Creating a public tool to assess and promote transparency in global land deals: the experience of the Land Matrix

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The Beta version of the Land Matrix (http://landportal.info/landmatrix) was launched in April 2012 as a tool to promote public participation in building a constantly evolving database on large-scale land deals, and making the data visible and understandable. The aim of the Land Matrix partnership is to promote transparency and open data in decision-making over land and investment, as a step towards greater accountability. Since its launch, the Land Matrix has attracted a high degree of attention, and stirred some controversy. It provides valuable lessons on the challenges and benefits of promoting open data on practices that are often shrouded in secrecy. This paper critically examines the ongoing efforts by the Land Matrix partnership to build a public tool to promote greater transparency in decision-making over land and investment at a global level. It intends to provoke discussion of the extent to which such a tool can ultimately promote greater transparency and be a step towards greater accountability and improved decision-making. It will present the Land Matrix and its value addition, before detailing the challenges it encountered related to the measurement of the large-scale land acquisition phenomenon. It will then specify how it intends to address these issues in order to establish a dynamic and participatory tool for open development.

The Land Matrix (LM) is a global, independent initiative for monitoring land deals. It is facilitated by a partnership of organizations1 concerned by decision-making over large-scale land deals, their implications for communities and the environment, and the fact that many directly affected stakeholders are currently excluded from such decision-making. The LM provides tools for widening citizen involvement in making data available and understandable, thus promoting transparency and accountability. It is ultimately an effort in improved decision-making over land resources and their use.

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1Formed by the Centre for Development and Environment (CDE) at the University of Bern, Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), German Institute of Global and Area Studies (GIGA), Gesellschaft für Internationale Zusammenarbeit (GIZ) and the International Land Coalition (ILC).
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This paper critically examines the ongoing efforts by the LM partnership to build a public tool to promote greater transparency in decision-making over land and investment at a global level. It intends to provoke discussion of the extent to which such a tool can ultimately achieve its goals of improved transparency and accountability. We will first present some key characteristics of the LM and its value addition, followed by details of the challenges it encountered related to the assessment of trends, scale and nature of the LSLA phenomenon. Finally, we will specify how these issues are being addressed in order to establish a dynamic and participatory tool for open development.

The Land Matrix – basic concept, rationale and value addition

Since 2009, the LM has been systematically collating and verifying information on LSLA. It records cases of announced, intended and realized transactions that entail a transfer of rights to use, control or own land through sale, lease or concession that are 200 ha or larger, and that have been instigated since the year 2000. It mainly focuses on transactions that involve foreign investors, although domestic cases have also been documented. The data come from a variety of sources that include media reports, reports by international organizations and non-governmental organizations (NGOs) as well as academic research based on field research projects. The initial dataset was mainly being sourced through the two most active internet portals that deal with land transactions: www.commercialpressuresonland.org of the International Land Coalition (ILC) and partners, and www.farmlandgrab.org operated by the NGO GRAIN. Data also come from public participation, through a crowd-sourcing approach (Howe 2006, Bott et al. 2011). As such, the interface invites users to comment on deals and to provide information on deals not included in the database. In addition to its related data visibility, it contributes to public participation and awareness and has been feeding the debate regarding the LSLA phenomenon.

A major value addition of the LM has been the cross-verification of the data made public – a feature that other media-based inventories did not include. In the Beta version, data were classified according to four levels of reliability: 0 – cases only reported by the press or other sources; 1 – cases reported by sources that are judged reliable; more specifically, cases reported in research papers based on empirical research, company websites, government records or other reliable sources considered on a case-by-case basis; 2 – cases that have been checked through field verification by partner organizations in the relevant countries; and 3 – deals where contractual agreements have been made publicly available. The LM partners themselves were engaged in this verification process, mainly through research assistants.

At its launch, the LM contained slightly over 1000 cases of land deals with reliability ranking 1 or higher. These publicly-made deals represented about 50% of all the deals included in the ‘internal’ database. The initial LM Beta version reported intended and realized deals at any level of implementation, i.e. deals under negotiation or completed, and also failed deals. The initial reason for such a comprehensive definition of land transactions was to display interest in and demand for land. The initial objective of the LM was to publish the totality of the cases in the database, in order to make available as much information as possible with regard to LSLA and investments.

In addition to being an instrument of open data aimed at making the data visible and understandable, the LM is also a tool promoting transparency in decision-making over
land and investment, as a step towards greater accountability. The LM can therefore be seen as an endeavour that complements a movement towards more open access to government data (Huijboom and Van den Broek 2011), also referred to as the Open Government Data approach (Gigler, Custer and Rahmetulla 2011, Gigler, Tanner and Kiess 2011).

**Challenges of assessing trends, scale, and the nature of LSLA**

There is hardly a category of (international) economic transactions that is as poorly documented as land transactions targeting the Global South. The dynamic nature of the phenomenon, the inadequate capacities of recipient countries and the deliberate secrecy about land deals all contribute to this deficiency. The lack of official information on LSLA not only provides a strong rationale for engaging in data collection efforts as the LM does, it also means that there is no reference point for data collection and the assessment of the LSLA phenomenon. This is illustrated by the large number of diverse estimates of the scale of the phenomenon (see Cotula 2012). An accurate quantification of the phenomenon remains challenging and will remain subject to change depending on applied data quality requirements, definitions and sources used (White *et al.* 2012).

Hence, the first challenge is related to defining LSLA. The LM covers land transactions of over 200 ha that potentially entail the conversion of land use from local community use or important ecosystem service provision to large-scale commercial production. It includes all land-related sectors, globally, since 2000. Both the size criterion and the sector choice lend themselves to varied definitions, explaining the often-important differences in results and estimations. For example, they explain the disparity between the 230 million hectares reported in the *Land rights and the global land rush* report (covering all sectors, domestic and foreign deals, globally; Anseeuw, Alden Wily *et al.* 2012) and the 67 million hectares reported in the *Transnational land deals for agriculture in the Global South* report (covering solely foreign deals in agriculture occurring in the South; Anseeuw, Boche *et al.* 2012). Another example concerns the biases caused by the 200-ha threshold applied by the LM, which results in a greater focus on foreign deals (larger in size), while minimizing domestic transactions (Cotula 2012, Schönweger *et al.* 2012). These considerations lead to yet another definitional issue, namely, whether or not to include domestic deals in LSLA. Again, here, one may argue that the phenomenon is more about the massive conversion of different types of land into land under commercial agriculture (or other purposes), irrespective of the origin of the investor, or even hang on to the fact that what appears to be a clear distinction at first sight – foreign versus domestic investor – is actually more hazy when realities on the ground are being taken into account, given that there is hardly any case of an LSLA where foreign investors are not acting through some domestic company.

This last aspect highlights the necessity of understanding the nuances and details of the realities on the ground (GRAIN 2012). Indeed, the second challenge is quantification and assessment (Chouquer 2012). How do we measure the LSLA phenomenon and what exactly are we measuring? Cotula (2012), for example, draws attention to two different ministries or departments of the same ministry giving different estimates of the very same land-based investment project. Chouquer (2012) details the Landmark deal in India which is cited by some sources as covering 150,000 ha and by others as covering 5000 ha. Do such discrepancies reflect an error in one of the sources or are they based on certain technicalities? While data inaccuracies and reporting biases are certainly sources of inconsistency, the different ways of assessing LSLA provide a core explanation. Based on and adapted from Chouquer (2012), 10 different concepts of area related to
LSLA can be distinguished and include areas under negotiation, areas that are actually leased, those that go under production, and other land areas that may be affected by LSLA, for example through outgrower schemes (see Figure 1). Most, if not all, quantifications propose only one single figure for a contract or deal without indicating the underlying conceptualization of the LSLA area.

These rather space-related conceptualizations indicate that the phenomenon of LSLA has an important time dimension (Deininger and Byerlee 2010). Reflecting these dynamics is the third challenge of collating data on LSLA. The statuses of the land deals are indeed rapidly changing: some move from the negotiation to the implementation phase; for other (intended) deals, the negotiations never materialise, other projects collapse, etc. The pace at which land deals are decided means that static databases no longer reflect the reality on the ground. Although keeping failed or not-implemented deals in the LM database was criticised, this information is certainly relevant for reflecting the negotiation and contract phases of a project or different statuses of project implementation. Also, information on projects that failed in relatively early stages not only displays interest in and the demand for land, it also reflects more comprehensively the reality of LSLA as it highlights the technical and social difficulties related to such investments. Finally, the gap between signed and effectively implemented deals may give an indication regarding land speculation. Even if deals are not implemented, they exacerbate pressures on land and can lead to displacements or a weakening of land rights for the local populations (Anseeuw, Alden Wily et al. 2012) – and should thus be assessed.

The above definitional and conceptual considerations highlight the considerable data required to adequately reflect the reality: the fourth core challenge concerns quantitative assessment of LSLA. Indeed, to date, data rely mainly on media reports. Although the LM is making an effort to reduce the reliance on this type of source, availability and reliability remain problematic. Indeed, issues regarding accuracy also appear in sources considered to be more reliable, particularly those classified as reliability ranking 1, which are based on research reports. Some mistakes in the data appeared from sources that are simply incorrect (probably as these reports are also based on broader media). This has led to criticism of the classification of data as reliable in the LM. Ideally, data on LSLA should come from the governments and investors themselves or be verified and updated through field visits by objective observers. However, out of the more than 1000 deals initially reported in the public interface of the LM, only a negligible proportion are based on contracts that are publicly available. This is the case for only three countries: i.e. Cambodia, Liberia and Peru; only a few companies reveal information on their land-based investments. The limited information fields visible for each of these deals not only results in inaccuracies regarding specific deals, it also results in comparisons being made that are not always clear (for example, two different deals might be considered the same when limited information for these deals is available, as was often the case for the AgriSA deal in Congo-Brazzaville, located in the Democratic Republic of the Congo).

Overall, the biases related to data availability, the sources used and data correctness are difficult to judge. Specific data sources may tend to focus on specific areas, investors and sectors and, subsequently, introduce biases in the data. Generally, conflict-ridden, fragile countries and countries under autocratic rule tend to provide less information, be it official data, press reports or research output. At first sight, this may lead to underestimates of LSLA in such countries. The experience from the LM, however, suggests that information on these countries often represents host country priority investment areas or areas under negotiation. The scant information on the actual implementation of these deals results, then, in aggregate figures on LSLA at the country level to be over- rather than
**Host country priority investment area:** Land delineated for agro-industrial development and for allocation to investors, for example by the Agricultural Investment Support Directorate (AISD) in Ethiopia or Centro de Promoção do Investimento (CPI) in Mozambique. The concerned areas are generally large (32 million ha in Sudan; nine million in Chad) and can be part of broader development plans (as is the case of the Farm Blocks in Zambia).

**Area under negotiation:** The land area for which governments are negotiating with investors. For example, in Sierra Leone, 480,000 ha, representing 64% of the country’s priority investment area, are presently being negotiated.

**Optional concession area:** At the same time that precise areas are leased or negotiated, companies often request options on future extensions to their allocated area.

**Conceded deals or leased area:** The area generally detailed and signed for in the framework of a contractual agreement.

**Productive area:** Land on which the investment project is directly implemented. It generally includes the irrigated areas or the lands developed for agricultural use. This is the core of the large-scale land acquisitions (LSLA) for agro-industrial projects. In many cases, presently, this refers to very limited areas.

**Project area:** In addition to the productive area this includes the other spaces necessary for the development and functioning of the agro-industrial project.

**Reserved land area:** Within a concession, a company can establish a reserved land area which will remain undeveloped, at least for an undetermined time, but which is conceded and will remain available for potential future expansion.

**Additional core business impacted areas:** These are areas that are not included in the investor’s project but which are affected or benefit from the core agricultural activities of the investor, such as outgrower schemes.

**Additional non-core business impacted areas:** These are areas which often do not have any direct link with the project, but which are directly affected by it. This can include land for airports, ports, or power plants, land impacted by water extraction for the project, or land that the project makes unusable, for instance through the obstruction of migration routes.

**Resettlement areas:** These are areas that may not be contiguous with the project, but that the host government and the company use to resettle people displaced by the investment. This threshold is certainly the least assessed in the literature and the least known.

Source: Adapted from Chouquer (2012).

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**Figure 1.** Different concepts of ‘area’ related to large-scale land acquisitions.
underestimated. Some biases are due to media interest. This concerns, for example, the biases towards agricultural projects implemented by foreign investors, as much public attention has been focusing on the food (price) crises of recent years. A more explicit case relates to Chinese investments. Well covered by the press, China’s role in LSLA may be overestimated (Bräutigam and Xiao Yang 2009). However, less than 20% of the deals reported by the media (included in the unpublished LM database with reliability ranking 0) could be cross-referenced and elevated to reliability ranking 1 and thus considered ‘more’ reliable.

Towards a dynamic and participatory tool

In the first six months after the launch of the LM, feedback was received on over 100 deals, both in the database and missing from the database. This provided valuable lessons on the challenges and successes of promoting open data on practices that are often shrouded in secrecy. In response to these comments and to the above-mentioned challenges, the next version of the LM interface is presently being designed.

Firstly, the new version of the LM will show the negotiation status of each deal, allowing filtering by each category. For example, the negotiation status includes the following categories: (1) expression of interest, (2) under negotiation, (3) oral agreement, (4) contract signed, (5) negotiations failed and (6) contract cancelled. While only category (4) indicates a certain deal, the others give an indication of the scale of interest in land acquisition and allow tracking of changes to deals over time. This procedure will result in a dynamic tool, allowing better assessment of the reality and the dynamics of the investments and acquisitions overall. The information thus generated will also enable observers to assess variations in the dynamics and processes of each type of transaction (length of negotiation periods, presence of effective preparation phase, etc.).

Secondly, LSLA cases and, hence, data and sources will not be ranked according to their perceived reliability anymore. Each piece of information will be directly linked to its source, facilitating the filtering of deals by the type of source (e.g. media report, research paper, company source, crowd-sourcing, etc.). Thereby, users can judge for themselves whether they consider the information reliable. This will also allow more data to be made available: only deals that do not fulfil specific minimum information requirements (leading to potential confusion with other deals) will be left out. So far, about 50% of the cases and only a fraction of the variables in the database are publicly available. With the land matrix’s principle of Open Data, all data will be online in the medium term.

These methodological innovations, related to the rapidity with which the status of existing and potential land deals changes and the paucity of information readily available, place a greater emphasis on firsthand, primary information that is continuously updated, instead of relying mainly on publicly available reports. This necessitates the subsequent development of strategies for continuous collecting and checking of data. This is presently implemented through several complementary modalities. First, the provision of tools to enable crowd-sourcing from the public is enhanced, together with a data management system that is being developed and implemented that automates crowd-sourcing of information and its inclusion in the database through moderation. Thereby, feedback can be processed much more quickly to keep data up to date. Second, partner networks of key individuals and organizations in host countries are being established. For Africa, for example, in addition to a network of independent key informants, partnerships with the Land Policy Initiative (LPI) of the African Union, UNECA and AfDB are being developed, allowing, on one hand, the LM to benefit from the LPI focal persons in each country and, on
the other hand, the development of ownership and thus responsiveness through the establishment of an African portal of the LM. Lastly, an initiative is ongoing to promote engagement by governments and investors listed in the database, to request their feedback and allow their responses to be posted online.

While the LM is – despite the mentioned conceptual and data-related problems and challenges – relatively strong on providing information on the scale of the phenomenon and the broad patterns, it does not provide for specific project details and is currently weak regarding local impacts. Only for a small fraction of the land deals does the LM have information on precise contractual arrangements, (intended) compensation or possible benefits such as social and productive infrastructure or job creation, or involvement of local communities. With regard to assessment of the impact dimensions of LSLA, a balance will have to be struck between the complexity of impacts and the simplicity and objectivity of indicators. More information on impacts will become available as more and more research is undertaken on impacts of individual projects. The LM therefore might become important for helping to generalize findings from individual case studies.

Two additional monitoring elements are foreseen in the medium term. The first is a mechanism of tracking the activities being implemented on the acquired lands. This will allow better monitoring of contractual arrangements as well as the provision of information related to production patterns at project level and food security aspects at regional and national level. The second element will aim at the inclusion of land-based investments that do not involve transfer of land rights, such as outgrowing schemes, contract farming practices, etc. Beyond the effective acquisition and transactions of land, this will enlarge the scope and enable the measurement of the control of land-based activities by investors – i.e. aspects that are presently rather invisible and thus often overlooked (Ducastel and Anseeuw 2011, Oya 2012).

Complementary approaches reaching from national to local levels are indispensable in order to grab the essence and specificities of each large-scale investment project. Conversely, local tools need to link their information to a global perspective, as transnational processes are an important feature of the phenomenon. Ultimately, transitions to more sustainable investments will be bound to institutional frameworks that embrace these scales.

**Beyond the measurement of the LSLA phenomenon – the LM as a tool for open (data) development towards more inclusive decision-making over land**

The methodological challenges and the weak foundations of the data presented in this paper leave much room for interpretation, which is then often subjective and ideologically anchored. While some observers may downplay the scale of the phenomenon and may be inclined to stress the possible positive impacts of LSLA, smallholders’ advocacy groups may do the opposite. Bringing more objectivity to these positions is therefore an important objective of the LM.

It is important to emphasize is the contribution of the LM to broader objectives. As such, the LM is more than a tool to assess the scale of LSLA. By contributing to the visualization of LSLA projects and providing information and public access to previously hidden data and restricted sources, the LM hopes to reach its twin goals of improving the quality and inclusiveness of international and national policy dialogue and decision-making on land resources, and involving direct stakeholders in the dialogue and decision-making processes through active participation.

Making available the information is a key element necessary for the monitoring of the projects (are contractual arrangement being enforced, do populations benefit as agreed
upon, etc.) as well as of the processes leading to the projects (were local populations included in the negotiations?). Greater information openness not only results in enhanced transparency and promoting awareness, it also leads to accountability and more equitable efficiency gains that ultimately should give rise to greater social and economic well-being (Gavelin et al. 2009). The danger of accepting that more benefits for all will be encouraged through better monitoring is that, as Borras and Franco (2010) rightly emphasize, LSLA will be blindly accepted and legitimized as a solution for agricultural and rural development globally. Making available information on the current patterns of agricultural investments should hence also reveal the trade-offs and opportunity costs produced in terms of social and environmental services at local but also at national and global levels (De Schutter 2011). Only by making such evidence available will it be possible to initiate a debate about the future role of agriculture and land use.

In addition, the LM as a tool of open data (Gavelin et al. 2009, Gigler, Custer and Rahmetulla 2011, Gigler, Tanner and Kiess 2011, Huijboom and Van den Broek 2011) also invites broader stakeholder engagement. This is done through its crowd-sourcing instrument, but also through the direct engagement with investors and governments. As such, all stakeholders are encouraged to contribute to information dissemination through the LM and to engage with each other, contributing to more inclusiveness and potential innovative and inclusive governance structures (by promoting access to information to demand more transparency, better governance and inclusiveness and by offering their own perspectives on solutions to issues confronted). While contributing to data openness, the LM aims at enhancing the quality of governance via the empowerment of populations as well as through the ‘insights of the crowds’ (Gigler et al. 2011, 51).

Lastly, although direct accusations are avoided in the framework of the LM, information openness and transparency are intended to lead towards disclosure of government and investor practices. As such, different stakeholders, including local populations, can identify projects, see how funds are spent and learn about the purpose, cost and results of each. The possibility of damaging activities being put in the spotlight should incentivise companies and governments to adapt their practices. Learning from the EITI (Extractive Industries transparency Initiative; see Schanzenbächer 2010), the LM is thus also a tool promoting more responsible investment practices and governance.

The LM partnership acknowledges that while the global database provides useful information towards transnational decision-making, its utility in promoting improved decision-making in specific national contexts is limited. Over the coming years, a primary task of the partnership is to adapt the software and approaches used to support Land Observatories to concentrate on a specific area of interest. The Global Observatory (focusing on transnational data and visualizations) will thus become one among several, including Regional Observatories (such as the one being developed with LPI for Africa), National Observatories (currently being developed in Peru, Tanzania, Madagascar, Cambodia and Laos), and Thematic Observatories (currently being developed on rangelands). Each Observatory will be relatively independent, managed by its own interest group and visible on its own portal. The LM partnership provides development support and the opportunity to also link to a single global database. As such, the LM partnership over time will become a support network, enabling local organizations to successfully implement, manage, own and use Land Observatories according to their needs. The Partnership will offer strategic support, tutorship and facilitation for data collection, verification, reporting and communication. A foundation principle in this effort is open data: that all data and visualizations are available for anyone to use, for any purpose, at no cost. As such, data from any Observatory can be easily linked to, shared and processed. The Land Matrix partnership intends to
nurture open data and open-source communities focused on land deals, which also includes opening the software for developers to contribute to and improve its codebase. As such, the Land Matrix is ultimately an attempt to contribute to embracing a new development paradigm towards open (data) development.

References


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