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# Enhancing Citizen Engagement with Open Government Data: The Case of Local Governments in the Philippines

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*The research deals primarily with the research question 'How can engagement of civil society organisations with open government data be instigated or enhanced?' To answer the question, action research was conducted in two provinces in the Philippines: civil society organisations in Negros Oriental province were trained, and in the Bohol province were mentored on accessing and using open government data. The research showed that for capacity-building programmes to be effective, they should be relevant to the circumstances of the CSOs and to the individual needs of learners; conducted with a long-term view of ensuring use and actual impact not only on the organisation but also on the constituencies that they serve; focused on higher-order results like changes in practices and behaviour of organisations and their staff members or the actual production of outputs that benefits citizens and communities; and targeted to achieve whole-of-organisation awareness, appreciation and motivation to use data. This paper asserts that short-term, sporadic, one-time buzz trainings, or off-the-shelf training programmes, currently the prevailing modes of capacity-building delivery, will not yield to actual data use that will show the economic, political and social power of open data.*

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## **Introduction**

### **Open government and open government data**

The 2013 EWB Policy Forum on Global Development defines open government as one that ‘works with its citizens, civil society, and other actors to collaboratively solve important problems faced by society’ (Engineers Without Borders, 2013). To articulate further what this entails, the Open Government Partnership (OGP) identifies three important factors, namely, ‘increasing the availability of information about governmental activities; supporting civic participation; and implementing the highest standards of professional integrity through increasing access to new technologies for openness and accountability, information sharing, public participation, and collaboration’ (Open Government Partnership, 2011).

In this case, providing citizens access to government data is at the core of open governance. At the close of the 20th century, different stakeholders realise that access to and use of government data can improve governance (OECD, 2003) as new actors and stakeholders with different interests and influence can provide insight and perspective into government policy making and practice (Helbig et al., 2012). Providing government data and proactively disclosing it in open formats became a rallying call when the eight core principles of open government data were defined by the Open Data Working Group in 2008 – that governments should release government data that is complete, primary, timely, accessible, machine-readable, non-discriminatory, non-proprietary, and license free.

The normative argument for open government data is that its provision is the right thing to do because it ensures evidence-based decision-making (Osimo et al., 2012), advances better service delivery (Shaw, 2015) and promotes transparency and accountability in government (HM Government, 2012). Supplying government data in machine-readable and re-usable formats has been argued to result to innovation not only within government, but also in the private sector (Goldstein & Dyson, 2013), making possible the creation of new products and services that would increase economic productivity, illicit citizen participation and improve overall efficiency.

### **Open government data in the Philippines**

The Philippines is one of the pioneering members of the Open Government Partnership having joined in 2011. The partnership calls for greater availability of government information to the public, implement standards of transparency and accountability in governments, as well as the use of technology for openness and accountability. As part of that national action plan developed by the Philippines, it committed to greater and wider availability of open government data by launching a national open data portal<sup>1</sup> and by implementing agency-specific initiatives that would require more stakeholders in government to proactively make available open data to the public.

In 2011, the Department of Interior and Local Government (DILG), one of the agencies of the Government of Philippines, implemented the Full Disclosure Policy which directs local government units (LGUs) to post public finance documents including receipt and utilisation of funds on LGU websites. The objective is to make local governments more accountable.

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<sup>1</sup> <http://www.data.gov.ph>

This is based on the assumption that citizens or their representatives understand and are able to use these data. In 2013, DILG required the publication of reports in open format (at the current stage, in spreadsheets) on the Full Disclosure Policy portal<sup>2</sup>.

However, research has shown that while provincial governments in Bohol, Bulacan and South Cotaba post financial information in their websites, these are hardly used by CSOs for their own decision-making processes, for engaging with provincial government in budgeting processes, or for ensuring transparency and accountability in the procurement of projects and the disbursement of public funds. In the most extreme cases, the CSOs are not even aware that the information exists and how they will be able to use it (Step Up Consulting, 2014). This research project takes the view that for a more transparent and accountable local governance, civil society groups, media and the business sector, need to engage actively with local government units through open government data in order to achieve transparency and accountability, or better service delivery to citizens. In this case, it is important to note that while significant efforts have been made by the government to open data to the public, this should be matched with a capacity-building programme that would enable citizens to engage with government data. However, little is known about how this would be done in the local context in the Philippines. This research is considered critical and important in moving the discussion of openness towards better citizen engagement in local governance.

### **Research questions**

This research project poses the following primary research question: How can engagement of CSOs with open government data be instigated or enhanced, particularly at the sub-national level of government?

To answer this question, the following secondary research questions are explored:

- a) What do CSOs know about open government data? What do they know about government data that their local governments are publishing in the web?
- b) What do CSOs have in terms of skills that would enable them to engage meaningfully with open government data?
- c) How best can capacity-building be delivered to CSOs to ensure that they learn to access and use open government data to improve governance?

### **Literature review**

The International Open Data Charter launched in October 2015 rallied the cause for accessible, useful and timely open data to support, among other things, key social, economic, and political outcomes. This call came at a critical time when country governments had endorsed the Sustainable Development Goals which recognise that monitoring progress in 17 development goals will require timely, high-quality, reliable and accessible disaggregated data (United Nations, 2015).

There is a persistent realisation that data quality, especially in the developing world, is a problem. The UN document on the SDGs, for example, highlights the need to invest in

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<sup>2</sup> <http://fdpp.blgs.gov.ph>

initiatives that will strengthen national data systems (United Nations, 2015). The International Open Data Conference 2015 report recognises that substantial reforms are needed to guarantee data quality, calling for strategic interventions in ensuring the continuous supply of high quality data sets that stakeholders can use to achieve impact (International Open Data Conference, 2015).

Capacity to supply and use data is at the heart of these processes. It is acknowledged that open data is only a foundation for impact from which different uses and results can emerge. The results of the Open Data in Developing Countries research project<sup>3</sup> uses the metaphor of a domino effect to explain how open data can lead to change: It makes the point that many different pieces need to be lined up before open data can result in desirable outcomes and impact (Davies, 2014). Good data quality and metadata, the functioning of intermediaries (such as CSOs, researchers, businesses and media), and the receptiveness of decision-makers to data-driven policy-making or programme development are some of the necessary pieces that need to be in place before open data can lead to change. There is a need to build the capacity of suppliers, intermediaries and users of data.

### **Capacity versus capability**

Capacity and capability are terms that have been used interchangeably in development practice as though they refer to the same thing. But there is value in looking at how different these words are, especially in their etymological origins where capacity is about the ability to contain, while capability is about ability to perform. Baser and Morgan (2008, pp. 8, 25) differentiate capacity from capability: capacity is ‘the combination of individual competencies, collective capabilities, assets and relationships that enables a human system to create value’ while capability is the ‘collective skill or aptitude of an organisation or a system to carry out a particular function or process inside or outside the system. The organisation must have the collective embedded capabilities it needs to create the development value. And it must be able to pull these aspects together with some sort of integration, synthesis and coherence’.

In recent years, and especially in the context of development studies, Sen’s capability approach dominated the literature and defines capabilities as the various combinations of functioning (beings and doings) that the person can achieve (Sen, 1992). He posits that development necessitates the freedom to do things, given and individual’s capabilities, to choose between alternative livings. Applied in the context of information, Kleine (2009) argues that information and technology are useful tools to achieve this state of development. In simplistic terms, information can be a valuable resource that enables citizens to participate better in governance, eventually leading to better quality of life. Although ‘capability’ is the richer concept, and ultimately the goal of development should be to increase the capability of individuals and communities, when it comes to specific areas of activity, such as the use of open government data, our focus is necessarily narrower – looking at methods to increase particular capacities. Importantly, however, both the definitions of capacity and capability above recognise these as having both individual and collective elements: capacity to use open government data is social, and cannot be fostered in terms of individual skills alone.

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<sup>3</sup> <http://www.opendataresearch.org/sites/default/files/publications/Phase%25201%2520-%2520Synthesis%2520-%2520Full%2520Report-print.pdf>

## **Capacity-building versus capacity development**

While capacity-building and capacity development are both encountered in the literature, the latter is seen to be more comprehensive. The United Nations Development Programme (UNDP) views capacity-building as a ‘process that supports only the initial stages of building or creating capacities and alludes to an assumption that there are no existing capacities to start from’ (UNDP, 2008, p. 4). The Organisation for Economic Cooperation and Development (OECD) defines capacity development as ‘the process whereby people, organisations and society as a whole unleash, strengthen, create, adapt, and maintain capacity over time’ (OECD, 2006, p. 12). In the context of this paper, we use the more limited term of capacity-building, rather than the more encompassing term of capacity development. This choice is an explicit recognition of the fact that in the context of open government data, we are still at the initial stages of building open-data related capacity and more work is still to be done in creating an enabling environment that would ensure sustained and impactful use of data to help drive development within organisations and societies.

Nevertheless, the underlying concept of capacity-building aims to produce sustained change at both individual and collective levels (Crisp et al., 2000); increase the capabilities of organisations to fulfil their missions (Wing, 2004); improve conditions in attitude, vision and strategy, structure, skills and material resources (Kaplan, 2000); and achieve transformation (Blagescu & Young, 2006).

There are several methods to undertake capacity-building – training, mentoring, field trips, online learning, scholarships and fellowships, among others. Some authors make two distinctions in terms of approach: process-focused and skill-focused (Cairns & Harris, 2005) – the former best exemplified by mentoring approach, and the latter with training. The following sections of this paper will look at these two approaches, with particular focus on acquiring skills and relevant processes related to open data.

## **Training versus mentoring**

Training is a popular method in any capability building, especially in acquiring computer skills among a group of learners. On the other hand, mentoring is also known to be the most effective in terms of an expert–learner relationship. Training and mentoring have a common purpose which is to provide skills and competencies among the learners. They have similarities and differences in terms of their meaning and impact on the learner, activities and conduct, and models and approaches, among others. Training can provide the basics of the tasks and procedures, but it doesn’t provide the personal attention and close rapport that mentoring can offer (PMChampion.com, 2013).

The Merriam-Webster dictionary defines training as ‘the process by which someone is taught the skills that are needed for an art, a profession, or job’. Training is the most widespread approach in improving one’s knowledge and skills that relate to specific useful competencies (Abdul Razzaq et al., 2012). Training usually involves a trainer who is an expert and a trainee or group of trainees who acts as the learners. It is recognised by many organisations because of its importance in local and international development (Ryan et al., 2012). Training, in general, helps learners to (a) obtain new and relevant information, techniques, and skills; (b) increase knowledge; (c) elucidate attitudes, beliefs, and/or behaviours; (d) drill skills; (e) expand current abilities; and (f) apply any learning achieved (Wild et al., 1999).

On the other hand, mentoring is ‘help by one person to another in making significant transitions in knowledge, work or thinking’ (Megginson & Clutterbuck, 1995, cited in Megginson et al., 2006). Unlike training, mentoring usually involves two individuals, the mentee who acts as the learner and the mentor who serves as the supervisor. Research shows that successful mentoring programmes enhance productivity and may ultimately lead to mentees professional advancement (Rowland, 2011). Many organisations believe that mentoring provides a significant impact on the individual and the organisation (Wild et al., 1999). Likewise, a study cited in Megginson et al. (2006) revealed that 40% benefits accrue to the mentee, 33% to the organisation, and 27% to the mentor. Moreover, Megginson et al. (2012) cite four broad categories of mentoring benefits: performance of the organisation and policy implementation; motivational benefits; knowledge and skills development; and managing change and succession.

Training involves the transfer of knowledge and the application of skill at a later date (Wild et al., 2012). Wild et al. (2012) assert that training is effective at a participant to trainer ratio of 25 to 1 or less. This ratio entails multiple and diverse types of learners. The trainer must be flexible enough to deal with the diversity of his/her learners during training. Thus, the trainer has a variety of tasks during capability building. Berteig (2009) explains that training is formal, and should have well-defined learning objectives. The most popular model in the field of training is ADDIE – analysis, design, development, implementation and evaluation (Chan, 2010). According to Chan, ADDIE offers reliable structure and it allows flexibility during the process. Berteig (2009) states that ‘[d]iscussion, simulations, case studies, and other forms of interaction are critical for an effective training experience’.

Mentoring involves casual or semi-structured communication between the mentor and mentee during a sustained period of time (Bozeman & Feeney, 2007). Also, it establishes a relationship that is complex, interpersonal and meaningful (Pitney & Ehlers, 2004) and builds self-confidence (Wild et al., 1999). The techniques in mentoring are broad and complicated and requires wisdom because of its objective that is to develop the whole person (Daloz, 1990; Megginson, et al. 2006). Evanciew and Rojewski (1999) found that instruction, demonstration, coaching and explanation are the major ways during the mentoring process. Their findings recommend that mentors select instructional strategies that are convenient and comfortable for them.

On the other hand, Hart (2010) suggested that mentees must be ‘flexible, honest, open and receptive to feedback and insight’. Further, Megginson et al. (2006) articulate that there are four main components to the mentoring process: mentoring structure, the relationship agreement, the learning conversation, and what what mentor and mentee do as a result of the learning conversation. Moreover, Megginson et al. (2006) present seven steps of mentoring: (1) identify the need, (2) gather evidence, (3) motivate, set targets, (4) plan how to achieve, (5) create practice opportunities, (6) observe, give feedback, (7) support through setbacks.

Training and mentoring involves a lot of innovation. The integration of information and communication technologies makes training and mentoring more engaging, collaborative and increase connectivity among the learners and mentees. Rowland (2011) asserts that e-mentoring offers knowledge creation and creativity among the mentor and mentees. Both can be delivered synchronous or asynchronous through the Internet. Digital simulations, virtual

learning spaces, learning analytics, and intelligent tutor, are among the common innovations in online training and mentoring.

## **The landscape of capacity-building in open data**

Capacity-building in open data is a term used both at the supply and the demand side<sup>4</sup> By supply side we mean the owners and providers of data, and on the other hand, demand side means the consumers of that data. With open government data, the interventions on the supply side are mostly with governments, aimed at ensuring the open data is proactively disclosed to the public. On the other hand, interventions on the demand side are mostly with CSOs, media or journalists, researchers or academics, who are expected to use and benefit from the use of open government data.

The following does not attempt to provide a comprehensive inventory of open data capacity-building interventions<sup>5</sup> available but provide the reader an overview of what is currently available.

### **Supply-side interventions**

Several organisations are at the forefront in supply-side capacity-building interventions for open government data. The World Bank for example, has a suite of technical assistance interventions for governments<sup>6</sup>. Among these are readiness assessments, provision of advice to country governments, and engagement, outreach and training. Other institutions such as the Open Knowledge Foundation run different training programmes on open data: An introduction for those who plan to implement open data for the first time, administrative open data management for those who are responsible in managing open data programmes, and open data portal technology for those who manage open data portals. The Open Data Institute also offers similar supply-side interventions, and focuses on key topics as law and licensing, open data technologies, among others. These courses range from half-day training to five-day training with experts doing lectures and supervising exercises.

### **Demand-side interventions**

Those organisations that provide open data training to increase open data demand and uptake, target organisations from both the private and the non-profit sector as their primary audiences. The training range from basic open data introductory courses to accessing, using, visualising and creating narratives based on open data. The School of Data (run by Open Knowledge), for example, runs trainings on open data fundamentals, data cleaning, data extraction, data exploration, geo coding, working with budgets and spending data, and data journalism. It also runs open data bootcamps to increase open data literacy in countries with on-going open government initiatives. The Open Data Institute also offers similar training on creating narratives from open data, using open data to win public sector business, and finding the value in open data. These courses also range from half a day to five days, depending on the

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<sup>4</sup> The words supply and demand are used here as a way to simply differentiate capacity-building done to providers of open government data (in this case, governments) and users (in most cases, citizens). It is acknowledged though that governments can be both suppliers and users of open government data, as are citizens.

<sup>5</sup> For a more comprehensive review, please refer to Boyera & Iglesias (2014).

<sup>6</sup> <http://toolkit.dev.zognet.net/en/technical-assistance.html>

level of skills that trainees have and the level of skills they would like to acquire. The Open Data Lab Jakarta of the World Wide Web Foundation, does not have specific open data training modules; training programmes are customised to suit the needs of the audience participating in the capacity-building intervention. These models, in theory, focus on action learning with presentation inputs and hands-on learning activities.

Of late, hackathons and data expeditions are used by different organisations to encourage open data uptake. Hackathons are one-off events that encourage collaborative programming from among developers usually based on a particular open dataset. A ‘data expedition’ (a model developed by School of Data), on the other hand, is gathering of people, mostly data users, who solve real-world problems or challenges using available open data: either as a learning activity, or as a mixed action-learning process, where both substantive outcomes (for example, designing new advocacy work with data) and learning outcomes are important.

### **Web-based resources to build capacity in open data**

There is a wealth of web-based resources that both suppliers and users of data can use to increase capacity in open data. The World Bank, for example, has the Open Government Data Toolkit that discusses open data essentials, supply and quality of data, as well as the conduct of readiness assessments. The Open Knowledge Foundation makes available the Open Data Handbook which focuses largely on supplying open data than using it. Other organisations as Socrata, Open Data Commons, Smart Cities Council and the United Nations also have their own web-based open data guidebooks that suppliers or users of data can use to build their understanding and skills in open data.

### **Open data capacity-building in the Philippines**

The Philippines is one of the eight pioneering countries that founded the Open Government Partnership (OGP) in September 2011. The partnership calls for greater availability of government information to the public, implement standards of transparency and accountability in governments, as well as use technology for openness and accountability. While the country does not yet have a freedom of information law, it has made significant steps in proactively disclosing data to the public through a Full Disclosure Policy and the establishment of its open data portal, part of its commitment to the OGP. In January 2014, it launched the Philippine open data portal, which ‘aims to make national government data searchable, accessible, and useful, with the help of the different agencies of government, and with the participation of the public’.

Most of the capacity-building training on open data started only very recently, more particularly in 2012 to 2013. These included trainings for government civil servants involved in the operation of the open data portal, trainings for government agencies involved in the collection and aggregation of data, and trainings for journalists and CSOs. Again, the following subsections intend to describe the capacity-building events on open data in the country and do not attempt to offer an exhaustive list of open data training.



### **Capacity-building on the supply side**

Data.gov.ph is managed by the Open Data Task Force of the Philippine government. The Task Force is spearheaded by three agencies, namely, the Department of Budget and Management, the Office of the Presidential Spokesperson, and the Presidential Communications Development and Strategic Planning Office. The Task Force, composed mostly of young people with a very good understanding of data and its value and implications to society, was largely trained by the World Bank. The contracting of a design and development firm to build the first version of the open data portal was also supported by the World Bank.

With the capacity it gained, the Open Data Task Force conducted a series of master-classes and bootcamps in open data for government agencies, with the end view of creating open data champions in agencies in order to ensure that agencies disclose data. Initially, the goal was to engage 200 agencies. Out of the 200 agencies targeted, approximately 50 agencies participated in the master classes, and 26 agencies were able to share data in open format that the Task Force eventually published on the open data portal. To date, the Task Force continues to conduct mentoring activities with the agencies to increase the number of datasets currently housed on the portal. The most significant outcome of these trainings was the launch of the Philippines Open Data portal and the Full Disclosure Policy Portal for local governments<sup>7</sup>, and the continuous publication of data by relevant government agencies. Coverage is still low because only a quarter of government agencies are proactively disclosing data on the national portal, and only around 50% of local government units are uploading data in the required formats to the Full Disclosure Policy Portal .

The School of Data has a fellow in the Philippines. She is actively engaged in conducting open data trainings and has conducted one for the Civil Service Commission, a commission of the Philippine government.

### **Capacity-building on the demand side**

Capacity-building on the part of users of data is undertaken in two ways – training and hackathons. The first large-scale and targeted open data training was conducted in the Philippines by the Open Knowledge Foundation, with funding support from the World Bank and in partnership with the Open Data Task Force and the Partnership for Open Data. The training took place from 13 to 14 May 2015 in the Philippines, with media and CSOs as the main participants. The training consisted mainly of open data introduction and open data skills that the participants can use in engaging with government data (which may not be necessarily in open format).

Bantay.ph, a civil society organisation that uses technology to encourage citizens to demand better governance, also conducts training for CSOs and the media. In February 2015, they conducted a Data Jam,<sup>8</sup> with journalists and CSOs. Open Knowledge (OK), through the local OK ambassador, conducts open data socialisation sessions with students and teachers at a university in Manila.

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<sup>7</sup> <http://www.fdpp.blgs.gov.ph>

<sup>8</sup> <http://schoolofdata.org/2015/03/23/jamming-for-data-open-data-day-in-the-philippines/>

Besides training, a series of hackathons were sponsored by different organisations to increase data uptake using data.gov.ph data. To date, several hackathons have been conducted using different datasets from the government, namely, transportation data,<sup>9</sup> disaster resilience data,<sup>10</sup> budget and spending data,<sup>11</sup> and procurement data<sup>12</sup>. These events were sponsored by private companies (such as Globe Telecom, Brother, Microsoft), aid agencies (such as USAID, World Food Programme, SEATTI), and the Open Data Task Force.

The outcomes of the training are still limited. Journalists run data stories based on the analysis of government data (for example, online news firm Rappler) while research institutes scrape and publish key governance information online (for example, Money politics of the Center for Investigative Journalism). Evidence of open data use is growing, including data-based analysis by bloggers<sup>13</sup> (see for example <http://jumbodumbthoughts.com>), sub-national use of open data (for example by CSOs analysing use of disaster and risk reduction funds) and issue-based advocacy by teachers in basic education.

## Methodology

It is apparent that training is the primary method used by different organisations to build the capacity of CSOs in open data, while hackathons are intended to engage application developers. As can be seen above, most of the training is conducted in the country's capital, Manila, and, in several instances, use national data as the focus, the hackathons included. However, the country has many islands, many local government units, and also has available local government data on the Full Disclosure Policy Portal. How should training be conducted to increase open data uptake and improve conditions at the sub-national level?

This question defines the scope of the research presented in this paper. The research project was implemented in two provinces in the Central Visayas – Bohol and Negros Oriental. The Central Visayas region is located approximately 850 kilometers from Manila. The choice of the provinces was purposive. Both provinces were part of the first open data project that Step Up implemented in 2013 as part of the Open Data in Developing Countries project. In that project, Bohol was a research site and Negros Oriental was a test site. CSOs in both provinces expressed strong interest to be included in open data training.

The research team used an action research approach that compares training (the usual mode of open data capacity-building delivery) and mentoring (one that has not been tried in the country). A training needs analysis (TNA) was conducted among representatives from CSOs, the media and business groups from each research site to serve as basis for a capacity-building programme on 'Enhancing Citizen Engagement with Open Government Data'. This TNA was conducted at two levels. A survey questionnaire was developed, pilot-tested and administered online to respondent organisations. This survey also served as a profiling tool for the

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<sup>9</sup> <http://www.globe.com.ph/press-room/1st-philippine-techcamp-hackathon>

<sup>10</sup> <http://www.globe.com.ph/press-room/1st-philippine-techcamp-hackathon>

<sup>11</sup> <http://smart.com.ph/about/newsroom/press-releases/2013/11/27/-kabantayngbayan-hackathon-produces-apps-for-gov-t-transparency>

<sup>12</sup> <http://data.gov.ph/events/procurementhack/>

<sup>13</sup> See for example, <http://jumbodumbthoughts.com>

organisations covered. After the results were collated and analysed, a focus group discussion was conducted in each site to explore further the answers to the research questions.

The survey was conducted among civil society organizations in both provinces. The population of the survey comprised of the accredited organisations in each province. The Department of Interior and Local Government requires the accreditation (Republic of the Philippines, 2013) of CSOs in each local government unit in accordance with the Philippine constitution. The accreditation is necessary so that CSOs can actively participate in local special bodies. Accreditation is a proof of capacity on the part of CSOs as the implementing rules require submission of different documents to show proof that the organization is indeed operating within the province and has relevant programmes, projects and services intended for their constituencies.

Not all CSOs who were respondents of the survey became participants in the training and mentoring processes. The research team used three criteria to select organisations to participate: capacity to undertake open data work, interest in attending and committing to a capability- building programme, and commitment to use the lessons learned in actual organisational work. In Bohol, four CSOs were selected while in Negros Oriental, eight CSOs were selected to attend the capacity-building programmes.

Two training programmes were developed out of the results of the TNA. One approach was classroom learning/teaching activity, while the other was based on targeted mentoring. For classroom learning, the training was conducted with respondent organisations with a re-entry action plan at the end where trainees were required to plan how they would use the skills learned in engaging with government data for two months. This action plan became the basis of monitoring.

The second approach took the form of a mentoring lab. Civil society groups were assisted to identify the open government data that they wanted to work with, and taught skills on how to access and use the data, and how to devise a plan for undertaking the open data engagement in two months' time. Mentoring support was provided throughout this phase.

The first method was implemented in Negros Oriental while the second method was implemented in Bohol. A learning workshop was conducted at the end of the two-month period to see what has been accomplished, what challenges were met, and what lessons could be learned from the process.

The content of both training and mentoring were identical. There were three main topics that were introduced and made part of the capacity-building programme, namely, open data and open government, open government data in the context of the Philippines (Full Disclosure Policy and the Philippine Government Data Portal), and open data skills (downloading, scraping, cleaning, visualisation, and creating narratives from data). The first two topics were delivered through classroom training from the same set of resource persons while the open data skills module was delivered via skills training method in Negros Oriental and through mentoring in the case of Bohol. To ensure that same topics are discussed by the trainer/mentor in both locations, an Open Data Skills Guide was developed by the research team in partnership with the Open Data Task Force. This guide, which was developed initially in Bahasa by Open Data Labs Jakarta, was translated to English to serve a Filipino audience and improved on by the Open Data Task Force.

The intention of the research was not to compare the two approaches, but to look at strengths and weaknesses in each approach and to advise those who will be conducting capacity-building activities as to what to expect, what to guard against, what types of context work and for what purposes. An analytical framework was developed to inform the design of the learning workshop.

In effect, this research project did not only in itself answer the research questions, but also capacitated CSOs to improve their knowledge, skills and abilities in engaging with open government data. The beneficiary province of the second approach also had the assurance of engagement with select CSOs on open data.

The research was conducted by Step Up Consulting Services from December 2014 to March 2015.

## **Open data and civil society organisations: Summary of the findings**

This section is divided into two parts. The first part discusses the findings regarding what CSOs know about open data, what they know about the open data that their local government units publish on the web, and what skills they have to be able to meaningfully engage with open government data. The second part discusses the process and outputs of capacitating the CSOs on open data using the two approaches identified. (Appendix 1 provides brief contextual information on the geographic area, socio-demographic characteristics and political landscape in each of the two provinces included as sites of study.)

### **Awareness and knowledge of CSOs regarding open data**

The results of the survey for both provinces are discussed below along with the results of the focus group discussion that was conducted in order to get more insights from selected respondents regarding from the results of the survey.

#### *Bohol CSOs*

*Profile of respondents.* There were 21 respondent organisations to the survey, representing 71% of the total number of accredited organisations. Of the 21 organisations, 13 are advocating for budget transparency and accountability though they are engaged in different political and socio-economic programmes as health, education, livelihood development, rights promotion and environment. In terms of size, 90% of these organisations have more than 30 people belonging to the organisation.

*Data and computer use.* In terms of computer literacy, almost all (90%) of the organisations have been using computers for more than five years but only 43% of the respondent organisations have staff assigned to work with data and computers. In some organisations, the function is shared among employees while data, software and hardware support are outsourced. An overwhelming majority (95%) of the respondent organisations collect data on their own, and most (12 of 20) do it through surveys. Forty-three per cent (43%) of the respondents use the data they gather as input for the planning and preparation of programmes and projects.

*Knowledge on open data and open government.* A minority (38%) of the respondents claimed to have knowledge about open data and more than half (62.5%) of this group said that open data is about making data available and accessible to everyone. No respondents mentioned machine-readability or re-use. On the other hand, the same percentage of respondents (38%) claimed to have knowledge about open government, half of whom said that open government is about transparency and accountability. It is noted that not all those who claimed to have knowledge about open data also claimed to have knowledge about open government.

*Awareness regarding the Full Disclosure Policy (FDP).* Close to half (48%) of the respondents have read or heard of the FDP; 40% said that the FDP is about posting government data or documents in public places. Of the documents required by the FDP to be disclosed, the Report of Local Disaster Risk Reduction and Management Fund Utilisation (90%), Trust Fund Utilisation (86%), and the Annual Budget Report (81%) got the highest awareness level of the participants. Nevertheless, only one respondent had seen the documents on the government website and this respondent had seen only one document from among the many that are required to be published. A few respondents had seen the documents in softcopy and fewer have seen hardcopies of the documents.

The Special Education Fund (SEF) income and expenditure estimates, a report of SEF utilisation, and abstracts of bids as calculated, were the top three documents that were not seen in any form by 86% of the respondents. However, the majority of the respondents had not used the documents that they had seen or accessed. CSOs' information needs do not always match that documents published on the government portals Fifty-two per cent (52%) of the respondents normally request data from the government, and the documents requested were very varied.

*Ways of accessing government data.* The top three ways in which the respondents request data from the government are: writing a formal letter, going directly to the office producing the data or information, and calling by phone. Of those who get data from the government, 33% said they were 100% successful in getting the data. All the respondents said they were interested in attending training on open government data, and 52% of them said they were interested in acquiring additional knowledge on open government data. The majority of the respondents were not familiar with the data processing skills presented (for example, downloading, data scraping, data cleaning or data visualisation), but the majority were interested in learning such skills. All the staff handling IT functions in the organisation were interested in attending training on open government data. Among the data processing skills presented, those handling IT functions in the organisation were most familiar with data downloading.

### *Negros Oriental CSOs*

*Profile of respondents.* A total of 16 recognised CSOs in Negros Oriental were included in the analysis, nine from Dumaguete City, three from Siaton and Bayawan, and one from Bacong. One response was considered invalid due to insufficient information. The different organisations differed in size – some were mid-sized (less than 6-15 staff) while others were large (30 or more). These organisations are engaged in different issues, including health, gender, education, rural development and agriculture.

*Data and computer use.* Two (13%) respondents revealed that they have not used computers in their organisation while 14 (88%) said that they had been using computers in their organisation for more than five years. Eight (50%) respondents said that they had no employee assigned to work with data and computers in their organization, while 8 (50%) respondents said that they assigned an average of 2 employees.

Only 1 (6%) respondent said that they do not collect data on their own while the 15 (94%) gather data on their own in the form of pool, profiling, interview, evaluation and testing, and interviews, among others. These data, according to the respondents, are primarily used for decision-making, programme planning, monitoring and reporting purposes.

*Knowledge on open data and open government.* When asked about their knowledge of open data, 9 (56%) respondents revealed that they had an idea about open data while 7 (44%) of the respondents did not. Of those who said they know open data, only half mentioned access and availability while none mentioned machine-readability and licensing. In terms of their knowledge about open government, 11 (69%) respondents indicated that they have knowledge about open government, while 5 (31%) did not have any knowledge of open government. Those who said they know open government, equated the concept with transparency and data availability.

Awareness regarding the Full Disclosure Policy (FDP). Only 6 (38%) respondents had read or heard of the FDP, and 10 (63%) had not read or heard of the FDP. Of the 13 (81%) respondents who were aware of the documents listed in the FDP, 3 (19%) had not seen the documents. The majority of the respondents were aware of government records such as the Annual Budget Report (13, 81%), the Executive Legislative Agenda (15, 94%), the Report on Salaries and Allowances (10, 63%), the Annual Procurement Plan or Procurement List (9, 56%), the Items to Bid (14, 88%), the Bid Results on Civil Works, Goods and Services, and Consulting Services (10, 63%), the Supplemental Procurement Plan (9, 56%), the Annual GAD Accomplishment Report (9, 56%), the Trust Fund PDAF Utilisation (9, 56%), the 20% Component of the IRA Utilisation (11, 69%), and the Report of Local Disaster Risk Reduction and Management Fund Utilisation (12, 75%). On the other hand, less than half of the respondents were not aware of government documents such as the Statement of Receipts and Expenditures (7, 44%), Abstract of Bids as Calculated (6, 38%), Irrigation Use and Expenses (7, 44%), SEF Income Expenditure Estimates (6, 38%), and the Report of SEF Utilisation (4, 25%). Half of the respondents are aware of government documents such as the Statement of Debt Service and the Quarterly Statement of Cash Flow.

Ways of accessing government data. Eleven (69%) respondents said that they normally ask for data from the local government, and 5 (31%) said that they don't ask for data from the government. The types of information they requested depends on their socio-economic profile, demographic profile, and utilisation report, among others. In terms of the ways in which information is requested, only 7 respondents said that they request the data by formal letter, and 7 said they approached a person they know; 5 said that they go directly to the office producing the data or information, 4 call by phone and 3 said they request information by visiting the government website. Only 1 respondent said that they were 100% successful in obtaining the information. Seven of the respondents said that they are successful most of the time when they requested data from the government, 2 said they were successful in half of

their efforts in getting the information, and 1 said that they were successful in less than half of their efforts in getting the information.

Challenges that the respondents experienced in accessing government information included: approval protocol, duration in requesting the information, data are outdated, lack of personnel in data retrieval, accessibility, and reliability issues.

### **Process and outputs in capacitating CSOs on open data**

#### *CSO Mentoring in Bohol*

The introductory workshop on open data, intended to cover topics (1) and (2) for Bohol CSOs, was conducted on 31 January 2015. The workshop was held for one full day and ended with the signing of a memorandum of understanding between Step Up Consulting and the mentee organisations. An action plan for each CSO was formulated during this workshop to ensure that there is agreement on mentoring arrangements and schedules. Four organisations participated: Participatory Research, Organisation of Communities and Education towards Struggle for Self-reliance (PROCESS)-Bohol; (PROCESS-Bohol); the Bohol Integrated Development Foundation (BIDEF); the Bohol United Sectors Working for the Advancement of Community Concerns (BUSWACC); and World Vision Development Foundation (WV).

The different organisations decided to use one dataset to work on for their open data project. BIDEF, World Vision and BUSWACC decided to focus on Local Disaster Risk Reduction Management Fund Utilisation data while PROCESS decided to focus on the Special Education Fund and Statement of Receipts and Expenditures data. The choice of dataset reflects the state of concern among CSOs in the province. Bohol was a victim to three natural calamities in 2013 and 2014 – a 7.2 magnitude earthquake that shook the province in 2013 and two strong typhoons that crippled local economy in 2013 and 2014. PROCESS chose to work on the Special Education Fund data because of their strong advocacy in children's rights.

Mentoring sessions were conducted for each organisation. These sessions were held in the offices of the organisations and the mentor visited each organisation based on the schedule. The goal of these mentoring sessions was for the mentees to be able to work on a particular dataset, clean it, analyse it, and create a story from it. They were asked to present during a learning workshop a month later.

The primary challenge during the mentoring session was internet connection, more particularly for PROCESS, whose office is located outside the city centre of Tagbilaran. All organisations were able to attend the mentoring sessions and committed participants have significantly gained data skills as evidenced by the amount of data they were able to analyse and the outputs that they were able to produce thereafter. The mentoring session was conducted on 9 March 2015.

Among the four organisations present, PROCESS and World Vision were not able to produce a data narrative because of resource constraints. PROCESS does not have stable internet connection and was in the middle of the preparation of its organisational anniversary during the mentoring session. World Vision, on the other hand, lacked the human resources to focus on the task. But BUSWACC and BIDEF were able to develop a very meaningful and

persuasive presentation that looked into the utilisation of disaster risk reduction funds of three local government units. BUSWACC focused on the city of Tagbilaran, while BIDEF focused on the municipalities of Jagna and Duero. Both were able to focus resources on the open data project because disaster risk reduction and management is at the core of its programmes and advocacy work.

Using data that the city of Tagbilaran published in the Full Disclosure Portal, BUSWACC was able to establish that only 11.83% of the City Government of Tagbilaran's 7.3 million annual budget on disaster risk reduction and management in 2014 was spent. Further, they also found that the 41 million budget on mitigation was unspent for the same year. BUSWACC argued that the unspent funds could have been used for training on disaster preparedness, assistance for those affected by the recent earthquake and typhoons, or for local planning on disaster risk reduction and management. The fund could even have been used for vulnerability assessment, given that the vulnerability of the city to natural disasters is high. The Department of Interior and Local Government requires that 70% of the funds be spent on early warning systems and preparedness equipment. The fund can also be used for training, information campaigns and even post-disaster livelihood assistance. The mentoring process made possible these realisations on the part of BUSWACC, and helped them initiate a plan to undertake data-based advocacy on better use of local government funds.

This concrete plan, agreed upon by the organisation during the learning workshop, was intended to dig deeper into the Planning and Utilisation of Disaster Risk Reduction and Management Funds data, and to increase the scope of analysis in terms of number of local governments covered. They agreed to meet every month to discuss the Disaster Risk Reduction Fund Utilisation data and for each CSO to analyze at least ten municipalities over the course of six months. The end-goal was to create a position paper and a data narrative that would convince local government units to proactively use disaster risk reduction funds and focus programmes on disaster risk reduction via education and preparedness.

### *CSO training in Negros Oriental*

A training workshop was conducted from 12 to 14 February 2015 at the Uytengsu Computer Studies Hall, Silliman University, and was attended by CSOs located in Negros Oriental.

The participants were from the following CSOs: Kristohanong Katilingban Credit Cooperative (KKCC); Albiga Agrarian Beneficiaries Multipurpose Cooperative (AABEMUCO); Gender Watch Against Violence and Exploitation (GWAVE); Katilingbanong Pagtagad Alang sa Kauswagan (KAPASKI); Youth Advocates Through Theater Arts (YATTA); RTN Daglo City Habitat (HABITAT); DCCO Multipurpose Cooperative (DCCO); Young Men's Christian Association (YMCA); and the Bacong Small Coconut Farmers Multipurpose Cooperative (BasCoFaCo).

The three-day activity consisted of three lectures from credible individuals regarding open government and open government data, the Full Disclosure Policy, and the Philippine Open Data Portal. Open fora were conducted after each lecture. There were also three workshops conducted and over three days. The topics were (1) offline data visualisation, (2) data skills and online visualization, and (3) online data narratives. Participants created their outputs for presentation and shared their reflections on the particular activity.



For the workshops related to offline and online visualisation as well as on open data narratives, the organisations decided to group themselves according to their area of interest. Habitat worked on its own and looked at housing data for the province. Both GWAVE and KAPASKI worked on Gender and Development Fund Utilisation data while DCCO worked on population data and its implication to the membership growth of the organisation. YMCA, YATTA and BascoFaco worked as one group and tackled Gender and Development Fund Utilisation data. At the end of the training, the participants were told that they had to practice their learned skills on one dataset that they were interested in and to create a data narrative.

Almost month after the three-day training, a learning workshop was conducted among participants. The workshop was held in Dumaguete City on 7 March 2015 and was attended by fewer organisations than the previous workshop. Among the eight CSOs that attended the open data training, only two were able to produce an output and only one organisation was able to create a data narrative. Like BUSWACC and BIDEF, RTN Habitat and GWAVE were able to focus resources on the open data project because the data they were working on are at the core of their advocacy and development agendas. This in addition to the fact that these CSOs have the resources and the learned skills to undertake open data work.

Table 1 shows the results of the mentoring sessions for Bohol, and the training sessions for Negros Oriental.

Table 1: Results of the Monitoring / Training Sessions

	<b>Bohol</b>	<b>Negros Oriental</b>
Number of CSOs mentored/ trained	4	8
Number of CSOs actively participating in the mentoring sessions/trainings	4	6
Number of CSOs able to produce committed outputs	3	2
Number of CSOs able to produce analysis of government data	2	1

### **What have we learned?**

The experiences of CSOs in the provinces of Bohol and Negros Oriental point to important lessons in the design, implementation and evaluation of capacity-building programmes on open data, more particularly for CSOs in the Global South. These lessons are not new or novel – they are successful practices that have been tested in other capacity-building interventions other than open data that may have been forgotten or ignored in the desire to fast-track interventions or probably because of inappropriate baseline assumptions. These lessons are presented below.

#### **The baseline condition should inform the capacity-building approach**

To start a capacity-building intervention, whether it is training or mentoring, it is important to assess the baseline conditions of the trainees. The baseline condition does not only refer to the trainees themselves, as captured through training needs assessment tools, but also to the

condition of the organisations that will participate in the training. This is particularly true for open data skills training, where not only are people's skills important but also the hardware (such as computers) and internet connectivity available to them. When conducting open data training for people from CSOs who may be interested to learn skills, it is important to note that some may still be without the appropriate infrastructure to be able to make use of the training.

The selection of CSOs with which the research project established partnerships during this project was based not only on the interest of the organisations, but also the presence of people with basic computer skills and the necessary infrastructure. Despite these selection criteria, there were challenges for the organisations in both provinces in accessing the data mainly due to weak internet connections. If the process of selection of participants had not applied these criteria, it is likely that the results would have been less productive than what was experienced in this research project.

It is a basic process in capacity-building that an assessment of trainee conditions is done at the beginning to ensure that the capacity-building interventions are suited to the needs and conditions of beneficiary organisations (Chan, 2010; Pearson, 2011). The UNDP capacity development approach, for example, identifies the assessment of capacity assets and needs as a corner-stone in its five-step capacity- development model. In this model, the assessment does not only include functional capacities, but also institutional arrangements, the quality of leadership and the dimension of accountability (UNDP, 2008).

Thus, the baseline condition must not be assumed by sponsors or providers of open data training. Open data training should start from a good understanding of what CSOs have and what they would like to learn. The appropriate approach for open data capacity-building may not be classroom training for all; it may be mentoring training for some, and coaching for others.

This research shows that CSOs with resources and good management skills may be able to produce open data outputs after training better than other CSOs that may have people with the required data skills but a lower degree of management commitment. A case in point is RTN Habitat in Negros Oriental that sent a sole delegate to the open data training, a senior executive director. He was one of those who finished the open data skills practice exercises last but ended up as the most productive CSO three weeks after the training. He convinced his board and team that using data for their work is critical, utilised the interns and volunteers in his organisation to gather and analyse data, and managed the whole process to create a persuasive narrative regarding the housing and shelter condition of Dumaguete City.

For CSOs that need to create strong buy-in for open data, mentoring may be more effective. This was exemplified by BUSWACC, the CSO that was most productive in Bohol, where a board member, an executive director and project staff attended all the mentoring sessions and worked together to produce a compelling data story on the weaknesses in planning and utilisation of funds allotted for disaster risk reduction and management. The mentoring sessions built commitment across stakeholders in the organisation that made possible the achievement of a meaningful output.

Several of the examples that are held up as good examples of open data use come from people who are self-motivated, and self-managing, and who thrive outside formal management

structures. However, if a CSO does not have such people with technical skills, then it is going to need to work out how to manage a process of producing tangible outputs from open data, rather than relying on the intrinsic motivation of the staff member. In the BUSWACC example, mentoring representatives from each organisational level (board of directors, executive director, the implementation team, and field personnel) proved effective. Top management provided the analytical skills and the strategic framework in the analysis of data. The executive director and implementation team did the ‘dirty work’ in scraping, cleaning and analysing the data while field personnel provided a grounded understanding of what citizens need in terms of information and how this can be best presented to make it useful.

Admittedly, this research project only did convenience sampling in assigning CSOs to a particular approach, and not based on the results of the training needs analysis conducted. But this was intentional in order to generate the lessons we highlight in this sub-section. Classroom and skills training work will not work in all contexts in the same way that mentoring may not be suitable for all organisations. Capacity-building has costs, so it is critical that the approach chosen will yield cost-effective results.

### **Data use is dependent on data supply**

This finding is expected and unsurprising. CSOs prefer to work on data related to their advocacy work and/or own organisational development. As such, training or mentoring should be based on the types of data that CSOs are most interested in and that they have the capacity to understand. Using examples that are far from the priority areas of work of CSOs will be counterproductive. It is helpful when CSOs will, for theory discussion and practical work, use actual data of interest in the training or mentoring sessions.

However, this approach will be severely constrained when the data they are interested in are not available or, when available, incomplete. This happened to several organisations in both Bohol (PROCESS, World Vision) and Negros Oriental (KAPASKI, KKCC) where the CSOs became frustrated when the local government units they wanted to analyse failed to publish the relevant datasets. This despite the fact that the data they were interested in were required by policy to be disclosed proactively.

In a context such as the Philippines, available datasets are not numerous, and CSOs have limited options on what data to work on. Having the data available on the web is helpful for them as it saves them both time and resources. But if data is not available or of poor quality, this limits the CSOs’ use of data, and eventually hampers the usefulness of open data initiatives.

Another significant finding of this research is the mismatch of information contained on government portals and those that are demanded by citizens. This is also one of the reasons why CSOs working in rural development in Negros Oriental like AABEMUCO and BascoFaco, whose members are small rural farmers, became less interested in producing outputs because rural development data are rarely disclosed on the portals, except in budget allocation reports. This also confirms the results of another study conducted in three other provinces in the country where data use is affected by the unavailability of the data that CSOs want (Canares, 2014).

### **Open data requires accessible and stable internet connection**

One of the primary challenges of several CSOs in both Negros Oriental and Bohol was the inability to download data from government portals and use online open data tools. This is not true for CSOs based in city centers where internet infrastructure is relatively stable. An interesting case, however, is PROCESS, a CSO in Bohol based in Tagbilaran City. Their office is located in one of the barangays about 10 kilometres away from the city center and in a less populous area. Their internet connection is so slow at times that opening web pages is not possible. For this research, and in order to produce output, they had to go to a coffee shop to view and download data, as well as use online visualisation tools.

The Philippines, according to recent broadband study has household internet penetration of 23% in 2013 (Broadband Commission, 2014) with internet speeds among the lowest in the world (Akamai, 2014). This condition has certain implications. First, not all people, areas or CSOs have access to internet services. If they do, like in the case of PROCESS, they may not have stable internet access. In this context, open data will be less useful, or may not be useful at all. CSOs will then go back to the customary mode of accessing government information and government disclosure of the information through the web may only benefit those who have access. In the case of South Cotabato, a province in southern Philippines, it was the business community who were able to access and benefit from the availability of online information by anticipating the procurement activities of the province in the ensuing year (Canares, 2014).

Second, open data interventions may need to engage in offline formats to ensure that information generated from open data will reach people without access to internet. In this case, open data intermediaries are crucial for different reasons. BIDEF, for example, see their role in accessing governance information for and in behalf of the farmers that they serve. Like BIDEF, CSOs are important to access, analyse, and visualise open data and create narratives from data that are understandable to citizens. They are also important to create knowledge products that may be accessed by people without internet connection. GWAVE, for example, has women constituents in the rural areas that they need to educate regarding utilisation of gender and development budget. For them, online dissemination will not reach their audience.

### **Open data skills are important but insufficient**

Most of demand-side capacity-building interventions on open data, at least in the Philippines, concentrate on open data and open data skills (such as downloading, scraping, cleaning and visualisation). However, these are just the ‘what’ and ‘hows’ of open data. Less often, training includes the ‘why’ of open data. Participants, however, need more information than this. They need to know the context of open data in the country and in their respective local areas. They want to see specific examples of the benefits of engaging with governments through open data that are not available to them using their customary means of public participation. They need to know what they can do with the data that they were able to visualize, and how they can use it to improve their collaboration with governments. These are issue-based and location-sensitive information that provide the overall context of open data as well as its overarching purpose. As such, while open data skills experts are wanting, subject matter experts are also necessary.

One interesting finding of the research is the lack of data analysis skills on the part of CSOs. In the design of the capacity-building interventions, both for training and mentoring approaches, the presence of data analysis skills was assumed on the part of participants because all of them were collectors, users and reporters of data. While this was roughly included as part of the course outline on offline and online data visualisation, it was not treated as a separate topic nor allotted time for a more extensive discussion. But the kinds of data that are published by governments require rather advanced levels of analytical skills. Budgets, procurement documents, financial reports and customs data, among others, may require more skills than just the ability to convert data to percentages in a pie graph or a histogram. YATTA, for example, is a group of artists and may not have good understanding of budgeting and procurement processes. Even GWAVE, an advocacy group, believes that they need to have analytical skills specific to their areas of interest.

One may argue, however, that capacity-building topics will largely be dependent on the objective of the training or mentoring, in such a way that if the only purpose is to build open data skills then a focus on scraping, cleaning and visualisation are sufficient. However, this begs the question regarding the purpose of teaching those skills. If teaching data skills to CSOs is to improve their engagement with governments, then focusing only on such a limited set of skills is less useful.

### **Outcomes, and not only outputs, prove capacity improvements**

Often, capacity-building initiatives measure outputs to prove success. In results measurement language, outputs are immediate results of an activity (WB, 2009). For example, if open data training is completed, then an immediate result will be number of individuals trained in open data. If we use this as a basis for measurement, then any open data training conducted will be assessed as successful. But outputs are insufficient to gauge capacity improvements. Outcomes, those we consider as higher order results, are more indicative of a capacitated learner, and in this case, a capacitated CSO.

Table 2 shows the hierarchy of results and the kinds of questions that open data capacity builders should focus on when conducting capacity-building activities on open data. (These are the same questions that this paper used to assess the results of both mentoring and training sessions.)

If, for example, we measure the results of the capacity-building interventions using lower-order results (inputs, activities, participants, reactions), we can say that both approaches in Bohol and Negros Oriental were successful approaches in building the capacity of CSOs in open data. However, if we use higher-order results, more particularly the outcome result layer referred to above as ‘practice change’, then the Bohol mentoring process was more successful because of the number and quality of outputs produced compared to the number of organisations trained (50%). Bohol CSOs were able to produce not only meaningful data visualisations, but were also able to arrive at a plan of action, largely brought about by a collective realisation of the power of open data. These points are clearly illustrated in Table 3.

Table 2: Hierarchy of Capacity-building Results

Needless to say, the ultimate test of improved capacity will be the impact of open data training

Result layer	Critical questions	Examples of result indicators
<b>Input</b>	How are resources used to deliver sets of capacity-building activities?	Amount of funds used Number of resource persons engaged
<b>Activities</b>	Were capacity-building activities conducted effectively to bring about desired learning outcomes?	Activities conducted
<b>Participants</b>	How many participants were able to participate in the capacity-building activities?	Participants trained (m, f)
<b>Reactions</b>	How did participants perceive the capacity-building activities?	Participants satisfied, dissatisfied with the capacity-building programme
<b>KAS</b>	What changes in Knowledge, Attitudes, and Skills are evident?	Participants with improved knowledge, attitudes, or skills
<b>Practice Change</b>	What changes in organizational practices are triggered by the capacity-building activities?	Outputs produced Organizational services enhanced
<b>Impact</b>	What results in target communities are achieved as a consequence of the capacity-building activities?	Benefits received by citizens and communities

to people for whose benefit these processes are intended. For example, an open data training that yielded to an advocacy programme for better utilisation of disaster risk reduction funds may result in more informed citizens because of the implementation of an education programme for disaster preparedness. But if lives are saved as a consequence of this process, then this would be the most ideal result of what open data can do to people and communities.

It is important to mention that the degree of influence open data training can have on these impact-level results may be slim. However, it may be realistic to look at open data training to generate results far beyond changes in participant reactions to actual outputs that participants are able to produce as a consequence of improved capacity. Thus, the design of open data capacity-building interventions should be geared towards the production of actual outputs by participants. Capacity-building service providers should not be content that an event is conducted and that people from CSO, media or research institutions have attended.

Table 3: Analysis of Results in Bohol and Negros Oriental

Result Layer	Results in Bohol	Results in Negros Oriental
<b>Input</b>	A mentor was contracted to provide the mentoring services to CSOs at their place of work. CSOs shoulder their own mentoring costs as well as equipment. A total of USD 3 200 was spent in Bohol. Three experts were engaged to provide training at the initial stage.	Trainers were contracted to provide classroom training to CSOs. Computers were rented during these trainings. The provincial coordinator conducts regular monitoring. A total of USD 5 800 was spent for training expenses.
<b>Activities</b>	One introductory workshop (1 day) and at least 3 mentoring sessions per CSO was conducted, based on need and level of expertise. A learning workshop at the end was conducted.	One classroom training of longer duration (3 days) was conducted with participants. Monitoring was done at least twice per CSO. A learning workshop at the end was conducted.
<b>Participants</b>	A total of 18 participants (6 male, 12 female) were mentored.	A total of 20 participants (7 male, 13 female) were trained.
<b>Reactions</b>	Participants were satisfied with the mentoring activities and felt that they learned more in the process, especially because the mentor visited them regularly with clear output requirements.	Participants appreciated very well the training provided but because data analysis is not a regular part of their activities, several of them felt that the three-day training was insufficient to translate lessons learned into actual action.
<b>KAS</b>	Regular mentoring activities made possible the increase in knowledge and skills in data access, manipulation and analysis, as well as the creation of narratives out of data. This was true for all participants. There is a significant increase in appreciation of data and how it can be used in advocacy and development work.	Increase in knowledge and skills in data access, manipulation, and analysis was evident during the training session. But actual use of them at work was limited for most organisations. A strong interest in using data to improve development work or advocacy was only evident in 1 out of the 8 organisations, and 1 out of the 20 participants trained.
<b>Practice Change</b>	Use of data for development work or advocacy has significantly changed in at least 2 of the 4 organisations mentored. These organisations now use data to strongly advocate for better utilisation of disaster risk reduction and management funds. The CSOs were also able to craft a plan of action in how to advocate for these changes, increasing the coverage and analysis to more towns.	Use of data for development work or advocacy has significantly changed in at least 1 of the 8 organisations. They now use open data to influence investment decisions of the organization and in advocating for bigger investments in housing and shelter for the homeless.
<b>Impact</b>	It was too early to assess impact of these initiatives.	It was too early to assess impact of this initiative.

### Training or mentoring is just scratching the surface

There were several reasons why CSOs in Bohol and Negros Oriental succeeded or failed in producing concrete products out of an open data capacity-building programme, but several of these are organisational in nature. For example, several organisations were not able to produce the agreed post-training/mentoring outputs because there were competing priorities within the organisation affecting work deadlines. Others were not able to do anything because it took them a while to present their plans to their respective top managers (for example, boards or chief executives). There were also those who were not able to do so because of resource constraints (for example, people, equipment and connectivity). On the other hand, those who were able to produce meaningful outputs were those whose leaders were committed to the process, where the open data work provided an enabling mechanism to their core work or business, and where resources (including staff) were dedicated to the task.

Kaplan (2000) argues that for capacity-building interventions to generate results, there is a need to move interventions from the tangible to the intangible. By this he means that while capacity-building necessitates development of skills and the acquisition of material resources (the tangible ones), the production of outputs or the changes in organisational practices necessitates changes in organisational attitude, vision and strategy (the intangible ones). Training or mentoring on open data only changes the tangible. Without a corresponding shift in leadership priorities or without having open data add value to CSOs' core business, then actual CSO-led outputs will not be produced. This is echoed in change management literature, where change readiness is characterised by attitude, conditions and resources (Pearson, 2011). Attitude refers to organisational and individual motivation while condition refers to mandates, structures and systems. Resources are about people's knowledge and skills, as well as organisational financial and technical assets. Without strong motivation and a clear mandate and structure, skills learned may not lead to how CSOs view and use data even with the existence of required resources.

The advantage of mentoring processes over training is the closer relationship between mentor and mentee. While providing mentoring support at the workplace of the CSOs, the mentor is able to influence organisational leadership and motivation and people's attitude. Continuous working with mentee organisations may lead to changes in structure and reallocation of resources. But these results will depend on the quality of the mentor and the amount of time he or she is able to devote to the organization. Training does not provide this kind of support.

However, it is important to mention that while capacity may have improved as a result of the mentoring, this will not automatically result in improved capability (Baser & Morgan, 2008).

## **Conclusion**

This research has shown that for CSOs in the Philippines, more particularly in the provinces of Bohol and Negros Oriental, awareness and knowledge on open data is significantly low. Open data and open government are new concepts for these CSOs, and only very few of them know that government publishes information on data portals. For most of the CSOs in both provinces, accessing government information is done by formally requesting information from offices and agencies or informally requesting friends or contacts working in these agencies to provide the information. This is the case despite the fact that the open data portal of the national government was launched in January 2014 and the Full Disclosure Policy portal was also launched almost the same time. The capacity-building activities conducted through this research project was the first time that most of the CSOs had heard about these data portals and learned about open government data.

However, at least half of the accredited CSOs in both provinces have personnel with basic computer skills that are useful to access, download and use open government data. Several of these CSOs also have adequate hardware and internet connection, albeit sometimes weak, to facilitate using open government data for their work. But not one of these CSOs have people with open data skills, more particularly in scraping, cleaning, and visualizing open government data, though they have for many years been engaged in data collection, processing, analysis and reporting. For all of these CSOs, open data skills are new and they were pleased to be learning these skills.



The intention of this research is not to compare mentoring and training approaches in delivering capacity-building for open data for CSOs, but to arrive at lessons as to how effective capacity-building interventions can be delivered. While training is currently the most commonly used mode of delivery, this research shows that it may not be the best approach for all contexts.

This research tells us that for an open data capacity-building programme to result to actual data use in the development and advocacy work of CSOs it has to have the following characteristics:

- a) **Context-relevant:** The capacity-building programme needs to be relevant to the circumstances of the CSOs and to the individual needs of learners. It should take into account the needs and assets of organisations and their team, including, among others, the mandate of the organisation, the availability and accessibility of technology, the availability of data they are interested in, and their experience in utilising data in their advocacy and development work. In this case, a good understanding of CSOs and the environment where they operate is critical.
- b) **Strategic:** Training should be conducted with a long-term view – ensuring use and actual impact not only on the organisation but also on the constituencies that they serve. Short-term, sporadic, one-time buzz trainings, or off-the-shelf training programmes will not yield to actual use that will show the economic, political, and social power of open data.
- c) **Outcome-focused:** Open data capacity-building providers should focus on higher-order results like changes in practices and behavior of organisations and their staff members or the actual production of outputs that benefits citizens and communities. Providers should not be satisfied with outreach, or the number of people trained, but with outcome, or how the capacity-building programme change the way organisations do things or how they participate in governance.
- d) **Comprehensive:** Open data capacity-building programmes should not only focus on concepts or skills; they should focus also on a whole-of-organization awareness, appreciation, and motivation to use data. Thus, training should change attitudes, systems, and not only resources, and must facilitate the organisation’s collective recognition of the value that open data can bring to the achievement of its vision, fulfillment of its strategies, and the effectiveness efficiency, and sustainability of its operations.

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## **Appendix 1: Profile of the provinces included in this study**

### **Bohol Province**

Bohol is located at the central part of the Philippines and 556 nautical miles away from Manila. The Province is the 10th largest island in the Philippines covering a total land area of 4 117 km<sup>2</sup>. Bohol is administratively divided into 47 municipalities, 1 city and 1 109 barangays. It is composed of a mainland and 81 islands and islets with an estimated coastline of 654 kilometres.

In 2000, poverty incidence was very high in the province – 50.2% in terms of population (NSCB, 2000), affecting mostly farmers and fisher folk (PPDO, 2001). In the same year, the province was one of the poorest twenty in the country (18th out of the 82 provinces) using monetary measures as criteria (NSCB, 2000). With strong social programmes from the provincial government, Bohol leaped out of the list of top 20 poorest provinces in 2003 (NSCB, 2005) with monetary poverty incidence reduced to 29.2% (NSCB, 2005) and was considered second-best performer in the country in terms of poverty reduction. Also, in the same year, Bohol leaped out of the 20 poorest provinces using the Human Development Index as a criteria (HDN, 2005).

Bohol is currently headed by Governor Chatto whose brand of governance is perceived by the NGO community and the private sector as transparent and participatory. The incumbent provincial government's executive-legislative agenda is embodied in the phrase HEAT BOHOL: Health and sanitation, Education and technology, Agriculture and food security, and Tourism and livelihood.

In 2011, the Department of the Interior and Local Government (DILG) recognised Bohol for its performance in governance, accountability, transparency and frontline services. In 2012, the DILG's Silver Level Seal of Good Housekeeping awarded the provincial government as the Best Governed Province. This recognised Bohol's outstanding performance on administrative, social, economic and environmental governance, and its adherence to the fundamental principles of good governance including transparency, participation and financial accountability.

CSOs in Bohol are very active in provincial governance. There are several networks of non-government organisations that engage proactively with government on several thematic issues. For example, the Bohol Alliance of Non-Government Organisations is engaged in the area of rural development and civil society strengthening, the Bohol Transparency Network for Transformation that focuses on government transparency, accountability, and anti-corruption, and Bohol United Sectors Working for the Advancement of Community Concerns working in the area of social entrepreneurship.

### **The Negros Oriental Province**

The Province of Negros Oriental occupies the south-eastern part of the Negros Island. Its capital, Dumaguete City, is home to one of the oldest institutions of higher learning in the country, established in 1901 by the American protestant missionaries. Negros Oriental is primarily an agricultural province, with majority of its population relying on farming and fishing as primary sources of livelihood. The province is home to 19 municipalities and 6 cities, with a total land area of 5 402 km<sup>2</sup>.

Poverty incidence in the province is high based on 2009 data, the latest data available for the province. Almost half (42%) of its 1.2 million people are below the poverty line (NSCB 2009). According to 2014 statistics, the province remains one of the 10 poorest provinces in the country and the only province from Central Visayas region that remained in this list of poorest provinces.

The provincial government of Negros Oriental is headed by Governor Noel Degamo, once the vice-governor of the province who became the governor in 2011 when the elected governor died due to illness. He was elected officially in 2013 on a platform that focuses on Health, Education, and Livelihood Programmes and Projects (HELP). Interestingly, transparency advocates have criticised his government's programme and branded it as 'MagDegamo Ta' because it carries the name of the politician, something that is thought to be in violation of the policies of the Department of Interior and Local Government.

Civil society participation in governance in the province of Negros Oriental is relatively strong but is significantly fragmented and issue-based. A network of CSOs working on cross-cutting themes in the province is relatively weak, and while the Negros Oriental Network of NGOs existed in previous years, it has been limited to a few organisations that work largely on issue advocacy. Among the top issues engaged individually by CSOs are child rights, disability, micro-entrepreneurship and education.