HOW DO WE ENGAGE WITH CITIZENS ON OPEN CONTRACTING DATA?

Lessons learned from implementing an open contracting project in Bandung, Indonesia

LESSONS LEARNED PAPER
This paper was written by Dinita Andriani Putri, Michael Canares, and Andreas Pawelke.


Acknowledgements: This research is a result of the project on open contracting data engagement funded by the World Bank and implemented with the National Procurement Agency of Indonesia, and the City Government of Bandung. Glenn Maail, Dhanaraj Thakur, and Carlos Iglesias provided insights and comments.
1. Background

Thirty percent of Indonesia’s national budget and an estimated sixty percent of all foreign development assistance is spent on procurement each year.¹ However, inefficiencies and a lack of transparency and accountability in the public procurement system result in the loss of an estimated USD $15 billion annually.² According to a recent report by Indonesia Corruption Watch, a local anti-corruption watchdog, public procurement projects are one of the major sources for the misuse of public funds.³

Reforming inefficient procurement systems is therefore key in making sure that public money is used for the public benefit. A promising way to do so, and with a growing track record to deliver results⁴, is to open up opaque procurement systems by disclosing data generated at the different stages of the contracting cycle. Open Contracting is “about publishing and using open, accessible and timely information on government contracting to engage citizens and businesses in identifying and fixing problems.”⁵

Indonesia, a founding member of the global Open Government Partnership⁶ initiative, has in recent years invested in open government programmes, open data initiatives and public procurement reforms. While the national government is yet to implement the Open Contracting Data Standard⁷ that provides technical guidelines for the publication of procurement data and documents for easy public access, citizens can already obtain information about public procurement from various online systems such as SiRUP⁸ or INAPROC.⁹

In 2015, Indonesia’s National Procurement Agency (LKPP), the city government of Bandung and the World Bank launched a joint initiative called the Open Contracting Pilot Project to improve the availability, accessibility and use of data related to public contracting in

⁴ https://www.open-contracting.org/why-open-contracting/#the-evidence-so-far
⁵ https://www.open-contracting.org/why-open-contracting/
⁶ Open Government Partnership is a multilateral initiative established in 2011 that aims to secure concrete commitments from national and subnational governments to promote open government, empower citizens, fight corruption, and harness new technologies to strengthen governance. The partnership has 76 states as members.
⁷ https://www.open-contracting.org/data-standard/
⁸ https://sirup.lkpp.go.id/sirup/ - a site managed by the National Public Procurement Agency (LKPP)
⁹ http://inaproc.id/ - a national procurement site managed by National Public Procurement Agency (LKPP)
Bandung. At the same time, the project sought to enhance government, civil society and private sector capacity to use the data for procurement and contract monitoring.

The project had three components: 1) publication of Bandung's contracting data in open data formats; 2) development of key performance indicators on public procurement and related data visualizations; and 3) facilitation of citizen engagement and practical use of the data and statistics, through the use of ICT tools and targeted capacity building of stakeholders from government, civil society and the private sector.

The Jakarta Lab was involved in the third component by stimulating the meaningful use of procurement data by potential user groups, such as CSOs, civic tech groups, researchers, service delivery providers and businesses in the city of Bandung. Furthermore, the Lab also sought to demonstrate the potential impact of disclosing contracting data for stakeholders within and outside of government. There are few countries that publish open contracting data, and in Indonesia, the practice is still very minimal.

2. What did we want to achieve?

Throughout 2018 the Jakarta Lab team worked with project partners to support the use of procurement data by a range of user groups to tackle public challenges in the city of Bandung. While the provision of the data is no easy task, facilitating citizen participation in public procurement along with the use of contracting data and documents is an even greater challenge.

The project aimed to achieve two main outcomes. First, we tried to increase the use and understanding of contracting-focused data analytics by and for the benefit of different interested stakeholders. Second, we wanted to strengthen civic tech skills to develop viable data-driven innovations to benefit specific stakeholders.

3. What did we do and what did we find?

To make open contracting as impactful as possible, the data must be used by the potential users, both internally by the government agencies and externally, by civil society, business, academia or community groups. We focused our work to increase citizens' awareness on open contracting, reaching out to community groups from various backgrounds, and engaging with potential users to use open contracting data.

Using a modified version of the Lab's innovation framework, the project was split into three phases, each building on the findings and learnings of the previous one: Design, Implement and Share.
PHASE 1: DESIGN

In the first phase of the project we aimed at building a better understanding of the open contracting landscape in Bandung that would help us identify entry points and communities to work with. Through a document review, we identified individuals and groups using or interested in the use of procurement data in Bandung. To learn more deeply about potential user groups, their characteristics, their data needs and their interest in using contracting data in their work, we conducted a survey from July 12 to 31, 2018. A total of 54 organizations participated in the survey.

Figure 2. Interest in using procurement data among key stakeholder groups
The survey showed that the private sector is highly engaged with procurement data. Aside from bidding for tender opportunities, companies were using the data to conduct market research. Journalists, on the other hand, have also been engaging with contracting data to inform their reporting. For instance, procurement data was often sought when there was a corruption case related to the implementation of a government project. Academics and researchers have used the data in their research, while CSOs engaged with procurement data mainly for monitoring governance processes and effectiveness of public service delivery in the city.

There is a high level of interest across stakeholders on contracting data, more particularly, the details of the government’s procurement plan, the justification in selecting a winning bidder and information regarding supplier performance. These data sets cut across the whole contracting cycle, from planning to award and to contract implementation. However, there is a significant capacity gap in terms of analyzing and making sense of contracting data that is published by the city government.

There are three main stakeholder groups that expressed interest in using contracting data — the private sector, journalists and the tech community. While CSOs are interested in using contracting data, there is less technical and knowledge capacity in data usage. In the same way, while the business community is invested in contracting data, they do not have human resources to engage directly through the project. So, we decided that we will connect the interest of the business community and the civil society organizations with the technical capacities brought by the tech community who can potentially develop applications that will serve the interest of both user groups. In return, this collaboration also increased the awareness of open contracting data in the tech community.

As a result, the Design phase surfaced three possible approaches to promote the use of contracting data in Bandung:

1) An incubation programme to support the development and testing of software applications that would make procurement data easier to consume by certain target groups, more particularly the private sector and civil society groups.

2) A data journalism training to strengthen the contracting data analysis skills among journalists and help them produce contracting stories.

3) A visualthon for communication design students to visualize data from the Bandung city open contracting data portal and help different stakeholder groups take interest in and understand contracting data.

We hypothesized that in order to make open contracting impactful, engagement with the right actors is important so they have a better understanding of the data and are able to use it effectively. We therefore deliberately chose to engage not only actors dealing with public procurement on a more regular basis such as businesses, but also those less familiar with and knowledgeable about the issue like tech startups, students and journalists. In each of the activities, we invited experts to guide the various groups through the process of learning about public procurement.
| Engagement type       | Target group                                                                 | Objective                                                                                                                                  | Outputs                                                                                                             |
|----------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Incubation programme | Local civic groups, activists and civic-minded technology experts, and business community. | Demonstrate the value of open contracting data                                                                                                                                                    | Prototypes that show how procurement data can be used to advance transparency, improve service delivery or increase efficiency in procurement |
| Data journalism training | Local journalists from print and online media | Strengthen capacity of infomediaries in using open contracting data to provide evidence-based reportage on contracting issues | Contracting stories published                                                                                                                                                           |
| Visualthon event     | Communication design students with the capacity to cascade outputs to the wider community via traditional and new media       | Increase awareness among city constituents about the existence and importance of open contracting data disclosed by the city government | Visualization and communication materials based on available open contracting data                                       |

**Figure 3. Engagement Activities, Objectives, and Outputs**

**PHASE 2: IMPLEMENT**

**Incubation Programme: Stake Meets Tech**

The incubation programme kicked off with a systems mapping and design sprint workshop. Participants, composed of private sector, government, tech community and civil society advocates, were asked to prioritize challenges that could be addressed using contracting data and identify use cases for open contracting data that could be developed into particular solutions. They were then guided through a design process to develop initial ideas, building blocks and approaches based on the identified use cases.
In the weeks following the workshop, the project teams formed during the workshop received targeted support through mentoring and training to further develop and test their solutions.

Given limited financial resources and time constraints we decided to focus on three solutions that not only had a good chance to succeed, but also the biggest potential for learning. Two of the teams consisted of a mix of developers, researchers, journalists and private sector representatives working on public transportation procurement and a notification service for public procurement opportunities. The third team was made up of government staff from Bandung’s Communication Agency working on a procurement dashboard for disposable health supplies.

Data Journalism Training: Train to Communicate

In the online survey that we mentioned above, several local journalists expressed a strong interest in using contracting data to support reportage and to provide unbiased views of issues using factual data and validated news-writing for public interest. We thought that by conducting a journalist training we would not only be able to increase the number of public contracting related stories, but also create a pool of aspiring experts able to teach others, researchers and community journalists included, in understanding and dealing with contracting data.

Figure 4. A push notification app that one of the incubation teams developed
The data journalism training was therefore intended to increase journalists’ data analysis skills and knowledge on procurement process. We worked with key experts from government, civil society organizations and the Alliance of Indonesia’s Investigative Journalists to help participants navigate Bandung’s open contracting data portal and be able to collect, process, and analyze other procurement-related data. Participants were journalists from local, national and international media channels who used to cover news around Bandung.

The training was attended by 24 journalists and followed by a two-week long competition for the best journalistic piece, with four articles on open contracting in the city of Bandung published in print and online media.

While we knew that a two-day workshop wouldn’t be sufficient time to teach data journalism, the basic data analysis skills conveyed in the training along with the knowledge about Bandung’s public procurement systems allowed journalists to produce a number of insightful pieces and facilitated a learning process especially among journalists and attending government officials.

For example, see published article here (in Bahasa Indonesia): https://www.pikiran-rakyat.com/bandung-raja/2018/11/16/pippk-kota-bandung-dua-bengkak-pengawasan-cekak-433414

\[10\]
Through the visualthon, a competition for the best data visualization, we engaged students majoring in visual communication design to produce a set of attractive and easy-to-understand visual materials to increase awareness among city constituents about the existence and importance of open contracting data disclosed by the Bandung city government.

The choice to work with students was based on their ability to create visualizations in a given short period of time and, even more so, their capacity to influence others, including their families, classmates and friends to learn about what open contracting data is and how these can be used.

Ten teams, each consisting of three students from nine local universities participated in the visualthon. Representatives from national and local government provided an introduction to public procurement. Design and infographic experts acted as mentors to help students develop and refine their ideas. At the end, 11 infographics were produced — one team decided to create two infographics using two different themes.

All infographics were presented at the Open Contracting Expo, held in Bandung, on November 22, 2018. The event showcased the city’s accomplishments in open contracting. Four teams were awarded prizes for the best infographics (see Figure 6 for the infographics). The selection criteria were developed together with the mentors, and included the clarity of the information presented, visual attractiveness and creativity.

**PHASE 3: SHARE**

The sharing phase was done through an Open Contracting Expo. Led by LKPP and the World Bank, the Expo event was organized to showcase the results of the city of Bandung's
open contracting project. There were two main objectives of the Expo. First, the Expo was intended to publicly launch the Bandung Integrated Resources Management System (BIRMS) portal and OC Explorer analytics dashboard and to understand the process undergone by Bandung in publishing and managing open contracting data for public use. Second, the Expo was done to share lessons about the different uses of open contracting data as experienced by students, journalists, and community groups.

The event was attended by other local government officials, international donors, business representatives, and CSOs representatives. Other local governments who attended the event showed interest in the BIRMS system and in the procurement data integration. Representative from Sumbawa regency shared his concern about the difficulties in working with fragmented procurement data and urged LKPP to implement an integrated procurement system.

Representatives from media, community groups and academia also shared their views on procurement systems, the procurement process, and how they used procurement data to solve public problems. The discussion was constructive both for the government and the public. For the government, they received feedback on the work of their procurement system. For the public, they better understood how to use open contracting data, and they saw real evidence about the possibilities of citizen participation in procurement system. The discussion was fruitful and insightful with participants from other agencies and organizations sharing their experience in dealing with the current procurement system.

4. What did we learn?

It's still early days for open contracting in Bandung. Despite recent investments in data infrastructure, policies and programming as well as increasing advocacy efforts at the national level, open contracting in Indonesia as a whole remains a relatively new field with little well-documented good practices. And while Bandung is one of Indonesia's open contracting pioneers, we learned that the ecosystem of engaged actors is only emerging with little available contracting data and limited experiences in the reuse of such data.

In addition, despite its significant potential, there are only a handful of actors in Bandung's civil society with procurement knowledge and data skills, and none that specialize in the analysis of open contracting data and in the advocacy for procurement reforms. What's more, many actors are skeptical about the government's procurement transparency programme, which may partly be due to limited engagement with government in this area and also their limited knowledge of procurement issues combined with low levels of data analysis skills. There is also an issue about LKPP's distributed systems which created difficulties for citizens to search procurement data.

---


---

How do we engage with citizens on open contracting data? • 10
We also learned that the introduction of open contracting practices along with the implementation of the Open Contracting Data Standard\ref{footnote:open-contracting-data-standard} provide an opportunity to engage potential users to identify key data sets and ways of publishing them. However, implementation models need to be customized to the given context to ensure a meaningful and effective engagement process.

5. What are our key takeaways?

Implementing the project helped us realize the following key lessons:

First, activities that seek to engage potential users of open contracting data need to be based on context and driven by user needs and interests.

Employing different modes of engagement for each of the three user groups instead of a one-size-fits-all approach seemed to pay off as evidenced by the number of actors attending the workshops, trainings and events from beginning to end, as well as the quality of outputs generated.

The visualthon for students proved to be a suitable approach to get students interested in learning about a rather complex topic and make aspects of it visually engaging. Not only were the students able to get themselves familiar with the basics of open contracting, they also produced infographics that were used at the Open Contracting Expo to help attendees learn about the open contracting work going on in Bandung. At the same time these were used by the city government as part of their information campaign materials to create greater awareness on the open contracting project of the city.

The data journalism training equipped journalists with basic data analysis skills and public procurement knowledge. The journalists also learned more about open data, open contracting and its application in practice; such as in opentender.net - a platform where procurement data is being used to monitor and trace the utilisation of state's budget.

“The training helped journalists to see data from different angles, and it has widened our perspective on how we can use data to produce journalistic work.”

- Female journalist working at one of the leading global news channels

After the workshop, the journalists created a WhatsApp group channel for them to discuss data-driven journalism. The group has since became one of the hubs for journalists to share stories and knowledge about data journalism and topics related to public procurement.

\[\text{footnote:open-contracting-data-standard} \] For information on Open Contracting Data Standard, please see \url{https://standard.open-contracting.org/latest/en/}
The incubation programme targeted local civic groups, activists and civic-minded technology experts to develop data-based prototypes that would demonstrate the multiple potential benefits of open contracting data use. Along with technical guidance and expert mentoring, the programme gave participants sufficient flexibility in working on their areas of interest. Some of the teams have continued to work on their projects even after the end of
the programme. Others have come up with additional ideas for the practical use of contracting data after the programme.

Second, engagement activities should facilitate the process of transforming knowledge to practice.

All of the engagement modes, and the incubation programme in particular, were based on the idea that true competence comes from practice. We combined targeted capacity-building elements with expert mentoring, training and learning-by-doing elements where project partners were required to find solutions through exploration and trial-and-error. What's more, all engagement activities were taken in groups to support and enhance the individual learning experiences.

Throughout the incubation programme we encouraged the teams to take an exploratory and iterative approach to project implementation with flexible objectives and outputs that could be adjusted as the projects progressed. The teams had to navigate complicated systems and relationships and test multiple ways to make progress. Many of the teams, especially those made up of government officials and civil society representatives, were not used to such flexibility and had to constantly be reminded of the projects as learning opportunities rather than aiming for a particular impact. All teams changed their course at least once during the projects largely due to datasets not being available, comprehensive or of sufficient quality.

“The incubation programme has opened my view of such innovation and that it is possible to do so.”
- Male developer working for IT consultant company

“I learned about how to develop an application – not in the technical terms, but more to managing time, project, and expectation (of users and the team).”
- Male member of civic technology community

While the constraints with regards to time, resources, and data access limited the extent to which the projects were able to move beyond an initial prototype, the incubation programme was crucial in demonstrating that open contracting data can be used to not only produce engaging data visualizations and data-based news stories (the main outputs of the other two engagement activities), but that such data can be used to advance transparency, improve service delivery and increase efficiency within the government's procurement process. What's more, the experience of running an open contracting data

project helped participants make a complex topic more relatable and gave them a first-hand experience in engaging with government.

“I feel like I now have a bit of knowledge about procurement system and process – and I get more curious; so I searched about procurement process in other parts of the world and compare it with Indonesia.”
- Male IT consultant

However, the case is different with the data journalism workshop. From 24 journalists who attended the workshop, only four articles on open contracting were received as a result. Some of the reasons were that journalists still face challenges in data collection (e.g. data were not available or inaccessible on the BIRMS portal), and data analysis. Most of the journalists were beginners in Excel and they found it difficult to produce articles within the two-weeks time-frame that we allotted for them. From this, we learned that a one-time workshop would not be sufficient to equip journalists, particularly for them to practice data analysis. A continuous workshop and practice will be more efficient in increasing journalists’ skills on data analysis. And this process requires more time. Unfortunately, for this project we only have a total of six months to understand context, identify potential areas of intervention, and implement small engagement projects.

Third, designing engagement activities requires a systems view of looking at open contracting data publication and use.

Our experience confirmed the need to work across sectors, users, themes, and interests in the implementation of open contracting. While the engagement process among actors from within and outside of government was challenging at times, investing in both formal modes of engagement, such as joint workshops, trainings and events as well as more informal channels including the use of Slack (an online messaging and collaboration tool) for incubation teams to ask questions to the government’s data team, paid off. The messaging channel discussed about challenges faced by the teams and harness the solutions from the teams as well as the government. What’s more, intermediaries, including team members of the Jakarta Lab, who were able to communicate with both sides proved to be useful to keep the conversation going and the information flowing.
“I also knew several people throughout the project, both from civil society and from government sector. We sometimes still exchange message until now, especially when there are interesting events related to our interest (e.g. free coding class, DSI forum, etc.).”

- Male developer working for IT consultant company

We also noted the importance of working across agencies within the government. Our experience showed that dissemination and awareness of OC within the government agencies were not that deep. This has created a lack of link between data disclosure and data ownership. The OC standard will not be working if it is only being performed by one agency; it requires collective efforts from various sectors especially in the process of disclosing and integrating procurement data.

Maintaining and expanding such formal and informal networks, collaboration and joint learning among actors will be crucial in the continuous implementation of open contracting in Bandung.

**Fourth, data standards such as the OCDS can be a good starting point for wider and more systemic procurement reforms.**

We learned that while introducing data standards will not be sufficient to realize a more open procurement system, it serves as a powerful tool in **starting productive conversations among different stakeholders from within and outside government and conceptualize improvements in public contracting practices**, especially among actors who would historically engage little with one another.

Data quality, data access and data management remain a challenge and require ongoing and targeted investments at various stages of the contracting data lifecycle, with much of the procurement data being scattered across different platforms or only available in PDF. However, it’s important to note that improvements in data quality, access and reuse of the data should not be seen as two distinct and sequenced processes. Applying the Open Contracting Data Standard provides a good opportunity to base the provision of user procurement data to respond to the needs of different users. The Responsive Open Data Model\(^\text{14}\) can be of guidance to ensure that data disclosure is relevant to the needs of users.

“The government seems to be slightly more open now. They were very opaque before the (open data) initiatives.”
- Male lecturer at private university in Bandung

We can see that there is a demand for accessible public procurement data sets but this is not matched with the sufficiency and quality of data supply from the government. There was a prevailing reluctance to share contracting data with the public. When dealing with procurement data, governments are still very cautious and careful. This was shown from the reluctance to share access to data on the part of government, and the difficulties in disclosing procurement data through the portal. We learned that there is an apprehension that public will use the data to send hard critiques to the government.

“If we have more data that is available for the public, then the channels for our participation could grow and that creates trust from the public to the government.”
- Male member of civic technology community

Nevertheless, the implementation of the standards facilitated different productive conversations, including how inter-agency communication mechanisms need to be improved to facilitate better sharing and use of contracting information within government, how collaboration can be designed between government and open contracting data users in finding ways of using contracting data more meaningfully to serve the interest of government and citizens, and how wider public engagement can be initiated by the government with other sectors, for example, students and women's groups.

6. Next Steps

In this project we tested three approaches to strengthen public engagement in an open contracting initiative in the city of Bandung. We wanted to increase the understanding of procurement systems and relevant data as well as build and leverage local skills to develop data-based outputs to benefit various stakeholders. Doing so, we hoped, would help all partners involved in project implementation demonstrate the practical benefit of disclosing contracting data.

Based on our experience in implementing the project over several months and with a variety of partners, we suggest two priority areas for further research.
First, the different public engagement approaches were designed as short-term interventions but with a longer-term ripple effect in mind.\textsuperscript{15} We aimed for journalists to take a first step toward increased and better use of open contracting data in their reporting, for incubation programme participants to use their newly acquired skills to integrate into the work of their organizations and for students to engage with contracting data to understand its relevance to citizens. We’ve been largely successful in reaching our objectives. However, for an ecosystem of open contracting data supply and use to emerge and function, more investments are needed. What are these additional measures and to what extent and how can external support, funding and influence be effective in making open contracting the norm rather than the exception in cities like Bandung?

Second, the engagement activities worked on the assumption that certain sectoral groups are interested in the publication and use of open contracting data. In some cases, as with the case of the tech community that developed data-based apps based on contracting data, we were not only able to instigate initial interest but has also triggered deeper commitment to bring the prototypes to full projects. But in the case of journalists, it was quite clear that only very few have the wherewithal to continuously publish data-based stories, much more stories based on open contracting data. Clearly, this calls for uncovering a set of incentives that each potential user may have to sustainably engage with open contracting data. What are the conditions that would incentivize different users from within and outside government to sustainably publish open contracting data and produce outputs that would strengthen public accountability and improve public service delivery? How can these conditions be replicated and sustained?

\textsuperscript{15} More on the longer-term ripple effect in the context of open data in developing countries, please see http://opendataresearch.org/sites/default/files/publications/Phase%201%20-%20Synthesis%20-%20Full%20Report-print.pdf