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Does Development Aid Address Political Exclusion? A Disaggregated Study of the Location of Aid in Sub-Saharan Africa

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Abstract

It has been demonstrated that development aid, while generally being directed towards poor countries, often fails to reach the poorest. In light of this, some donors are increasingly concerned with inequality and exclusion potentially undermining other sustainable developmental goals. Despite an increased focus on inclusive development, however, we know little about to what extent development aid reaches politically excluded groups and whether this varies across donors. This paper addresses these knowledge gaps, expecting that development aid is less likely overall to flow to areas where politically excluded populations live, but also that there will be variation among donors. Using a geographically disaggregated panel dataset covering African countries from 1995 to 2014, we combine sub-national data on the location of multilateral and bilateral aid projects and excluded ethnic groups. We find that World Bank aid is allocated less often to areas with excluded groups compared to both areas with included groups and mixed areas (i.e. areas populated by both excluded and included groups). No correlation exists between excluded groups and Chinese aid distribution, or a larger control group of 'other donors'. When limiting the sample to donor countries with a particular focus historically and politically on inequality - the Nordic countries, Canada and the Netherlands - we find, however, that aid is disproportionally allocated to areas with excluded groups. These results suggest that the geographical allocation of development aid responds well to donor priorities. While the World Bank appears to be sensitive to the political agendas of the countries in which it operates, aid allocations made by the Nordics, Canada and the Netherlands seem to be reflective of the political agendas in their home countries.

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Acknowledgements

1. Introduction

Global spending on development aid (DA) amounted to approximately USD 147 billion in 2017.[1] Yet there is deep disagreement over whether DA has been successful in achieving developmental goals over the past five decades (e.g. Coyne, 2013).[2] While donors are effective at directing aid to the poorest countries, aid is often ineffective at reaching the poorest *within* these countries. This is supported by recent empirical studies which examine the dynamics of aid targeting and distribution using disaggregated data on the location of aid projects. For example, Briggs (2014, 2017) and Kotsadam et al. (2018) have shown that aid is often not distributed to the poorest areas within recipient countries. Instead, donor projects are often steered towards areas with relatively wealthier populations, or to where existing infrastructure enables projects to be more easily established and carried out. Disaggregated approaches to development research are also opening new avenues through which to interrogate how DA addresses issues of inequality (Briggs, 2018; Dreher et al., 2015; Kotsadam et al., 2018), conflict (Findley et al., 2011; Strange et al., 2015), and corruption (Isaksson & Kotsadam, 2018).

One question this research has yet to fully examine is how horizontal inequalities (i.e. systematic inequalities between identity groups) and group exclusion correlate with aid distribution. While aid may incrementally reduce *income* inequalities under certain conditions (Chong et al., 2009), very little is known about the relationship between DA and horizontal inequalities (Brown et al., 2007). Yet this relationship has potentially important implications for policy. Horizontal inequalities can affect how the distribution of economic gains, political voice and participation, or social welfare are distributed between groups (e.g. Stewart, 2008) and have been robustly linked with political violence (e.g. Østby, 2008b; Cederman et al., 2011). Understanding whether and under what conditions aid distribution may ameliorate or exacerbate horizontal inequalities should therefore be of fundamental interest to donors.[3]

Despite relative clarity on how socioeconomic horizontal inequalities, political exclusion and conflict are related, we lack knowledge on the dynamics of development aid and political exclusion. Given that aid often fails to reach the poorest despite donor claims to the opposite, could it also be that aid is failing to reach the most politically excluded groups – despite the increasing discourse around aid as a tool for addressing inequality and exclusion?[4] Motivated

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[1] http://www.oecd.org/dac/development-aid-rises-again-in-2015-spending-on-refugees-doubles.htm
[2] The aid effectiveness literature is too vast and diverse to address for the purposes of this paper. For a useful overview of this literature, see Doucouliagos & Paldam (2009).
[3] See World Bank (2005:87); World Bank (2016).
[4] See for example World Bank (2016); Fukuda-Parr (2010); Fischer (2010; 2013); Jones (2009).

by this knowledge gap, we address the question of whether ***development aid is more or less likely to be directed towards politically excluded groups?*** If donors are sincere about addressing inequality and exclusion through the distribution of DA, we might reasonably expect that they prioritize excluded groups as they deliver aid or establish new projects. Similarly, in recognizing different donor motivations – and their sensitivity to issues of inclusion and equity – we nuance our analysis by examining ***whether different donor priorities are reflected in geographically diverse patterns of aid distribution by type of donor***?

We consider several donors, and distinguish specifically between aid projects provided by the World Bank, China, a set of countries whose development aid has rethorically been more 'equality-focused' (the Nordic countries, Canada, and the Netherlands), and with a control group of all other types of multilateral and bilateral aid.

We build in part on Brech & Potrafke (2014) who suggest that there is a partisan effect on how donors allocate aid. They find that more left-wing governments are more likely to provide bilateral aid (as opposed to loans), and also generally favor development aid to sectors that are more likely to reduce socioeconomic inequalities. This suggests that national politics and constituencies affect decisions of allocation in certain types of donor countries (Brysk & Mehta, 2014). Further, in making this comparison we are interested in ***whether there are measurable differences between the distribution of aid projects from 'politically sensitive' and 'politically agnostic' donors.*** To assess this, we use a recent comprehensive georeferenced database of aid projects through the AidData project.[5] Due to data limitations, we focus on multilateral and bilateral aid projects in sub-Saharan Africa and link these to disaggregated, localized measures of political exclusion. We divide sub-Saharan Africa into 8,500 equally sized grid cells using the PRIO-Grid (Tollefsen et al., 2012) and create a disaggregated time-series dataset covering the period 1996–2013. Our findings suggest that there are significant differences between donors with respect to the extent to which aid is being distributed to excluded areas (that is, areas that are populated by excluded groups exclusively). Specifically, we find that areas with excluded groups are 35% less likely to receive World Bank aid in a given year, while aid coming from countries with a progressive equality-reducing agenda is more likely to end up in areas with excluded groups. For Chinese aid, on the contrary, there is no statistical association either way. This might reflect a greater sensitivity in the World Bank to the political climate in the country in which it operates, while the results for the Nordic countries, Canada and the Netherlands may reflect a stronger emphasis on equality in their national political agendas.

This paper proceeds as follows. Section 2 briefly reviews the literature on the dynamics of the aid–inequality relationship and presents a theoretical framework surmising how

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[5] https://www.aiddata.org/.

geographic patterns of aid distribution are associated with horizontal inequalities. Section 3 outlines our data and research design, Section 4 presents our results, and Section 5 concludes.

2. Literature Review

The empirical literature on the relationship between aid, inequality and exclusion is mixed. Some studies have found aid to reduce income inequality (Castells-Quintana & Larru, 2015; Bourguignon et al., 2009; Shafiullah, 2011), but this may depend on institutional context (Chong et al., 2009). Others have claimed that aid have little or no impact on income distributions (World Bank, 2005; Cuesta et al., 2006), or even that aid may cause inequalities to grow (Herzer & Nunnenkamp, 2012; Layton & Nielsen, 2008; Bornschier et al., 1978). And while concerns over the distributional aspects of aid are not new (Behrman & Sah, 1984), there is little consideration for the dynamics of identity groups and the systematic inequalities between them in how donors actually distribute development aid (Brown et al, 2007). Nor are such inequalities an explicit consideration in any of the major aid modalities (Langer et al., 2012).

The implications of how aid addresses and affects inequality and exclusion are of major policy importance. In an influential account of aid in conflict settings, Anderson (1999: 46-49) warns about the potential harm that aid can cause if distributed without sufficient attention to existing intergroup tensions. This is important as systematic group differences in economic, political or social status have been linked to higher levels of intergroup conflict (Stewart, 2008; Østby, 2008b; Cederman et al., 2011). In order to avoid fueling latent conflict, Brown et al (2007: 7) recommend that the reduction of horizontal inequalities (HIs) should be a key aspect informing aid policy, warning of the possibility that aid can exacerbate existing inequalities if HIs are not considered and addressed explicitly. Encouragingly, donors may begin to see the potential of DA in ameliorating interpersonal or inter-group differences. Aid agencies and bilateral donors are increasingly invoking the language of inequality and exclusion (Author redacted, 2019), and reducing inequality is now itself recognized in the form of a separate Sustainable Development Goal (#10).

The implication of the above is that donors could begin to more assertively use DA to address horizontal inequality and group exclusion. Some have made specific arguments for aid to be systematically distributed with the aim of reducing disparities: '[i]f the ultimate goal of aid is to reduce or end poverty, aid needs to disproportionly benefit the poor and reduce inequality' (Hirano & Otsubo, 2014: 5). The World Bank has over the past decade increasingly

acknowledged that inequalities can undermine key developmental goals, concluding that reducing inequalities is vital to poverty reduction (World Bank, 2005: 87; 2016). The Bank has been instrumental in the long-term collection of data on income inequalities in developing countries (Nel, 2008: 18), and in addressing inequality as a development problem, arguing that inequality is both unjust and an obstacle to economic growth (Collier, 2012: 327). The 2006 World Development Report holds that 'aid should be targeted where the probability is greatest that it reaches those with the most limited opportunities' (World Bank, 2005: 219).

Such statements might suggest that addressing various forms of exclusion is a priority for the World Bank itself, as well as for other donors who take their cue from the strategic policy development at the Bank. As a result, project-based aid – which is geographically situated such that its beneficiaries are most often in the immediately surrounding area – may be expected to be directed towards areas where excluded populations are living. However, the degree to which this happens remains unclear. While Dreher et al. (2015) suggest that donors may allocate more funds to countries with extensive gender gaps in education and health, certain studies (Berthélemy, 2006; Dollar & Levin, 2006; Ohler & Nunnenkamp, 2014; Thiele et al., 2007) reveal that issues of inequality and exclusion may play limited roles in the calculus of where aid goes, or that aid may often not go to excluded groups. Rather, these studies find that favoritism and political self-interest heavily figure into calculations of how donors and governments make decisions about aid allocations.

There is emerging evidence that aid is often distributed in ways that favor particular groups or that are politically manipulated. Abdulai & Hulme (2015) show that aid specifically aimed at reducing regional income inequalities in Ghana was reallocated following elite manipulation, failing to reach the poorest. Dreher et al. (2016) find that Chinese aid to Africa is more likely to be distributed to the birth region of the political leader of the country, as well as to regions of same ethnic kin as the leaders. Similarly, Dionne et al.'s (2013) study in Malawi shows that districts where populations shared an ethnic kinship with the president saw a higher likelihood of receiving aid, and Layton & Nielson (2008) suggest that political leaders in charge of distributing aid money may divert funds to disproportionally favor their own ethnic or religious group. Similarly, Jablonski (2014) shows that those sub-national regions in Kenya that are co-ethnic and co-partisan with the incumbent president were more likely to receive aid, arguing that aid is used as an electoral incentive for incumbent reelection. More broadly, Boone (1996) and Herzer & Nunnenkamp (2012) suggest that political elites themselves tend to benefit most from aid flows. Uneven benefits across groups might also arise as a result of organizational

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practice, such as donors having to rely on local partners who may belong to already privileged groups (Anderson, 1999).

The case study literature also provides ample examples of aid flows being distributed along ethnic or other group lines. Anecdotal evidence from Sri Lanka suggests ethnic hostilities were intensified where distribution of disaster relief failed to pay attention to existing interethnic conflicts (de Silva, 2008). A policy-focused study by Brown et al. (2007) suggests that aid can exacerbate horizontal inequalities in two key ways: through aid allocation procedures leading to a resource distribution which exacerbates between-group inequalities; and where projects and programs are captured by elites or interest groups such that horizontal inequalities are exacerbated. In Kenya (Cohen, 1995), Rwanda (Uvin, 2000) and Burundi (Gaffney, 2000), there are clear indications that even where donors are aware of the potential for aid flows to become politicized along ethnic lines, projects have been carried out in ways that have favored certain identity or ethnic groups, exacerbating inequalities.

As identity issues amount to contentious political issues in many contexts, it is possible that donors, rather than explicitly stating an aim to reduce inter-groups inequality, adopt a 'pro-poor' approach meant to 'trickle down' to reach the poorest, assuming that this will implicitly also reduce group-based exclusion. Yet, there is scant evidence that needs-based targeting is effective (Öhler & Nunnenkamp, 2014; Nunnenkamp et al., 2017). Briggs (2017; 2018) shows that rather than favoring areas with high poverty rates, aid flows disproportionately to regions of greater wealth. Similarly, Marty et al. (2017) find that aid projects in Malawi were not targeted towards areas that needed them most, but rather locations where health infrastructure was already improved. Isaksson & Kotsadam (2018) find that Chinese aid is more likely to end up in regions with higher levels of nightlight emissions – a commonly used proxy for relatively high levels of local development. In a study of Nigeria, Kotsadam et al. (2018) find that while aid seems to have a positive effect on reducing inequalities in infant mortality, aid is distributed to areas that have on average lower rates of infant mortality. Finally, Nunnenkamp et al. (2017) examine factors determining the allocation of World Bank projects across Indian districts. They find little evidence for needs-based allocation. Instead, districts with higher inflows of Foreign Direct Investment (FDI) are more likely to receive World Bank aid.

The above studies seem to suggest both that aid is not generally reaching the poorest, nor, by implication, trickling down to improve the relative situation for the most politically marginalized groups. These complex political economies underlying aid distribution (Alesina & Dollar, 2000; Briggs, 2014; Masaki 2018) underscore how horizontal inequalities may intersect with the

distribution of aid. They also underline that addressing poverty, inequalities and exclusion with aid flows remains a fundamental challenge. Evidence suggests that political as well as economic exclusion of ethnic groups are related to civil conflict (Cederman et al., 2013; Cederman et al. 2015; Østby, 2008a; 2008b). Hence, aid reducing inequalities could deliver a peace dividend, yet, as demonstrated above, aid often does not reach the poorest (Briggs, 2017; 2018; Kotsadam et al., 2018, Dreher et al., 2017; Dionne et al., 2013). What is less clear is whether aid is targeting, or successfully achieves reducing inequalities, among marginalized or excluded groups. A notable exception is Kotsadam et al.'s (2018) study of aid and infant mortality in Nigeria. When looking at specific sub-groups, they find that aid is particularly effective in reducing mortality among children born in rural areas, among Muslim children, and among children born in Muslim-majority areas, suggesting that the positive effects of aid appear to be strongest for more disadvantaged groups. However, as aid is allocated disproportionately to areas with lower levels of infant mortality, the net effect on inequality remains uncertain.

The question of whether aid projects reach excluded groups would have important implications for development aid agendas. If aid projects are more frequently being established in areas of political marginalization, it might suggest that donor agencies actively address horizontal inequalities by giving priority to development in politically excluded areas. Conversely, if there are disproportionately fewer aid projects established in excluded areas, this may suggest that donors are less willing to reach these groups, or that issues of physical access, ease of project establishment, or broader political considerations are leading to donors favoring areas of politically included populations.

Moreover, it is unlikely that all donors behave alike. For example, motivated by the mounting criticisms concerning Chinese aid practices, Isaksson & Kotsadam (2018) investigate whether Chinese and World Bank aid projects fuel local-level corruption. Their empirical results consistently indicate more widespread local corruption around active Chinese, but not World Bank, project sites. One potential explanation for this finding is China's well-known policy of non-interference in the domestic affairs of recipient countries (State Council, 2014), which could suggest that the Chinese are unlikely to take an active role in fighting corruption. Relatedly, we may expect that the Chinese will be less likely to actively address political exclusion at the local level.

Conversely, donor countries which have promoted reduced inequality at home might be more likely to also focus on reducing inequality in their distribution of aid. National interests are

reflected in a country's foreign policy (Brysk & Mehta, 2014), presumably with implications for where to distribute aid. This is demonstrated in a statement from the Canadian government stating that "Canada is adopting a Feminist International Assistance Policy that seeks to eradicate poverty and build a more peaceful, more inclusive and more prosperous world".[6] Further, a text analysis of strategic aid donor documents shows that concepts around inequality are mentioned at much higher rates within the Norwegian Agency for Development Cooperation (Norad), compared to, for example, the Department for International Development (DfiD) in the UK (Author redacted, 2019). In the Netherlands, women's equality is one of four core areas that the Ministry of Development Cooperation has chosen to focus on in a revision of the country's development policy. While these examples address gender equality, it is likely that the focus on equality and inclusion would spill over onto how other types of inequality and exclusion affect the distribution of aid.

This is in line with Brysk & Mehta (2014), who found that in donor countries where women are generally more empowered, priorities generally include higher levels of humanitarian aid, measures against sexual discrimination, and efforts to restrain violence against vulnerable individuals.

In the following section, we empirically address whether development aid projects are more frequently located in areas with politically excluded groups, as well as whether, and to what extent, this relationship varies by donor type.

3. Research Design and Data

The analysis is based on the PRIO-grid structure (Tollefsen et al., 2012), which is a standardized spatial grid structure with grid cells with a resolution of 0.5x0.5 decimal degrees (approximately 55kmx55km at the equator). This results in a total of 8,501 grid cells in sub-Saharan Africa, which provides the opportunity to compare equally sized and non-political geographical units. The analysis is a time series analysis covering the years 1996–2013, and the unit of analysis is the grid cell-year. Due to the lack of recent data for some of the variables, the time span will vary somewhat across the models. While the dependent variables are a binary, we run an OLS regression instead of logit to ease the interpretation, and the results are the same.

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[6] http://international.gc.ca/world-monde/issues_development-enjeux_developpement/priorities-priorites/policy-politique.aspx?lang=eng

Dependent variable: Development aid onset

Following Briggs (2018), the dependent variable in this study is a dummy variable measuring whether at least one aid project was initiated in the grid-cell year. We create dummy variables for: (i) World Bank aid projects in the period 1996–2013 based on the AidData IBRD-IDA, Level 1, Version 1.4.1 dataset[7], (ii) Chinese aid projects between 2000 and 2013 using the Global Chinese Official Finance Dataset (Version 1.0) in the AidData database (Dreher et al. 2017), and (iii) finally, we use data from the AidData project (AidDate 2017) on geocode projects from all types of donors in a sub-sample of countries.[8] In addition to the aid onset variables, we also create aid incidence variables for World Bank and Chinese aid, i.e. whether there was an ongoing aid project with a specific cell for one specific year.

Since we are interested in the general location of aid, we include projects across all types of sectors. The dataset includes geo-coded longitudinal and latitudinal coordinates for each project location, and information indicating the precision of the geocoding. Similar to other studies, we include only locations coded with precision levels: 1 (coordinate corresponds to an exact location of populated place) and 2 (coordinate corresponds to a location that is known to be within 25km of the project or a division smaller than ADM2). This reduces the number of observed project locations to 6,342 for the World Bank projects. For the Chinese aid projects, we include only the countries that have received Chinese aid;[9] in addition, we included precision code level 3, corresponding to admin level 2, to increase the number of projects, with the result that we have a total of 220 project locations for Chinese aid projects. For the six country sub-sample for other donors, we use precision codes 1 and 2, giving a total of 4,424 project locations.

We used GIS software to merge the World Bank aid data and Chinese aid data with the PRIO-GRID. Based on the geo-coding, we associated each aid-project location with one PRIO-GRID cell, and then used information about the transaction date of each project to code aid project onset year. The aid onset variable is coded 1 if at least one aid project started in a specific cell in that year, and 0 if not. The dataset includes a total of 4,146 cell-years with World Bank aid project onsets, corresponding to a prevalence rate of 2.6%, and 380 cell-years with Chinese aid onsets, equal to 1% of all cell-years. The sub-sample with all types of donors includes 1,587 cell-years with aid-project onsets: this is about 7% of the total number of cell-years in

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[7] Download from http://aiddata.org/subnational-geospatial-research-datasets.
[8] Burundi, DRC, Nigeria, Senegal, Sierra Leone and Uganda
[9] Angola, Burundi, Congo, DRC, Kenya, Malawi, Mozambique, Nigeria, Rwanda, Tanzania, Zambia and Zimbabwe

the sub-sample. Figure 1, show the distribution of aid projects, note that this shows all grid cells that in the time period.

Figure 1: Geographic location of aid projects. Panel A: World Bank aid. Panel B: Chinese Aid. Panel C: All types of aid for a sub-sample of countries.
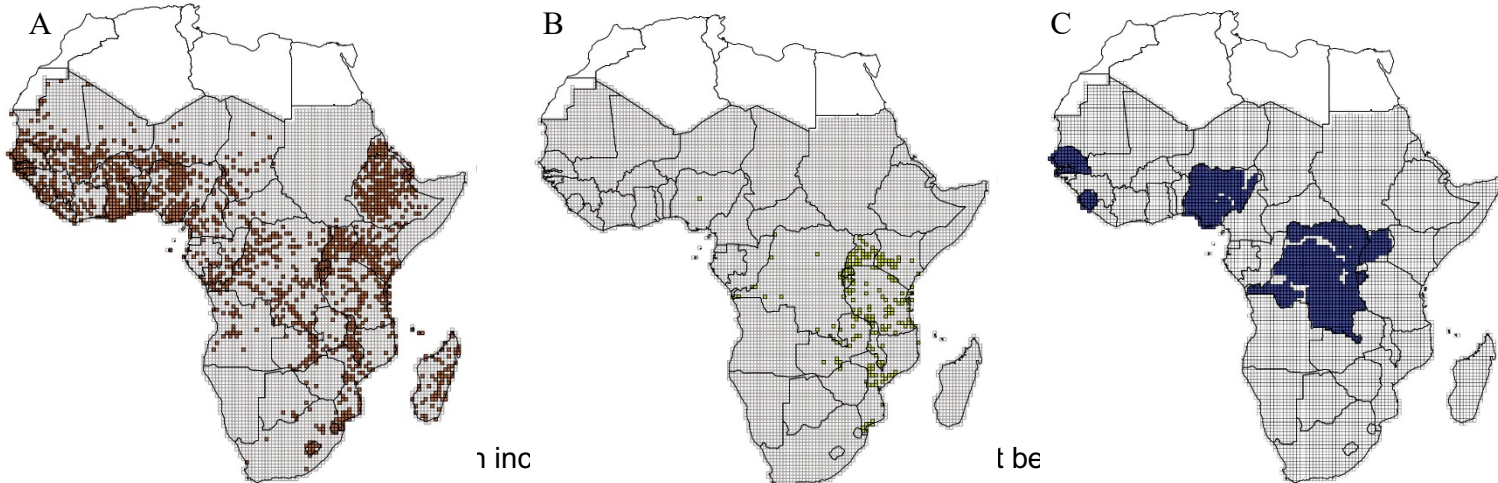
2013. To the right, cells that include at least one Chinese aid project between 2000 and 2013.

*Independent variable: Political exclusion*

We are interested in whether systematic group inequalities matter for the allocation of aid projects. To explore this, we include a variable measuring whether the specific grid cell-year includes politically excluded ethnic groups or not. The variable is based on the GeoEPR data on status and location of politically relevant ethnic groups (Vogt et al. 2015). An ethnic group is considered politically relevant by the EPR dataset "if at least one political organization has claimed to represent its interests at the national level or if its members are subjected to state-led political discrimination" (Cederman et al., 2010: 99). Being excluded is defined as either being powerless, meaning that the group is not politically represented or does not have any influence, or by being discriminated against, which indicates an active, intentional and targeted discrimination of the group by the state (Vogt et al., 2015).

The coding of groups as being excluded changes over time, capturing variation in their political status over time, which means that a cell can change from excluded to included from one year to the next. Further, in some grid-cells there are more than one ethnic group, thus one cell can include both included and excluded groups. To deal with this, our independent variable is coded as a dummy set including three categories: excluded, mixed and included. The excluded variable is coded 1 if all the ethnic groups in the cell are excluded in a given year, which is

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about 25% of all cell-years. The mixed variable is coded 1 if the cell includes both excluded and included groups, about 10% of all cell-years. Finally, cells that only include included groups are used as the reference category, approximately 64% of all cell years. The excluded and mixed dummy variables are both lagged one year compared to the aid in order to avoid possible reverse causality running from aid to exclusion.

The geographic distribution of excluded groups is mapped below in Figure 2. The map to the left indicates the cells where, at some point, all the groups living in that cell were politically excluded. In the map in the middle, it is indicated where there were both excluded and included groups. In the map to the right, we can see the cells where all the groups at some point were included.

Figure 2: Distribution of excluded (panel A), mixed (panel B) and included (panel C) cells, 1996–2013
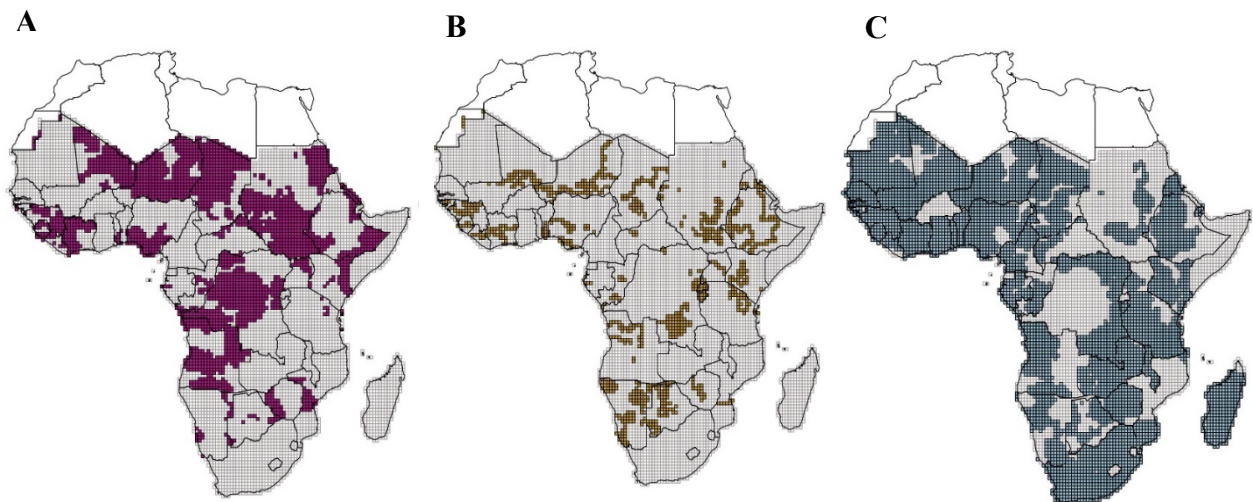
Control variables

While many factors are likely correlated with aid allocation, we need to be careful not to "over-control". Political exclusion is likely to affect development, for instance, so that controlling for level of development may introduce a post-treatment problem. However, we control for the *population size* within each grid-cell, to account for areas where few people live. The data is based on the Gridded Population of the World, version 3 (CIESIN, 2005). The data is observed in 1995, 2000, 2005, and we have inter- and extrapolated the data to the other years in the time-series. We also add fixed effects on country and year and cluster on grid cells.

Table 1: Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
World Bank aid onset	163,046	.026	.160	0	1
World Bank aid incidence	163,046	.106	.308	0	1
Chinese aid onset	34,896	.011	.102	0	1
Chinese aid incidence	34,896	.015	.121	0	1
Other donors aid onset	22,114	.064	.245	0	1
NoNeCa[10]	22,114	.019	.137	0	1
Excluded dummy	158,453	.256	.436	0	1
Mixed dummy	158,453	.103	.304	0	1
Included dummy	158,453	.641	.480	0	1
Population	137,661	92450.85	277184.2	0	12,500,000

4. Analysis

In Table 2, we show the correlation between political exclusion and incidence as well as onset of World Bank projects. In Models 1 and 2, we look at the contemporaneous incidence of World Bank aid – i.e. whether there was an ongoing aid project in the grid cell – and relate it to the exclusion status of the cell. The correlations in both models are negative and statistically significant, showing that areas with excluded groups receive less World Bank aid than areas with included groups. We move on to investigate whether excluded areas are less likely to receive aid if they were excluded the year before the aid onset. That is, we lag the exclusion variables and look at onset instead of incidence. The results are seen in Models 3 and 4.

While the coefficient in Model 3 is quite small, if we look at the substantial interpretation by comparing the coefficient (0.009) with the mean of the onset (0.026), we actually see that the areas with excluded populations are 35% less likely to receive a World Bank aid onset, than those with only included groups. The mixed dummy is also negative, but not significant. The results also hold when we include population in the grid cell as a control. The fact that we find significant results when testing the lagged variable on onset suggests that there might be some political prioritizing driving the allocation of aid.

However, the discussion of exclusion and inequality is a recent debate. The negative results might therefore be driven by aid allocated before inequality became a priority. To test this, we run the same analyses as in Model 3 and 4 but limiting the sample to the years 2006 to 2013. In 2006, the World Bank published the report "Equity and Development". In this report,

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[10] Nordic countries, the Netherlands and Canada.

they clearly state the importance of fighting inequality, both at individual and group levels. Thus, 2006 serves as a good cutoff point for the sample.

However, contrary to what could be expected, the correlation between being excluded and having an aid onset is also negative and significant in the years between 2006 and 2013. Further, the correlation seems even stronger in this period compared to the whole sample. Based on Model 5, excluded groups are 48%[11] less likely to receive World Bank aid than those who are not excluded. Also, in Model 6 we see that the excluded dummy is negative and significant when including population. This could suggest that either the World Bank efforts to reach out to more marginalized groups have failed to trickle down to the distribution aid, or that we are not yet able to observe the effect of of these recent efforts.

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[11] The coefficient of excluded groups in Model 5 (0.011) divided by the mean value for World Bank onset based on the sample in Model 6 (0.023).

Table 2: OLS regression between World Bank aid (incidence and onset) and political exclusion, 1996 –2013

	(1)	(2)	(3)	(4)	(5)	(6)
	Aid incidence	Aid incidence	Aid onset	Aid onset	Aid onset	Aid onset
	(1996-2013)	(1996-2013)	(1996-2013)	(1996-2013)	(2006-2013)	(2006-2013)
Excluded	-0.024***	-0.013**				
	(0.005)	(0.005)				
Mixed	0.002	-0.000				
	(0.007)	(0.007)				
Excluded (lagged)			-0.009***	-0.004***	-0.011***	-0.007***
			(0.002)	(0.002)	(0.002)	(0.002)
Mixed (lagged)			-0.001	-0.003	-0.002	-0.004
			(0.002)	(0.002)	(0.003)	(0.003)
Population		0.000***		0.000***		0.000***
		(0.000)		(0.000)		(0.000)
Constant	0.049***	0.478***	0.191***	0.010	-0.001	-0.001
	(0.003)	(0.102)	(0.070)	(15.373)	(0.001)	(0.001)
Fix effects country	YES	YES	YES	YES	YES	YES
Fixed effects year	YES	YES	YES	YES	YES	YES
Observations	158,453	133,845	150,040	133,820	75,523	75,523
R-squared	0.175	0.234	0.045	0.083	0.058	0.089

While we find a generally negative correlation for World Bank aid, it consists of aid across many different sectors. To explore the variation of sector-specific aid, we split the dependent variables into sector-specific aid onset. However, one project could include several different sectors, thus the sector-specific aid onset variables are not mutually excluded. In Figure 3, we show a coefficient plot for each of the sectors, including control for population (for regression models, see Supplementary material).

The model indicates that health is the only sector for which aid more often goes to areas with excluded groups. While this is not a surprising finding, we see that other sectors like education, social welfare and agriculture, which we would expect to act similarly to health, are slightly negative, but not significant. On the other hand, projects linked to energy, industry, government and transport more often go to areas with included groups. Thus, while there is variation within World Bank aid, besides health projects, aid is not aimed particularly at excluded groups.

Figure 3: Correlation for exclusion on World Bank aid onset by sector (95% confidence intervals)
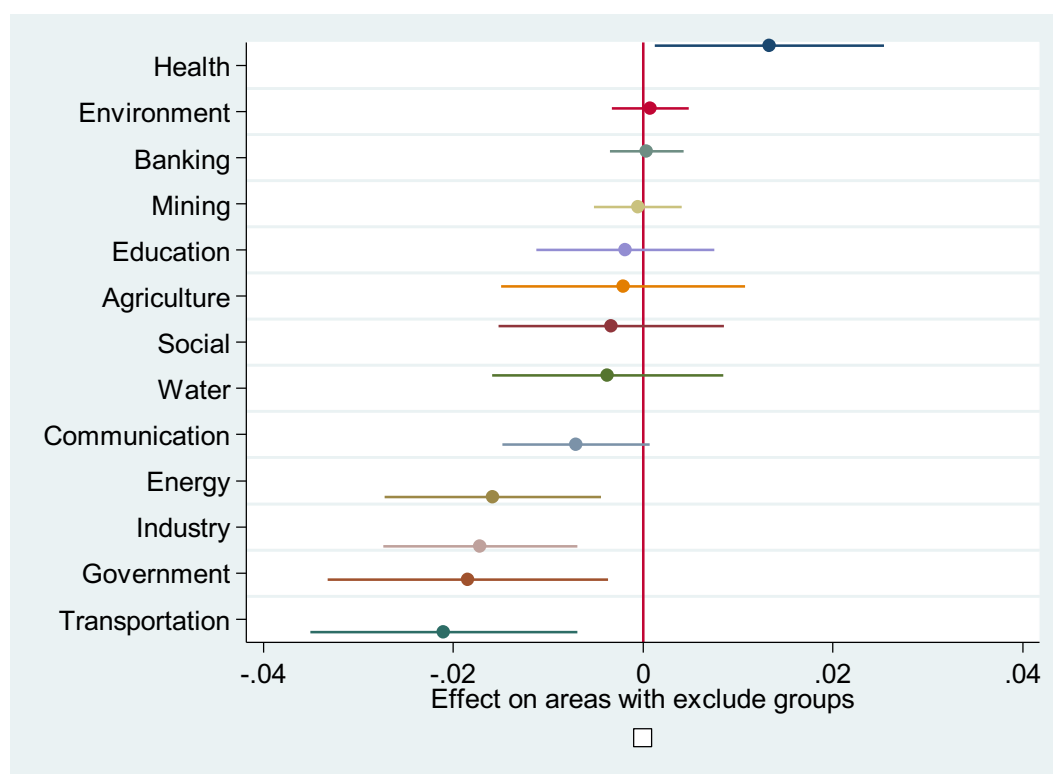
World Bank aid is considered a loan to the host country. As such, the decision of where to allocate World Bank aid is taken in collaboration with the national government. Thus, aims to reduce inequality might be hampered by national governments not wanting the World Bank to prioritize certain areas. We might therefore expect that aid from other donors is more likely to

be aimed at areas with excluded groups, as these donors might be freer to make decisions on distribution.

Isaksson & Kotsadam (2018) have shown that there is a difference between the drivers of aid allocation between World Bank aid and Chinese aid. In Table 3 we run the same analysis as in Table 2 but looking at Chinese aid projects. We see that in all the models the excluded variables are negative, but not significant, suggesting that the political significance of ethnic groups appears to be irrelevant for the distribution of Chinese aid.

Table 3: OLS regression between Chinese aid incidence and onset and political exclusion (2000–2013)

	(7) Chinese aid incidence (2000–2013)	(8) Chinese aid incidence (2000–2013)	(9) Chinese aid onset (2000–2013)	(10) Chinese aid onset (2000–2013)
Excluded	-0.004	-0.004		
	(0.003)	(0.002)		
Mixed	0.000	-0.008		
	(0.009)	(0.008)		
Excluded (lagged)			-0.002	-0.002
			(0.002)	(0.002)
Mixed (lagged)			0.000	-0.006
			(0.006)	(0.005)
Population		0.000***		0.000***
		(0.000)		(0.000)
Constant	0.143*	0.065	0.079**	0.029
	(0.074)	(0.067)	(0.036)	(0.042)
Fix effects country	YES	YES	YES	YES
Fixed effects year	YES	YES	YES	YES
Observations	34,300	29,400	34,300	29,400
R-squared	0.039	0.106	0.030	0.083

Robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Finally, we look at the following subset of countries: Burundi, the Democratic Republic of the Congo (DRC), Nigeria, Senegal, Sierra Leone and Uganda. In addition to the World Bank

projects, these countries also have data on aid from other donors, both multilateral and bilateral. While the World Bank is often more constrained by the national governments' agendas other donors can make allocation decisions based on their own priorities. In Table 4, we explore the difference between the World Bank and other donors. In Models 11 and 12, we run the analysis with World Bank projects on the same sample as we have other projects. In these analyses we do not find any correlation between exclusion and the distribution of aid projects. In Models 13 and 14 we test aid projects from all other donors. The coefficient is positive, and in Model 13 it is significant at a 0.1 level. Thus, while it seems that aid from other donors might be more likely to end up in areas with excluded groups, this result is not very robust. We cannot therefore conclude that there is a substantial difference between World Bank aid and other types of donors in general.

However, not all donors are equally concerned with inequality and exclusion. Some countries have been more progressive, and have been at the forefront of highlighting the importance of using aid to deal with inequalities. These are typically the Nordic countries, the Netherlands and Canada. Eichenauer & Reinsberg (2017) show that these countries also have among the highest share of earmarked aid, suggesting that the decision on where to allocate lies with the donor country. In addition, these countries have focused particularly on gender inequalities. Thus, in Models 15 and 16 we have singled out projects where these countries contribute as donors, including both bilateral and multilateral aid. In both models, the coefficient for excluded groups is positive and significant, suggesting that aid from these donors is more likely to go to excluded areas.

Table 4: OLS regression between aid onset and political exclusion in Burundi, DRC, Nigeria, Senegal, Sierra Leone and Uganda

	(11)	(12)	(13)	(14)	(15)	(16)
	Aid onset	Aid onset	Aid onset	Aid onset	Aid onset	Aid onset
	World Bank	World Bank	Others	Others	NoNeCa	NoNeCa
Excluded (lagged)	0.002	-0.001	0.010*	0.004	0.009***	0.004**
	(0.005)	(0.005)	(0.006)	(0.005)	(0.002)	(0.002)
Mixed (lagged)	-0.012	-0.022***	-0.019	-0.028**	-0.005	-0.012**
	(0.009)	(0.008)	(0.015)	(0.014)	(0.006)	(0.005)
Population		0.000***		0.000***		0.000***
		(0.000)		(0.000)		(0.000)
Constant	0.186***	0.086**	0.480***	0.416***	0.102***	0.108***
	(0.047)	(0.038)	(0.036)	(0.030)	(0.020)	(0.022)
Fix effects country	YES	YES	YES	YES	YES	YES
Fixed effects year	YES	YES	YES	YES	YES	YES
Observations	20,620	18,328	20,620	18,328	20,620	18,328
R-squared	0.050	0.093	0.175	0.195	0.074	0.079

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

5. Discussion and conclusion

A growing literature is addressing the sub-national effects of aid, and the local determinants for the location of aid. Briggs (2017, 2018) and Kotsadam et al. (2018) show that aid tends to go less often to poorer areas, and Dreher et al. (2017) show that Chinese aid is more likely to be allocated to the home region of the country leader. However, as far as we know, this is the first study to look at the relationship between location of aid and political exclusion of ethnic groups.

Nonetheless, within the donor community, the importance of acknowledging horizontal inequalities is well known. In a report from 2016, the World Bank states: 'The goal of eliminating extreme poverty by 2030 […] might not be achieved without accelerated economic growth or reductions in within-country inequalities, especially among those countries with large concentrations of the poor' (World Bank, 2016: 2).

Despite this awareness, our results indicate that World Bank projects are in fact *less* likely to be allocated to areas with excluded groups compared to areas with only politically included groups. When we limit the sample to the years 2006 to 2013, we find an even stronger negative correlation between exclusion and aid onset. While inequality has become a more important and relevant topic for the World Bank in recent years, as the quote above suggests, the immediate effect on the ground might be delayed.[12] This could explain why we do not see an improvement in the limited sample.

When we look at aid from other types of donors we find no statistically significant correlations between exclusion and allocation of the project, with one exception. When singling out donor countries that have been more progressive than others in fronting equality in general, we see that aid is more likely to end up in areas with excluded groups. The varying results between donors could reflect the priorities that each donor has to make. The World Bank collaborates closely with the national governments of its constituent members and has to be sensitive towards the political agenda in the recipient country. On the other hand, donors that are more independent may be more sensitive towards the political agenda in their home country. Thus, countries that prioritize equality, women's rights and inclusion at home would reasonably also want to reflect that in their politics abroad.

Our study is characteristically exploratory, mapping the relationship between exclusion and aid allocation. However, our study does not extend to the possible consequences of this

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[12] Or, equally, that programming does not yet align with aspirational or virtue signaling policy statements.

relationship between aid allocation and political exclusion While the results for the World Bank projects in our study may be explained by a necessary political sensitivity, the fact is that already marginalized groups received less aid than others, increasing the risk that the inequalities between groups are widened instead of limited. Despite the good intentions, this scenario could lead to development aid having disastrous consequences in countries with a history of violent conflict between groups. The potentially negative impact of aid is particularly salient, as the failure of aid providers to address systematic inequalities between groups may sustain or exacerbate existing ethnic or religious fault lines in conflict and post-conflict contexts, thereby increasing the risk of new conflict. Where development aid is targeted, and to which groups, matters. We need to better understand the possible negative consequences of skewed aid distribution on development, as well as the potential positive impacts of needs-based project allocation. Further research which investigates the effects of aid distribution on inclusion and equality is needed. Such studies can help inform the future allocation decisions of donor organizations

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