INTERNATIONAL CONFERENCE
DATA INNOVATION FOR POLICY MAKERS

BALI, 26 - 27 NOVEMBER 2014

CONFERENCE PROCEEDINGS

BAPPENAS

Australian Government
Department of Foreign Affairs and Trade

Australian Aid
Knowledge Sector Initiative

INNOVATION
FOR DEVELOPMENT

UNDP
Empowered lives.
Resilient nations.

PULSE
LAB JAKARTA

INTERNATIONAL CONFERENCE

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ABBREVIATIONS AND ACRONYMS

BAPPENAS	:	*Badan Perencanaan Pembangunan Nasional* (Ministry of National Development Planning), Indonesia
GPS	:	Global Positioning System
KSI	:	Knowledge Sector Initiative
MOU	:	Memorandum of Understanding
NGO	:	Non-Governmental Organisation
PLJ	:	Pulse Lab Jakarta
REDD+	:	Reducing Emissions from Deforestation and Forest Degradation
UNDP	:	United Nations Development Programme

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WHAT WAS THE CONFERENCE ABOUT?

Hosted by the Indonesian Ministry of National Development Planning (*Badan Perencanaan Pembangunan Nasional*, BAPPENAS) in November 2014, the 'Data Innovation for Policy Makers' conference in Bali focused on how data can be used to provide better services for the public. In collaboration with Pulse Lab Jakarta, the Knowledge Sector Initiative (KSI) and the United Nations Development Programme (UNDP) Innovation Facility, the conference responded to recommendations made by the Independent Expert Advisory Group on the Data Revolution for Sustainable Development, which was set up by the United Nations Secretary General in August 2014 to provide concrete ways of improving data collection and analysis for sustainable development.

Who Was Involved?

Pulse Lab Jakarta is a joint project of the Government of Indonesia, through the Ministry of National Development Planning (BAPPENAS), and the United Nations, through Global Pulse, an initiative of the UN Secretary-General. It is essentially a data innovation lab, aimed at harnessing the power of new digital data sources and real-time analytics for development.

The **Knowledge Sector Initiative (KSI)** is a joint program between the governments of Indonesia and Australia that seeks to improve the lives of the Indonesian people through improved quality public policies that make better use of research, analysis and evidence.

The **UNDP Innovation Facility** is designed to offer UNDP and its collaborators across the globe with technical and financial support to explore and try new approaches to increasingly complex development challenges.

All collaborators on this conference work closely together to accelerate the process of moving from theory to practice in data innovation for policy making. Data innovation is talked about widely in terms of the data revolution, but there is still a limited body of

practice to substantiate claims of its positive impact or an in-depth understanding of the potential negative consequences. With this in mind, the organisers wanted to facilitate the creation of a sub-regional ecosystem of data innovation practitioners; to raise awareness of policy makers of the gap between theory and practice; and to take stock of existing data innovation for policy making practice from the region and beyond.

Given the pace at which the data landscape changes, combined with the rapid rise of social media and the use of new technologies, there are endless new opportunities for policy makers to engage citizens in collecting and analysing data to fill existing gaps. Citizens' expectations are also shifting - in a world of real-time communication people expect personalised, real-time interactions with public institutions. Indonesia strives to be a part of this data revolution, wanting to be a smart user, making use of data to improve policy-making processes and escalating real-time data from a phenomenon into policy to improve the quality of public services at the frontline.

The 'Data Innovation for Policy Makers' Conference brought together practitioners at the forefront of data innovation from both Indonesia and abroad. The conference discussed the new data landscape for policy makers, the challenge of translating the data deluge into actionable policies, complementarity between new and old data, the right policy framework for data philanthropy and ways to generate solutions for policy issues. Prototypes and tools for data collection and analysis were presented in an exhibition.

Exhibition Participants

1. World Resources Institute (WRI): displayed WRI Global Forest Watch webtools. WRI is a global research institution working on issues related to climate, water, energy. Website: http://www.wri.org/

2. Positium: display of geolocation tools to understand mobility patterns. Positium aims to bring insights from mobile phone data, particularly to improve public planning, transportation, tourism. Website: http://positium.com/

3. Kopernik: display of Impact Tracker Technology. Kopernik is an NGO that introduces technologies and creates micro-business opportunities in remote communities. Website: http://www.kopernik.ngo/

4. Knowledge Sector Initiative: display of project material including information about the Knowledge Sector Initiatives aims and objectives as publication about international and Indonesian experiences with processes and system to strengthen the demand and use of evidence in policy making. Website: http://www.ksi-indonesia.org/

5. Pulse Lab Jakarta (PLJ) and UNDP: display of information materials. PLJ is an innovation Lab that brings together experts from United Nations agencies, the Indonesian government, non-governmental organizations and the private sectors to research and facilitate the adoption of new approaches for applying new, digital data sources and real-time analysis techniques to social development. PLJ is a partnership between the United Nations and the Ministry of National Development and Planning (Bappenas).Website: http://www.unglobalpulse.org/jakarta
UNDP is the UN's global development network, an organization advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. Website: http://www.id.undp.org/

6. PT Media Trac Sistim Komunikasi: display of Network Analytics Visualization Dashboard for issue management and transaction mapping (Web based Dashboard). PT. Media Trac Sistim Komunikasi leveraged Big Data technology and analytics expertise development since its establishment in 2003. Website: http://mediatrac.co.id/
7. World Wide Web Foundation (WWWF): display of information materials including research findings. WWWF aims to advance the open web as a public good and a basic right. Website: http://webfoundation.org/
8. Akvo.org: display of mobile based monitoring system. Akvo builds open source internet and mobile software designed to support international development partnership networks, and make cooperation and aid activity more effective and transparent. Website: http://akvo.org/
9. PT. Tridaya Nusantara International: display of information materials in regards to 'Digital Government". PT. Tridaya Nusantara International is a marketing communication company focusing on specialized media, government relations, political analysis. Website: http://www.tridaya.com/
10. Makedonia: display of quadcopter. Makedonia is an Innovation Hub that provides space for innovators to meet and collaborate to develop new inventions. Website: http://www.makedonia.co/

The Data Revolution

In 2014, the United Nations Secretary General, Ban Ki-moon, launched an Independent Expert Advisory Group to provide inputs towards shaping an "ambitious and achievable vision" for a future development agenda to succeed the Millennium Development Goals. The 24-member group of experts from civil society, the private sector, academia, governments and international organisations are expected to assess new opportunities linked to innovation, technical progress and the surge of new public and private data providers in order to support and complement conventional statistics systems and strengthen accountability at the global, regional and national levels. The work of this group is part of the Secretary-General's efforts to prepare a report requested by UN Member States ahead of the intergovernmental negotiations leading to the adoption of the post-2015 agenda, and will advise on measures that need to be taken to close data gaps and to strengthen national statistical capacities. The report highlights two global challenges for the current state of data:

Invisibility: There are often gaps in what we know and when we know it; and
Inequality: While there is sometimes much data available, other times there are persistent data scarcities, which means that local communities aren't empowered with the data that can help them make decisions.

Find more information here: http://www.undatarevolution.org/

MAIN CONCLUSIONS OF THE CONFERENCE

The conference addressed the issues discussed by the Independent Expert Advisory Group on the Data Revolution for Sustainable Development, and came to the following conclusions:

1. Make data more accessible to the public

The Government of Indonesia organises regular data collection for censuses, surveys and regular reports. These data are not easily accessible due to complex rules and regulations. This results in limited use of the data. Digital platforms must be created so that organisations and individuals can access them, analyse them and generate new evidence. Governments could use open data as a means for dialogue and consultation with citizens when making policies.

2. More citizen involvement

The conference revealed a range of citizen-driven initiatives and highlighted how citizens can actively contribute through data innovation to solve social problems. The conference showcased how a number of organisations are taking advantage of new opportunities and technologies to improve data collection, making use of alternative sources of data and helping inform development planning and policy making. From sensors to mini-drones, from sentiment analysis to machine learning, from visualisation to randomised controlled trials, a whole new set of tools is available to planners to better understand the impact of their interventions and manage risks. At the same time, citizens are also making the most of new technologies and are self-organising to collect and interpret data that is important to them. It is clear that citizens want to be involved, and that their active participation can make a change. The channels have to be opened and nurtured for citizen involvement to become instrumental in empowering decision makers to make data-driven decisions.

3. The need for 'data ecosystems'

Coordination and collaboration were discussed intensively throughout the conference. The opening of previously closed data sets, growing community initiatives, as well as partnerships with the private sector are creating opportunities for citizens and government institutions to interact with data in new ways. For the most part, however, governments have been slow to realise the potential to engage more broadly with citizens, civil society and the private sector, whether to improve and enrich the data on which governments rely to develop public policy or to improve the state's responsiveness to citizen concerns. There are opportunities to develop 'data philanthropy' partnerships with private holders of commercial data. However, harnessing the benefits of data sharing and use requires a trusted, transparent and balanced environment. To achieve this, we need to create legal and technical frameworks for data sharing.
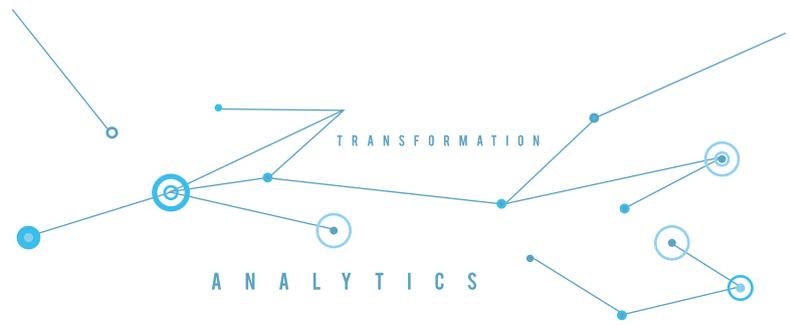
WHAT WE NEED
FOR A DATA REVOLUTION

Participants from a wide range of backgrounds – from civil society, government, academia and the private sector, discussed a variety of issues related to big data and real-time analysis techniques for planning, monitoring and evaluating social development policies and programming. What emerged from the conference was a clear call for the following:

1. Make Data More Accessible

Andrinof A. Chaniago, Indonesian Minister of National Development Planning (BAPPENAS), admitted during his opening remarks that he had been a 'data thief'. He explained that over-protective officials and closed data systems had often pushed him to look for hidden data for his own policy research work. Minister Andrinof called for this to change.

Open data can be as valuable to policy makers as it is to outsiders. Open data refers to data that is freely accessible and reusable to anyone without restrictions. It is usually published by public bodies and can include anything from national economic statistics to departmental spending figures or bus timetables.

While the standard arguments for public bodies publishing open data tend to revolve around transparency and accountability to outsiders, it is important not to underestimate the potential value of this data for internal use by policy makers. Most people assume that when a public body publishes information about a given subject, they can already access

the information themselves. But often there is a real challenge in getting up-to-date, accurate data across different government departments and sectors. This kind of information needs to be published as open data in a standardised way, as it is an extremely important way of obtaining information and provides important evidence required for policy-making.

New methods of data collection and analysis give us the right to be more demanding of statistics than ever before, and this includes looking for ways to supplement official statistics. Although official statistics are generally the gold standard for data, they have their weaknesses. Statisticians take great care to ensure that data categorisations are kept consistent, which is important for making data reliably comparative over time. This can also act as a constraint when trying to understand phenomena that change very quickly.

Indonesia is working to address some of these issues, and Minister Andrinof highlighted its role in helping to establish the Open Government Partnership. In September 2014, the Government of Indonesia officially

launched its open data portal, with 700 datasets from 24 agencies already online. The portal, data.go.id, is part of Indonesia's larger open government movement, which aims to promote a more credible government, better public services and encourage innovation in society. The website features visualisations which both citizens and civil servants have developed using open source software and accessible data sets. The site is easy to use and accessible to those without training or high levels of technical skills. At present, the government is the main data supplier, which is the focus during the early stages of this initiative.

What open data really looks like

John Paterson from Reducing Emissions from Deforestation and Forest Degradation (REDD+) shared his experiences in developing a new model for monitoring deforestation and forest degradation. REDD+ has long embraced innovation in data, and works on the three following principles:

- Supporting existing institutions;
- Identifying issues and gaps through collaboration with responsible government departments; and
- Stimulating progress with data development through public engagement, private engagement and the promotion of transparency and accountability.

They do this to produce a balanced triangle: sustainable welfare that is achieved through meeting emission reduction commitments; increasing carbon stock; and maintaining biodiversity and ecosystem services from forests and peat lands. Working to achieve these goals requires an extensive set of data, which is not easy when different stakeholders use different scales for mapping and classifications for land cover. Working to overcome these challenges has enabled a high level of collaboration, and has resulted in an agreement between the Geospatial Information Body (*Badan Informasi Geospasial*), REDD+, the Ministry of Health and the Ministry of Education, all of whom work together in creating One Map.

One Map is an initiative that integrates all government maps into one, and contains all of the relevant information on forest licensing and land-use claims. The initiative is expected to help resolve conflicts arising out of the usage of different data and maps, which then result in disputes and improper permits for plantation and mining operations. REDD+ is just one stakeholder, and does not consider their data secret; rather, the more available it is, the more they will share this type of data. The One Map portal has created a data ecosystem where different stakeholders contribute data and, at the same time, can access evidence for policy making.

Success Story: Global Forest Watch – Providing Alerts for Forest Management

Andika Putraditama, Research Analyst from World Resources Institute

Global Forest Watch is an online platform to monitor forests and provide an alert system that empowers people everywhere to better manage forests. It is a combination of satellite technology, open data and crowdsourcing information. It is free and follows an open data approach in putting decision-relevant information in the hands of governments, companies, NGOs and the public.

'We launched the embryo of this tool three years ago. It was then called the Forest Cover Analyzer. No government wanted to share data with us, even concession data. Even getting boundary data was very hard. But now we have seen a lot of work targeting an open-government initiative.

In the private sector for example, when we launched the platform and we published the names of companies who have hotspot data within their boundaries, at first they were very angry with us. They were calling us and saying that they had no forest fires in their concession. They asked why we were publishing their names? At that time, we learned that the concession boundaries given by the government were not that accurate. So the reaction at that time was, if the concession is inaccurate and if they don't have any fire hotspots within their concession, then give us the right data. Help me to help you.

After using that approach, we now have data from an RSPO-certified company and we have an MOU (Memorandum of Understanding) with the Round Table on Sustainable Palm Oil. So now, even the industry is giving us their data on their own initiative. We do not have to ask for the data, because they know it will be useful for them to put the data in the platform. So I think that kind of approach will also work with government. Moving forward, I believe the government will open up new data with the Open Government Indonesia Initiative. It will also push further for data transparency.'

❝*"The gap of our times is not so much the gap between science and morality, as it is the gap between the soaring technological imagination and the inert institutional imagination."* [Paul Streeten, Economist]❞

2. Engaged Citizens Can Be Valuable Sources of Data

More and more, technology provides a medium for citizens' voices to be heard, and governments can develop innovative approaches to decision and policy making with data generated by citizens themselves through, for example, social media.

The conference showcased how home-grown, citizen-developed programs are using, for example, open-source digital mapping to combat rampant deforestation or crowd funding to distribute low-cost technologies such as water filters to local non-governmental organisations (NGOs).

Often, the easiest way for people to contribute is through mobile phones - there are countless examples of how smartphones can be used to provide data to governments or NGOs. Citizens are able to voice their concerns about problems that municipal or local governments are responsible for, and using their smartphones, they can take a picture of the problem they want solved, categorise it, and the global positioning system (GPS)

chip in their smartphone automatically plots it on a map using a particular app (application). Everybody in the city with the app can then see it on their phone. City officials are notified about the problem, and can fix it. Once the job is done, the map is updated and everybody can see that it is fixed. This type of application works because:

- Gathering and making use of the data is cheap: rather than paying government staff to go out and look for problems, citizens identify them directly, essentially for free;
- It is a great source of civic engagement: it makes it easy for citizens to direct public resources to the things they care about and the things they spot themselves; and
- The transparency around this process works very well: it allows citizens to hold the government to account, and at the same time allows the government to demonstrate that it is responsive in addressing problems.

What citizen-driven data really looks like

In 2013, the mayor of Seoul, the capital of South Korea, was confronted with citizen demands for a late-night bus service when the subway was closed between midnight and 5am[1]. Since drivers had to be paid double their daytime salary to work a night shift, the city only had enough funds to cover nine routes, and needed to figure out where to best put their resources. In South Korea, eight out of 10 people use smartphones and active social media is a venue for people to vent their frustration about traffic conditions. The Seoul Metropolitan Government therefore pays attention to things like Twitter, and when they saw tweets like this one: "*Buses don't run by the time I get off work. I don't have a car. I hope there will be buses available late at night,*" they started to think about how to provide a late-night bus service without having enough buses and drivers. They asked local telecommunications provider KT Corp to

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Success Story: SafetiPin – Using Crowd-Sourced Data to Make Communities Safer

Dwi Faiz from UN Women and Varun Banka from Social Cops on SafetiPin and crowd-sourced data

Dwi Faiz: 'UN Women is assisting the Governor of Jakarta to adapt SafetiPin, a map-based mobile app which works to make communities and cities safer by providing safety-related information collected by users and professionally trained auditors. It was tested in New Delhi, and is providing evidence and information to engage local governments around the issues of urban safety and security. The application requires immediate assistance and response from local government in terms of providing police patrols, and responding to requests to repair broken lights, etc. The success of the application therefore relies on the participation and assistance of several different stakeholders, and governments may not have the resources to necessarily respond – but it does provide information from citizens that have the potential to safeguard against violence.'

Varun Banka: 'There are challenges with crowd-sourced data. The quality is lower than more survey-based or verified data from surveys in which surveyors go out and collect that data. And the data becomes unstructured in terms of zones, so you might see a lot of data coming from one particular zone and less from another zone. I just want you to realise this: crowd-sourced data can be a good benchmark or base layer of data that can add on to multiple layers of data that give a good overall perspective of the city. In other words, crowd-sourced data used by SafetiPin can only provide good insight into where the insecure areas zones are, but they cannot pinpoint the underlying issues. Crowd-sourced data can however help to make more efficient use of limited resources. For example, the data collected by SafetiPin can help to direct police officers to specific locations at specific times because that is where most alerts come from.'

> " Data do not automatically translate into better policy-making processes, but when they are interpreted, analysed and critically discussed, they can help make decisions smarter, more transparent and more open. "

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1   Source: Devex interview with Ki-byoung Kim, Director of the Information Systems Division, Seoul Metropolitan Government

share data from three billion monthly calls to figure out which routes were most used. Seoul was divided into 1,200 segments covering 500 metres each. Certain areas were prioritised, based on data analysis of the volume of activity, and cross-referenced with billing addresses for the likely destinations.

"Every person registers a billing address when they sign up, so we assume that billing address is [also] the destination of each passenger," said Ki-byoung Kim, Director of the Information Systems Division at the Seoul Metropolitan Government. The data allowed Kim's team to chart the routes that would be most used by passengers at night. Although some residents complained the routes were not the same as the daytime ones, ultimately the data was able to convince the city government that this was the most efficient setup in terms of bus lines.

3. The Need For ´Data Ecosystems´

The opening up of previously closed data sets, growing community initiatives and increased partnerships with the private sector are creating opportunities for citizens and government institutions to interact with data in new ways. For the most part, however, governments have been slow to realise the potential in engaging more broadly with citizens, civil society and the private sector, whether to improve and enrich the data that governments rely on to develop public policy, or to increase the state's responsiveness to citizen concerns.

Data sharing within and between government agencies, between national and subnational governments, and between governments and the private sector is not yet widespread, nor are there clear protocols or systems to facilitate data sharing. In addition, there are many opportunities to develop 'data philanthropy' partnerships with private holders of commercial data.

One concern when it comes to collaboration and coordination is with the personal data that is shared, as data sets often contain personal information that should be made anonymous and de-identified. Data is richest and most useful when data sets are combined or integrated, which can sometimes imply sharing some form of personal data. There are challenges related to sharing data between public and private sector entities and between government departments. Legitimate and growing concerns about data privacy and regulatory frameworks that vary by country add complexity to the development of standards, and scalable approaches to data access and the management of privacy risks.

There is no real consensus yet on best practices for sharing personal data; creating anonymity is a work in progress.

Smart practices and lessons learned

Professor Miriam Lips, Professor of e-Government from the Victoria University of Wellington, shared twelve lessons learned about collaboration from the New Zealand Data Futures Forum:
1. Strong support across varying stakeholders is critical;
2. A broader public engagement process is needed;
3. Privacy protection and (increased) data transparency are critical to success;
4. Every citizen should benefit from data use;
5. Education is essential, including that of senior government leaders;
6. Building capability among currently disadvantaged groups is a priority;
7. Data interpretation is of increasing importance for public policy, and multidisciplinary skills, including social sciences, are key;
8. An independent data council is absolutely essential for building and maintaining trust, facilitating public debate about ethical issues and sustaining the emerging data market;
9. Governments need to organise themselves in a 'horizontal' way in the data space (moving away from vertical silos);
10. Trusted, collaborative governance models (safe innovation 'sandpits') are critical;
11. Long-term, strong leadership at the top, including seed funding, combined with bottom-up innovation initiatives are critical success factors; and
12. We need to 'just do it,' by starting to innovate and learn.

What collaboration really looks like

Harsha Dayal, Research Manager of the Department of Performance Monitoring and Evaluation with the Republic of South Africa,[2] is currently leading a national insurance scheme which is working to ensure that all citizens have access to proper health care. More than 20 years after the late Nelson Mandela promised free health care for pregnant women and children under the age of six, the structure was finally piloted in 2011. One of the reasons for the delay was the lack of unified, accessible data about existing public and private health service providers, what kind of care they provided, and where they were located.

"We need to know who and where they are available, and if they are willing to be part of the national health insurance that the government wants to establish," said Dayal, then a researcher at the country's Human Sciences Research Council. Since the government did not have one database with all the health service providers, and there was a lot of data distributed among different stakeholders, Dayal and her team worked to create a single database, pooling information from different government departments from the national to municipal level, private health service providers, and records of licensed medical practitioners from the Council of Health Professionals. Not only did this pose a challenge in terms of convincing the stakeholders to share their data, but it then had to be reformatted so that it could then be used in one database. Once this was accomplished, the researchers travelled throughout the country to confirm the information at district level and categorise each health care provider into primary, secondary and tertiary levels, to determine who they were serving and any delivery challenges. The whole process to start the pilot program took one and a half years, and even today, Dayal says they still face challenges from some private health service providers and taxpayers that are against the scheme.

Success Story: Changing Business Models

Sriganesh Lokanathan from LIRNEasia and Prabir Sen, Singapore's First Chief Data Scientist

Sriganesh Lokanathan: 'How do you enlighten policy makers on this new way of thinking about data science?'

Prabir Sen: 'It requires lots of effort to communicate, and then make sure their interests and benefits are being addressed. Not many people have really communicated the value of data science or data analytics. I mean, how do data drive the insight? What opportunities are created by the shared data? How can governments really benefit by serving the people, and better serving people through operators?

One has to recognise that and drive all of it. The business model is changing, so how do you address this new business model? If I pick it up, like I pick up the citizen journey experience, and then all the citizens are being served, then service is being rendered and there's value to the service. The business models are changing.'

> *"We can either have endless discussion about the benefits of new data or we can get hands-on and try things out to learn what works and what doesn't, to see how far we can go in tackling challenging problems."* [Douglas Broderick, UN Resident Coordinator Indonesia]

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2   Source: Taken from Devex interview

4. Top Tips and Conclusions

For us to make data more accessible, increase engagement and better coordinate and collaborate, we need to think about the following:

From the field: Making data work for everyone:

Rama Tobuhu is a health volunteer in Desa Mootilango, Gorontalo, Indonesia. Once a month she walks through different villages to check on the health of babies and their mothers. She likes being a volunteer and tries as hard as she can do do what she can for the women and babies she sees. But she struggles with all of the forms that the local district health office requires to fill out. "I am an elementary school graduate. It is too hard for me to fill in the forms. I cried and thought about resigning," she said.

Data collection

Don't collect data for the sake of collecting data: The experience in India with maternal and child health services shows that gathering data just for the sake of having it is meaningless. Data gives a snapshot of a situation, can help predict future needs, and can give warnings in emergency situations. Good quality data comes from people being aware of why they are collecting data, but also requires identifying a need and searching for the right information.

Do not create complicated data collection formats: Frontline service providers such as Rama Tobuhu, who works as a health volunteer in Gorontalo, want to provide a service that is not only needed but is also good quality. This means having ample time to interact with beneficiaries. It isn't easy to focus on beneficiaries and provide counselling while having to fill out long forms; frontline workers need simple ways of recording their work, and objects to generate data that are tangible, visual and real. Data collection formats which are simple also make consolidating and analysing data simpler and faster.

Collect and analyse feedback from beneficiaries: Numbers are not the only way to get information; qualitative data can be very useful to complement quantitative information. Service providers such as health workers can ask about the quality of service received by beneficiaries. This practice is common in the private sector but rarely done in the public sector. For example, mechanisms could be developed by the government to create incentives for providing constructive feedback and regular analysis. LAPOR, developed by Indonesia's Presidential Delivery Unit for citizens to report on corruption via their website, phone app or SMS, is one example. Services are delivered for citizens, and therefore citizens are the main priority when developing data systems.

Social media is a great source of data and information, but must be validated: Tweets can be used as a powerful source of information. People share a lot on Twitter, and it is possible to verify data against each other and against another dataset. An example of this is floodtags.com,[3] which provides real time information about where there is flooding, how people are affected, and how they can be helped.

Create technology that allows interactive feedback mechanisms: We need an interactive mechanism that gives citizens room to provide feedback, but also allows the government to take action - a mechanism that simultaneously links citizens' reactions and queries to government action. This new approach can lead to data-driven government.

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3   See also http://unglobalpulse.org/Floodtags-interview

Use of data

Use data to make policy adjustments and drive reforms: Data has great potential beyond government planning and budgeting cycles. The interpretation of data provides great insight into what works and what doesn't work in policies and programs. They can suggest new directions or push for new services and/or reforms.

Use and reuse data: Data can be analysed for various purposes. Data on education at the district level can also be used by the health district office, for example. Data collected from one-stop-service offices can inform regional planning by local planning agencies. End-line data from completed programs can be used as baseline data for a new program. We need to be creative with data and allow and encourage cross-sharing.

Open up data: Make data open to the public so that it can be used for different purposes by different actors. But what data should be made public? Making health outcomes visible can trigger ownership on the ground, not only for beneficiaries but also for frontline service providers. This encourages participatory decision-making to improve the quality of service at the frontline. Policy on frontline service delivery should not be decided solely on national interests, but by local conditions, challenges and opportunities.

Things To Remember

Start small: Data can help find answers to human problems. To do so, experimentation is extremely valuable. We need to start small, learn and grow in terms of discovering the opportunities data and data analysis provide. This means a small-scale experiment in safe-to-fail ways. It is about conducting a pilot with the available resources and timeframes. What is important is to 'just do it' and to not be afraid to experiment. Results from a small trial, whether a success or failure, will pave the way for more tangible results.

Don't let frustration get in the way: An application to map out flood locations in Jakarta was developed out of frustration. Innovation and frustration can go hand in hand. It is essential to find the best strategy to allow as many ideas as possible, then turn them into pilots to find better solutions to improve services at the frontline. Examples of this are Socialcops and Bihar Innovation Lab.

Think about data differently: To capitalise on these opportunities it is necessary to change people's mind-sets. This means changing from confirmed plans to fluid plans, finding the right answers by looking at multiple courses of action, aligning follow-up tracking and making sense of data. It is important to measure what matters rather than measure what can be measured. This means changing from comprehensive planning to learning by doing, and treating each context seriously, rather than focusing only on bureaucracy.

So, we need to:
- Ask better questions
- Learn from what we do
- Get inside-outside perspectives
- Commit to an adaptive approach

In parallel, we need to encourage and provide **safe-to-fail experiments**. We want to see digital tools that allow for rapid, large-scale, low-cost experimentation. But most importantly, we want to gather evidence from those experiments to improve policy making.

Conference Agenda

Day 1, 26 November 2014

Time	Activity	Venue	Responsible Party
08.00 – 09.00	Preparing for the exhibition opening Exhibits from: 1. World Resources Institute (WRI) 2. Positium 3. Kopernik 4. The Knowledge Sector Initiative (KSI) 5. Pulse Lab Jakarta (PLJ) and UNDP 6. PoliticaWave.com 7. World Wide Web Foundation (WWWF) 8. Akvo.org 9. Makedonia 10. PT. Mediatrac Sistim Komunikasi	Expo venue (Foyer)	Marita Kurniasari (PLJ), MC
08.30-09.00	Registration opens	Palma Ballroom	GoI: Yuyun and Herni (Bappenas); Non- GoI:Marita (UNRC, PLJ)
08.45-09.00	MC welcomes in the guests	Palma Ballroom	MC
09.00-09.30	Greetings by • **Drs. I Ketut Canang, M.Si,** Head of Bappeda Bali Province • **Douglas Broderick**, United Nations Resident Coordinator • **James Gilling**, Head of The Australian Embassy Development Cooperation Program For Indonesia • **Andrinof Chaniago,** Minister of National Development Planning/Head of Bappenas	Palma Ballroom	MC

Time	Session	Venue	Notes
09.30 – 10.30	**Setting the scene – the new data landscape for policy makers** The purpose of this session is to set the scene on the opportunities presented by new data for policy makers based on the experience of practitioners: what type of new data are available, how they can be harnessed for better results. The session will take the form of a dialogue between the keynote speaker and his counterpart, who will provide his reaction to the keynote. Chair: **Dr. Vivi Yulaswati, M.Sc.,** Director of Social Protection & Welfare, Bappenas Keynote: **Prabir Sen**, Singapore government's first Chief Data Scientist Discussant: **Dr.Ir. Leonard VH Tampubolon, MA**, Director of Macro Planning, Bappenas **Q & A Session**	Palma Ballroom	MC
10.30-10.40	Coffee Break		MC to introduce video/ cameraman (internal documentation)
10.40-12.15	**Panel discussion:** **New data, but what about new insights? The challenge of translating the data deluge into actionable policies** The purpose of this session is to elaborate upon the questions that the new landscape poses for policy makers: how to harness the deluge of new data, how to translate data insights into action for different levels of government.	Palma Ballroom	MC

	Chair: **Dr. Ir. Mesdin Kornelis Simarmata MSc.,** Director of Industry, Science and Technology, Tourism and Creative Economy, Bappenas Speakers: 1. **Ir. Dudy Saefudin Sulaiman, M.Eng,** Deputy for Methodology and Statistical Information, Central Bureau of Statistics (BPS) 2. **John Gibson**, Director of Government Innovation, NESTA (umbrella view) will present key highlights from NESTA data innovation for public policy good practice note, highlighting good practices from governments around the world 3. **Fred Carden**, Lead Technical Advisor, KSI 4. **Ki-Byoung Kim**, Director, Information System Division, Seoul Metropolitan Government, the Republic of Korea, will present on the experience of the Korean Government harnessing big data for public policy: how to provide actionable insights for different levels of government **Q&A session**		
12.15– 13.30	Lunch		MC to introduce the rooms and booths

13.30 – 15.00	**Parallel Panels**	Palma Ballroom	MC 1, MC 2
	False dichotomies? Old and new data, top down and bottom up		
	These two parallel sessions aim to demystify much of the current rhetoric around "new" and "old" data, top down and bottom up approaches to data collection, arguing that rather than being seen as opposites, they should be seen as complementary		
	Panel I **'Harnessing Old and New Data'**		
	Chair: **Amalia A. Widyasanti, ST, MSi, M.Eng, PhD**, Director of Trade, Investment and International Economic Cooperation, Bappenas		
	Speakers: 1. **Firman Witoelar, PhD**, Director of Research, SurveyMeter Indonesia 2. **Ying Shaowei**, Chief Operating Officer, SingTel will present on SingTel's experience of running big data challenges to help analyse big data sets and how insights are compared to "traditional" data 3. **Tony Quinlan**, Chief Storyteller, Narrate will present on how Cognitive Edge works with governments around the world to combine ethnographic insights with big data analytics for real-time policy monitoring		
	Q&A Session		

	Panel II **'When Citizens Step In'** Chair: **Dr. Vivi Yulaswati, M.Sc.**, Director of Social Protection & Welfare, Bappenas Speakers: 1. **Elisa Sutanudjaja**, Administrator of kawalpemilu.org 2. **Tjatur Kukuh S**, Executive Director, Santiri Foundation. He will highlight the role of SMS Gateway to deliver the feedback from community to policy makers 3. **Varun Banka**, Co-founder, Social Cops – Bridging the data gap in local municipalities in India. Varun will present on Social Cops unique approach to involve citizens to fill data gaps at the municipality level. 4. **Fairuz Abadi**, Coordinator, Kampung Media, Nusa Tenggara Barat (NTB) Provincial Government. He will introduce the role of Village Media (Kampung Media) in community in particular the village people in NTB province. **Q&A Session**	Krisan 2	
15.00– 15.15	Coffee Break		

15.15- 16.35	**Plenary Session** **New data, new partnerships: 'Creating the Right Policy Framework for Data Philanthropy'** If we want to make the most of the new data landscape, we will need to forge new partnerships between data providers and data consumers, between the private and the public sector. Creating frameworks for these partnerships to emerge won't be easy. This session will focus on the practicalities of new data partnerships Chair: **Giulio Quaggiotto**, Manager, PLJ Speakers: 1. **Sriganesh Lokanathan,** Senior Research Manager, LirneAsia 2. **Iwan Setyawan**, CEO of Provetic – Market Research 3. **Ki Byoung Kim**, Director, Seoul Metropolitan Department, Government of South Korea will reflect on the experience of South Korea in getting telecoms to share data with the government **Q&A Session**	Palma Ballroom	MC
16.35 – 16.45	Closing – **Ir. Wismana Adi Suryabrata, MIA**, Deputy for Development Funding, Bappenas	Palma Ballroom	MC
18.00 – 19:00	Closed Meeting: PLJ and Bappenas	MoMo Cafe	EO
19.00 – 21.00	Dinner (by invitations only)	MoMo Cafe	
19.00 – 21.00	Dinner for speakers, committee members	MoMo Cafe	

Day 2, 27 November 2014

Time	Activity	Venue	Responsible Party
09.00 – 10.10	**Keynote: A Nation Wide Dialogue on the Future of Data? The Experience of New Zealand** Chair: **Dr. Vivi Yulaswati, M.Sc.**, Director of Social Protection and Welfare, Bappenas Keynote: **Prof. Miriam Lips**, Professor of e-Government, Victoria University of Wellington. Ms. Lips will share the experience of the New Zealand Data Forum, a nation-wide consultation on the future of data for the country that involved the national statistical office, policy makers, citizens and the private sector Discussant: **Dr. Ir. Nurwadjedi, MSc.**, Deputy for Thematic Geospatial Information of Geospatial Information Agency (BIG) **Q&A Session**	Palma Ballroom	MC
10.10-10.40	Presentation on eblusukan by Sony Subrata and Yose Rizal, President Director and Founder of PoliticaWave.org (after Miriam lips) **Q&A Session**		
10.40-11.00	Coffee Break		
11.00-11.30	Andika Putraditama, Research Analyst, WRI – Making it all work together UN Big Data for Climate Change Challenge Winner: <u>Global Forest Watch</u> (GFW) is a dynamic forest monitoring system from the <u>World Resources Institute</u> and partners: GFW empowers people to manage forests by combining satellite imaging, open data and crowdsourcing for open access to timely information about forests by governments, companies, NGOs and the public. **Q&A Session**	Palma Ballroom	Moderator: Giulio Quaggiotto, PLJ

11.30-12.30	**Presentation and Practical Exercises** Brenton Caffin, Director, Innovation Skills, NESTA Highlights from upcoming NESTA Good Practice Note on Data Innovation for the Public Sector	Palma Ballroom	MC
12.30 – 13.30	Lunch		MC
13.30 – 15.00	**Parallel Panels – thematic focus** **Panel I** **'Protecting the poor and vulnerable'** What new data and data collections tools are available to understand poverty patterns? Chair: **Ir. Hanan Nugroho, MSc,** Energy Planner/Specialist, Bappenas Speakers: 1. **John Patterson**, Technology and Systems Strategist at RED++ on data infrastructure to understand socio-economic trends 2. **Ari Perdana**, Assistant Working Group Coordinator at National Team For Accelerating Poverty Reduction (TNP2K) on their mobile surveys 3. **Tomohiro Hamakawa**, Director of Strategic Initiatives, Kopernik will introduce their analysis of new data collection tools for development programs as well as practical examples from their work 4. **Amit Wadhwa**, Head of Food and Nutrition Security Analysis unit at World Food Program (WFP) conducting traditional food security monitoring surveys over mobile phones **Q&A Session**	Palma Ballroom	MC 1, MC 2

	Panel II **'Frontline service delivery'** The panel expects to showcase some practical examples of real cases of delivering front line services Chair: **Dr. Ir. Dedi M. Masykur Riyadi**, Senior Policy Advisor, Bappenas Speakers: 1. **Agung Harjono**, Deputi III- The Utilization of Technology and Information Analysis at Presidential Delivery Unit (UKP4) will present on UKP4's work to collect citizen feedback 2. **Dr. Aditya Dev Sood**, Founder of Center for Knowledge Societies (CKS) will present their work on data collection and data ecosystems for maternal mortality 3. **Dr.Ir. Agung Harsoyo MSc, M.Eng.**, Lecturer, Institut Teknologi Bandung (on ektp) 4. **Jurjen Wagemaker**, Founder of Floodtags.com will present their work on using Twitter for better flood response **Q&A Session**	Krisan 1 and 2	
15.00-15.15	Coffee Break		MC
15.15-16.30	**Plenary Session** **'Generating solutions to concrete policy issues-lessons from the trenches'** Chair: **Dr. Arnaldo Pellini**, Senior Advisor, KSI Speakers: 1. **Hector Salazar Salame**, Executive Director of JPAL (MIT Poverty Lab in Indonesia) will talk about using RCTs to inform public policy in Indonesia 2. **Harsha Dayal**, Research Manager, Department of Performance Monitoring and Evaluation, the Republic of South Africa **Q&A Session**	Palma Ballroom	MC
16.30 – 16.40	**Where Do We Go from Here?** 'Introducing the Data Innovation Fund' Giulio Quaggiotto, Manager, PLJ	Palma Ballroom	MC
16.40 -16.50	**Wrap Up Session** **Suharmen, Skom MSi**, Head of Center of Data and Information, Bappenas, **Dr. Vivi Yulaswati, M.Sc.**, Director of Social Protection and Welfare Bappenas	Palma Ballroom	MC

Pulse Lab Jakarta (PLJ) is a partnership between the United Nations and the Government of Indonesia, through the Ministry of National Development Planning. As part of UN Global Pulse, an innovation initiative of the UN Secretary-General, a network of "Pulse Labs" in New York, Uganda and Indonesia brings together public sector and UN organizations, and partners from academia and the business community to test, refine and scale methods for using new sources of digital data. Pulse Lab Jakarta is exploring how big data and real-time analytics technologies can be leveraged to support global development and humanitarian efforts.

The Knowledge Sector Initiative (KSI) is a joint program between the governments of Indonesia and Australia that seeks to improve the lives of the Indonesian people through better quality public policies that make better use of research, analysis and evidence.

KSI is a consortium led by RTI International in partnership with Australian National University (ANU), Nossal Institute for Global Health, and Overseas Development Institute (ODI).