

**Behavioural and Societal
Sciences**

Brassersplein 2
2612 CT Delft
P.O. Box 5050
2600 GB Delft
The Netherlands

www.tno.nl

T +31 88 866 70 00
F +31 88 866 70 57
infodesk@tno.nl

TNO whitepaper

TNO publication number P10098

Towards Open Development Data

A review of open development data from a NGO perspective

Author(s) Tijs van den Broek, Marijn Rijken, Sander van Oort
Date 25 June 2012
Number of pages 16
Project name Open Development Data
In collaboration with Partos and Open for Change



'Towards Open Development Data' by TNO is licensed under a Creative Commons Attribution-ShareAlike 3.0 Netherlands License.

<http://creativecommons.org/licenses/by-sa/3.0/nl/deed.en>



Contents

1	Introduction.....	3
1.1	The rise of open development.....	3
1.2	Aim of the paper.....	4
2	The international call for development transparency.....	5
3	The promise of open development data.....	7
3.1	The rise of open data.....	7
3.2	Open data in the development sector.....	8
3.3	Progress of open development data.....	8
4	Cases of open development data.....	10
4.1	Publishing open data.....	10
4.2	Re-use of open data by NGOs.....	10
4.3	Re-use of open data by donors.....	11
5	Next steps towards implementation.....	13
6	Conclusion and next steps.....	15

1 Introduction

1.1 The rise of open development

We live in an information-driven and networked society (Castells, 1996). Hence, several public sectors, such as government, education and development cooperation, are in a transition from closed, formal organisations towards open and networked models of organisation. This transition in the development sector is termed *Open Development*, which can be defined as: “An emerging set of possibilities to catalyse positive change through open information-networked activities in international development” (Smith et al, 2011). This transition to open development is driven both by societal and technological trends. Firstly, the current debate on development effectiveness is pushing NGOs to plan, monitor and evaluate their work more effectively. Secondly, the end of the traditional rich North vs. poor South thinking requires NGOs to rethink their role and organisational model, as local NGOs, the private sector and local governments increasingly take control over development work in their country. Thirdly, the public concern on poor development spending sparks NGOs to improve their transparency and accountability. Finally, the budget austerity of governments in the North put pressure on NGOs to find new ways to fund their development activities. This pressure requires NGOs to collaborate with private foundations, citizens and businesses.

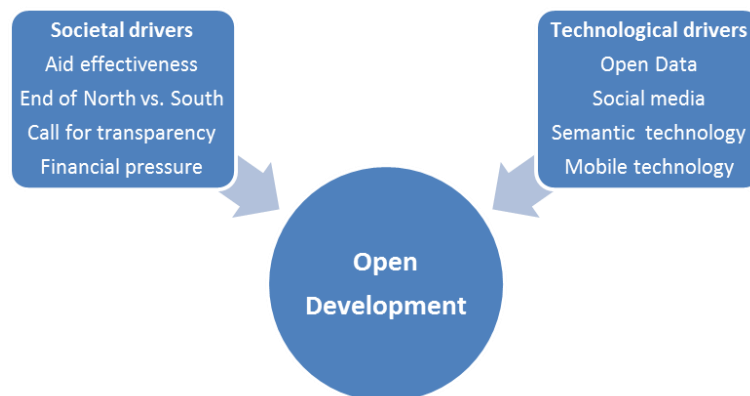


Figure 1 Societal and technological developments drive Open Development

At the same time, Internet technologies, such as social media, the semantic web and mobile technology provide NGOs with new ways of communication and organisation. These technological trends further drive the transition towards open development.

An notable step for the open development transition is the publication and reuse of machine readable data on development work, also known as *open development data*. An example is the publication of development spending by governments and NGOs, so local governments can form a more accurate picture of the incoming development spending.

1.2 Aim of the paper

In this paper, we explore the potential of open development data as an instrument to improve the efficiency, effectiveness and legitimacy of NGO's development processes. We aim to answer the question: *“What is the status, potential and required next steps of open development data from the perspective of the NGOs?”* To do so, we describe the current transparency activities in the development sector, the rise of open development data, examples of open development data and factors that hamper the implementation of open development data. We conclude with next steps for NGOs, which will function as an input for further research and a roadmap on open development data.

2 The international call for development transparency

More transparency in development spending has indeed emerged as a priority for many NGOs, states and public donors who recognize that increased access to development information is key to improve the efficiency, effectiveness and legitimacy of development processes. The promises of development transparency are amongst others (Wardhaugh, 2011):

1. Increase in accountability of the development process in the South as well as in the North.
2. Improved allocation of scarce development resources in developing countries
3. Higher impact of development in reducing poverty
4. Improvement of lives in developing countries
5. Maintains domestic support for development at times of financial stringency.

The development sector has already taken several important steps towards more development transparency. In March 2005, the attending partners of the High Level Forum on Aid Effectiveness and Transparency adopted an ambitious set of reforms known as: *the Paris Declaration on Aid Effectiveness*¹. They agreed to work together to make developing countries more in charge of their own development processes, and to hold all stakeholders in the development process accountable for achieving concrete development results. However, an acceleration of the progress towards development transparency is needed: a recent evaluation of the Paris Declaration (Wood et al, 2010) showed that the pace of progress in development transparency is slow. Hence, it is essential for all stakeholders in the development process to make the transparency of development cooperation a high priority. Particularly, NGOs lag behind and are urged in the evaluation of the Paris declaration to increase their efforts towards development transparency.

A next step towards more transparency is the *Accra agenda for action*. This agenda was officially endorsed at the 3rd High Level Forum on Development Effectiveness and Transparency organized by the OECD on 4 September 2008 in Accra, Ghana². In the closing statement of the forum, all parties (ministers and officials from institutions) agreed that there has been progress in reducing poverty, but that an increase in transparency is needed to boost further reductions. For the coming years, the Accra agenda formulated three goals:

1. Strengthening Country Ownership over Development
2. Building More Effective and Inclusive Partnerships for Development
3. Delivering and Accounting for Development Results.

Transparency is identified by the Accra agenda as one of the key mechanisms to reach a significant impact with development funds: *“greater transparency and accountability for the use of development resources are powerful drivers of*

¹ Paris Declaration of Aid Effectiveness, 2nd High Level Forum on Aid Effectiveness, February 2005, Paris, France

² Accra Agenda for Action, September 2008, 3rd High Level Forum on Aid Effectiveness, Accra Ghana

progress.” More specifically, the Accra agenda urges developing countries to facilitate parliamentary oversight by making their financial management (e.g. budgets, revenues, disbursements, etc.) transparent. Moreover, the agenda urges NGOs and donors to publicly disclose regularly, detailed and timely information on volume, allocation and -when available- results of development expenditure. This information enables more accurate budget allocation, accounting and auditing by developing countries as the predictability of development increases. The idea is that local transparency improves the allocation of resources to development work by local countries (Faust, 2010) and NGOs (Parrish, 2010a). As agreed in the Paris declaration, donors and developing countries should review each other based on evidence distilled from available NGO and donor data. Furthermore, the Accra agenda urges donors and developing countries to regularly make public all conditions of their disbursements. As shown in figure 2, in this white paper we focus our analysis on NGOs and their most important stakeholder groups: the donors (the general public, governments and charities) and the recipients (governments, communities, social entrepreneurs, households, etc.).

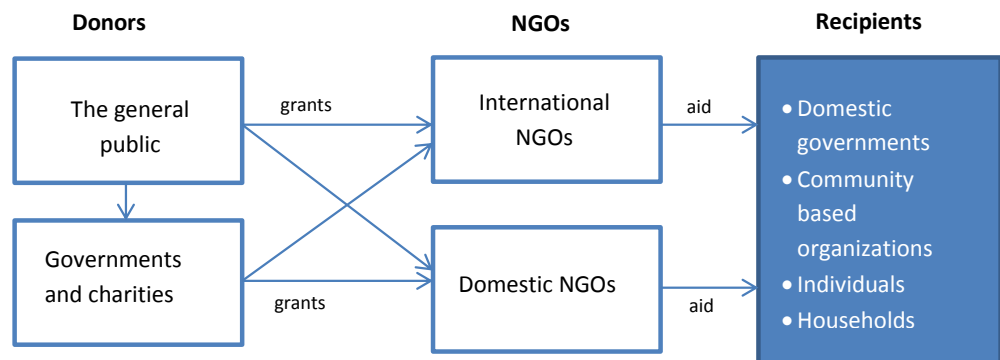


Figure 2 Overview of the development chain

In line with the Paris declaration, several International NGOs took some important steps towards more transparency. The International NGO Accountability charter was launched at the end of 2005 to speed up the progress in transparency among International NGOs.³ The accountability charter aims to demonstrate the commitment of NGOs to transparency and accountability, and urges its members to establish a high quality accountability framework that helps NGOs to report on transparency and effectiveness among others. The Open for Change network⁴ originates in The Netherlands and aims to accelerate adoption of open development principles such as open data and open knowledge within the development sector, by bringing together experiences and expertise on implementation and applications.

³ International Non Governmental Organisations Accountability Charter, 20 December 2005, <http://www.ingoaccountabilitycharter.org/about-the-charter/read-the-charter/>

⁴ Open for Change, www.openforchange.info

3 The promise of open development data

3.1 The rise of open data

There is a staggering amount of data generated and preserved in today's society. However, this wealth of data is often inaccessible to the public eye for technical, political, juridical or commercial reasons. As a practice of good governance and a response to Internet users demanding more transparency, government agencies all over the world have started to open up their public information in various domains, such as education, mobility and meteorology (Huijboom & Van den Broek, 2011). This so-called open data movement envisions that when this data would be freely accessible and re-usable, it could have a larger impact on citizens' ability to hold governments accountable, stimulate (public) service innovation as private parties can design and exploit open data, and increase the effectiveness and efficiency of public services and policy. For example, the European Commissioner of the Digital Agenda, Neelie Kroes, estimates the economic impact of open data to be about 70 billion euro.⁵ Key to open data is a set of rules. Open data should be: complete, from a primary source, timely, accessible, machine readable, non-discriminatory, non-proprietary and license-free.⁶

The open data value chain can be schematized as follows:

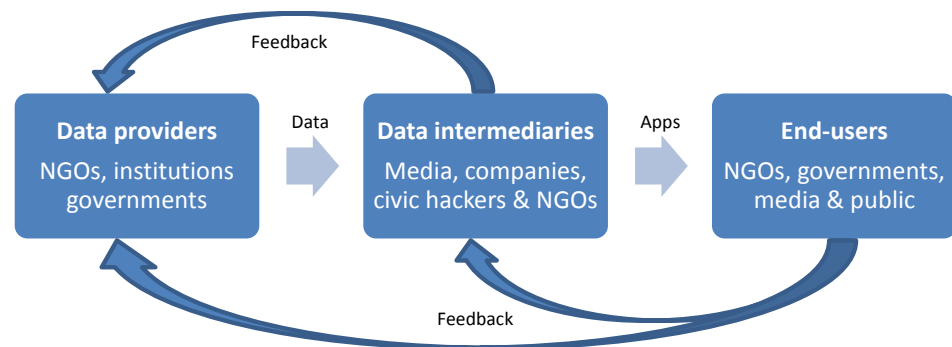


Figure 3 Open Development Data process

Data is created and published by data providers, but is in itself not informative. Superficially, the data represents columns and rows with quantitative data. Hence, data intermediaries are needed to analyse and visualize the raw data for information purposes. This upgrade from data to information is usually done by third parties such as data journalists and civic hackers who find a particular incentive for doing so (second block). In the schema, these groups are called 'data intermediaries'. Usually, their work result in for example mobile phone apps, visualizations or mash-ups, that help end-users to interpret, link, visualize and even add data, information or knowledge to the original data source (feedback). In the last block the people who make use of the services developed in the second block, are positioned.

⁵ <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/11/872&type=HTML>

⁶ <http://sunlightfoundation.com/policy/documents/ten-open-data-principles/>

3.2 Open data in the development sector

Inspired by the recent open data movement in the public sector, NGOs are increasingly aware that publishing data about development processes and their outcomes, in an open, free and 'machine readable' data format might be an important step towards a more transparent and effective development sector. Open development data is seen as a *"the comprehensive availability and accessibility of development flow information in a timely and comparable manner that allows public participation in government accountability"* (Moon & Williamson, 2010). There are several reasons why NGOs want to adopt open development data. First, it would increase the accountability and, hence, the legitimacy of NGOs, as it enables stakeholders, such as governments, donors and recipients, to track how their donations or funding are collected, planned and spent. Secondly, the intelligence enabled by the apps made from open development data could improve the allocation, monitoring and evaluation of development work. An example is improving the coordination of projects within one country by mapping the current and future projects of all NGOs in a Google map. Thirdly, the transparency and intelligence that open data provides, can help NGOs to increase donor participation, crowd sourcing with stakeholders and innovation in business models, such as the collection and analysis of marketing data.

NGOs can be both providers, data intermediaries and end-users of open data. Firstly, they are providers in that they can create and make available data on their own spending and activities. They might also be data intermediaries, for example when they use open data from institutions and other NGOs to enrich their own data. When NGOs use information services based on open data for example to improve development management (e.g. planning, budgeting and decision-making), coordination with domestic stakeholders (e.g. other NGOs), monitoring and evaluation, they also become intermediaries. Intermediaries and end-users can contribute to existing development datasets or even create new datasets, for example by using social media and (smart)phones to add or collect new data.

3.3 Progress of open development data

The International Aid Transparency Initiative (IATI) implements the publication of open data on aid spending. IATI is *"a multistakeholder voluntary initiative that seeks to improve the quality and use of international aid money by making aid information easier for people to find, understand, compare, and scrutinize."* (Wardhaugh, 2011). IATI targets not only the NGOs and the general public, but also local stakeholders, e.g. by mobile technology. In the spring of 2012, the IATI Accra statement has been signed by a group of 27 donors, domestic countries and NGOs.⁷ IATI does not start from scratch. IATI builds upon the aid data available, for example in the OECD-DAC database, Aid Information Management Systems (AIMS) and on government and

⁷ The initial signatories of IATI are five multilateral organizations (Worldbank, African Development Bank, Asian Development Bank, European Commission and UNDP), three private donors (Global Alliance for Vaccines and Immunisation, Global Fund to Fight AIDS, Tuberculosis and Malaria and the Hewlett Foundation) and twelve bilateral donors (Australia, Denmark, Finland, Germany, Ireland, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland and UK).

donors' websites (Wardhaugh, 2011). IATI is responsible for two important measures to implement open development data. First, IATI developed an open, common and international data standard (XML), which makes the exchange of data easier. This IATI standard provides a set of guidelines for publishing information about the organization and its budgets (Organizational file) and its activities (Activity file). Secondly, IATI opened a data catalogue (<http://iatiregistry.org/>), which links to all available datasets. In line with the Accra agenda, the IATI standard requires NGOs to publicly disclose regular, detailed and timely data on volume, allocation and results of development expenditure. On the longer term, IATI urges NGOs to make all conditions linked to disbursements publicly available, provide full and timely data on annual commitments and actual disbursements, and provide developing countries with regular and timely information on the rolling three to five year forward expenditure.

The 4th High Level Forum in Busan at the end of 2011 stressed the importance of transparency as a leading principle for effective development cooperation.⁸ In contrast to previous High Level Fora, Busan's closing statement explicitly mentions the implementation of the IATI standard *"Implement a common, open standard for electronic publication of timely, comprehensive and forward-looking information on resources provided through development co-operation, taking into account the statistical reporting of OECD/DAC and the complementary efforts of the International Aid Transparency Initiative and others. This standard must meet the information needs of developing countries and non-state actors, consistent with national requirements. We will agree on this standard and publish our respective schedules to implement it by December 2012, with the aim of implementing it fully by December 2015"*. Several new donors lived up to the declaration and freed (part) of their data in the IATI standard, for example Canadian CIDA, the Inter-American Development Bank, the US, CDC and UNCDF. It is expected that the agreements in Busan will further stimulate the adoption of the IATI standard by donors. Up until recently the take-up by NGOs has been limited. Currently, worldwide 55 organisations, mostly International NGOs have started publishing their datasets on the IATI registries, others are close to publication.

In the UK DFID has made publication to the IATI standards mandatory for NGOs receiving DFID funding. In the Netherlands the Ministry of Foreign Affairs is, together with NGO branche Organisation Partos, looking for ways to positively stimulate and support NGOs in the implementation of IATI, by emphasizing the benefits of open data for effectiveness of aid and possible future reduction of reporting requirements. As part of the IATI Technical Advisory Group a CSO working Group was formed with representatives of national and international CSO platforms including southern NGOs to discuss guidelines for implementation of the IATI standards by NGOs. Since the first Open Data for Development Camp, organized by Open for Change in Amsterdam, in June 2011, a number of similar network meetings have taken place in European countries and elsewhere. The next Open Data for Development Camp (ODDC 2012) will take place at the end of June in Nairobi (Kenia) and Amsterdam (The Netherlands), and Open Development is an official track in the Open Knowledge Festival in September in Helsinki (Finland).

⁸ Busan Declaration of Aid Effectiveness, 4th High Level Forum on Aid Effectiveness, November 2011, Busan, Korea

4 Cases of open development data

To illustrate the use of open data in the development sector three examples are presented in this chapter. The examples are presented following the open data value chain of figure 3: from the perspective of the data-provider, the data intermediary and the data end-user.

4.1 Publishing open data

The first step is that NGOs publish their data in an open format. Oxfam UK for instance is currently publishing data in line with IATI standards concerning expenditures and budgets on all there international projects. Excel spreadsheets are accessible on their websites and furthermore via the IATI website XML data is available.

CompID	GF Region	Country	CountryCd	GF sub-rei	LFA	Round_	Componet	Source	Approved	ApprvdBu	TotalLifeti	PRName
341	East Asia	Cambodie	CAM	East Asia	STI	1	HIV/AIDS	CCM	14701498	(G2)	14701498	The Minist
34	East Asia	Cambodie	CAM	East Asia	STI	2	TB	CCM	6169733	(G2)	6169733	The Minist
33	East Asia	Cambodie	CAM	East Asia	STI	2	Malaria	CCM	20646882	(M)	20646882	Natinal Ce
33	East Asia	Cambodie	CAM	East Asia	STI	2	Malaria	CCM	20646882	(M)	20646882	The Minist
32	East Asia	Cambodie	CAM	East Asia	STI	2	HIV/AIDS	CCM	14765625	(G2)	14765625	The Minist
775	East Asia	Cambodie	CAM	East Asia	STI	4	HIV/AIDS	CCM	36546134	(G2)	36546134	The Minist
774	East Asia	Cambodie	CAM	East Asia	STI	4	Malaria	CCM	9857891	(G2)	9857891	The Minist
972	East Asia	Cambodie	CAM	East Asia	STI	5	HSS	CCM	3486893	(G2)	3486893	The Minist
971	East Asia	Cambodie	CAM	East Asia	STI	5	HIV/AIDS	CCM	33159693	(G2)	33159693	The Minist
974	East Asia	Cambodie	CAM	East Asia	STI	5	TB	CCM	9022696	(G2)	9022696	The Minist
1282	East Asia	Cambodie	CAM	East Asia	STI	6	Malaria	CCM	22908144	(B2)	22908144	The Minist
1481	East Asia	Cambodie	CAM	East Asia	STI	7	HIV/AIDS	CCM	36167195	(B2)	36167195	National C
1482	East Asia	Cambodie	CAM	East Asia	STI	7	TB	CCM	15204894	(B2)	15204894	National C
1973	East Asia	Cambodie	CAM	East Asia	STI	S	HSS	CCM	13846602	(T1)	25282855	The Minist
1979	East Asia	Cambodie	CAM	East Asia	STI	S	Malaria	CCM	63395642	(T1)	1.31E+08	Natinal Ce
2160	East Asia	Cambodie	CAM	East Asia	STI	S	HIV/AIDS	CCM	53402333	(G1)	1.2E+08	National C
345	East Asia	China	CHN	East Asia	UNOPS	1	Malaria	CCM	6242698	(G2)	6242698	The Chine
346	East Asia	China	CHN	East Asia	UNOPS	1	TB	CCM	73435944	(G3)	73435944	The Chine
2028	East Asia	China	CHN	East Asia	UNOPS	10	Malaria	CCM	5080078	(G1)	14954339	The Chine
616	East Asia	China	CHN	East Asia	UNOPS	3	HIV/AIDS	CCM	2.84E+08	(G3)	6.1E+08	The Chine
780	East Asia	China	CHN	East Asia	UNOPS	4	TB	CCM	56140000	(G2)	56140000	The Chine
781	East Asia	China	CHN	East Asia	UNOPS	4	HIV/AIDS	CCM	57853608	(G2)	57853608	The Chine
988	East Asia	China	CHN	East Asia	UNOPS	5	TB	CCM	37483195	(M)	37483195	The Chine
988	East Asia	China	CHN	East Asia	UNOPS	5	TB	CCM	37483195	(M)	37483195	The Chine
987	East Asia	China	CHN	East Asia	UNOPS	5	Malaria	CCM	31161319	(G2)	31161319	The Chine
986	East Asia	China	CHN	East Asia	UNOPS	5	HIV/AIDS	CCM	21451990	(G2)	21451990	The Chine
1292	East Asia	China	CHN	East Asia	UNOPS	6	Malaria	CCM	12312206	(G2)	12312206	The Chine
1291	East Asia	China	CHN	East Asia	UNOPS	6	HIV/AIDS	CCM	5806623	(G1)	5812875	The Chine
1490	East Asia	China	CHN	East Asia	UNOPS	7	TB	CCM	2825009	(G1)	2825009	The Chine
1650	East Asia	China	CHN	East Asia	UNOPS	8	TB	CCM	6723376	(G1)	8119911	The Chine
1977	East Asia	China	CHN	East Asia	UNOPS	S	TB	CCM	2.58E+08	(T1)	7.78E+08	The Chine
1970	East Asia	China	CHN	East Asia	UNOPS	S	Malaria	CCM	86307671	(T1)	1.76E+08	The Chine
1956	East Asia	Fiji	FJI	East Asia	KPMG	S	TB	CCM	5154546	(G1)	10769183	Ministry of

Figure 4: screenshot of excel data file

4.2 Re-use of open data by NGOs

The next step in the value chain is to re-use the (openly available) data to create value for end users. This effort to upgrade data into ready-to-use information can be sold as a commercial product and is hence often taken up by third party developers instead of the data provider. This is however not a necessity and NGO's can forego into the upgrade step for example to inform their donors. An illustrative example is provided by the World Bank Institute and AidData who have launched the Mapping for Results program in 2010: *"The program visualizes the location of World Bank projects in order to: 1) better monitor impact; 2) improve development coordination and effectiveness; 3) enhance transparency and social accountability; and 4) enable citizen and stakeholder feedback on project results."*

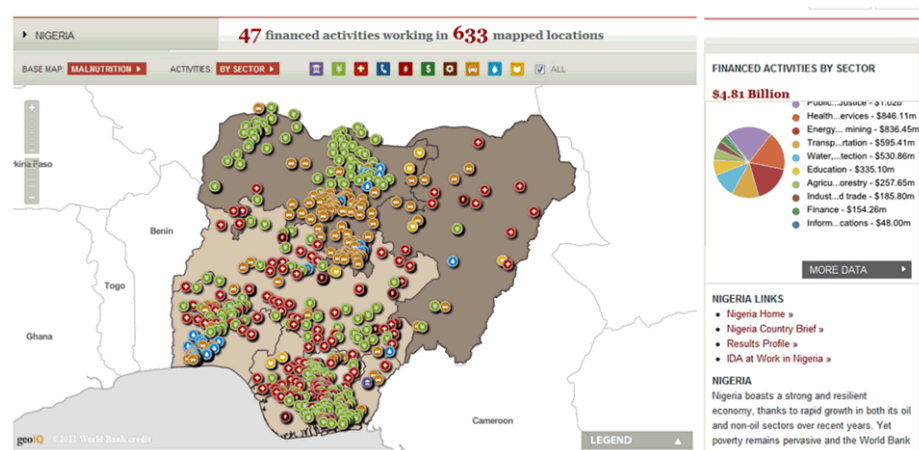


Figure 5: A combination of geographic and graphical information on the World Bank's activities in Nigeria. <http://www.developmentdata.org/content/index/Maps/world-bank>

Other examples comes from the Open Data for Africa platform, which is an initiative of the African Development Bank Group (AfDB). This initiative aims to boost access to quality data necessary for managing and monitoring development results in African countries. The Open Data for Africa platform offers infographics on a multitude of subjects all of which are built upon open data. Furthermore the platform facilitates collection, analysis and sharing of data and enables users to create their own analysis.⁹

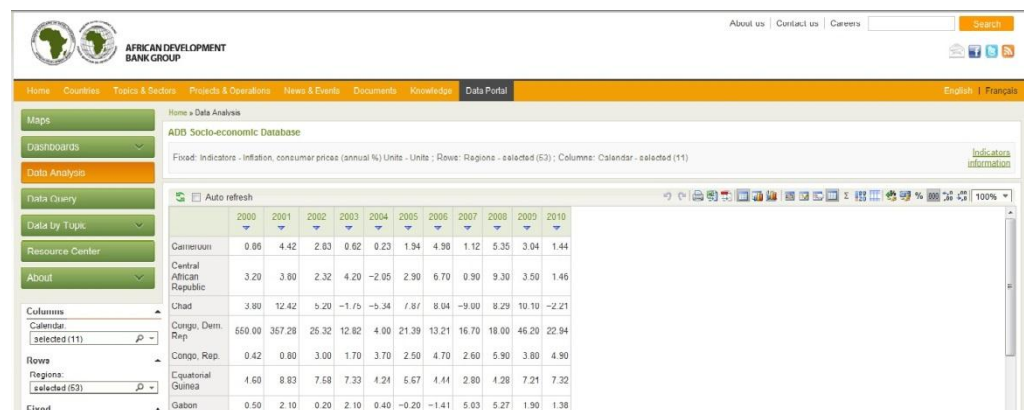


Figure 6 screenshot of the ADBG webportal. There are all kinds of user options available

4.3 Re-use of open data by donors

In the examples above, open data is explicitly used to make development work more effective. However, open data can be used to engage the donors of NGOs, as it is illustrated by the last example: Treepet¹⁰. Treepet is a social platform

⁹ See <http://www.afdb.org/en/knowledge/statistics/open-data-for-africa/>

¹⁰ See <http://apps.facebook.com/treepet/>

(Facebook) based game that uses World Bank's deforestation data. The game aims to "spread information, create conscience, train people in ecological issues in a fun and interactive way". In addition Treepet offers (potential) donors the opportunity to support different reforestation efforts carried out by NGOs.



Figure 7 A screenshot of the Treepet game.

5 Next steps towards implementation

As explained in the previous chapter, the take-up of open development data by NGOs has shown limited progress in the last few years. We identified several steps to be taken before implementation in open development literature and from experiences of early adopters.

Develop a vision on open development and open data: open development data can be a first step towards a perspective of open development, in which new ICTs, such as social media, mobile technology, sensor webs and open data, are used to make development work more transparent, participatory and collaborative. Envisioned benefits for Southern countries are, among others improved domestic accountability, increased participation and ownership, increased innovation and entrepreneurship. However, open development data needs to be seen in relation with other measures to make the development sector more open. Although many NGO's have transparency included in their organisational values and initially responds positively towards more openness, a transformative vision on open development is still to be developed. This vision should be developed along a supportive business model with new roles for your own organisation and other (new) actors in the sector. It should be clear how Southern countries and beneficiaries benefit from the new approach, but unfortunately Southern representatives are often missing in the current debates on open development data.

Develop a clear business case: NGOs need a clear business case of open development data: for example, do the benefits outweigh the required investments (budget, human resources and ICT) to open up their data? (Wardhaugh, 2011). This question is more than ever urgent, as the development sector faces budget austerity by governments which makes potential investments more problematic. And although AidInfo's cost-benefit analysis presented a fairly positive business case of open development data (Collin et al, 2009), a wide-spread adoption is required to measure the effects in more detail. A difficulty in defining the business case is that several benefits such as improved image and transparency, or improved quality of services are difficult to quantify and monetise. Also benefits do not always coincide with investments and may be enjoyed by other actors in the sector. A potential solution is to translate open government data research to the development sector, and start to measure the effects of open development data as soon as possible. The current debate about open data emphasizes the external benefits of open development data. However, can open development data make the information management of NGOs more efficient? According to the IATI guide (Court & Drive, 2010), this would be an extra reason to implement open development data.

Research the benefits and risks of open development data and raise organizational and political awareness and support: to effectively implement open development data, NGOs and local governments may need to change their policy, practices, organizational structure and perhaps their culture (Parrish, 2010b). This change may elicit resistance by current bureaucratic organizations that are used to their own process of data collection, analysis and reporting. Additionally, NGOs may fear public scrutiny, privacy or security risks when they open up their

data. Further research on opportunities and risks of open development data should validate initial expectations and/or concerns. This research should take a multilevel approach and addressing both the sector level an organisational level and must include the Southern actors. After NGO's open up their data they can form partnerships with intermediaries(e.g. journalists) to help interpret the data. However, this requires active data stewardship, and a responsibility to engage the stakeholders of NGOs in the re-use of the data, that should be supported by both the management and work floor of the organisation.

Develop an appealing business model for data intermediaries and end-users: open data needs re-use by data intermediaries (e.g. NGO, company, journalists or civic hacker) to add value to NGOs, donors and recipients, as open data alone has no value for end-users at the first sight. For example, data intermediaries are crucial to make open data effective for developing countries (Mulley, 2010). The IATI standards just provides a registry and standards, but data providers should develop strategies how they can stimulate the re-use of their data. In India, for example, is a lack of intermediaries a hampering factor for the progress of open data (Wright et al., 2010). In the Netherlands, a further development of data journalism would support a fair public insight and participation in development activities. NGOs should take the incentives for intermediaries of their data into account.

Balance data quality and timeliness: NGOs may fear that they cannot meet the IATI standards on data quality. However, the IATI guide makes clear that NGOs need to balance the quality of their data with accessibility and timeliness. Like in the public sector, intermediaries can help to improve or even enrich the open development data.

Dealing with the data obesity: large NGOs have thousands and thousands of potential datasets. How can NGOs choose which datasets would have the highest impact for the development sector, without overloading intermediaries with data? This data obesity is already a problem in the public sector, where countries like France and the US have respectively 250,000 and 350,000 datasets available. Information overload emphasizes the importance of (1) a strategic choice in datasets (2) the importance of meta-tagging and (3) data mining and visualization.

Enrich quantitative data to overcome a quantitative bias: open data itself does not provide a lot of context apart from its metadata. There is a risk that evaluators of development work (e.g. policy makers or journalists) pay too much attention to what has been measured. What are, for example, the stories behind the numbers? Consequently, NGOs fear a quantitative bias that potentially ignore the intangible value of development work. A solution is to link open development data to user-generated data, for example made by development workers and recipients.

Monitor implementation and share best practices: Governments and NGOs should monitor the implementation of open development data and carry out research on the effects of open development data to support learning in and adjustments of strategies and policies.

6 Conclusion and next steps

This white paper has explored the status, potential and required next steps of open development data from the perspective of the NGOs. Open development data is *“the comprehensive availability and accessibility of development flow information in a timely and comparable manner that allows public participation in government accountability”* (Moon & Williamson, 2010). Open development data is part of the transition towards a more open, participative and networked development sector, also termed Open Development. Open development data has been hailed as a strong instrument for NGOs to make their work more transparent towards their stakeholders. This consequent transparency and accountability is expected to have a positive effect on the legitimacy question that is currently posed on the development sector. Next, the active re-use of open development data promises more effective development services and management, improved flow of information, and increased opportunities for stakeholder engagement and ownership by local partners in the South.

Currently, the IATI standard has been endorsed by 22 partner countries. Worldwide, only 55 organisations have published so far. The adoption by international NGOs should be further stimulated. The slow uptake has technological, organizational, economic, political, and cultural reasons. To overcome these hampering factors we have identified the following next steps for the development sector:

1. Develop a vision on open development and open data in discussion with stakeholders in the North and the South
2. Develop a clear business case for NGOs by translating experiences from other sectors and sharing experiences from early adopters. Benefits can be internal (e.g. increased efficiency), external, but also non-financial (e.g. improved quality of intervention or organisational image)
3. Research the benefits and risks of open development data at sector level and organisational level and raise organizational and political awareness and support throughout your organisation
4. Develop an appealing business model for the data-intermediaries and end-users, such as journalists, citizen groups and businesses.
5. Balance data quality and timeliness, and consider the opportunity to let intermediaries improve or even enrich your data
6. Deal with data obesity by prioritize the publication of data, the use of meta-data, and tools for linking and visualisation of data
7. Enrich quantitative data with user generated content, e.g. with social media, to highlight the story behind the data
8. Monitor the implementation of open development data and carry out research on the effects of open development data to support learning and adjustments of strategies and policies.

References

Castells, Manuel (1996). *The Rise of the Network Society*, The Information Age: Economy, Society and Culture Vol. I. Cambridge, MA; Oxford, UK:

Christensen, Z., Nielsen, R., Nielson, D., Tierney, M. (2010). Transparency Squared: The Effects of Donor Transparency on Recipient Corruption, prepared presented at The conference on Aid Transparency and Development Finance: Lessons and Insights from AidData, March 22-24, 2010, Oxford University, UK.

Collin, M., Zubairi, A., Nielson, E., Barder, O. (2009). The costs & benefits of Aid Transparency, October 2009, AidInfo

IATI (2010). Implementing IATI Practical Proposals, study commissioned by the International Accountability and Transparency Initiative, January 2010

Faust, J. (2010). Donor Transparency and Aid Allocation. APSA 2010 Annual Meeting Paper. Available at SSRN: <http://ssrn.com/abstract=1644704>

Huijboom, N.M., Van den Broek, T.A (2011). Open data: an international comparison of strategies, *European Journal of ePractice*, 12,1

Moon, S., Williamson, T. (2010). Greater aid transparency: crucial for aid effectiveness, project briefing, January 2010, ODI

Mulley, S. (2010). Donor aid: New frontiers in transparency and accountability, study commissioned by the Transparency and Accountability Initiative, accessible at: http://www.transparency-initiative.org/wp-content/uploads/2011/05/donor_aid_fin al1.pdf

Parrish, S. (2010a). Open data in development – the missing debate?, 3 December 2010, accessible at: <http://www.aidinfo.org/open-data-in-development-the-missing-debate.html>

Parrish, S. (2010b). The role of open data in development, 24 November 2010, accessible at: <http://www.aidinfo.org/the-role-of-open-data-in-development.html>

Pradhan, S., Odugbemi, S. (2011). The Contours and possibilities of open development, *Development Outreach*, September 2011, The World Bank

Smith, M.L., Elder, L., Emdon, H. (2011). Open Development: A New Theory for ICT4D, *Information Technologies & International Development*, 7, 1, Spring 2011

Wardhaugh, A. (2011). Access to data transforms lives, *Development Outreach*, September 2011, The World Bank

Wood, B., Etta, F., Gayfer, J., Kabell, D., Ngwira, N., Sagasti, F., Samaranayake, M. (2011). The Evaluation of the Paris Declaration, Copenhagen, May 2011

Wright, G., Prakash, P., Abraham, S., Shah, N. (2010). Open government data study: India, Study commissioned by the Transparency and Accountability Initiative.