

Can reconstruction programmes improve political perceptions in conflict contexts? Evidence from eastern Democratic Republic of the Congo

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Abstract

Postconflict reconstruction programmes often aim to improve state–society relations but fail to spell out the underlying process. We specify a mechanism that links aid programmes through (1) short-term and (2) medium-term improvements in basic services and (3) subjective progress to (4) perceptions of the state and spell four conditions (quality, sustainability, magnitude and attribution to the state) that must be met for this process to occur. We use this framework to evaluate a large-scale reconstruction programme in the Democratic Republic of Congo (DRC). We find that the programme improved basic services in the short term and midterm and positively affected beneficiaries' subjective well-being. However, we do not find evidence that aid benefits have translated into political trust towards state institutions—on the contrary, project villages display slightly more negative attitudes than control villages. We suggest that this is due to lack of attribution of the improvements to the state that which was included in the selection phase but largely absent in the implementation. This implies that improved services can erode state legitimacy when citizens interpret the provision by nonstate actors as a signal of the state's inability or unwillingness to provide these services.

KEYWORDS

DR Congo, impact evaluation, political perceptions, postconflict, reconstruction

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1 | INTRODUCTION

Foreign aid to fragile contexts has become increasingly central in the foreign policy agenda, reaching a total volume of USD 68 billion in 2016 (OECD, 2018). Many aid interventions aim to (re)build state institutions and foment sustainable state–society relations by improving basic service delivery such as health care, education, water and infrastructure. The underlying assumption is that improved basic services have a direct impact on people's living conditions and thus signal the state's willingness and capacity to respond to citizens' needs. In response, citizens are more likely to trust the state and view it as legitimate. The belief in the potential of such a virtuous circle is articulated by many donors (*e.g.* OECD (2010), OECD (2011), or World Bank (2011); see also discussion in Mcloughlin (2015).

Several empirical studies have investigated how aid may impact living conditions and political attitudes in contexts of conflict and fragility (*e.g.* Beath et al., 2015; Blattman et al., 2012; Humphreys et al., 2014). The results are mixed: Some impact evaluations suggest that political attitudes can change as a result of rather short-lived aid interventions. Other studies, however, demonstrate that even if aid projects improve access to and quality of basic services, they often fail to influence downstream outcomes related to state–society relations (King, 2013). What explains this ambiguous picture of the attitudinal effects of development aid in contexts of conflict and fragility?

Our study aims to contribute to answering this question. We argue that understanding the ambiguity of previous findings requires moving from analyses of general aid–trust associations to a closer inspection of the mechanisms linking aid interventions to such attitudes. Indeed, as Mcloughlin (2015) points out the notion that service delivery can directly enhance state legitimacy and trust 'appears something of a leap of faith' (p.342). Specifying a concrete mechanism and testing aid effects on intermediate outcomes between aid and trust can help identifying the conditions that must be met to generate such effects. This can in turn provide insights into how modes of aid delivery should be designed in order to sustain aid effects for the entirety of the expected mechanism.

This paper focuses on developing and testing such a potential mechanism: In a first step, aid activities must contribute to improving the availability and quality of basic infrastructure such as education, health care, roads or access to water. Ideally, this effect persists beyond the immediate implementation phase of the respective projects. Such medium-term improvements can nurture a more general perception that things are going in the right direction beyond individual service improvements. At the end of this process stands potentially the perception that the state effectively cares for citizens' needs and increased trust in state institutions.

We specify four conditions that may be crucial in bringing about the different elements of the mechanism or in their absence lead to its breakdown: The programme must be of sufficient quality to truly improve services and infrastructure, the improvements must be sustainable beyond the active project phase, its magnitude must be high enough to improve living conditions considerably and lastly, the improvements must be attributed to state actions rather than to international donors or other nonstate actors.

We test the mechanism within the framework of a survey-based impact evaluation of a large-scale reconstruction programme in the eastern regions of the Democratic Republic of the Congo (DRC). Between 2006 and 2016, the so-called 'Peace Fund' (Fonds pour la consolidation de la paix, FCP) invested approximately EUR 70 million in the reconstruction and rehabilitation of social and economic infrastructure in the provinces of North Kivu, South Kivu and Maniema, as well as in the capital Kinshasa. The explicit aim of the project was to contribute to peace building through infrastructure and agricultural interventions.

Our main analysis compares FCP project villages with control villages. We find that the FCP produced tangible socioeconomic effects: FCP villages and beneficiaries reported higher levels of basic service improvements. The FCP also had a positive effect on subjective well-being. However, we do not find evidence that aid benefits have translated into improved political trust towards state institutions. To the contrary, project villages display slightly more negative attitudes than control villages.

We then explore the factors behind the interruption of the mechanism. As the hypothesised chain breaks down between subjective well-being and attitudes towards the state, we investigate the attribution of

aid benefits more closely. We find that only about 15% of households believe that the government is in charge of the FCP, another 15% attribute it to various other actors (international donors, NGOs, etc.) and more than two thirds indicated that they do not know. This suggests that improvements in living conditions are not, as intended by donors, attributed to the state and thus cannot contribute to higher state legitimacy.

Our analysis makes three main contributions: First, we demonstrate that even under very challenging political, economic and security conditions, aid interventions can have far-reaching positive socio-economic impacts. Importantly, going beyond the very short-term focus of previous evaluations, we find evidence that effects can be sustained in the medium term. Finally, our results also suggest that even relatively small sectoral contributions can have a positive impact on more general subjective well-being among beneficiaries.

Second, our findings lend additional support to pessimistic assessments of the potential of aid contributions to state–society relations. They question the fundamental premise of a widespread theory of change: the assumption that tangible improvements of people’s living conditions translate into increased output-legitimacy of the state in highly insecure, undemocratic and low-trust contexts like the Eastern DRC.

Third, we provide tentative evidence on the role of attribution of aid activities. The lack of attribution of benefits of aid projects to the government/state appears to increase the risk of negative project impacts on political attitudes. While we are unable to explore the exact reasons behind the negative impacts with our data, we suggest that the provision of services through international and local NGOs or companies might increase the perception that the state is unable or unwilling to help, given that it is ‘bypassed’ by donors (Anderson et al., 2012; Batley & Mcloughlin, 2010; Dietrich, 2013).

In addition to these substantive/conceptual contributions, our study also showcases methodological avenues for “post hoc impact evaluations” that cannot rely on the randomisation of aid interventions (especially construction projects such as this one) or reliable baseline information.

2 | EFFECTS OF AID ON POLITICAL ATTITUDES

Empirical research on the effects of aid on political attitudes has produced mixed results. On the one hand, several rigorous impact evaluations suggest that aid projects can have a positive effect on beneficiaries’ social and political attitudes. According to Casey et al. (2013), community-driven development interventions have contributed to the establishment of ‘meaningful links between villagers and the lowest tiers of elected government’ in Sierra Leone. Beath et al. (2015) find that aid has contributed to improving perceptions of state institutions in Afghanistan.

Based on an evaluation of a community development project in Laos, Voss (2016) found that members of the project’s target group were more likely to be satisfied with the capacity of the local government to cater to the needs of their communities.

Most other studies, however, cast doubt on aid’s potential to have a meaningful impact on people’s political perceptions. Barron et al. (2009) find only small programme effects on attitudes towards higher levels of government, including subdistrict, district and provincial governments. Similarly, studies by Blattman et al. (2012) on northern Uganda, Humphreys et al. (2014) on the DRC and Beatty et al. (2017) on the Philippines find no or only minimal evidence that aid projects resulted in higher levels of trust in governmental institutions. A recent meta-analysis of six aid projects that focused on improving governance finds that ‘the average effect is insignificant for all six programmes, as is the overall average effect’ (White et al., 2018, 15).

These findings have led studies to investigate why aid projects often fail to deliver the expected attitudinal effects. The more optimistic approach to explaining the mixed findings argues that the effects of aid outputs can matter, but that their impact is conditional on specific modes of aid delivery (Mcloughlin, 2015). According to this view, aid projects can shape political attitudes in conflict contexts but often fail, for example, because their magnitude is too low (e.g. Lyall et al., 2019), because the quality of projects/infrastructures is poor (e.g. Berman et al., 2013) or because they are too short-lived to shape people’s perceptions (e.g. Beath et al., 2015).

A more pessimistic approach argues that aid projects are generally unlikely to have any meaningful impacts on political attitudes for a variety of reasons. The provision of basic services and infrastructure in general and even more so when provided by international donors via nonstate actors might simply be viewed as effort by civil society or the international community rather than enhancing state legitimacy (Batley & McLoughlin, 2010). Indeed, some authors even argue that aid projects can undermine legitimacy—given that what is needed is provided by other actors—or at the least stifle local efforts to regain trust and legitimacy (Anderson et al., 2012). Another reason for the absence of effects is that perceptions towards state actors and institutions may not be driven by socio-economic factors but rather by assessments of the state political performance—in terms of maintaining stability, providing access to political participation and fighting corruption (see discussion in Gilley, 2006). Especially in deeply divided and highly insecure contexts, people may base their trust assessments on how the state performs in providing security and protecting human rights (*e.g.* De Juan et al., 2019; Koos, 2018) rather than basic infrastructure.

We aim to contribute to this debate on the effects of aid projects by outlining and assessing a mechanism that links aid projects to people's perceptions of state institutions. We assess if and at which point of the mechanism the impact of the intervention starts to falter: Are project impacts observable all along the chain? If not, which elements of the modes of delivery may interrupt the mechanism? The results of such an analysis can potentially indicate specific elements of the modes of aid delivery that could be adapted in order to increase impacts on political attitudes. Figure 1 outlines the mechanism and conditioning project characteristics.

2.1 | Mechanism

Based on findings from previous studies, we develop a simple mechanism that links development activities to beneficiaries' attitudes towards state institutions through short-term and medium-term socioeconomic benefits as well as subsequent improvements in subjective living conditions. The following two subsections elaborate on this theory of change and discuss project characteristics that may undermine individual steps in the channel.

Programme activities create short-term socioeconomic benefits (1): The starting point of the mechanism is that project activities generate short-term economic and social benefits for the target population. In contexts of violent conflict, activities often focus on creating opportunities for income generation through labour-intensive reconstruction. Social benefits may encompass the rehabilitation of schools, health posts and infrastructure in the areas of water and sanitation, thereby improving the availability and quality of basic social services. Studies across various aid programmes and countries show that this first, most direct step of the mechanism can work fairly well, even in challenging security and logistical contexts (see, *e.g.*, Beatty et al., 2017; Casey et al., 2013; Laudati et al., 2018; Voss, 2016).

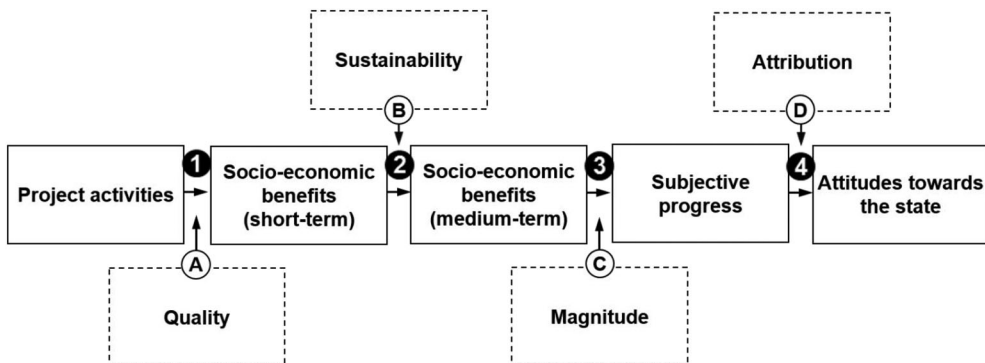


FIGURE 1 Mechanism

Short-term socioeconomic benefits translate into similar medium-term benefits (2): Many aid projects focus on short-term effects alone—most notably in humanitarian aid (Kooos & Lindsey, 2019), in the context of counterinsurgency activities, or quick-impact reconstruction programmes. Most foreign aid, however, focuses on medium- to long-term investments in poverty reduction, education, health and infrastructure (Miguel, 2007). Indeed, Beath et al. (2015) emphasise that ‘government legitimacy is tied more to the *regularised* [our emphasis] provision of public goods than to development outcomes per se’. Because the previous studies cited above have almost exclusively focused on project impacts 1 or 2 years after the end of implementation (e.g. Beath et al., 2015; Casey et al., 2013; Crost et al., 2016; Laudati et al., 2018; Lyall et al., 2019), it is not fully clear which effects can be sustained over a longer period. Few findings show, however, that certain socioeconomic benefits of aid projects do, in fact, persist over the medium to long term (Blattman et al., 2020). Such longer-term impacts are likely to constitute an essential step on the pathway from project activities to individual prospects and attitudes. Even if more general subjective well-being may be positively affected by short-term improvements in living conditions, such an effect will quickly vanish if socioeconomic benefits cannot be sustained.

Medium-term socioeconomic improvements positively affect perceptions of well-being (3): Individual socioeconomic benefits such as better access to education, health care or water are unlikely to affect political attitudes directly (McCloughlin, 2015). But substantive and meaningful interventions that create tangible socioeconomic improvements can feed into a more general feeling among beneficiaries that ‘things are moving in the right direction’. This is an essential element of the notion of the so-called ‘peace dividend’ (or the notion of winning the ‘hearts and minds’) that is at the centre of the theories of change of many aid interventions in conflict contexts (e.g. Berman et al., 2011). Previous analyses of aid projects in conflict-affected contexts confirm that socioeconomic benefits can improve more general subjective living conditions. For example, in Indonesia, Barron et al. (2009) found evidence of improved perceptions of personal welfare among beneficiary conflict victims. Similarly, an evaluation of the Afghan National Solidarity Programme found a strong positive effect of project measures on subjective economic well-being (Beath et al., 2015).

Perceptions of subjective well-being improve attitudes towards the state (4): Subjective progress can, in turn, lead citizens to reconsider normative assessments of actors and institutions deemed responsible for this subjective improvement. The general intuition behind aid projects seeking to improve crucial services *and* contribute to state building is, as discussed above, that tangible and sustained socioeconomic benefits will be perceived as a signal of the state’s willingness and ability to provide the population with essential services. Through this process, the state regains output legitimacy and thereby increases people’s trust in the state.

2.2 | Conditions: Modes of aid delivery

The previous section outlined how aid activities may lead to attitudinal change. However, each individual step of the mechanism may be impaired by characteristics of the respective aid interventions.

Quality (A): The realisation of short-term socioeconomic benefits depends on the quality of project implementation. The operational contexts in (post)war situations are particularly challenging. Weak infrastructure, low capacity on the part of local partners, time pressure and high levels of insecurity may prevent aid agencies from adhering to best practices in terms of planning, implementing and monitoring their activities (Berman et al., 2013). Previous research indicates that the mere presence of physical infrastructure is not essential in terms of shaping popular views about government performance, but perceptions of service quality play an important role (Asunka, 2013; Mallett et al., 2015; Sacks & Larizza, 2012). Thus, interventions resulting in poor-quality buildings and facilities, defunct services and insufficient delivery due to perceived embezzlement of funds are unlikely to improve perceived short-term socioeconomic benefits.

Sustainability (B): The translation of project outputs into medium-term socioeconomic benefits depends on the sustainability of the aid outputs. Upholding the provision of basic services requires

funding for service personnel as well as the regular maintenance of infrastructure and the provision of supplies. Funding and qualified personnel are in scarce supply in (post)conflict contexts, especially once the actual implementation phase of aid projects has ended. Moreover, sustainability also depends on the original quality of the project outputs: Poor planning and oversight reduce the likelihood that services can be maintained in the medium term (Laudati et al., 2018). In fact, several previous studies have found that projects' socioeconomic impacts were limited to the respective programme's duration (Beath et al., 2015; Casey et al., 2013).

Magnitude (C): After extended periods of violent conflict, 'attitudes are likely resistant to updating; substantial effort is thus likely needed to sway attitudes even modestly' (Lyall et al., 2019). Thus, even medium-term socioeconomic benefits may fail to improve people's subjective well-being if the magnitude of benefits is low relative to citizen needs. Several previous studies that look into the relationship of aid and attitudes towards state highlight the potential importance of magnitude. Guerrero (2011), for example, finds that services have a greater effect on trust and legitimating beliefs when they are critical (salient) and visible to the public. In investigating the effects of vocational training and cash transfers on citizen attitudes in Afghanistan, Lyall et al. (2019) find that only the combination of these activities elicited the intended attitudinal effects. Similarly, Humphreys et al. (2014) assume that the weak effects of a large-scale aid programme in the eastern DRC may be attributed to the low level of per capita investments. Following these findings, we assume that magnitude is also critical for affecting general perceptions progress and improvement.

Attribution (D): The final step of the mechanism is based on the assumption that service delivery can contribute to improving state–society relations because it showcases the state's ability and willingness to care for the basic needs of the population. As such, people's awareness of the state's agency is likely to play an essential role: Only when citizens attribute improvements to the state will they be likely to update their attitudes towards state actors and institutions. For this to happen, the state does not necessarily need to provide all services but must, at the least, be viewed as ultimately responsible for services and for organising the contributions of other actors (OECD, 2011). This can be challenging. Under particularly harsh security contexts as well as under conditions of particularly limited state capacity, development organisations often bypass the state, providing aid directly through private contractors to assure swift and effective delivery (Dietrich, 2013). These nonstate service providers may replace or compete with rather than supplement the state (OECD, 2011). Likewise, in the absence of active information campaigns, beneficiaries may not be aware of the role of the state in planning and implementing aid projects (Anderson et al., 2012). If the population attributes service delivery fully to aid agencies or other nonstate actors, the potential positive effects of aid on political trust may not materialise (Batley & Mcloughlin, 2010) and could even have negative effects as it highlights the state's inability to provide these services itself.

3 | FOREIGN AID AND PUBLIC SERVICES IN THE DRC

The FCP's primary objective was to contribute to the 'consolidation of peace' in the main conflict zones of the DRC. The fund was implemented in a challenging political and security environment. The Mobutu era, the first and second Congo wars, and the continuing armed conflicts in eastern DRC had generated massive displacement and high levels of human suffering, destroyed and delayed investment in infrastructure and public services and eroded relations between citizens and state institutions.

The discontent with the state's inability to provide public services is widespread and apparent in individual experiences, such as that relayed in this testimony in Trefon's (2009, 10) ethnographic study on public service provision in the Congo.

In Congo today, the state does not do anything for us. Roads are a mess, teachers cannot live with their pay, health care is reserved for the upper class, public transport is a nightmare ... Things were much better before ... Instead of the state taking care of the people, we cater to civil servants and do the state's work.

While government-run health facilities and schools exist, they are often poorly managed, staffed and equipped. In practice, public services are largely provided by nongovernmental organisations (Trefon, 2011). For instance, in North and South Kivu alone, the medical organization Médecins Sans Frontières (MSF) operates 40 health centres, 9 health posts and 4 referral clinics. It supports 11 government-owned health clinics. The annual expenditures in 2015 of MSF alone in all the eastern Congo provinces amounted to EUR 100 million (Médecins Sans Frontières, 2015). The importance of aid-funded basic social services is also reflected in the structure of the DRC's aid portfolio, which is funded by the United States, the World Bank, the European Union, the UK and Germany, among others. Between 2015 and 2017, official development assistance amounted to USD 1.8 to 2.8 billion per year.¹ A major share was invested in health (24%), humanitarian aid (33%) and other social infrastructure (14%). Education (5%) and economic infrastructure (5%) received relatively little attention (OECD, 2019). These figures indicate the extent to which the Congolese state depends on NGO support and foreign aid to provide basic services to its population.

Despite these challenges and ongoing violence in the east, the 2002 'Global and Inclusive Peace Agreement' sets the stage for a transitional national government during which a new constitution and democratic state institutions were to be developed and presidential and legislative elections prepared. In 2006, Joseph Kabila was elected president of the DRC. Notwithstanding the ongoing local violent conflicts in the eastern provinces, the international donor community viewed the postelection period as an important window of opportunity to scale up development efforts (Smis & Oyatambwe, 2007) and deliver a tangible 'peace dividend' to the population (International Crisis Group, 2012). Investments in infrastructure, health, education and other public goods as well as opportunities for income generation through labour-intensive jobs were meant to signal the benefits of peace to the population and create favourable conditions for an improvement in state–society interactions.

A government-led and donor-supported decentralisation programme started in 2006 and aimed to bring the state closer to citizens and thereby increase responsiveness and accountability. This massive undertaking has been shown to have been a deeply political—not just bureaucratic—exercise since it was connected to the transfer of significant resources and the creation of government jobs at community levels. Early assessments have shown that the decentralised village entities (*i.e.* the lowest administrative tier) lacked sufficient human, financial and technical resources to assume their mandate in providing basic services (World Bank & European Union, 2008).

4 | THE FCP

The FCP was initiated with a financial volume of EUR 70 Million to support recovery in the eastern DRC, to improve access to social services and to provide income-generating activities. The FCP's primary activities consisted of providing funding to selected local partners (nongovernmental organisations and private companies) for the labour-intensive reconstruction and rehabilitation of social and economic infrastructure such as schools, roads, markets and medical stations, as well as the enhancement of agricultural productivity. By offering funding for village development projects, the FCP also aimed to support the decentralisation programme. The resulting improvements were meant to generate 'peace dividends' that foment public attitudes conducive to peace and reconciliation.

There is some ambiguity in how much state involvement and attribution were pursued through the FCP. According to FCP documents, the involvement of state actors was supposed to contribute to the strengthening of state structures and ownership of the new infrastructure. In practice, the Congolese state was involved through the provincial governments and the Ministry of Planning and Revolution of Modernity in the project selection, together with other actors (see below for details on the selection procedures of FCP I and II). State officials were supposed to participate in project visits and monitoring, but it is not clear to what extent this took place or was formalised. Ministers or

¹Compared with this, the tax revenue excluding royalties from mining or aid amounted to approximately USD two billion in 2016 (OECD, 2020)

TABLE 1 Overview of FCP I and FCP II

	FCP I	FCP II
Phase	11/2008 to 11/2012	11/2012 to 11/2015
Funds in million euro	50	20
Projects	46	20
Permanent jobs created	1713	1735
Temporary jobs	22,400	12,690

Note: Figures for entire FCP, including outside the Kivus.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

Source: Based on documentation made available by KfW/GOPA (fund manager).

governors also came to inauguration ceremonies of some of the infrastructure. While the state was thus present to some extent, the German Development Bank, KfW, was tasked with the design and administration of the programme, and an international consultancy firm was commissioned for the day-to-day management, including the tendering, evaluation and awarding of the respective contracts, control and supervision and the technical and financial monitoring of the projects. Banners informing citizens of the ongoing work reflect this ambiguity as they always highlight the German funding and in various ways some Congolese involvement (*e.g.* sometimes stating that the contracting authority was the Ministry of Planning, sometimes that it was a project of the German-Congolese cooperation and sometimes none at all).

At the time of our evaluation in 2016, two phases of the FCP had been concluded, FCP I (2008–2012) and FCP II (2012–2015).² The first phase focused on the eastern provinces of North Kivu, South Kivu, Maniema, as well as on the capital Kinshasa; in the second phase, the FCP was expanded to the province of Bandundu. FCP I had a larger financial volume with more projects and employment creation (see Table 1). The majority of FCP activities in both phases focused on the improvement of economic and social infrastructure, which jointly accounted for more than two thirds of the allocated funding. Table 2 provides an overview of FCP activities in these areas. The building of economic infrastructure focused strongly on transport connections (roads, bridges and ferry docks), markets and warehouses; the social infrastructure included schools, hospitals, health centres and water supply points. What is considered to be a single project by the FCP often covers a number of separate activities. For example, one ‘project’ may have consisted of several actions in the same sector (*e.g.* renovating and refurbishing 10 schools in different locations) or even of actions in different sectors (*e.g.* the rehabilitation of a dike, the expansion of a market and the building of a road). Where appropriate, our evaluation either considers these as separate projects or focuses on a core location of a project.

In the first programme phase (FCP I), the selection of individual projects followed an open call for proposals to national and international nongovernmental organisations. Proposals were formally assessed and preselected by the fund management based on predefined criteria such as feasibility, visibility and conflict sensitivity. This preselection brought the number of applications down from 800 to approximately 250 in North and South Kivu. In the next step of the selection process, a committee consisting of representatives of the Congolese Ministry of Planning, civil society organisations, churches, line ministries, the German embassy and the KfW considered the NGO’s previous experience with similar projects, whether the application was formally complete, and the number of beneficiaries. This resulted in a second preselection of approximately 40 projects in the Kivus. Finally, these 40 projects were scored according to a host of relevant criteria, including labour intensity, the ratio of expenditure to families benefiting, the time frame of results, the extent of local participation in the development of the project and the share of women, ex-combatants and young people benefiting. Approximately 20 projects in

²A few individual projects, mostly road construction, were still running, but most projects had been finalised.

TABLE 2 Overview of social and economic infrastructure activities in FCP I and II

	FCP I	FCP II
Economic infrastructure		
Roads (km)	637	104
Bridges (<i>N</i>)	113	8
Markets (<i>N</i>)	3	8
Warehouses (<i>N</i>)	32	6
Ferry docks (<i>N</i>)	3	1
Dikes (km)	5	-
Social infrastructure		
Schools (<i>N</i>)	59	13
Classrooms (<i>N</i>)	413	84
Hospitals (<i>N</i>)	5	1
Health centres (<i>N</i>)	50	4
Water points (<i>N</i>)	13	4
Drinking water conduit (km)	100	90
Drinking water reservoir (<i>N</i>)	19	7
Standpipes (<i>N</i>)	290	165
Other (<i>N</i>)	2	2
Social housing(<i>N</i>)	1002	-

Note: These are often expansions or rehabilitation of existing structures, rather than new constructions.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

Source: Based on documentation made available by KfW/GOPA (fund manager).

North and South Kivu were ultimately selected. Project implementation was mostly undertaken by NGOs.

In the second phase (FCP II), the open call for proposals was replaced by a more top-down project selection approach undertaken by the central and the provincial governments as well as the fund management. Following selection committee approval, pre-approved nongovernmental organisations and private construction companies were invited to submit tenders for project implementation. This implies that the projects in the first phase were of a more bottom-up nature with more community consultation than in the second phase. Indeed, a much smaller pool of only around 20 projects in North and South Kivu was considered in the second round. Of these, 12 were chosen and the remainder were kept as ‘reserve projects’ in case some of the selected projects had to be replaced.

5 | DATA

The data come from two surveys that we conducted in North and South Kivu. The survey research organisation Marakuja Kivu Research collected the data.³ Together with these local partners, we trained local interviewers in Goma (North Kivu) in May 2016. The data collection in the field was carried out between May and July 2016.⁴

³<https://marakujakivuresearch.com>

⁴The data collection was supervised by an international researcher. The operational fieldwork by the 20 local interviewers was coordinated and supervised by two Congolese senior project officers. Four villages were pre-emptively replaced because of above average safety concerns for our interviewers. There were no reports of security incidents during the actual interview phase.

We surveyed 64 locations, basically half of which were treatment locations that received FCP projects and half control locations that failed to obtain FCP projects.⁵ We chose to overrepresent FCP locations: For each control location, we surveyed only one nearby village, but for treatment locations, we surveyed two nearby villages. In total, we conducted surveys in 100 villages. In each village, we administered a household-level survey to 15 households and a village-level questionnaire answered by the village chief or administrator.

The household questionnaire contained two core modules that were administered in all villages: (1) socioeconomic characteristics as well as access to and perceived quality of basic services and (2) social and political attitudes, including perceptions of state institutions. A third module was only administered in FCP-treated villages and contained FCP-related questions on the type of project, perceived benefits from the FCP, knowledge of FCP and so on. As treatment villages benefited either from FCP I or from FCP II (not from both), we used different time referral periods for key outcomes such as employment and perceptions of change with regard to access to services. The village-level questionnaire was intended to collect comprehensive data on village-level characteristics that a random household might not know about—for example, village demographics, distance to amenities, incoming and outgoing migration patterns, coverage of basic services, security incidents and perceptions of the FCP. We merge the village data with the household data to obtain a dataset with household and village characteristics for all households. Table A.1 in the Appendix provides descriptive statistics of the main control and outcome variables in our dataset for the whole sample as well as for the treatment and control group.⁶ Generally, response rates are very high, with less than 5% missing values. The only exceptions are (1) the variables that capture perceived service improvement in the village (explained in detail below), which is absent in 16% of the cases mainly for agricultural and multitopic projects where improvement is hard to pin down, and (2) the variables that capture the size of the village population before the FCP, which was not reported by village chiefs in approximately one third of the cases.

We note some key descriptive statistics. First, the ‘villages’ have quite large populations (an average of 1600 inhabitants) and only about half of the respondents reported having been born in the village. Both features make sense in the eastern DRC context, where many people have moved to larger villages in search of increased safety. Second, there is a high presence of armed groups (approximately 50%) and a very low feeling of safety among respondents.

The survey locations were determined by the FCP project locations, so the sample was not intended to be representative of North and South Kivu. However, it is interesting to note how education and economic activity in our sample compare to the data collected by Vinck and Pham 2014,⁷ which seeks to provide representative samples of the population in eastern DRC. Our sample has somewhat more educated respondents. The share of respondents with more than secondary education is 11% in our data compared with 6% in their data, and for primary schooling, our figure is 43% compared with their 35%. Regarding the households’ main economic activity, Vinck and Pham report 57% working in agriculture, whereas this amounts to 70% in our sample.

Some of these differences are probably due to the fact that we asked to speak to the household head (higher average education), if possible, and that we did not include projects in the provincial capitals in our sample (higher average activity in agriculture).

6 | EMPIRICAL APPROACH

Our analysis of the mechanism linking aid to political attitudes combines two approaches. The first is a comparison of FCP and control villages. This is our preferred approach in terms of inference because it

⁵There are three locations that obtained FCP projects in the first phase but failed to do so in the second phase (e.g. the location of Kyonga obtained a road in FCP I but failed to obtain a market in FCP II). These locations appear both as treated (for FCP I) and control (for FCP II), leading to 33 treated locations and 34 control locations.

⁶Appendix A explains the coding of complex control variables; the construction of outcome variables is explained in the analysis section.

⁷see <http://www.peacebuildingdata.org/interactivemaps/drc2014>

allows us to exploit FCP project selection procedures to mitigate endogeneity concerns. Our second approach focuses only on FCP villages and compares self-reported beneficiaries (*e.g.* households with school-aged children) to self-reported nonbeneficiaries (*e.g.* households without school-aged children). The combination of these two approaches has two main advantages: Methodologically, the triangulation allows us to assess the expected effects of aid based on two different estimation strategies. If we find similar results across specifications, we can be more confident of the robustness of the results. Conceptually, the two approaches represent two different kinds of aid impacts. The village comparison focuses on aggregate aid impacts—comparing the population in project catchment areas with the population in control villages. The second approach focuses on more narrow project effects among the actual project beneficiaries—those individuals who made use of the services that were newly provided or improved by the FCP.

6.1 | Identifying treatment and control villages

The allocation of FCP projects did not follow a random procedure that could be exploited to identify the causal effect of the programme. We propose a ‘second best’ approach, where treatment and control villages are selected in a way that makes them as similar as possible *a priori*. The underlying idea of the approach is to compare villages in which FCP projects were implemented with those in which FCP projects were narrowly rejected. The idea is that villages where projects were narrowly rejected are likely to be, on average, as rich/poor, remote/connected and so on as villages that did obtain an FCP project.

In practice, we selected control villages in the following way. For FCP I, we first considered as candidate projects the 40 projects that had survived the two preselection rounds. An example of a control project of this type is a 352,890 USD agricultural project for the areas of Minova and Nyamasasa in South Kivu. The project’s objective was the distribution and multiplication of seeds to support local agriculture. This project was eliminated in the final round as it scored low on two key dimensions (the share of the budget allocated for salaries of labour intensive work and unclear impact) as well as on a number of supplementary dimensions (*e.g.* few women and ex-combatants to be employed and little local participation)—factors that are largely unrelated to conditions of planned beneficiary locations.

However, this pool of potential control projects provided too little variety in the type of projects: Many of those preselected and narrowly rejected projects happened to be agricultural projects which could not be used as controls for other types of projects—for example, market construction, education or health care. We therefore had to expand the pool of control projects to draw from. We did so by considering those among the 250 preselected projects that had been rejected for reasons unrelated to local conditions, as differences in local conditions (*e.g.* whether the place had suffered from a lot of conflict) would render the treatment and control groups *a priori* incomparable. We focused on criteria that were as unrelated to local conditions as possible.

Most of the projects we added to the control pool were projects where the applicant NGO had never undertaken a project as large as the one proposed in the application. We also considered projects that had not been chosen because budget constraints prevented the implementation of a project covering the full area proposed. An example of such a project is a 447,907 USD school rehabilitation project in South Kivu in the area of Mulenge and Rurambira that was rejected because of a lack of similar experiences of the NGO and an overpriced budget.

The choice of candidate control projects for the second phase of the FCP was more straightforward. We considered as potential control villages those that had been set as ‘reserve projects’ (and which were indeed not undertaken). These projects would have been implemented only if other projects had failed or more funding were made available; they can therefore indeed be considered to have been ‘narrowly rejected’. Figure 2 shows the location of FCP treatment and control villages in North and South Kivu for all (panel a) and specific project types (panels b to d). Note that the empirical analysis uses project-type fixed effects, meaning that we only compare the effects within such project types.

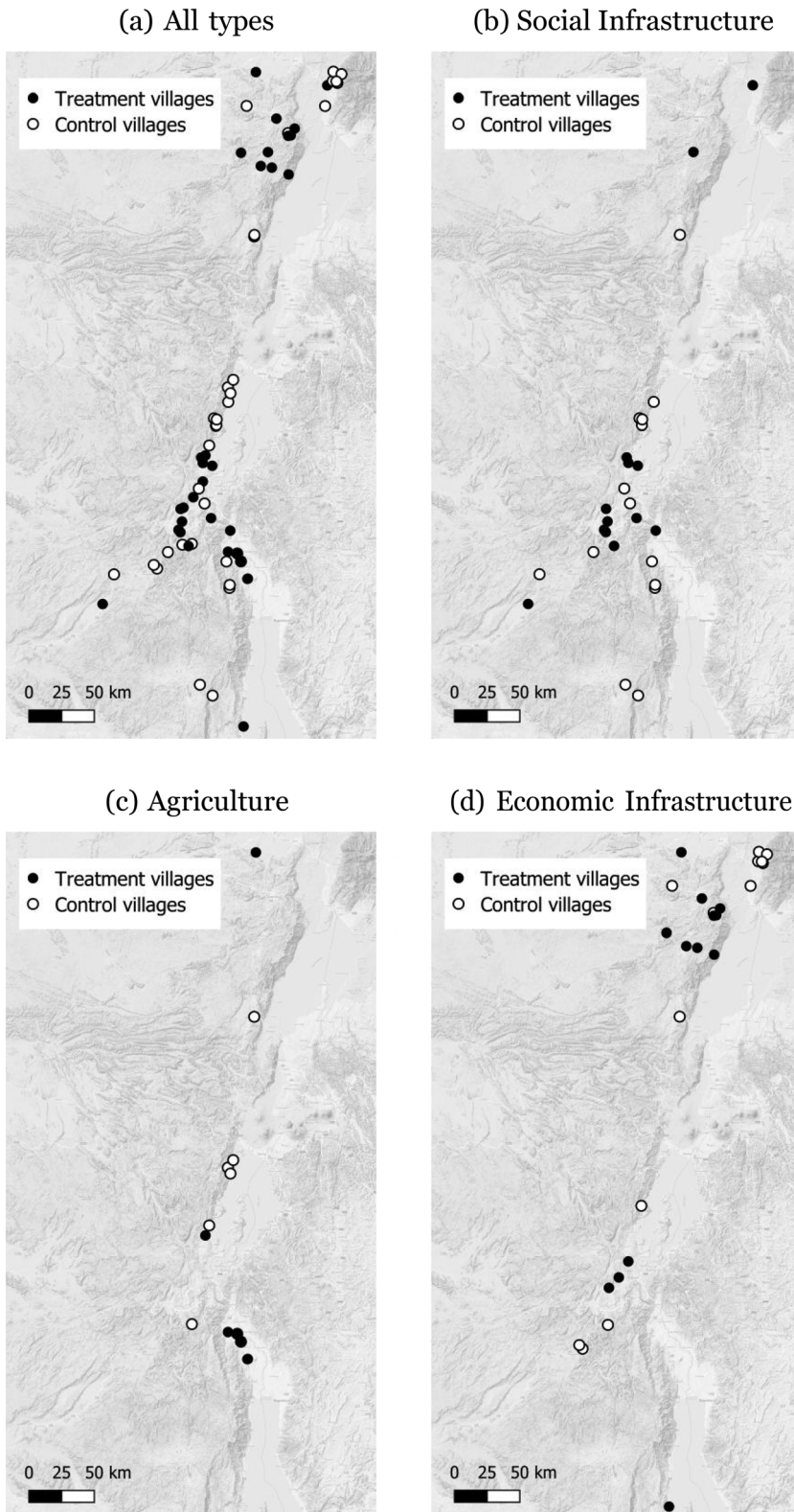


FIGURE 2 Geographic location of treatment and control villages by project type

TABLE 3 Observations by project type

Phase	Province	Type	<i>N</i> control	<i>N</i> treated
FCPI	Both	Health centre	2	2
FCPI	NK	Water	1	2
FCPI	NK	Road	7	16
FCPI	SK	Water	2	4
FCPI	SK	Cattle	1	2
FCPI	SK	Market	1	2
FCPI	SK	Road	3	6
FCPI	SK	Seeds	4	3
FCPII	NK	Market	1	2
FCPII	SK	Water	1	2
FCPII	SK	Agricultural	2	3
Both	NK	Multi	1	2
Both	SK	School	8	16

Abbreviation: FCP, Fonds pour la consolidation de la paix.

After identifying the pool of candidate control villages, we matched villages where projects were implemented (treated villages) with villages in this control pool. We matched on the basis of geographical information such as distance to main roads and land cover, using the propensity score procedure in Ho et al. (2007). A paramount concern at this stage was that project types were very heterogeneous (schools, roads, distribution of seeds, etc.). Clearly, a village where an agricultural project was proposed but narrowly rejected is not likely to be a good match for a village where a school project was actually implemented. Therefore, we stratified the matching by project type, as well as, to the extent possible, by FCP phase and province. The project types we considered were schools, health centres, water, roads, markets, distribution of seeds and cattle (see Table 3).

To illustrate, our design procedure yielded the following type of match: A South Kivu village where a water project was undertaken in FCPI would be matched with another South Kivu village where this type of project was proposed in FCPI but rejected. If there were several candidate villages for such a match, the one most similar in terms of distance to roads, land cover and so on was chosen.

Overall, we believe that our identification approach can eliminate some of the potential selection problems emerging from unobserved variables and can thus be useful when there has not been a priori randomisation. Nevertheless, it is important to emphasise that it has limitations. A first general limitation is that this procedure may not succeed in eliminating all selection concerns. For instance, political influence may affect project selection, and this influence may be linked to relevant outcomes. In our case, a second limitation is that there were relatively few projects to draw from, particularly for some types of projects and for FCP II. As a result, the pool of control candidates was smaller than what we would have hoped for and we were unable to stratify as finely as we intended. As some theoretical combinations of project type, province and FCP phase were not represented by actual treated or control villages, certain combinations needed to be collapsed; for instance, health centres were stratified by FCP phase but not by province (see Table 3 for stratification information). This implies that control and treatment villages were probably less similar than the procedure would theoretically allow for.⁸

⁸Another practical difficulty in our setting was the mapping of projects to villages, particularly for rejected projects. Some projects did not precisely state their catchment area and/or did not provide GPS codes. Thus, we parsed each ambiguous project application individually, manually extracting village names and types of projects. Village names were then matched with a village repository that contained GPS coordinates for each village. Once the villages had been selected, survey fieldworkers' local knowledge was used to ensure accuracy.

The extent to which our identification strategy has succeeded in generating similar treatment and control groups can be gauged by comparing how balanced the control variables between the two groups are. Table 4 shows the results. Each row corresponds to a different control variable as an outcome, regressed on treatment variable T and the stratification variables S . Of the 18 variables we consider, the treatment coefficient is statistically insignificant in most cases. Only two coefficients are significant at the 10% level and three at the 5% level. For the three clearly predetermined variables (village population pre-FCP, village distance to relevant places, attacks pre-FCP), the coefficients are statistically insignificant. The statistically significant coefficients are also mostly small, particularly for individual-level variables. The coefficient for secondary schooling, for instance, is 0.1 of a standard deviation, whereas that for exposure to violence is 0.2. For village-level characteristics some coefficients are somewhat larger,

TABLE 4 Difference of basic characteristics between FCP and non-FCP villages

	1
Individual	
Household size	-0.178 (0.204)
Household has child in school	-0.004 (0.024)
Born in the village	-0.075 (0.048)
Female	0.086*** (0.033)
Age	1.325 (0.962)
Read and write	-0.044 (0.035)
More than primary	-0.055 (0.036)
More than secondary	-0.039** (0.019)
Core business agriculture	0.013 (0.04)
Ethnicity Nande	0.03* (0.018)
Ethnicity Shi	0.118 (0.083)
Ethnicity Fuliro	0.009 (0.063)
Ethnicity Lega	-0.052 (0.042)
Feels safe	-0.056 (0.117)
Exposed to violence	-0.055** (0.025)
Village predetermined	
Village log population pre FCP	-0.744 (0.578)
Village log distance to relevant places	-0.142 (0.185)
Village attacked pre FCP	-0.111 (0.099)
Village nonpredetermined	
Village several languages	-0.147 (0.096)
Village inflow tercile	-0.425** (0.175)
Village has defence groups	0.105 (0.069)
Village presence armed groups	-0.059 (0.102)
N	1556
$N_clusters$	64

Note: Robust standard errors in parenthesis. Nonpredetermined means that the variable might have been determined during or after project implementation.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

***0.01.

**0.05.

*0.1.

approximately 0.5 of a standard deviation for population inflows. Overall, these results suggest that, after controlling for our stratification variables, the treatment and control villages are quite similar.⁹

Spillover effects resulting from geographical proximity of treatment and control locations are a potential source of bias. For instance, people in control villages may benefit from basic services such as health facilities and schools in close-by treatment villages. Another possibility is that people in control villages envy treatment villages for *their* development projects, ultimately leading to unfavourable attitude shifts towards the state. While the first situation would lead to an underestimation of the true effect, the latter situation would potentially result in an overestimation. To get a better sense of spillover effects, we computed the estimated travel time between control villages and their next treatment village for each project type in Figure 2 (Weiss et al., 2018). Five control villages have travel times below 10 min, the next five between 30 and 90 min and the remaining 23 villages between 2 and 63 h (see Figure C1 in the Appendix). While we cannot exclude the possibility of spillover effects, considering an average travel time of 759 min and a median of 324 min, we consider this risk to be rather low.

6.2 | Project beneficiaries

We conceptualise beneficiaries as those who benefit from the services provided by a project. This variable comes from questions in the household questionnaire that asked whether the respondent or a member of the family used the services ameliorated by the FCP. According to our survey, approximately 70% of the households in a village had benefited from the services provided by the FCP, though with quite some variation (standard deviation 0.3).

Methodologically, this is a less satisfactory approach than our primary analysis. Individual beneficiaries may well differ from nonbeneficiaries a priori. However, beneficiaries and nonbeneficiaries within villages do not seem to differ in very substantial ways beyond what we would directly expect. Table 5 shows the ‘balance’ of treatment and control groups according to this within-village identification of beneficiaries. As before, the table shows regressions where the outcome variables are the variables that will be used as controls in the analysis. In this case, there is no presumption that beneficiaries and nonbeneficiaries will be similar, so there is no presumption that the coefficients will be close to zero. However, the differences observed in the table are actually quite sensible and give us some confidence in the reliability of our data. In particular, service beneficiaries are more likely to have children at school. Besides this variable, the coefficients are not statistically significant. This implies that this simple identification strategy is a reasonable complement to our main estimation strategy of comparing FCP and non-FCP villages.

7 | RESULTS

In the following subsections, we present the results of both approaches, before moving on to exploratory analyses of factors that may condition the effects of aid on political attitudes.

7.1 | Comparing FCP villages with control villages

The main approach for estimating the effect of the FCP is simply to compare the attitudes of inhabitants in treated villages versus control villages. We run the following regression:

⁹As a robustness check, we consider whether the balance between treatment and control villages changes substantially when we use project type and province fixed effects instead of the more fine-grained stratification variable. Table B.2 in the Appendix shows that results are fairly similar, although without the stratification variables treatment and control villages are slightly more imbalanced (*e.g.*, the number of languages spoken in the village is statistically different without the stratification variable but not controlling for it).

TABLE 5 Difference of basic characteristics between beneficiaries vs nonbeneficiaries within FCP villages

	I
Household size	0.171 (0.324)
Household has child in school	0.092*** (0.034)
Born in the village	0.002 (0.038)
Female	-0.059* (0.034)
Age	0.284 (1.49)
Read and write	0.022 (0.045)
More than primary	0.047 (0.05)
More than secondary	0.025 (0.023)
Core business agriculture	-0.066 (0.043)
Ethnicity Nande	-0.013 (0.008)
Ethnicity Shi	-0.005 (0.006)
Ethnicity Fuliro	0.025 (0.025)
Ethnicity Lega	-0.005 (0.008)
Feels safe	0.063 (0.078)
Exposed to violence	0.006 (0.017)
<i>N</i>	1044
<i>N</i> _clusters	33

Note: Robust standard errors in parenthesis. Nonpredetermined means that the variable might have been determined during or after the project implementation.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

***0.01.

**0.05.

*0.1.

$$Y_{iv} = \rho T_v + \beta_0' S_v + \beta_1' X_{iv} + \epsilon_{iv} \quad (1)$$

where i indexes individuals and v indexes villages. Y is any of our outcome variables, such as perceptions of service improvement or trust in the state. T is the treatment variable, and S is the set of stratification variables that indicate combinations of project type, province and FCP phase. X represents a set of additional control variables. These control variables include three variables truly predetermined relative to the FCP: population in 2009, violent attacks in 2008 and 2009 and distance to the nearest police station and the nearest territorial centre.¹⁰ In addition, we also consider controls that could potentially be affected, though likely

not severely, by the FCP, such as individual basic demographics (age, sex, household size, individual education, experiences of safety and violence at the individual level and village characteristics such as whether more than one language is spoken in the village, the recent inflow of population into the village and the presence of armed groups close to the village or defence groups in the village. We conduct analyses with and without the set of controls X . We cluster standard errors at the location level. We now turn to our main results on the FCP effects. Figure 3 shows the results for comparisons between FCP and non-FCP villages with and without controls.¹¹

The first link in the mechanism is the effect of project activities on short-term service improvement. We operationalise short-term service improvement as perceptions of improvement in the services that the

¹⁰While these variables are theoretically predetermined, they were identified retrospectively in 2016.

¹¹See Table B.3 for the coefficients and standard errors underlying Figure 3 and Table B.1 in the Appendix for an overview of the indicators we use to measure key mediators and moderators in the mechanism linking development projects to attitudes towards the state.

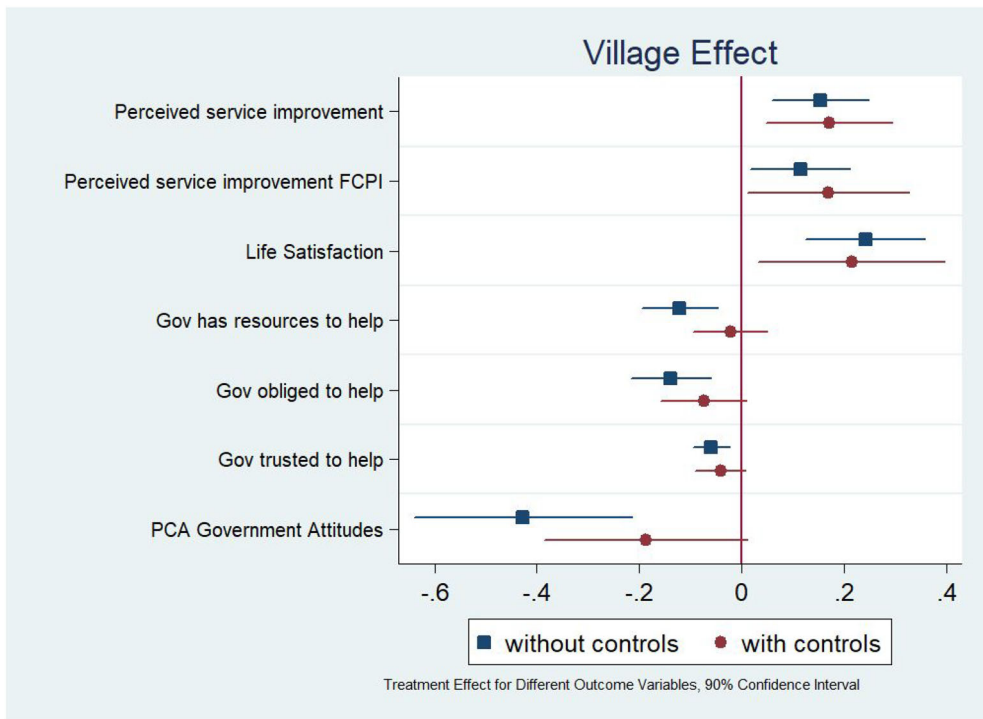


FIGURE 3 Fonds pour la consolidation de la paix (FCP) village treatment effect [Color figure can be viewed at wileyonlinelibrary.com]

FCP projects were meant to provide. For each type of project (schools, water, etc.), we asked whether the respective service had gotten better since the corresponding FCP project or not. We construct a variable matching the type of project we asked about in the questionnaire to the one actually implemented by the FCP (or the type of project that was applied for in control villages). For instance, in villages where the FCP projects dealt with schools, our service improvement variable records perceived improvements in schools. This is similar for health centres, water sources and roads.¹²

The FCP was successful at service provision. FCP villages reported stronger improvements in the services that the FCP was meant to provide. The size of the coefficient *perceived service improvement* is substantial (0.15, in a variable that ranges from -1 (services have gotten worse) to $+1$ (services have gotten better), corresponding to 30% of the standard deviation of the variable). This result is remarkably robust. The coefficient barely changes when our battery of control variables is added. Overall, it appears that the quality of FCP projects was satisfactory, leading to a perception of service improvement for people exposed to the projects. The first link in the chain seems to hold in the case of the FCP.

We now consider the second link in the mechanism, the medium-term sustainability of service improvements. We take advantage of the fact that the first phase of the FCP was finalised in 2012, 4 years before the survey was conducted. We consider these 4 years a sufficient amount of time to allow for failings in sustainability to become apparent. The second coefficient *perceived service improvement FCPI* in Figure 3 shows the impact of the FCP I on service perceptions, with a focus on the medium term—that is, for villages that obtained (or applied for, in case of the controls) projects in the first phase of the FCP. The pattern of the coefficients remains very similar to the overall FCP

¹²For schools, water sources and health centres, there was an explicit question asking for opinions on whether these had improved. For roads, we combined questions asking whether the time to reach schools, health centres, markets, and water sources had improved. For markets, we combined two variables, one about whether prices had declined and another about whether availability of goods had improved.

effects reported above. Even in the medium term (and despite additional programme changes from FCPI to FCPII as reported above), the FCP effectively contributed to an improvement in basic services.

The third link in the chain is from medium-term service improvement to the belief that things are moving in the right direction. We operationalise this with self-reported *life satisfaction*. We use a five-level variable ranging from ‘totally unsatisfied’ to ‘totally satisfied,’ which is mapped onto the numerical values -2 to 2 . The results correspond to the theoretical expectations sketched above: Life satisfaction is higher in treatment compared with control villages. We operationalise the hypothesised moderator ‘magnitude’—the idea that the project does not just provide jobs or improve services but improved things visibly in the village—with the chief indicating that the socio-economic situation improved thanks to the FCP. This is the case in two thirds of the village, suggesting that magnitude contributed to higher life satisfaction. Lastly, we examine FCP effects on attitudes towards the state. We rely on three variables from our household survey that measured perceptions of (1) whether the state or government was capable of helping in cases of need, (2) whether it was obliged to help in cases of need and (3) whether it would actually help in cases of need.¹³ While all of these variables tap into attitudes towards the state, they measure different important components of such attitudes. The first question reflects beliefs about state capacity (has resources to help), the second question reflects expectations about the state/perceptions of the state’s role and the third trust that it would actually help. The third question—trust that the state would help in cases of need—reflects a stronger positive attitude towards the state than the other two. Indeed, whereas 33% of our respondents believed that the state/government had the resources to help and 55% that it was obliged to help, only 10% trusted that it would actually help. In addition to the individual variables, we also combine all three measures into an index of government attitudes (based on a principal component analysis, PCA). As shown in Figure 3, effects appear negative in models without controls but disappear with controls. Certainly, there are no positive effects on state attitudes at the village level.¹⁴

7.2 | Comparing beneficiaries with nonbeneficiaries

We now turn to comparing beneficiaries with nonbeneficiaries within FCP villages. We conduct additional regressions similar to Equation (1) above. Only FCP villages are included. Instead of the stratification variables S , we include a full set of village dummies. This implies that the variation we exploit in this case is within villages. The ‘treatment variable’ T is now an indicator of having benefited from FCP services. Because of the presence of a full set of village dummies, the control variables X do not include village-level characteristics. Figure 4 shows the results of comparisons between beneficiaries and nonbeneficiaries within FCP villages.¹⁵ The results regarding the effect of project activities on short-term service improvement are of a similar magnitude when we compare service beneficiaries with nonbeneficiaries within FCP villages. When we move to the medium-term effects of the FCP as well as to measures of life satisfaction, the coefficients lose significance. However, this is mainly because of a lack of precision rather than a sharp drop in point estimates. As we find roughly similar patterns when relying on totally different identification assumptions, the results for these rather direct project effects appear to be fairly robust.

¹³The variables come from questions asking who has the resources/ was obliged/ would be trusted, to actually help in the event of a major natural catastrophe. The options provided were as follows: members of the community, the chief, international development organisations, the state or government, the church, a local NGO or no one. The respondent was asked to choose no more than two among these options. We did not ask for gradations in how likely some actor would be to help. This means that only respondents with fairly strong attitudes about state/government obligations and actions would be likely to select this option.

¹⁴Table B.4 in the Appendix shows that results are basically the same when we control for type of project and province fixed effects instead of our more fine-grained stratification variable. Likewise, we show in Table B.5 in the Appendix that results do not differ systematically between when we consider separately projects implemented in FCP I vs those implemented in FCP II.

¹⁵Table B.6 reports the coefficients and standard errors.

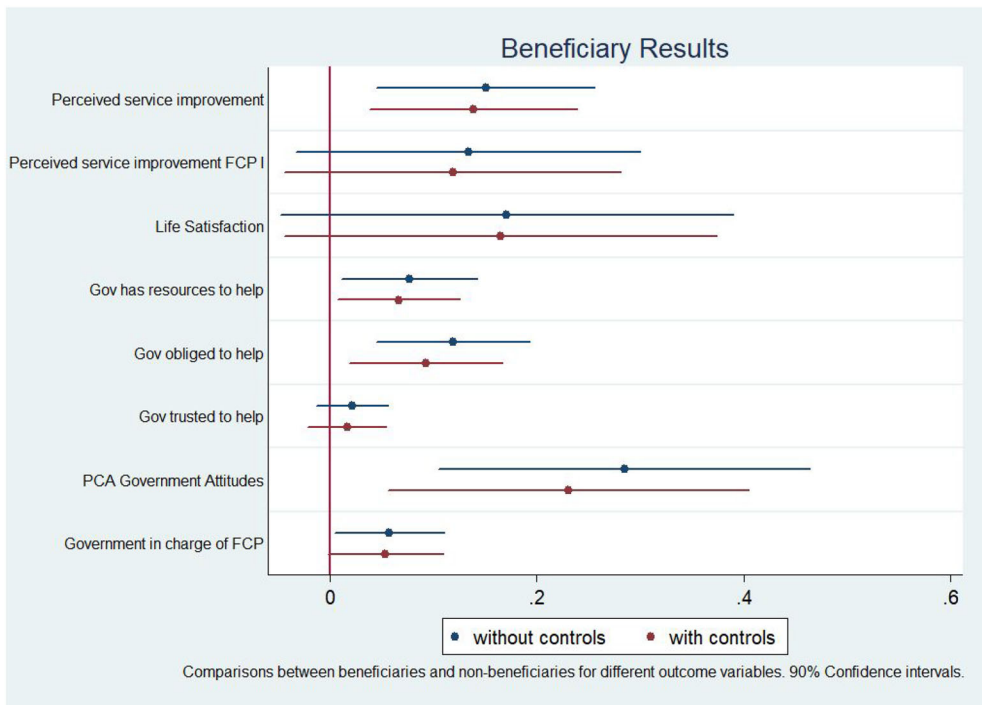


FIGURE 4 Fonds pour la consolidation de la paix (FCP) beneficiary effect within villages [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1111/saj.12310)]

This similarity in the results clearly ends as we move to attitudes towards the state where the findings differ markedly from the findings of comparisons between FCP and control villages. Beneficiaries in FCP villages were more likely to believe that the state/government had the resources to help and was obliged to do so—compared with nonbeneficiaries within FCP villages. While this did not translate into trusting that the government would help them, we also find positive effects for the aggregate PCA-index. Interestingly, the divergence between our two methodological approaches is fairly consistent: Whereas we find mostly negative or insignificant effects on FCP villages in the aggregate, actual beneficiaries of FCP services were significantly more positive about the responsibilities and resources of the state. Thus, the heterogeneity of results may tell us more than the fact that FCP effects are less robust towards the end of the expected causal channel.

The observable patterns of divergence are generally in line with the idea that ‘attribution’ can condition project impacts. Downstream attitudinal effects may be more narrowly restricted to those segments of the target population that actually used the FCP services. This was the share of the target population who potentially learned through their use of the service about the role of the state in making this progress happen. We investigate this tentative interpretation in more detail in the following subsection.

7.3 | Attribution

In the mechanism we elaborated above, the attribution of improved well-being to the state/government was an important condition for its potential to affect attitudes towards the state. As described in the section on the FCP above, state officials were directly involved in selecting the projects, but it is unclear how much involvement there was in other parts and how much and consistently the state’s role was communicated to beneficiaries in the project villages.

To identify who citizens attributed the FCP to, we asked in both the household and chief questionnaires if the respondents they knew who was in charge of it. This latter question was asked after the respondent had been informed what exact project the FCP had built in their village, so that the question is not abstract but directly linked to the respective improvement. The results are striking. Only 15% of respondents and 23% of village chiefs attributed the FCP to the government; the majority did not know who was behind the project (see Table 6). This general lack of attribution of the FCP projects to the government may explain why attitudes towards the government had not improved in FCP villages relative to non-FCP villages in spite of clear and sustained improvements in services and well-being. This suggests that these improvements did not generate output legitimacy as the government was not perceived to be associated with them. If at all, it worsened perceptions as services were provided by other actors.

We further assess how attribution matters for attitudes towards the state by looking at within village comparisons. First, as shown in Figure 4, beneficiaries are more likely to associate the FCP with the government relative to nonbeneficiaries. Direct exposure to the programme thus makes citizens more likely to attribute the benefits in the intended way. Second, attribution to the government appears to improve attitudes towards the government. Table 7 compares the attitudes of those attributing the FCP to the government with those attributing it to other actors. Relative to those attributing to other actors,

TABLE 6 Beliefs of who is in charge of the FCP

Who in charge of FCP	HHs	Chiefs
Government	0.15	0.23
Other	0.16	0.34
Do not know	0.69	0.43

Abbreviation: FCP, Fonds pour la consolidation de la paix.

TABLE 7 FCP government attribution and attitudes towards the state

	1	2
Gov has resources to help		
Government in charge of FCP	0.104** (0.044)	0.097** (0.041)
Do not know who in charge of FCP	0.069 (0.069)	0.082 (0.064)
Gov obliged to help		
Government in charge of FCP	0.022 (0.088)	0.009 (0.074)
Do not know who in charge of FCP	-0.08 (0.063)	-0.046 (0.06)
Gov trusted to help		
Government in charge of FCP	0.054* (0.032)	0.064* (0.036)
Do not know who in charge of FCP	0.018 (0.036)	0.037 (0.038)
PCA government attitudes		
Government in charge of FCP	0.249** (0.118)	0.239** (0.101)
Do not know who in charge of FCP	0.018 (0.164)	0.109 (0.159)
<i>N</i>	1007	994
Controls	No	Yes

Note: Robust standard errors in parenthesis. Regression of different attitudes towards the state on FCP attribution. Only FCP villages. The omitted category is 'other'; *i.e.* attributing the FCP to an actor other than the government.

Abbreviations: FCP, Fonds pour la consolidation de la paix; PCA, principal component analysis.

***0.01.

**0.05.

*0.1.

attitudes are significantly more positive, especially in terms of beliefs about the availability of resources (state capacity) and trust.¹⁶

These additional results support the contention that attribution can shape the impact of aid projects. Our analyses suggest that 'correct' attribution of service improvements to the state increases beliefs in the government's capacity to help citizens and its willingness to do so. In turn, when—as it is the case for the FCP—too few beneficiaries attribute the improvements to the state, this can undermine output legitimacy as citizens view the state as uninvolved or disinterested in service delivery.

8 | CONCLUSION

How can international institutions help (re)build political institutions in states emerging out of conflict? One prominent claim is that they can strengthen the state's output legitimacy through the delivery of basic services and infrastructure. This claim operates on the assumption that citizens perceive improved basic service provision as evidence that the state cares for their needs. In turn, citizens acknowledge the state as a legitimate authority, obey rules and regulations and pay taxes to finance basic services in the future. Foreign-funded basic service delivery thereby aims to jumpstart a virtuous cycle of state–society relations. What appears to be a straightforward process depends on a number of mediators and moderators to work.

Drawing on different pieces of evidence in the existing literature, this article therefore started by proposing a model that makes explicit those mediators and moderators that underpin the notion that aid can improve people's perceptions of the state. Empirically, we have documented the effects of such a large-scale development intervention in the DRC. The German government funded the 'FCP, a EUR 70 million, multisectoral development programme intended to improve state–society relations.

The article has two main findings. First, we have shown that the FCP has improved socio-economic conditions such as access to health care, schooling and clean water in both the short *and* the medium terms as well as contributing to an overall improved sense of well-being. Considering the fragile political and security context as well as the logistical constraints that make infrastructure construction in the eastern DRC uniquely challenging; this is a noteworthy achievement. This finding is an important addition to extant studies on postconflict reconstruction, which have largely focused on short-term effects following project completion (*e.g.* Beath et al., 2015; Casey et al., 2013; Crost et al., 2016; Laudati et al., 2018; Lyall et al., 2019). It demonstrates that reconstruction projects can have meaningful medium-term impacts on socioeconomic living conditions and that it is not the lack of sustainability that prevents substantive positive effects on state–society relations.

Second, our analyses contribute to the literature on whether aid can have a positive impact on state–society relations in areas that are highly violence-affected and marked by deep-seated distrust in the state. Our results show that even if aid agencies are able to realise socioeconomic development gains, succeed in sustaining these gains in the medium-term, translate them into more general subjective well-being, their activities are unlikely to make a direct contribution to people's trust in state institutions. If these services are provided by nonstate actors and the state is *de facto* not involved in the delivery of the services, citizens are unlikely to change their view of the state simply because services are now available. This suggests that combining effective delivery *and* state building might remain an impossible task for aid agencies.

ACKNOWLEDGEMENT

We acknowledge funding by the KfW for this study. We received no consultancy fee from the KfW. Open Access funding enabled and organized by Projekt DEAL.

¹⁶Note, however, that we cannot rule out potential endogeneity in this correlation. Respondents attributing the FCP to the state may have had already more positive attitudes towards the state, independent of FCP projects.

CONFLICT OF INTEREST

There is no conflict of interest associated to this study.

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How to cite this article: De Juan, A., Koos, C., Pellicer, M. & Wegner, E. (2022) Can reconstruction programmes improve political perceptions in conflict contexts? Evidence from eastern Democratic Republic of the Congo. *South African Journal of Economics*, 90(4), 427–455. Available from: <https://doi.org/10.1111/saje.12330>

APPENDIX A: DESCRIPTIVE STATISTICS AND CODING

Table A.1 lists individual and village control variables. In the following, we explain the coding of those variables that are not straightforward. The variable ‘Feels safe’ is an average of variables asking whether the respondent feels safe going to the market, in the fields, and sleeping. Each of these three variables is a variable with possible answers—not at all safe, not safe, safe, very safe—which we make numerical by mapping these options to -2 , -1 , 1 , 2 . The variable ‘Exposed to violence’ is the average of four variables asking whether the respondent or a member of the family has been exposed to a kidnapping, violent death, massacre or rape.

TABLE A1 Descriptive statistics

	Mean	St dev	Min	Max	Max	Mean FCP	Mean non-FCP
Controls HHs							
Household size	7.04	3.05	0.00	27.00	6.96	7.21	1556
Household has child in school	0.79	0.41	0.00	1.00	0.78	0.79	1554
Born in the village	0.49	0.50	0.00	1.00	0.47	0.54	1556
Female	0.54	0.50	0.00	1.00	0.57	0.49	1556
Age	41.25	14.69	0.00	100.00	41.71	40.28	1540
Read and write	0.57	0.49	0.00	1.00	0.57	0.59	1556
More than primary	0.43	0.50	0.00	1.00	0.42	0.46	1556
More than secondary	0.11	0.31	0.00	1.00	0.10	0.13	1556
Core business agriculture	0.71	0.46	0.00	1.00	0.71	0.70	1556
Feels safe	0.31	1.10	-2.00	2.00	0.29	0.35	1553
Exposed to violence	0.20	0.26	0.00	1.00	0.18	0.23	1553
Ethnicity Nande	0.31	0.46	0.00	1.00	0.33	0.26	96
Ethnicity Shi	0.37	0.48	0.00	1.00	0.39	0.32	96
Ethnicity Fuliro	0.16	0.36	0.00	1.00	0.17	0.14	96
Ethnicity Lega	0.05	0.22	0.00	1.00	0.03	0.09	96
Controls village							
Village log population pre-FCP	7.44	2.13	0.00	12.09	7.26	7.79	64
Village log distance to relevant places	3.12	0.95	0.00	6.07	3.07	3.21	96
Village attacked pre-FCP	0.55	0.50	0.00	1.00	0.49	0.65	95
Village several languages	0.64	0.48	0.00	1.00	0.58	0.76	1556
Village inflow tercile	0.97	0.83	0.00	2.00	0.85	1.22	1511
Village has defence groups	0.13	0.34	0.00	1.00	0.17	0.06	1556
Village presence armed groups	0.49	0.50	0.00	1.00	0.47	0.53	1556
Outcomes							
Perceived service improvement Life	0.28	0.54	-1.00	1.00	0.31	0.20	1299
Satisfaction	-0.79	1.10	-2.00	2.00	-0.70	-0.99	1552
Gov has resources to help	0.33	0.47	0.00	1.00	0.29	0.42	1556
Gov obliged to help	0.54	0.50	0.00	1.00	0.50	0.64	1556
Gov trusted to help	0.10	0.30	0.00	1.00	0.08	0.14	1556
PCA government attitudes	0.00	1.27	-1.28	2.87	-0.15	0.30	1556

Abbreviations: FCP, Fonds pour la consolidation de la paix; PCA, principal component analysis.

Regarding village variables, variables named pre-FCP correspond to the years 2007 and 2008. The variable "Village log distance to relevant places" is the log of the average distance of the village to the nearest police station and territorial seat. Inflow tercile is the tercile of the distribution of a variable that captures population inflows to the village. This variable is the average of the number of immigrants, refugees, and internally displaced people in the village.

APPENDIX B: TABLES

TABLE B 1 Indicators measuring mediators and moderators of mechanism

Key mediators	Indicators
Services short TERM	Perceived service improvements
Services medium term	Perceived service improvements
FCP1 Subjective progress	Life satisfaction
Attitudes towards the state	Gov. resources to help
	Gov. obliges to help
	Gov. trusted to help
Key moderators/conditions	Indicators
Quality	Not measured
Sustainability	Not measured
Magnitude	Improved village living conditions
Attribution	Who in charge of FCP

TABLE B 2 Difference of basic characteristics between FCP and non-FCP villages controlling only for project type and province dummies

	1
Individual	
Household size	-0.236 (0.21)
Household has child in school	-0.005 (0.025)
Born in the village	-0.072 (0.047)
Female	0.084** (0.035)
Age	1.464 (0.984)
Read and write	-0.032 (0.035)
More than primary	-0.04 (0.037)
More than secondary	-0.034* (0.019)
Core business agriculture	0.006 (0.04)
Ethnicity Nande	0.026 (0.018)
Ethnicity Shi	0.119 (0.084)
Ethnicity Fuliro	0.009 (0.06)
Ethnicity Lega	-0.049 (0.043)
Feels safe	-0.018 (0.124)
Exposed to violence	-0.055** (0.026)
Village predetermined	
Village log population pre-FCP	-0.653 (0.551)
Village log distance to relevant places	-0.216 (0.19)
Village attacked pre-FCP	-0.126 (0.099)

(Continues)

TABLE B2 (Continued)

	1
Village nonpredetermined	
Village several languages	-0.179* (0.097)
Village inflow tercile	-0.383** (0.175)
Village has defence groups	0.099 (0.067)
Village presence armed groups	-0.081 (0.105)

Note: Robust standard errors in parenthesis. Nonpredetermined means that the variable might have been determined during or after the project implementation.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

***0.01.

**0.05.

*0.1.

TABLE B3 FCP village treatment effect

	1	2
Perceived service improvement		
FCP village	0.154*** (0.057)	0.171** (0.075)
Perceived service improvement FCPI		
FCP village	0.115* (0.059)	0.17* (0.096)
Life Satisfaction		
FCP village	0.242*** (0.071)	0.215* (0.111)
Gov has resources to help		
FCP village	-0.121*** (0.045)	-0.022 (0.044)
Gov obliged to help		
FCP village	-0.138*** (0.048)	-0.074 (0.051)
Gov trusted to help		
FCP village	-0.059*** (0.022)	-0.041 (0.03)
PCA government attitudes		
FCP village	-0.427*** (0.129)	-0.187 (0.121)
<i>N</i>	1556	1031
Controls	No	Yes

Note: Robust standard errors in parenthesis.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

***0.01.

**0.05.

*0.1.

TABLE B4 FCP village treatment effect using as benchmark controls project type and province dummies

	1	2
Perceived service improvement		
FCP village	0.155*** (0.055)	0.194*** (0.063)
Perceived service improvement FCPI		
FCP village	0.112* (0.059)	0.191* (0.099)
Life Satisfaction		
FCP village	0.271*** (0.074)	0.226** (0.095)
Gov has resources to help		
FCP village	-0.127*** (0.046)	-0.014 (0.036)
Gov obliged to help		
FCP village	-0.15*** (0.051)	-0.048 (0.05)
Gov trusted to help		
FCP village	-0.062*** (0.022)	-0.039 (0.025)
PCA government attitudes		
FCP village	-0.452*** (0.134)	-0.141 (0.105)
<i>N</i>	1,556	1,031
Controls	No	Yes

Note: Robust standard errors in parenthesis.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

***0.01.

**0.05.

*0.1.

TABLE B5 Interaction of FCP village treatment and FCP phase using as benchmark controls project type and province dummies

	1	2
Perceived service improvement		
FCP village	0.135*** (0.05)	0.251*** (0.081)
FCP village X FCP2	0.01 (0.249)	-0.152 (0.154)
Life satisfaction		
FCP village	0.284*** (0.088)	0.257** (0.115)
FCP village X FCP2	-0.154 (0.195)	-0.083 (0.195)
Gov has resources to help		
FCP village	-0.077 (0.05)	-0.007 (0.047)
FCP village X FCP2	-0.169* (0.092)	-0.026 (0.075)
Gov obliged to help		
FCP village	-0.141** (0.057)	-0.063 (0.053)
FCP village X FCP2	0.03 (0.138)	0.128 (0.133)
Gov trusted to help		
FCP village	-0.055** (0.025)	-0.03 (0.029)
FCP village X FCP2	-0.006 (0.048)	-0.042 (0.069)

(Continues)

TABLE B 5 (Continued)

	1	2
PCA government attitudes		
FCP village	-0.364** (0.152)	-0.135 (0.127)
FCP village X FCP2	-0.192 (0.32)	0.059 (0.289)
<i>N</i>	1556	1031
Controls	No	Yes

Note: Robust standard errors in parenthesis.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

***0.01.

**0.05.

*0.1.

TABLE B 6 FCP beneficiary effect within villages

	1	2
Perceived service improvement		
Beneficiary	0.151** (0.064)	0.139** (0.061)
Perceived service improvement FCPI		
Beneficiary	0.134 (0.101)	0.119 (0.099)
Life satisfaction		
Beneficiary	0.171 (0.133)	0.165 (0.127)
Gov has resources to help		
Beneficiary	0.077* (0.04)	0.067* (0.036)
Gov obliged to help		
Beneficiary	0.119*** (0.045)	0.093** (0.045)
Gov trusted to help		
Beneficiary	0.022 (0.021)	0.017 (0.023)
PCA government attitudes		
Beneficiary	0.285*** (0.109)	0.231** (0.106)
Government in charge of FCP		
Beneficiary	0.058* (0.032)	0.054 (0.034)
<i>N</i>	1007	994
Controls	No	Yes

Note: Robust standard errors in parenthesis.

Abbreviation: FCP, Fonds pour la consolidation de la paix.

***0.01.

**0.05.

*0.1.

APPENDIX C: DISTANCE BETWEEN VILLAGES

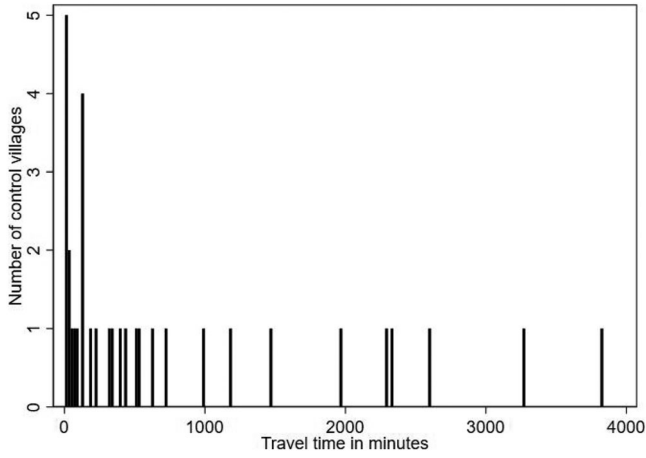


FIGURE C1 Travel time from control villages to next treatment village