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# LEADER'S ATTITUDES TOWARDS CORRUPTION

# - EMPIRICAL EVIDENCE FROM NORTHERN MOZAMBIQUE

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#### Abstract

We pretend to derive the effect of natural resources on leader's attitudes and behaviors in deteriorated African economies. Through self-reported data from Northern Mozambique on leaders and households, we examine the effects on attitudes of corruption, appropriation of resources, trust and violence from the leader. We find that a resource discovery has a positive influence on leader's proneness to corruption – paying bribes and ignoring the law –, especially, for the ones found during the leader's tenure. The existence of resources also affects positively the leader's idea of appropriation of rents, the trust in the community and the generosity in providing something to its community.

Keywords: Political Economy, Natural Resource Curse, Decentralization, Mozambique

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#### **1** Introduction

On the field of development economics, natural resources appear as one of the most frequent topics in the whole literature, mainly associated to the "natural resource curse" and the problems it brings to developing countries. As such, resource abundance has numerous implications in the economic and political system. Economically, Dutch disease thesis<sup>3</sup> and slow growth are the main problems. Concerning the political system, the complications are mainly related to violence, conflict, democracy and corruption. However, developing countries are utterly dependent on these resources.

In this paper, we want to contribute to the analysis of natural resource abundance in developing countries at a village-level. As a consequence of the scarce literature existent at this level, being the majority either connected to central power, political psychology or referent to the rural China and Indonesia, our goal is to provide a local focus at the Mozambique's enumeration areas<sup>4</sup> and their leaders' behaviors and attitudes, while assessing conceivable solutions from Asian natural resource management programs and implemented projects.

Our work is based on the investigation of the effects of natural resources, their abundance and shocks on the village leader's behavior and attitudes towards corruption, especially. The effects on other behaviors as appropriation of resources, trust in the community and violence are also important to our study. Regarding resource shocks, we examine the difference between the effects on leaders already ruling the village when the last resource was found and leaders who just came into power after the latest resource was found. In the same way, we compare these effects with the ones on leaders who happened to be in villages with no resources found, in order to overcome the identification problem of not being able to randomize natural resources.

<sup>&</sup>lt;sup>3</sup> Badeed, 2017 explains it as an increase of domestic income and the demand for good through a natural resource boom which will generate inflation and appreciation of the real exchange rate

<sup>&</sup>lt;sup>4</sup> Mostly referred in the paper as villages, as a matter of simplification. In Mozambique, locals do not refer to enumeration areas, only villages

Firstly, it is important to understand how the political context of Mozambique is and how it could affect the village's functioning. This Southeast African country is governed by FRELIMO since 1977, two years after independence was reached. The FRELIMO Party ruled as a one-party state until 1990, while nowadays there is a multi-party system with RENAMO as major opposition. These two parties have already been in civil war for 1977-1992 and are now having conversations to guarantee the peace in the country. By ruling the country in a system of top-down nomination, the President of the Republic designates each Province Governor who suggests a name for each District Administrator whom should be accepted by the Ministry of State Administrative Post. Finally, the Chief of the Locality is nominated by the Governor of the Province after the suggestion of the Administrator of the District. The same happens to the Chief of the Village who is elected (alike an election of only one candidate) by the villagers after a nomination from the Administrator<sup>5</sup>. Therefore, the Chief of the Village is the formal leader, the representation of the State at local level and the person who has the main responsibility over the access to natural resources in his village's territory.

We use data from several surveys conducted in the province of Cabo Delgado, Northern Mozambique. This province is abundant in natural resources which remain unexploited. Recently, there are reports of starting extractions of graphite, marble, gold, ruby, natural gas<sup>6</sup> in the districts of Ancuabe, Balama and Montepuez<sup>7</sup>, mainly. That is to say, Cabo Delgado has a lot of potential to be investigated, particularly, the relation between leaders, the civil society and their territory, in order to understand how natural resource abundance can influence its management. Also, it represents a notable example to other regions, not only in Mozambique

<sup>&</sup>lt;sup>5</sup> This whole process of nomination is available in Decreto nº 11/2005, Boletim da República, I Série nº 23 de 10 de Junho, that approves the Regulation of the Law of Local Bodies of the State

<sup>&</sup>lt;sup>6</sup> Reserves that could place Mozambique as the 3<sup>rd</sup> largest exporter of liquified natural gas in the world. However, production of LNG is only expected to start in 2023. Possible to have more information here <u>https://phys.org/news/2017-05-mozambique-gas-boom-threat.html</u>

<sup>&</sup>lt;sup>7</sup> Available to the location by district here <u>http://www.cabodelgado.gov.mz/por/Ver-Meu-Distrito</u>

but also in Africa, that are similar to Cabo Delgado, being rich in natural resources and having a deteriorated economic system and poor institutions.

Through OLS regressions on leader's attitudes and behaviors, we find that the existence of resources influences positively the generosity of the leader towards the community – through a dictator game – and increase the opinion that the leader should receive natural resource rents. This is in line with Caselli and Cunningham (2009) who state that a resource windfall brings more challenges to a leader simultaneously improving his budget constraint, allowing him to provide more quality to the people. The existence of resources in villages whose leader was already in power when the latest resource was found also has a positive effect on leader's trust in the community, which according to Uslaner (1999) is positively related to more cooperative communities.

We also find that leaders already ruling the village when the latest resource was found tend to behave more corruptly, being more prone to ignore the law and pay bribes. Thus, a shock on natural resources has a positive impact on the proneness of the leader to act corruptly. This concurs with the empirical evidence provided by Vicente (2010).

The remainder of the paper is organized as follows. Section 2 presents a literature review on the "natural resource curse", decentralization and leader's behaviors. Section 3 provides the process of data collection. Section 4 describes the estimation strategy and a brief overview of our sample taking into account the estimation strategy and the division of villages by groups. Section 5 presents the main results. Section 6 summarizes the results and presents policies and projects from other countries and Section 7 concludes with the suggestion of some policy implications.

#### **2 Literature Review**

Natural resources have become an important topic of study in the development field in the last few years, as many economists have been focusing on the "natural resource curse", first presented by Sachs and Warner (1995) as a negative correlation between natural resource dependence and GDP growth.

Leite and Weidmann (1999) state corruption is already linked within the economic system due to the interaction between economic interests and policy instruments. Vicente (2010), in a natural experiment after the oil discovery in São Tomé and Príncipe, found a clear increase on perceived corruption on public services and allocations, supporting political and institutional resources curses.

Caselli and Cunningham (2009) resorting to the natural resource curse, conclude that a resource windfall would bring new resolutions to the leader. Originally, it increases the probability of facing challenges to his control. On the other hand, it improves the government budget constraint. Thus, it could mean more spending on public goods.

One of the solutions most mentioned in literature to solve this problematic is decentralization, mainly because it is believed that a natural resource centralized control system has a enormous impact on the sustainability of the resources and limits economic development (Schafer and Bell, 2002).

To compare with other examples of decentralization, I resort to Mu and Zhang (2014) who presented the Chinese system of allocation of natural resources as a responsibility of the village leaders – two individuals, one elected by popular votes and the other, the CCP secretary, appointed by the upper-level government, with one committee each. In fact, the majority of the decisions are taken in the villagers' committee meeting, led by the village leader, the one responsible to travel to county seats in order to get money for the village through lobbying.

Moreover, another paper focusing on Chinese village leaders was presented by Kennedy et al. (2004) that shows the difference between open and closed (unfair) elections. The foremost are more accountable to the villagers and its decisions are representative of their preferences.

Nevertheless, party nominated leaders' decisions are perceived as less fair and occasionally are used to personal gain by increasing their own assets (Bernstein and Lu, 2000).

Keuleers et al. (2009) also present some cases in Asian countries: Thailand and its topdown approach shaped by the indigenous rights; India and its locally tailored solution by allowing the villagers to benefit from their management in local forest. Nonetheless, the same paper warns that decentralization alongside with a weak central control will lead to vast corruption in the benefits given to the local authorities.

In particular, Mozambican government provides the local authorities of towns and villages with the power to rule their own territory. According to the law<sup>8</sup>, a joint responsibility between the central state and the local bodies should exist. In conclusion, Saide (2015) advocates that the work of community leaders is vital to keep the party-state, in the case of Mozambique, FRELIMO, close to the population, a way to keep the electorate faithful.

In the same way, Schafer and Bell (2002) offers a good presentation of the Mozambican case. The country is facing the problem of having a party-state for many years. Consequently, the move to a decentralized system has been difficult to accomplish in areas more sympathetic to the opposition.

As mentioned in the introduction, in Mozambique, the village leader has relevant power to rule the access to the natural resources within its territory, being able to ask for a value, denominated, the "village tax" as a counterpart for the exploration of the land.

Therefore, this local body has an advantage over the ones who show interest in extracting some resource. That is to say, the leader will assume a bargaining position along the other part who has the desire to use the territory. On the contrary, the firm who wants to set production will also assume a bargaining position along the government body because it possesses the required capital to perform the exploration of the resources. In the future, this

<sup>&</sup>lt;sup>8</sup> Lei 3/94 de 13 de Setembro and Lei 2/97 de 18 de Fevereiro from the Republic of Mozambique

leading position will remain due to the risk of exposure – it is difficult and expensive to replace the exploring firm (Tarzi, 1991).

Furthermore, the collection of resource rents is not only a desire of the leader to keep extracting resources, which eventually lead to an inefficient point because the leader fails to discount the future too much (Robinson et al., 2006), but it is also frequently correlated to conflict and corruption, weakening the political system and its institutions (Iimi, 2007).

Lastly, regarding the category of trust, Uslaner (1999) stated that higher levels of social trust are positively correlated to more cooperative communities. The performance of the community is influenced by governmental accountability (Knack, 2002).

Due to the scarce literature at the village leader-level, some important questions about the decentralization and the role of the village leader are still unanswered.

#### 3 Data

The data used to support this study was collected from from endline village's chief<sup>9</sup> surveys conducted by field teams<sup>10</sup>, recruited and trained by NOVAFRICA<sup>11</sup> for a main research project<sup>12</sup>, in 207 enumeration areas of the province of Cabo Delgado. The baseline surveys run between August and September 2016 and the endline took place in the period from 4 August to 10 November 2017.

#### 3.1 Sampling

The data collection process has already been established in the baseline with a random selection of 207 communities from 16 of the 17 districts of Cabo Delgado - Ibo district was dropped because it is composed by several islands. As Ruzzante (2017)<sup>13</sup> explained,

<sup>&</sup>lt;sup>9</sup> Also mentioned in the paper as "leader", as a matter of simplification due to local insights

 $<sup>^{10}</sup>$  Field teams composed by 5 interviewers and 1 supervisor. The first ones conducted the household's survey (2 for each one, per village) while the supervisor was responsible for the community's and the leader's survey. Surveys were submitted in Portuguese in an electronic device – a tablet –, though the interviewers conducted them mainly in the local dialect (Macua, Maconde and Mwani).

<sup>&</sup>lt;sup>11</sup> Knowledge center created by the Nova School of Business and Economics of the Universidade Nova de Lisboa <sup>12</sup> For more information visit: <u>http://novafrica.org/research/on-the-mechanics-of-the-natural-resource-curse-information-and-local-elite-behavior-in-mozambique/</u>

<sup>&</sup>lt;sup>13</sup> Work Project with data extracted from the same main research project. Similar explanation of the data collection

communities were identified through areas of polling registered in 2009 and 2014 Mozambique general elections and then, stratified into three groups: urban, semi-urban and rural.

From the baseline to the endline, one community was excluded. Regarding the leaders' survey – conducted by the supervisor of the field team –, we decided to keep the leaders who have been replaced in the meanwhile period given they were the ones also interviewed in the baseline and we, thus, consider their opinion more important than recently elected ones. However, 3 leaders were dropped from the analysis – either they have died or were replaced and abandoned the village. All in all, we conducted the analysis of this study with 203 leaders from the same number of communities.

To complete our analysis, two other surveys were used: household and community. The first one was conducted to 10 individuals, representing each one its household. The interviewed should be the household head, be 18 years old or more and should be available to be interviewed one year later. The field teams started at the polling station (usually the center of the village or some infrastructure, a primary school, a meeting room or the village chief's house) and headed in 5 different directions, in an interval of distance already defined for the voting population of each village. This survey included a wide variety of demographic, socioeconomic and social capital questions, finishing with economic games<sup>14</sup> played by the 10 individuals and the leader together. The community survey was conducted with 5 people from the village chosen by the leader, usually influent people and those with a position in the village management. This survey included questions related to resources, public infrastructures and services.

#### **3.2 Survey Design**

The leader's survey is composed of some variables to measure demand for political accountability, perception of corruption, rent-seeking behavior, the role of the villagers in the village sphere and social trust.

<sup>&</sup>lt;sup>14</sup> Game theory experiments

Some of the questions have two possible answers – declaration A and declaration B with values 1 and 2 – to understand how much the chief are prone to be corrupt. Regarding the questions used in the estimation strategy, the answers take value 2 when: it is better to ignore the law to have a quicker solution; sometimes violence is necessary to defend a cause in Mozambican politics and the best way to overcome difficulties is paying bribes.

On the other hand, the variables for trust, mainly the ones that respect relations with other people, are asked with a scale from 0 to 3 that interviewers referred to by means of language qualifiers (e.g., "Nothing", "Trust a little", "Trust", "Trust a lot"). However, some trust questions – frequency of lending money and frequency of leaving a good unattended in public – have 5 levels of answer. In this case, the interviewer referred to the scale of 0-4 as "Never", "Rarely", "Sometimes a year", "Every month", "Every week".

The remainder set of questions were asked in a two-stage process to get a more accurate answer: first, the basic scale of "disagree", "agree" and "neither disagree nor agree" was presented with numeric answers from 1-3, respectively. If the interviewee had chosen one of the two first options, the interviewer asked about the intensity of its answer to get a final scale from 1-5 (respecting the order of "strongly disagree", "partly disagree", "neither agree nor disagree", "partly agree" and "strongly agree").

Finally, the dependent variables related to game theory were numerical. Most answers vary from 0-10, noting that the one we use goes from 0 to 300 measuring the value the leader is willing to allocate to an individual from the community.

#### 4. Identification strategy

The goal of this section is to describe how the estimation strategy in this study is helping find reliable results to explain the leader's attitudes. To start, a multiple OLS regression was used.

(1) 
$$y_i = \alpha_0 + \alpha_1 Res_i + \alpha_2 Vill'_i + \alpha_3 L'_i + \alpha_4 Dist'_i + u_i,$$

9

where  $y_i$  is the outcome of interest, a vector of variables of trust, appropriation of resources, attitudes of violence and perception of corruption, *i* is the identifier of each enumeration area/village, *Res<sub>i</sub>* is a variable of total number of resources<sup>15</sup> in the enumeration area, provided by the community survey, *Vill'<sub>i</sub>* is a vector of enumeration area characteristics<sup>16</sup>, *L'<sub>i</sub>* is a vector of leader's characteristics<sup>17</sup>, *Dist'<sub>i</sub>* is a vector comprehending the 16 districts dummies, *u<sub>i</sub>* is the error term.

The variables used as dependent are already mentioned above. The ones with two declarations choice are related to the perception of corruption and attitudes of violence. In terms of trust, we built an index of proportions with trust variables on family and neighbors and frequency variables equally aforementioned. Finally, for the appropriation of resources, we used a variable from the two-stage process of agreement that takes the maximum value if the leader thinks he deserves a part of the rents of natural resources and the numeric variable from the game theory experiment. In this first regression, the main outcome of interest will be  $\alpha_1$  to assess if the existence of natural resources has some influence in the leader's attitudes.

Later, more variables are added to improve the analysis. As mentioned before, we thought that the behavior of the leader could be influenced by resource shocks so, in the next regression (2) we added a dummy  $(Dur_i)$  for villages where the leader was in power when the latest resource was found and a dummy  $(Bef_i)$  for villages when the latest resource found was before this leader came into power. The coefficients of interest will be  $\alpha_1, \alpha_2$  and  $\alpha_3$ . In regression (3), we dropped these two dummies and added an interaction variable  $(Dur_Value_i)$ , that multiplies the number of resources by the dummy  $Dur_i$ , to realize if the number of resources in this type of villages has a different impact on the leader's behavior. The coefficients

<sup>&</sup>lt;sup>15</sup> Excluding river and forest for the number of resources, because we want resources that were found and not the ones that have always been there

<sup>&</sup>lt;sup>16</sup> Variables related to the development of the enumeration area/village and its villagers and its division between stratified groups

<sup>&</sup>lt;sup>17</sup> Religion, ethnicity, number of assets, education, born in the village and how many years he has been in power

of interest will be  $\alpha_1$  and  $\alpha_2$ . In order to construct these variables, we had to divide our sample of enumeration areas into three different groups: (1) villages with no resources, (2) villages with resources with the latest one being found during the current leader's mandate and (3) villages where the latest resource found was before the current leader came into power.

(2) 
$$y_i = \alpha_0 + \alpha_1 Res_i + \alpha_2 Dur_i + \alpha_3 Bef_i + \alpha_4 Vill'_i + \alpha_5 L'_i + \alpha_6 Dist'_i + u_i$$

(3) 
$$y_i = \alpha_0 + \alpha_1 Res_i + \alpha_2 Dur_Value_i + \alpha_3 Vill'_i + \alpha_4 L'_i + \alpha_5 Dist'_i + u_i.$$

All regressions use robust standard errors to correct for possible heteroskedasticity.

#### 4.1 Sampling Overview

To have a small glimpse on the characterization of our sample of leaders, a table was constructed<sup>18</sup> isolating leaders by group of villages. The main characteristics of the leaders interviewed are: male gender, married, Islamic religion and Macua ethnicity. On average, a leader is 55,5 years old, has 6,35 years of education, has a quantity of assets<sup>19</sup> of 5,77 assets and has been in power for 8,69 years. It is important to present that the percentage of leaders born in the village they are ruling is above 70% in groups (1) and (2) but it is nearly 50% in group (3) – where the latest resource being found was before the leader came into power. Also, the average number of years in power differs significantly from group (2) with a value of 10,7 years to 5,4 years in group (3).

#### 5. Results

This section shows the OLS estimates of the effect of resources and resources-related variables on leader's attitudes. For each table, results are organized into six columns: the first two are related to regression (1) from estimation strategy, columns 3-4 are related to regression (2) and the last two columns to regression (3). Village controls and district dummies are always included. However, leader controls are only included in even columns.

<sup>&</sup>lt;sup>18</sup> **Table A – Leaders' Characteristics**, available at Annex

<sup>&</sup>lt;sup>19</sup> List of personal assets determined on the survey – total value of 15 assets

Starting with corruption-related variables, Table B.1 displays the results on if it is best to ignore the law to get a faster solution. It suggests that a resource shock, in this case, discovering the last resource found during the leader's tenure, will affect positively and with a 10% significance-level the perception of the leader to ignore the law in order to get a quicker result. However, this finding is only significant when leader controls are excluded. Similarly, a resource found during leader's tenure have a significant (5% level) and positive impact on the perception of the leader that paying bribes is the best way to overcome problems<sup>20</sup>.

Regarding the topic of trust<sup>21</sup>, there is a significant impact (10% level), when leader controls are not added, of the interaction variable  $Dur_Value$  – product of the number of resources and the dummy variable Dur that takes the value of 1 if the leader was in power when the latest resource was found and 0, otherwise. This coefficient is positive, meaning natural resources have a bigger impact on the level of trust of leaders who were already in power when the last resource was discovered than leaders who came into power after the last resource was found.

With respect to the appropriation of resources we base our analysis in two different variables: dictator game amount<sup>22</sup> and agreement related to the collection of resource rents. The results show significant and positive impacts on the amount given to someone from the community regarding the number of resources existent in the village (5% level). When adding tenure variables, with leader controls excluded, the coefficient remains significant (this time, at a 10% level). Thus, natural resource abundance affects positively the generosity of the leader, through this experiment. In the same way, resource abundance affects positively the opinion

<sup>&</sup>lt;sup>20</sup> Available at **Table B.2** 

<sup>&</sup>lt;sup>21</sup> Results shown at Table C

 $<sup>^{22}</sup>$  300 MZN were given to the leader. He had the choice to give part of this value to someone, randomly selected, from the community. The chosen person does not know where this money came from. The values vary from 0 to 300. Being 0, keeping the whole value to himself and 300, giving the whole value to someone. Results shown at **Table D.1** 

that the leader should receive natural resource rents  $(10\% \text{ level})^{23}$ . Also, villages with the latest resource being found before the leader came into power have a higher coefficient on this variable (with a 5% level including village controls). A positive coefficient can also be seen regarding villages where the latest resource was found already during the leader's tenure. However, it is only significant at a 10% level when village controls are not included. These results suggest a similarity between the leaders that happened to be in villages that found resources – groups (2) and (3).

Finally, there is no significant impact of natural resources on leader's opinion towards violence.

# 6. Discussion

In this section, we will summarize the results shown above and advance some reasons on why variables behave this way. Together, we will link the results with possible solutions, given from the literature.

Primarily, the main goal was to derive the effect of natural resources existence on leader's attitudes. We have seen that resource abundance increases the generosity of the leader. Also, leaders think they should receive a part of the natural resources rents when there are more resources in their territory, which becomes clear if the leader will afterwards spend these rents on an improvement for the village.

Furthermore, the division of villages into distinct groups and consequently, the creation of tenure variables brought some interesting findings to our analysis. First, in villages with resources, no matter when they were found, the leader thinks he deserves a part of the natural resources rents. Then again, leaders ruling a village that found a resource during his tenure are more prone to be corrupt – being more willing to ignore the law and pay bribes to overcome difficulties.

<sup>&</sup>lt;sup>23</sup> Results shown at **Table D.2** 

Finally, analyzing the effect of the interaction variable, it is evident a great positive impact of the existence of resources upon leaders who were in power when the latest resource was found. Thus, the resource shock improves positively the relation with the community he is ruling.

Excluding the topic of appropriation of resources, these insights show a very similar pattern between leaders who happened to be in villages with resources and those who belong to villages with no resources found.

Overall, the outcomes advise taking a look at Keuleers (2009), a paper that presents some projects<sup>24</sup> with management of the natural resources administered by local authorities and others by citizens. The example of Madagascar's forest management given by McConnell (2005) is also captivating, the legislation allowed the government to sign agreement with the communities for the management of the forests. The ones that are standing out are those where the government has a partnership with development organizations.

#### 7. Conclusion

We reckon our results do not have a strong power due to some limitations. First, the sample is small, especially, the number of villages where the latest resource found was before leader's tenure. Nor are we able to randomize natural resources and there is no information on their importance, wealth nor quantity so we can derive whether resources' characteristics differently influence their effect on leader's attitudes. Moreover, from Table A we can notice that from group (3) of villages almost 50% of the leaders are not born in the village and the average years in power are 5,4 – numbers much smaller comparing with other groups – which restricts the analysis on the effects of natural resource abundance. Finally, all the data is self-

<sup>&</sup>lt;sup>24</sup> Thailand including the views of indigenous, India giving forest benefits to the ones who are managing it and UNDP projects in other Asian countries that involve citizens to perform the monitoring and evaluation of the delivery of public services

reported. Thus, we ought to be careful in the analysis, expressly because it was the community who reported the existence of resources in its territory.

Our analysis gives results in line with a decentralized policy of management of natural resources. From the results, we know that resources influence largely the perception of the leader. While it is commonly believed he should receive rents from the exploration, those earnings can later be transformed into public goods to the community due to the generosity that leaders show in the presence of resources, combined with the fact that a resource shock positively influences the leader's trust in its community.

Furthermore, it is important for central power to be aware of the problems that a natural resource shock can bring to the community through the increase on the tendency of the leader to act corruptly. The results state clearly that leaders contemplate that the best way to overcome a problem is paying bribes. So, according to Iimi (2007), developing countries should be linked to good regulation and anticorruption policies, in this case, policies capable of acting at a local level with the collaboration of village's leaders.

These findings can be relevant to other resource-rich regions with weak economic, political and institutional systems, alike Cabo Delgado. We suggest a more decentralized system for the management of natural resources with tight supervision over not only recent discoveries but also the presence of firms that are extracting the resources in order to improve the social and economic development of Africa.

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#### Legislation used

Decreto n.º 11/2005, Boletim da República, I Série n.º 23 de 10 de Junho (aprova o Regulamento da Lei dos Órgãos Locais do Estado from Republic of Mozambique

Lei 2/1997 de 18 de Fevereiro from the Republic of Mozambique

# Annex

# Table A - Leaders' characteristics

	Type 1	Type 2	Type 3	_
	Village w/o resources	Village where the last resource found was <b>during leader's tenure</b>	Village where the last resource found was <b>before leader's tenure</b>	Total
Male (%)	96,36%	100%	100%	98,03%
Average age	54,61	56,44	57,4	55,52
Married (%)	80,91%	83,33%	93,33%	82,76%
Average education (years)	6,39	6,5	5,2	6,35
Muslim (%)	51,82%	67,95%	53,33%	58,13%
Christian (%)	43,64%	32,05%	40%	38,92%
Macua (%)	59,64%	87,18%	46,67%	66,01%
Maconde (%)	33,64%	11,54%	40%	25,62%
Mwani (%)	5,45%	0%	13,33%	3,94%
Born in the village (%)	71,82%	79,49%	53,33%	73,40%
Rural	77,27%	88,46%	86,67%	82,27%
Semi-urban	11,82%	8,97%	13,33%	10,84%
Average assets	6,08	5,44	5,13	5,77
Average years on power	7,77	10,7	5,4	8,69
Total	110	78	15	203

	"Ignore the law for a quicker solution"						
	(1)	(2)	(3)	(4)	(5)	(6)	
Resources	0.0118	0.014	-0.0093	-0.0006	0.033	0.0363	
	(0.0088)	(0.0091)	(0.006)	(0.0073)	(0.0251)	(0.0237)	
During leader's tenure			0.0873*	0.0588			
-			(0.0457)	(0.0408)			
Before leader's tenure			0.119	0.1078			
			(0.0746)	(0.0772)			
During leader's							
tenure*Resources					-0.0231	-0.0241	
					(0.0235)	(0.022)	
Observations	198	191	198	191	198	191	
R-squared	0.1869	0.26	0.2120	0.2754	0.1893	0.2625	
Village controls	Yes	Yes	Yes	Yes	Yes	Yes	
Leader controls	No	Yes	No	Yes	No	Yes	
District controls	Yes	Yes	Yes	Yes	Yes	Yes	

Note: p<0.1. p<0.05. p<0.05. p<0.01. All regressions are OLS. Controls on leader characteristics are only included in even columns. Robust standard errors in parenthesis.

		"The best way to overcome problems is paying bribes"						
	(1)	(2)	(3)	(4)	(5)	(6)		
Resources	-0.0139	-0.0172	-0.0438	-0.0427	0.0298	0.0179		
	(0.0273)	(0.0284)	(0.0358)	(0.0356)	(0.0567)	(0.0573)		
During leader's tenure			0.1474**	0.1417**				
			(0.0696)	(0.0708)				
Before leader's tenure			0.0893	0.0588				
			(0.1004)	(0.1015)				
During leader's								
tenure*Resources					-0.0476	-0.0379		
					(0.0548)	(0.0569)		
Observations	199	192	199	192	199	192		
R-squared	0.2870	0.3435	0.3064	0.3595	0.2909	0.3458		
Village controls	Yes	Yes	Yes	Yes	Yes	Yes		
Leader controls	No	Yes	No	Yes	No	Yes		
District controls	Yes	Yes	Yes	Yes	Yes	Yes		

# **Table B.2 - Perception of corruption**

**Note:** \*p<0.1. \*\*p<0.05. \*\*\*p<0.01. All regressions are OLS. Controls on leader characteristics are only included in even columns. Robust standard errors in parenthesis.

	Trust index							
	(1)	(2)	(3)	(4)	(5)	(6)		
Resources	0.0129	0.0237	-0.0146	-0.0046	-0.1008	-0.0992		
	(0.0677)	(0.0696)	(0.0804)	(0.0299)	(0.0774)	(0.0947)		
During leader's tenure			0.1912	0.2314				
-			(0.1301)	(0.1407)				
Before leader's tenure			-0.1476	-0.2242				
			(0.1623)	(0.1714)				
During leader's								
tenure*Resources					0.1238*	0.1328		
					(0.0714)	(0.0912)		
Observations	201	194	201	194	201	194		
R-squared	0.3548	0.3903	0.3721	0.4173	0.3621	0.3984		
Village controls	Yes	Yes	Yes	Yes	Yes	Yes		
Leader controls	No	Yes	No	Yes	No	Yes		
District controls	Yes	Yes	Yes	Yes	Yes	Yes		

#### Table C – Trust in the community

**Note:** \*p<0.1. \*\*p<0.05. \*\*\*p<0.01. All regressions are OLS. Controls on leader characteristics are only included in even columns. Robust standard errors in parenthesis.

		Dictator game						
	(1)	(2)	(3)	(4)	(5)	(6)		
Resources	7.5739**	7.0395**	7.356*	6.3247	1.9121	5.1327		
	(3.3382)	(3.2723)	(4.2445)	(4.0695)	(6.4602)	(7.6851)		
During leader's tenure			0.61	0.8788				
-			(11.408)	(12.6822)				
Before leader's tenure			2.515	13.3077				
			(12.4708)	(14.0948)				
During leader's								
tenure*Resources					6.1681	2.0605		
					(6.1827)	(7.4833)		
Observations	201	194	201	194	201	194		
R-squared	0.2305	0.2863	0.2306	0.2897	0.2335	0.2866		
Village controls	Yes	Yes	Yes	Yes	Yes	Yes		
Leader controls	No	Yes	No	Yes	No	Yes		
District controls	Yes	Yes	Yes	Yes	Yes	Yes		

# Table D.1 – Appropriation of resources

Note: p<0.1. p<0.05. p<0.05. p<0.01. All regressions are OLS. Controls on leader characteristics are only included in even columns. Robust standard errors in parenthesis.

		Agreement on "Should the leader receive natural resource rents"						
	(1)	(2)	(3)	(4)	(5)	(6)		
Resources	0.1963*	0.1848*	0.0448	0.0858	0.2347	0.3738		
	(0.1094)	(0.1095)	(0.1286)	(0.1358)	(0.3035)	(0.3223)		
During leader's tenure			0.6214*	0.2948				
			(0.3514)	(0.3773)				
Before leader's tenure			0.9524*	1.1911**				
			(0.547)	(0.5466)				
During leader's								
tenure*Resources					-0.0419	-0.2042		
					(0.2915)	(0.3105)		
Observations	200	193	200	193	200	193		
R-squared	0.2483	0.3143	0.2693	0.3357	0.2484	0.3168		
Village controls	Yes	Yes	Yes	Yes	Yes	Yes		
Leader controls	No	Yes	No	Yes	No	Yes		
District controls	Yes	Yes	Yes	Yes	Yes	Yes		

### Table D.2 – Appropriation of resources

**Note:** \*p<0.1. \*\*p<0.05. \*\*\*p<0.01. All regressions are OLS. Controls on leader characteristics are only included in even columns. Robust standard errors in parenthesis.

	<b>Table E</b>	- Leader's	attitude	toward	violence
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	"Sometimes, violence is necessary to defend a cause"					
	(1)	(2)	(3)	(4)	(5)	(6)
Resources	-0.0015	-0.0033	-0.0077	-0.0019	0.0006	-0.0347
	(0.0155)	(0.0173)	(0.0153)	(0.0175)	(0.0299)	(0.0243)
During leader's tenure			0.0127	0.01		
			(0.0588)	(0.0749)		
Before leader's tenure			0.0468	-0.0607		
			(0.0899)	(0.0673)		
During leader's						
tenure*Resources					-0.0025	0.0357
					(0.0289)	(0.0264)
Observations	189	182	189	182	189	182
R-squared	0.1356	0.2449	0.1369	0.2476	0.1356	0.2473
Village controls	Yes	Yes	Yes	Yes	Yes	Yes
Leader controls	No	Yes	No	Yes	No	Yes
District controls	Yes	Yes	Yes	Yes	Yes	Yes

Note: p<0.1. p<0.05. p<0.05. p<0.01. All regressions are OLS. Controls on leader characteristics are only included in even columns. Robust standard errors in parenthesis.