, and achievement awards (e.g. Atchariyapanya, 2012). In 2010 the Office of the Prime Minister hosted a workshop on local governments' public service and administrative innovations as a showcase

for innovations by local governments. Outstanding local government innovations were selected to receive Thailand's Local Government Innovation Awards from the Prime Minister (Royal Thai Government, 2010).

Nongwaeng SAO is a small, rural, local government located in the northeastern region of Thailand. Its jurisdiction (26.64 sq. km., 89 percent of which is agricultural) includes 20 villages with a total population of 5,805 inhabitants (201 people per sq. km.), most of whom are farmers (Nongwaeng SAO Policy and Planning Section, 2010). Previously the SAO had contracted with the private sector to build roads. The citizen co-production road project, initiated by the SAO in 2005, was selected as one of the innovative works by some 60 local governments participating in a regional workshop, and later received national recognition. Because of this award, Nongwaeng SAO was selected for study in order to have an outstanding case for analysis.

Research Design

A holistic case study design (Yin, 2014) is used because the citizen co-production road project of Nongwaeng SAO is a bounded-system, that is it is bounded by time and place (Creswell, 2013; Merriam, 2009; Stake, 1995). An unusual or extreme case, such as Nongwaeng SAO's citizen co-production road construction projects, allows researchers to use a theoretical framework to examine an outstanding use of public participation and identify the conditions conducive to its success (Searwright & Gerring, 2008; Yin, 2014).

The study also takes advantage of a natural experiment (Shadish, Cook, & Campbell, 2002) to compare building costs and outputs of co-production with those of traditional contracting of road construction. Although observations are not randomly assigned to treatments and the treatments are not potentially variable, the natural experiment design can shed light on a naturally-occurring contrast between a treatment and a comparison condition (Meyer, 1995; Shadish et al., 2002). Nongwaeng SAO is located on a plain with sandy soils (Nongwaeng SAO Policy and Planning Section, 2010) and the two types of road were built in the same geographical conditions. In this case, the two treatments occur very close in time within the same jurisdiction, which lowers the potential for intervening variables.

As public affairs researchers, we position ourselves as "outsiders" to the information and reflections given by the participants and approach the information at hand with a critical eye. At the same time, we grew up in rural areas and are familiar with some types of citizen co-production and neighbors working together. That is, our past, experiences helped us better understand the underlying context and synthesize different aspects of the data.

Data Collection

Qualitative data were collected through individual interviews, focus group interviews, and documentary research.

Interviews. Interviews were conducted in late July and early August 2012. Eighteen participants from three groups of residents—executive/administrative, council, and citizens—were purposively recruited for interviews based on their knowledge of the projects. They ranged in age from 29 to 76 and two were female. The executive/administrative group consisted of the elected mayor of Nongwaeng SAO and two administrative officers who were responsible for the projects. The second group consisted of ten out of forty elected members of the SAO council (one

of whom was the council chair and was individually interviewed). The citizen group consisted of five local citizens who participated in the road construction projects.⁶

Interviews lasted between 40 and 75 minutes and proceeded until no new themes emerged (Williams, 2008). The mayor and the two administrative officers, as well as the council chair, were individually interviewed. Due to time and budget constraints, the elected members of the SAO council (except for the chair of the council) were interviewed in a focus group format. The citizen participants also were interviewed in a focus group. Focus group interviews not only are useful in gaining information in a limited time period, but also provide more insights into group interactions, beliefs, and feelings (Morgan & Krueger, 1993). At the beginning of the interview, the focus group interviewees were encouraged to feel free to express their knowledge and opinions. Some focus group members were reserved at first but became more open and relaxed as the interview went on. The semi-structured interview approach (Creswell, 2013; Merriam, 2009) allows the interviewer to be able to probe deeper to gain insights into the participants' knowledge and experience than in a strictly structured interview. For example, while the order of questions was predetermined in the interview protocol as shown below, the interviewer asked several spontaneous questions when needed to gain more detailed information. Even though the interview protocols differed slightly for each group, the essence of the interview questions remained the same.⁷ Nevertheless, groups provided different kinds of information. For example, while the executive/administrative group could give more detailed information about how the projects were managed, the council and citizen groups knew more about the on-site activities.

Document collection. Secondary data were collected from documents related to the co-production road projects. A large selection of photographs taken during the road construction was provided by the SAO and a smaller number was taken by a research assistant. These documents and photographs provided an overview of the projects and later served to corroborate the interviewees' statements. The documents reviewed include: an application for the local innovation workshop (Nongwaeng SAO, 2010a); a booklet on the volunteer-based road construction (Nongwaeng SAO, 2010b); reports on general characteristics of the local area and local government and local development plans (Nongwaeng SAO Policy and Planning Section, 2010); a list of awards and achievements (Nongwaeng SAO, 2010c); the mayor's biography (Nongwaeng SAO, 2010d); and King Prajadhipok's Institute awards reports (College of Local Government Development, 2010).

⁶ All council members and a representative from each of the twenty villages (each village has two representatives on the SAO council) were invited. The participation was lower than hoped because the great majority of Nongwaeng citizens are farmers. July and August—when the interviews took place—are in the rainy season, when farmers need to spend most of their time in the fields.

⁷ The main questions used in the focus groups and individual interviews included: how the co-production projects came about; who participated in the road construction; how the SAO encouraged people to participate; how and why citizens participated in the projects; problems and/or obstacles found in conducting the projects; costs and outputs of the projects; and conditions that made the projects succeed.

Data Analysis

Data were analyzed in accordance with a case study data analysis approach (Yin, 2014), using a key questions method—in which the research questions guided the generation of codes and themes so that the findings would directly answer the research questions. Verbatim transcripts of the interviews were triangulated with three sets of notes taken by three research assistants. The transcripts and the collected documents were read several times by the interviewer and the research assistants to identify recurring expressions. These expressions were coded and aggregated within individual interviews and across individuals and groups to establish themes and categories. Both a priori and emergent codes (Creswell, 2013) were identified.

Findings

Origin and Development of the Co-Production Road Projects

Nongwaeng SAO has an approximate annual revenue from all sources of 40,000,000 baht (approximately US \$1,200,000) (College of Local Government Development, 2010; Department of Local Administration, 2014). Forty percent of the budget is salary and wages for local government employees (Local Personnel Administration Act of 1999, 2012). Nongwaeng SAO faced a limited budget and the public's expressed desired for a better transportation network. Before 2005, like most of the local governments in Thailand, Nongwaeng SAO contracted with the private sector—in line with Ministry of Interior's rules for local governments—for road construction. In general, the SAO found that, with a budget of 100,000 baht (US\$3,000), they could build a reinforced concrete road of 15-centimeter depth, 5-meter width, and 50 to 57 meters in length (Nongwaeng SAO, 2010a, 2010b).

Nongwaeng SAO addressed the budget constraint by means of public participation and co-production. According to Nongwaeng SAO (2010a), the co-production road projects started with a pilot project in 2005 that used volunteer labor for building a short road. Then a second road was built. After the success of two pilot projects, the SAO built thirteen roads in 2009 using citizen co-production.

The co-production road projects contained all of the stages of public participation laid out by IAP2's (2007) and Cohen and Uphoff's (1980a, 1980b) continua of public participation through citizen co-production and evaluation. It also shows that the government took an active role in encouraging citizen participation (Ostrom, 1996; Ostrom, Burger, Field, Norgaard, & Policansky, 1999). The governance motivation (Joshi & Moore, 2004) for the government to take an active role in encouraging citizen participation was transportation needs exceeding the budget for roads.

In 2005, the executive group, the council members, and citizen representatives discussed the budget constraint problem. Specifically, they sought the best way to make the most of an annual road construction budget of 2,000,000 baht (US\$60,000) to be allocated equally among twenty villages (Nongwaeng SAO Policy and Planning Section, 2010). According to the mayor, prior to implementation of the pilot project, there was a cost-benefit analysis comparing projected outcomes of the co-production road with those of existing roads (Mayor, personal communication, July 2011). At the meeting, it was agreed that the SAO would buy all required materials and recruit citizen volunteers to build the roads rather than contract with the private

sector. The mayor and council members demonstrated a changed mindset (King et al., 1998) when faced with budget constraints and information that directly addressed the issue.

As a result, in 2005 Nongwaeng SAO initiated the first pilot project of citizen co-production road construction in Community 19 with a budget of 100,000 baht. In addition to doing the construction, citizens were given oversight of the project.

“We took community leaders, as well as other people, to see and check how many iron rods, how much sand we bought. There were people to examine and verify what we bought. Before, people would say that the SAO was corrupt and got commissions from buying and construction, and there would be complaints and lawsuits. After the pilot project, it turned out fine. A lot of people participated. People had the sense of proprietorship because they did build it. More importantly, we got a road that was twice as long—from 57 meters to 104 meter!”
(Mayor, personal communication, July 2011, translated by the author)

The second pilot project in 2005 built a new road segment that connects to an existing road built by the Provincial Administrative Organization (PAO), a provincial-level government. The PAO road is 300-meter long and was built via a conventional contracting-out approach with a budget of 1,500,000 baht (US\$45,000). Using co-production with a budget of 700,000 baht (US\$21,000), Nongwaeng SAO built the connecting road of 315 meters with similar depth and width. That is, a road of similar length was built for less than half the cost because of the use of volunteers.

Prior to implementing the co-production approach in a boarder scale, Nongwaeng SAO communicated the outcome of the pilot projects to the public through village meetings. This is citizen informing in the IAP2 (2007) continuum. The comparison of the two pilot roads with roads built by contract with the public sector, a natural experiment, showed the feasibility of citizen co-production. The public response was positive: they agreed to use the co-production approach for future roads because it required a smaller budget per meter and thus could yield longer roads. This is public participation in the consultation and the decision-making stages based on the IAP2 (2007) and Cohen and Uphoff (1980a, 1980b) respectively. The SAO then included citizen co-production road projects in the community plan for the following years.

The council of Nongwaeng SAO approved a budget of 1,306,500 (US\$40,000) baht for co-production projects in the 2009 budget. The money was spent to build thirteen concrete road segments in thirteen communities between June and September 2009 (Nongwaeng SAO, 2010a, 2010b). A council member described the role of the SAO as follows:

“First of all, it was the Mayor’s idea [that the SAO act as an organizer] doing all the documents and measurements, providing supplies and tools.”
(Councilman, personal communication, July 2011, translated by the author)

Based on Joshi and Moore’s (2004) argument on conditions that drive public participation, the co-production projects were driven more by a governance condition rather than a logistical condition. That is, the logistical setting of Nongwaeng SAO was not so complex that road building was impossible without public participation. In fact, prior to 2005 a number of concrete roads

were built without public co-production. The governance driver is more applicable in this case study. Although the SAO's capacity to provide concrete roads per se was not decreasing, there was a gap due to the public's increasing need for a more extensive transportation network but limited budget for road development made it difficult for the SAO to meet the increased needs using the conventional contracting-out approach.

However, increasing demand does not fully explain the occurrence of the project. As Jakobsen (2013), King et al. (1998), and Ostrom (1996) argue, organizational arrangements—particularly the public administrator's role and government initiatives—are crucial in motivating public participation, the mayor's vision and actions to incorporate more citizens into local service delivery were important for citizen participation in the projects. More detailed information about the mayor's role is provided in the last subsection.

Citizens' Participation in Co-production Road Projects

When contracting for road construction, Nongwaeng SAO determines which road to build, provides a blueprint and contracts with a contractor via different possible procurement methods depending on the cost of the project (Ministry of Interior Regulation on Local Governments Inventory of 1992, 2010). The contractor is responsible for the entire construction process, without public participation. The local government evaluates when the road is completed.

With citizen co-production, the routes were proposed through village meetings and accepted by the SAO legislative council. Then, the SAO took advantage of the public participation in the village meetings to recruit local citizens to be responsible for the entire process of road construction—from inventory control to building, monitoring, and evaluating (Cohen & Uphoff, 1980a, 1980b). The SAO prepared blueprints and purchased the necessary materials through one of the accepted procurement methods and was responsible for coordination and facilitation (Nongwaeng SAO, 2010a).

After checking and receiving all the required materials and tools, the citizen volunteers constructed the road in accordance with the blueprint prepared by the SAO. The process included soil removal, surface preparation, cement mixing, pouring, and finishing. A citizen gave an example of the citizen volunteers' roles as follows:

"We brought our hoes. [The SAO] ordered cement mix. We helped remove dirt and pour the cement....We were there all day until 8 p.m. Until work was done."

(Citizen volunteer, personal communication, July 2011, translated by the author)

There was trial-and-error, particularly during the construction of the first roads. For instance, for the concrete mixture...

"[F]or the first times, we mixed it by ourselves. The SAO provided the ingredients: cement, sand, gravel, and crushed stone. We mixed them in a mixing machine and, when ready, poured it manually. Then came a new method. Instead of preparing and mixing the ingredients by ourselves, we calculated the required exact amount and ordered a local business that owned concrete mixer trucks to mix the ingredients for us. And, accordingly, they had to have the exact amount of concrete for a certain road."

(Citizen volunteer, personal communication, July 2011, translated by the author)

The citizens said that they went back to contracting out concrete mixture—with specified ingredient proportions and quality control—because it was more time efficient compared to manually mixing it themselves. This suggests that, for them, timesaving was an important cost even with volunteer labor.

Normann (1984) observed that the increasing competence of service users makes co-production possible. In this case, some of the citizens had construction knowledge and were able to specify ingredient proportions and do quality control of the concrete mixture.

When the mixing truck came, some villagers would climb up and see if the mixture was okay. Many people here are good at building: they know how to mix concrete and know if it is well mixed. So that the villagers used good concrete, rain can't decompose the roads."

(Councilman, personal communication, July 2011, translated by the author)

Some citizen volunteers possessed these knowledge and skills because they used to be building contractors or had construction labor jobs in the dry season (more discussed below).

The number of citizens that participated in actual road building varied by segment, ranging from eight to thirteen people (in the 13 roads constructed in 2009, approximately 104 to 169 people in total, most of whom were male adults). Therefore, there were free-riders who did not directly participated in the construction but might benefit from the road networks. However, participation in the road construction projects did not limit itself to merely "building." Since building a road requires some technical skills, citizens who were willing to help but did not possess such skills took part in other ways, e.g. providing food and drinking water, or donating money for food. Thus, the number of all citizens, directly and indirectly, participating in each of the segments was much higher than the eight to thirteen people who did direct construction work.

"The mayor asked the village heads and the people to join in. There were time stamps—checking in, checking out. People wanted no wages. Some even cooked and brought their food to share with others."

(Councilman, personal communication, July 2011, translated by the author)

"Most of the builders were grownups. Middle- or high-school students would come if it was on weekend. Some older people also came with their tools but they didn't actually build the roads. They were more likely giving moral support."

(Citizen volunteer, personal communication, July 2011, translated by the author)

In sum, diverse groups of stakeholders participated in the projects in many different forms. Citizens who possessed building knowledge and skills were mainly responsible for building the roads throughout the entire process, including planning, inventory checking, concrete mixing, monitoring, and evaluation. Citizens who did not have building skills took part in other ways, such

as providing food and moral support. The local government took the role of facilitator or organizer, and resource provider.

Based on IAP2's (2007) spectrum of public participation, Nongwaeng SAO used local citizens' involvement in the co-production projects at all levels. For instance, the local government empowered the citizens to make final decisions about the route, construction approach, concrete mixture and quality of the roads. Using Cohen and Uphoff's (1980a, 1980b) continuum of public participation, the citizens participated in the projects at all stages of policymaking, i.e. decision-making, implementation, benefit sharing, and evaluation.

Outcomes of the Citizen Co-production Approach

When asked to evaluate the co-production road construction projects, the councilmen said that the projects yielded better outcomes than those of the contracting-out approach. To them, the projects were less expensive because they took advantage of volunteer labor and what mattered was to provide sufficient resources.

"If we were having a contractor, we would get this much work. If we were using the volunteer approach, we would get much more work. From merely 50 meters, we could get at least 70-80 meters. This is how each of the villages in Nongwaeng SAO thinks. We think in the same direction. The longer road, the better."

(Councilman, personal communication, July 2011, translated by the author)

Table 1 (below) provides a comparison of average outputs of two types of road: those constructed through a contracting-out approach in 2008 and those through the co-production approach in 2009 as reported by Nongwaeng SAO as well as perceived by the interviewees. Nongwaeng SAO is located on a plane with sandy soils (Nongwaeng SAO Policy and Planning Section, 2010). Therefore, the two types of road were built under similar geographical conditions and close in time.

Table 1. A Comparison of Average Road Construction Inputs and Outputs Completed through a Contracting-Out Approach and through the Co-Production Approach

Outputs	Approaches	
	Contracting-Out	Co-Production
Budget	\$3,000	\$3,000
Width	5 m	5 m
Depth	15 cm	15 cm
Length	50-57 m	100-110 m
Number of workers	4-7 workers	8-13 volunteers
Days to complete	2-3 days	1 day
Meters per worker-day	2.38-7.125	7.69-13.75
Quality of the pavements at one year	Decaying	Intact

Note: Based on 13 co-production roads.

Sources: Nongwaeng SAO, 2010a; 2010c; Nongwaeng officer, personal communication, January 27, 2014.

According to the SAO (Nongwaeng SAO, 2010a, 2010b), with similar width, depth, and a budget of 100,000 baht (approximately US\$3,000), roads built using volunteers were twice as long as those under the conventional approach—i.e. approximately 100 meters compared to 50 meters (Table 1). While the lower cost with volunteer labor, allowing longer roads, is not unexpected, the volunteers also did better in temporal terms. That is, an average time to complete a road segment under the contracting-out approach was two to three days, while that of the co-production was only one day. Timesaving appeared to be an important outcome for the citizens. As noted in the previous subsection, the citizens returned to use a contracting-out approach for the concrete mixture because they could get the road done faster than manually mixing the concrete themselves. It saved time that they could use for their normal daily activities. In general, the co-production approach allowed them to have use of the road sooner, at least a day or two.

“Some of [the citizens] were disappointed because they didn’t get a chance to work on the road building: the road was done far too quickly.”

(Councilman, personal communication, July 2011, translated by the author)

It is possible that the roads were built faster because there were more workers on the co-production projects. However, the number of meters per worker day can be used to compare the two methods of building. Under the contracting-out approach, meters per worker-day range from 2.38 to 7.125, while those of the co-production approach range from 7.69 to 13.75. The volunteers’ lowest meters per worker-day are higher than the contractor’s highest ones.⁸

⁸ Data used for this comparison are mainly based on the SAO’s documents, interviewees’ recollection, and visual examinations. The authors neither conducted technical tests of the road nor interviewed the private contractors.

In terms of pavement quality, which is generally a result of ingredient proportions used in concrete mixing, the interviewees agreed that roads built under the co-production approach were of higher quality. According to a councilman...

“[The qualities] differ. [The contractor’s] works don’t last too long. Their concrete pavements are decayed in less than a year. But those of the villagers are smooth and in good shape because the ingredients were well proportioned and mixed. When the mixing truck came, some villagers would climb up and see if the mixture was okay. Many people here are good at building: they know how to mix concrete and know if it is well mixed. So that the villagers used good concrete, rain can’t decompose the roads.”

(Councilman, personal communication, July 2011, translated by the author)

While citizen co-production was expected to produce more meters of road, due to lower cost, an unexpected outcome was higher quality roads. This suggests that the contracting process did not contain sufficient oversight.

Besides outputs that were easily quantified or assessed, the co-production approach also led to some less tangible outcomes. These outcomes are mainly associated with participants’ feelings as well as local norms and traditions. The mayor, councilmen and citizen volunteers gave similar responses regarding intangible outcomes of the co-production projects. They said that, besides cost savings, the project contributed to self-esteem, helped revitalize and promote local unity and reciprocal traditions among the citizens, encouraged reciprocity, and promoted a sense of proprietorship over public goods among the villagers. According to a councilman, he would...

“[T]ell my grandchildren that I built the road, that I was a volunteer.”

(Councilman, personal communication, July 2011, translated by the author)

After experiencing the successful outcomes of the road projects, citizens were willing to undertake more projects. Nongwaeng SAO has applied the co-production approach in several building projects, including a bridge over a creek and six community houses. The six community houses were built in three villages with budgets of 60,000 baht (US\$1,800), 80,000 baht (US\$24,000), and 100,000 baht (US\$3,000). When completed, they were assigned to local poor citizens according to the village meetings’ decisions. .This is an example of the local cultural traditions Both the houses and the bridge were built under the similar co-production approach—the SAO provided necessary resources and citizen volunteers were in charge of the construction. However, a councilman appeared to be more impressed, if not amazed, by the bridge project:

“I wish you were there and saw it. The way they built it was unbelievable. [...] The volunteers were good. From the start to the finish, [it took] 28 days. They built and put into the water huge pillars, the size of 50 by 50. Plus, they did that in winter!”

(Councilman, personal communication, July 2011, translated by the author)

Nongwaeng SAO (2010a) summarizes the outcomes obtained from the co-production road projects as follows co-production cost savings in terms of budget and time; enhancement

of public participation among local citizens; increased transparency through public participation; increased citizen empowerment; better knowledge about policymaking, planning, and decision-making; increased sense of proprietorship; promotion of local unity and harmony; and revitalization and maintenance of local norms and traditions. As Jakobsen (2013) argues, citizen co-production manifests its benefits in terms of improvements to the quality of public services, improvements to citizenship, and increases of social capital.

Conditions Conducive to the Success of the Co-production Projects

When asked why the co-production volunteer-based projects were successful, three conditions were mentioned: the mayor's changed mindset and encouragement of participation, citizen's knowledge and skills and local traditions of sharing and reciprocity.

Mayor. The councilmen and the citizens said the mayor was the very first person that they could think of who was important to the success of the co-production. Particularly, the citizens described the mayor as a visionary figure whose ideas and performance were exceptional. If the mayor gave a promise, he would keep it and get it done. And when there were tasks that required public participation, he would join in first as an exemplar. Citizens judged his performance such that the mayor was re-elected (Department of Local Administration, 2014).

"He says it, he means it. He does what he says."

(Citizen volunteer, personal communication, July 2011, translated by the author)

According to the mayor, after he was reelected to his second term in 2005,⁹ he changed his ideology from centralizing all the powers to decreasing his own powers and sharing them with the public. This new ideology led him to be open to more public participation in planning, decision-making, implementation, monitoring, and evaluation.

"[We] needed to ask the villagers which way they wanted. Eventually, they saw the results and did not want to contract-out. This was a response to the SAO: people needed it. So I got an idea that people can do anything by themselves. Before I thought that the mayor had all the power and could do anything. But that does not sustain, nor does it lead to participation."

(Mayor, personal communication, July 2011, translated by the author)

"Now the people can do anything with me keeping my profile low as only an advisor, a facilitator, or a coordinator. So there have been changes."

(Mayor, personal communication, July 2011, translated by the author)

⁹ The mayor's credentials as a public administrator trace back to 1995 when he was elected Kamman or sub-district head. After the establishment of Nongwaeng SAO as a local government unit in 1997, he was appointed as ex officio chairman of the SAO administrative committee. In 2001, he was popularly elected a committee member and subsequently voted by the committee as the chairman. After a series of legal changes in the structure of local governments nationwide, he was elected mayor directly by the constituents for the first time in 2005. He was re-elected mayor in 2009. However, when he ran for mayor in 2013, he was not re-elected.

When asked how had he motivated local citizens to participate in the projects, the mayor replied that the first task was to come up with something new or some changes. Then he started making those changes as an exemplar, convincing the public that change was possible. In retrospect, he explained that increased costs led him to consider alternatives.

“With the conventional contracting-out way, I knew that there would be procurements, there would be auctions. In the past, the SAO assessed the standard cost at a little more than 300 baht per square meter of concrete road. But now it goes up to six- or seven hundred baht. So I wondered if doing it by ourselves was cheaper. So I tried.”

(Mayor, personal communication, July 2011, translated by the author)

This statement corroborates not only Jakobsen’s (2013) emphasis on an active government role but also King et al.’s (1998) argument that changed mindset of the public administrator helps create opportunities for public participation.

The mayor had some experience and knowledge about construction because he used to be a contractor, so he knew the quantity of materials and prices for the roads.

“I know that contractors calculate their cost in line with the governmental standard prices, which are relatively high. For instance, for a bag of cement the standard price is 120 baht. Price of iron rods is also higher [than the market price]. So I knew that if we contracted out, the cost would be double.”

(Mayor, personal communication, July 2011, translated by the author)

Citizens’ knowledge. Besides the mayor’s experience and leadership, the second condition that made the co-production projects succeed was the skills of the citizens. More specifically, in Nongwaeng SAO there are a number of citizens who are, or used to be, contractors or builders. According to a councilman,

“They knew how many cubic meters [of concrete] were needed. They knew how to mix it. The contractor couldn’t tell them a lie.”

(Councilman, personal communication, July 2011, translated by the author)

As noted previously, some of the volunteers used their knowledge in specifying standards for ingredient proportions, enforcing the standards for concrete mix, building the roads, and assessing the quality of the pavement. It is common in rural areas in Thailand where people work locally in the agricultural sector during the rainy season and move to urban areas to work in the construction sector during the dry season (Guest, Chamrathirong, Archavanitkul, Piriathamwong, & Richter, 1994). Some of the citizen volunteers would have gained their construction knowledge through this kind of seasonal employment.

The volunteer citizens’ knowledge about building was crucial not only in completing the projects but also in building concrete roads with higher quality than those built by the contractors. Without volunteers with this knowledge, the projects might not have been

successful. This fits with Normann's (1984) argument that co-production is made possible by the competence of users: the more competent the users are, the better the service co-production. The volunteer citizens, indeed, not only were service consumers but also service producers who provided a high-quality product.

Local traditions. Finally, the readiness of local citizens to participate played an important role in the success of the co-production projects. Several councilmen agreed that citizens in their jurisdictions were willing to participate in this kind of projects.

"I would say 99.9 percent [of the people had readiness]! They always came. If there were a volunteer project, even though they were working in the paddy fields, they would come. Like that time in Non Ko village, which is not my neighborhood, we went to help them. Every village head, too."

(Councilman, personal communication, July 2011, translated by the author)

Ostrom et al. (1999) argue that cultural homogeneity helps increase the possibility for the community members to come to common interests and understandings. The councilmen and the volunteer citizens mentioned culture as an important condition that motivated people to participate in the co-production road projects. According to them, reciprocity is a norm of Nongwaeng people. When asked to give an example of reciprocal traditions, a councilman replied:

"Besides the traditional twelve monthly festivals and fourteen norms, [Nongwaeng] keeps [the Long Khaek tradition]¹⁰ to this day. During the harvesting season, people would help each other harvesting and husking. The villagers are generous. In 2005, when we started building the road, the executives, the councilmen, and the community leaders came."

(Councilman, personal communication, July 2011, translated by the author)

An older volunteer citizen provided similar information. He said that Nongwaeng people had embraced these norms or traditions long ago. Since rice farming is the main occupation of local citizens, he also gave an example of working in paddy fields: after harvesting in the morning, the villagers would help husking rice at night and they would help until all the husked rice was moved to storage.

"These traditions existed since my great-grand parents' days. In the past, we paid nothing to build a house. If you built in the morning, you could stay [in the house] at sunset. Now, we need to hire a contractor that works for months. This is because in the past we didn't need nails—only wooden sticks and bamboo would do it!"

(Citizen volunteer, personal communication, July 2011, translated by the author)

¹⁰ Long Khaek (ลงแขก) refers to a process of labor exchange in which a person or family helps relatives, friends and/or neighbors for certain work, particularly in rice production. The process was common in Thailand and is still practiced in rural communities (Thai Junior Encyclopedia Project, 1989).

Because these norms and traditions still exist in Nongwaeng SAO, local citizens are willing to participate in other projects or initiatives. The co-production road projects were an extension of traditional reciprocity.

“If someone was busy and couldn’t come, there would always be someone standing by.”

(Councilman, personal communication, July 2011, translated by the author)

In summary, the conditions that made citizen co-production feasible and contributed to the success of the co-production projects were: experience and leadership of the mayor, willingness of the mayor to change and try new things, skills of the citizens, and the cultural foundation. According to Irvin and Stansbury (2004), citizens’ skills and culture are conditions that lower costs and facilitate the success of the projects. Even though road construction requires certain technical skills, the fact that some volunteers possessed construction knowledge made it possible for the SAO to implement the projects with limited inputs from private contractors. Meanwhile, homogeneity of local culture—specifically, unity and reciprocal traditions—made it possible for the SAO to mobilize citizens to take part in the projects.

The mayor’s leadership served as a high benefit condition. His reelection to a second term indicated that he was well regarded by community leaders, councilmen, and local people in general. As a result, he was a credible facilitator for the projects.

While not mentioned by the interviewees as a conducive condition, a theme that emerged in our analysis of the interviews was that citizens’ perception of corruption in local construction may also be a potential condition leading to the success of the projects. As noted earlier, the mayor said: “Before, people would say that the SAO was corrupt and got commissions from buying and construction, and there would be complaints and lawsuits” (Mayor, personal communication, July 2011, translated by the author). This statement seems to fit Irvin and Stansbury’s (2004) argument that citizens’ hostility towards government serves as a high-benefit condition, indicating that citizen co-production is a promising approach for public service delivery. This is because if government uses co-production when citizens are hostile towards government, it may minimize hostility. Therefore, citizens’ hostility may serve as a departure point for public participation.

Conclusions and Recommendations

What We Learn from the Case

Public participation, a process in which the role of citizens is a key element in public policymaking and public service delivery, is widely considered one of the most important aspects of democratic governance. Thailand has embedded the concept of good governance, in which public participation is a key element, into its public administration. Governmental agencies and local governments are expected to implement public participation in their policymaking and service delivery processes. This study theoretically contributes to the literature by not only tying public participation and citizen-coproduction studies but also testing the integrated framework via a case study. While use of public participation varies across the country, this study used a holistic case study to examine public participation and citizen co-production of roads in a small-

sized local government in Thailand. The study takes advantage of a natural experiment to compare building costs and outputs of the co-production approach with those of traditional contracting of road construction and examines condition conducive to the success of the projects.

The co-production road projects emerged in response to the citizens' need for a lower cost transportation network, given budget constraints. The pilot project in 2005 served as a model for other public construction in the jurisdiction, such as additional roads, community houses and a bridge. The findings are consistent with Joshi and Moore's (2004) argument on factors that drive public participation—particularly, governance—as the need for a more complete transportation network and increasing costs made it difficult for the SAO to provide the service through a conventional contracting-out approach. Jakobsen (2013), King et al. (1998), and Ostrom (1996) argue that public administrator's role and government initiatives are crucial in motivating the public to participate in public affairs. We found that the mayor's and council's leadership were important in beginning co-production

Based on the IAP2's (2007) public participation spectrum, the projects allowed Nongwaeng SAO to enhance public participation to the highest level of the spectrum—from informing to consultation, involvement, collaboration, and empowerment. In addition, citizens of the SAO participated in the co-production road projects in different roles including decision-making, implementing the projects, sharing the benefits, and evaluating the road outputs and quality (Cohen & Uphoff, 1980a, 1980b).

Conditions that made citizen co-production feasible and contributed to the success of the projects were leadership of the mayor, local human resources that include construction knowledge, and cultural foundations. According to Irvin and Stansbury (2004), human resources and culture are low cost conditions that facilitated the success of the projects, while the mayor's leadership served as a high benefit condition. The projects not only led to lower costs and faster completion times, but also yielded longer roads with higher quality compared to those built by a contracting-out approach. In addition, the projects strengthened relationships among the citizens and reinforced local norms and values.

Policy Implications for Local Policymakers

Despite the current study is a single case study, it does contribute to a body of literature on citizen co-production, which over time may lead to a richer set of findings. Nongwaeng SAO is similar to many other rural communities in Asia—e.g., agricultural-based, ethnically and economically homogeneous, and having limited access to resources—and its extreme case of road construction projects provides several lessons for local policymakers in Asia. First, the case has demonstrated that citizen co-production in infrastructure-based public services is feasible and can yield better quality services. Local governments with limited revenues for investment may employ a co-production approach to achieve efficiency and better outcomes. Second, an unanticipated contribution of this research concerns the relationship between co-production and corruption. Ostrom (1996) has pointed out that co-production can narrow the divide between public offices and citizens, and expose such opportunistic behaviors as corruption. This research finds that co-production did expose such behavior but it also finds that citizen cynicism about government corruption can motivate citizens to participate in co-production projects. Therefore, local government may employ a co-production approach to achieve transparency and promote

citizens' trust. Third, the case provides insights into the nature of public participation, particularly, why citizens participate. Local governments that wish to mobilize citizens to participate in their projects need to find community leaders who not only know about the locality but possess knowledge related to the subject matter.

Note that we are neither suggesting that the co-production approach is the best way to construct roads nor claiming that it is universally applicable. Rather, we argue that, in certain environmental settings, public participation can be used to its highest levels, as found in the literature, for public service delivery, and lead to outcomes that are acknowledged as successful by both government officials and citizens. That is, as Irvin and Stansbury (2004) argue, public participation includes a wide variety of people and is context-dependent: it may or may not be applicable or efficient in all cases.

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