Electoral Effects of Development Aid: Experimental Evidence from Sierra Leone

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June 12, 2018

1 PAP Timeline

This pre-analysis plan is filed after the treatment assignment and data collection, but before looking at the data

2 Overview

This study evaluates the electoral effects of a recent public health development intervention in Sierra Leone on 2018 election result. In early 2017, 300 villages in Kono Districts— Sierra Leones most electorally competitive district— were randomly selected to receive a One Health intervention. The project was financed by international donors, implemented by the government of Sierra Leone, and supported by local authorities. Importantly, villages were randomly chosen to receive the intervention and politicians played no role in directing which villages received the intervention.

There is strong evidence that voters reward politicians for receiving resources that are distributed through clientelistic networks [3], a common concern during development projects [7]. However, it is not well understood how voters react to receiving randomly assigned development aid that politicians had no say in directing, especially when voter attribution is uncertain. Voters may reward incumbent politicians even though they had no part in directing resources to eventual beneficiaries [5]. Likely development aid opens up channels for political credit claiming [6] [4].

We test if voters reward politicians for development aid by comparing incumbent vote share in villages that received the aid intervention to incumbent vote share in villages that did not receive the aid intervention. We use election day exit polls to obtain village-level electoral data.

Elections were held simultaneously for the following positions:

- President

- District Councilor
- District Council Chairman
- Member of Parliament (MP)

3 Treatment Description and Timeline

The One Health Intervention— the treatment— is a government of Sierra Leone pilot program meant to inform future animal health policy for the Ministry of Agriculture. The One Health Intervention has two major components: animal health services and animal disease surveillance. In each treatment village, an eligible person from the village is trained as a Community Animal Health Worker (CAHW).[1] The Community Animal Health Worker was selected by one of two methods, either through a village wide meeting or by the Paramount Chief.[2] After being selected the CAHW underwent an intensive 22-day training session in the District capital (Koidu). Training focused on animal husbandry best practices, disease surveillance (monitoring and reporting community diseases), and treatment of basic ailments including dehydration and worms. The training manual was specifically designed for Sierra Leone and disease surveillance modules were updated and improved after the Ebola outbreak.[3] Training was conducted by a team led by senior veterinarians and Kono District Livestock Officials. After training CAHWs returned to their villages and began their CAHW responsibilities. CAHWs received a certificate and ID badge signed by the Ministry of Agriculture. In the week after the completion of CAHW training, One Health field staff visited each CAHW in their village to lead a formal "introduction ceremony". At the ceremony, One Health field staff described the nature of the training and the responsibilities of the CAHW. This was done to enhance the credibility of CAHWs and provide clear information to village members about CAHW capabilities and responsibilities.

Animal Health Services

After graduating the training program CAHWs received a "starter kit" of medicine to treat basic illnesses and tools for community services (burdizzo for bloodless castration and hoof clippers). Additional medicines can be purchased at cost from the District Livestock Officer. The CAHW is entitled to charge a fee for his services to cover his work and recover his costs so that he can buy more medicine.

Disease Surveillance

CAHWs also provide disease surveillance. They are responsible for identifying, recording and reporting diseases that arise in the community. CAHWs are incentivized to provide accurate reports through quality-based pay or community monitoring. While no systematic data exists on animal disease (this study is the first attempt to systematically capture animal diseases at a community level), the devastation brought by preventable animal diseases is common knowledge. New Castle Disease frequently wipes out village poultry stocks and PPR (Goat

[1] *discuss eligibility criteria

[2] CAHW were nominate through both methods for every village, one of which was randomly selected.

[3] Training Manual available upon request

Plague) kills large numbers of goats.[4] A disease surveillance system that provides information about community disease in a timely manner to District Office gives the opportunity for District MAFFS to respond to curb the outbreak.

Given the importance of livestock for economic livelihoods, we believe it is fair to assume that animal health services and animal disease surveillance are valued public services.[5] The CAHW has the training, medicine, and tools to provide important services to animal owners.

4 Treatment Assignment

Our study population consists of communities that have a Community Health Worker within the seven most important animal agricultural chiefdoms in the district. We limit communities to those that have Community Health Workers because the One Health Intervention requires the interaction of human and animal health workers.[6] In addition, 11 communities that were part of a pilot study were also removed from sample. This leaves us with a population of 370 villages.

We randomly select 300 communities to take part in the One Health Intervention using a two-step randomization procedure. Due to frequent inaccuracies in administrative data, the existence of communities needs to be verified before communities are officially assigned to participate in the One Health intervention. For example, administrative records may contain communities that have since relocated or merged with a nearby village or contain multiple names for the same communities.

Therefore, the first step of the randomization procedure selects 325 of the 370 villages to make a village visit. Seven communities were found not to exist. This limited the overall population to 363 and the visited sample to 318.

The second step of the randomization process randomly selects villages to receive the One Health intervention, blocking on chiefdom. Specifically, each chiefdom is assigned a quota of treatment villages based on the number of the number of visited villages. We then randomly assign treatment within each chiefdom to achieve quotas. The table below presents the logic. There were 49 total villages in Fiama Chiefdom on our list, of which 43 villages were visited after dropping non-existent villages. Target is the assigned quota, equal to the initial size times 300/363. For Fiama, (300/363)*49 rounds to 40.

[4]Per numerous conversations with MAFFS personal at national and district level, leading veterinarians, FAO staff, Paramount Chiefs, community members etc.

[5]According to a recent FAO livestock survey, XXX percent of households in Kono District have livestock. This number is likely higher in our study communities as we focus on the chiefdom where livestock is most important

[6]One community is removed from sample because it has two CHWs.

Chiefdom	Size	Visit	Target
Fiama	49	43	40
Gbane Kandor	24	24	23
Gbense	43	37	36
Lei	77	63	63
Mafindor	41	35	34
Soa	110	102	91
Toli	16	14	13
Total	363	318	300

5 Hypotheses

The starting point for our approach to vote choice in Sierra Leone is that voters want public services, or in our case development projects. While there are many channels through which vote choice might influence public service delivery, we focus on voters perception of politician competence. Competent politicians increase the chance that voters get development projects because these politicians supply more development projects in general. In other words, competent politicians raise the probability that voters get a piece of the pie (development project) because competent politicians increase the number of slices in the pie.

The One Health Intervention introduces a positive shock to voters perception of politician competence. In expectation, treated voters received more development projects than control voters, and therefore treated voters are more likely to think their incumbent politician is more competent.

Hypothesis 1: Voters in villages that received the One Health intervention are more likely to vote for the incumbent candidate.

The One Health Intervention boosts voters evaluation of politician competence to the extent that voters credit politicians with being involved in delivering the intervention. As is often the case in development projects, many actors were involved in the delivery of the One Health Intervention and voters may credit the development project to any of these actors. Therefore, voters are more likely to vote for the incumbent party when the voter attributes the One Health intervention to the incumbent politician.

Hypothesis 2: Voters are more likely to vote for incumbent politicians when they attribute the development project to incumbent government

But why do voters attribute the delivery of development projects to politicians? We consider two possibilities. First, politicians may actively attempt to claim credit for the development project.

Hypothesis 3: Voters are more likely to attribute development projects to incumbent politicians, and therefore vote for incumbent politicians, when these politicians actively promote the project as a personal achievement.

Second, voters may attribute development projects to incumbent politicians when these politicians are supported by local Traditional Chiefs. Traditional Chiefs are heavily involved in the delivery of public services in Sierra Leone and across Africa [1] [2]. When chiefs dont support incumbent politicians, chiefs may make competing claims on the development project that diminishes the voters attribution of the project to incumbent politicians.

Hypothesis 4: Voters are more likely to attribute development projects to incumbent politicians, and therefore vote for incumbent politicians, when Traditional Chiefs support incumbent politicians.

6 Data

A. Exit Poll

The exit poll survey provides information on 1) voting behavior for the four contested positions, 2) respondents perception of credit claiming behavior of politicians up for election, 3) social position of voter in community, 4) demographics and village of residence.[7]

The seven chiefdoms where the One Health intervention was implemented contains 86 Voter Registration Centers (VRC)s, where citizens voted on election day. We randomly selected 71 VRCs to conduct exit poll surveys. Individuals from multiple villages vote at each VRC. Each VRCs can contain treatment villages that received the One Health Intervention, control villages that did not receive the intervention, and out of sample villages that were not eligible for the intervention.

As is described in more detail below, election day difficulties hampered data collection in several VRCs, primarily in Gbense Chiefdom around the district capital Koidu. This caused our team to cease exit polling before the close of polls (5 pm) in 45 of the 71 polling stations. As we have not looked at the data, we do not know the exact breakdown of surveys per VRC, but we do know that some VRC will have substantially less surveys. We outline out strategy for dealing with this in the analysis section.

Exit poll surveys were conducted by enumerators recruited through the International Growth Centre (IGC). All exit poll enumerators were also officially registered and accredited by the National Election Commission as Election Observers. The job of an Election Observer is to guarantee a free and fair election. The Knowledge for Community Empowerment Organization (KoCEPO), a Kono based no-partisan civil society organization, coordinated election observers around Kono District.

Enumerators were instructed to arrive at their assigned voting station at 6am. Voting stations officially opened at 7am. Enumerators introduced themselves to voting station staff, as well as any stationed police as soon as they arrived. In explaining their mission, enumerators informed voting station staff that:

- They are an Election Observer, working with KoCEPO.

[7] See Appendix: Exit Poll Enumerator Manual for additional information

- They will be conducting a research survey, under the direction of the IGC. This involves talking to people outside of the Voter Stations throughout the day.
- They are strictly non-partisan. Are not associated with or advocating for any political party.
- All of the proper local authorities (including the Paramount Chief) have been informed.

After voting themselves enumerators took up position 50 meters from the Voter Station on the path that people will use to get to the polls. Enumerators were instructed to interview every fourth person leaving the polling station, or if more than four people had passed when they were conducting the survey, the next person leaving the station. If the voting station contained multiple voting locations, the enumerator was instructed to alternation locations every hour.

In general, Election Observers in Kono described the Election as free and fair.[8] For example, 99.5 % of interviewed voters had their fingers inked and 98.4 % of observed voting stations allowed observers to inspect ballot boxes during the set-up process. However, serious infractions were observed. At one Voting Station a candidate for Member of Parliament (MP) was observed giving out money in exchange for votes. Other election abnormalities, such as incidents of open campaigning and violence, were low but noteworthy. Incidents of violence were generally not severe but worrying situations did arise, particularly in the Koidu area. One such incident involved a physical altercation between politicians at a Koidu VRC that sent the VRC into brief unrest. A voter at another VRC arrived with the stated intent of creating conflict.

B. Paramount Chief Survey

Short surveys were administered to all seven Paramount chiefs of the study Chiefdoms by experienced enumerators. Enumerators arranged in advance a time to meet with each Paramount Chief to conduct the survey. Enumerators informed Paramount Chiefs that the member of the research team were interested in conducting more research in Kono District and therefore wanted the Paramount Chiefs opinions on various development issues in their chiefdoms.[9]

The survey asked for the Paramount Chiefs opinion on the following topics: education, disputes, safety, and government. This study uses the Paramount Chiefs responses to question in the section on government. Because Paramount Chief are not allowed to explicitly participate in national politics, these questions had to be handled with care.

The following table presents the text that enumerators read before asking political questions and the text of questions to elicit preferences for each office.

[8] See Sierra Leone Election Observation Report: Kono District, produced by IGC and Wageningen University

[9] The research team is well known well to all seven paramount chiefs, having met the chiefs numerous times, together and alone, over the past two years.

7 Analysis

To test the **Hypothesis 1** we estimate:

$$Y_c = \beta_0 + \beta_1 OH_c + \epsilon_c \tag{1}$$

where Y_c is the voting percentage for the incumbent in community c; OH_c is a dummy, 1 if the community received the One Health Intervention and 0 if the community did not receive the intervention; ϵ_c is the usual idiosyncratic error term. The parameter of interest is β_1. Hypothesis 1 predicts that $\beta_1 > 0$.

To test **hypothesis 2** we add an interaction term to equation 1 and estimate:

$$Y_c = \beta_0 + \beta_1 OH_c + \beta_2 (OH_c * Attribution) + \epsilon_c \tag{2}$$

where β_2 is the interaction between the voter recieving the One Health intervention and voter attributing the intervention to the incumbent politician.[10] Hypothesis 2 predicts that $\beta_2 > 0$.

Hypotheses 3-4 make predictions about what drives voter attribution. To test these hypotheses we model voter attribution:

$$Attribution_v = \beta_0 + \beta_1 Claim_v + \beta_2 ChiefSupport_v + \epsilon_c \tag{3}$$

where $Attribution_v$ is a dummy that takes the value of 1 if voter v attributes the intervention to the incumbent politician; $Claim_v$ is a dummy that takes the value of 1 if voter v reports the incumbent politician claimed the One Health intervention as an achievement; $ChiefSupport_v$ is a dummy that takes the value of 1 if the Paramount Chief in vote $v's$ chiefdom supports the incumbent politician.

[10] note that there is no primary effect of Attribution because there can be no effect of attribution amongst control villages

References

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