The King and Aid: NGOs under Autocracy

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Abstract

Can NGOs provide efficient aid in weak democracies? Traditional arguments state that NGOs can improve governance not only through the provision of services like aid and education, but also as advocates of the poor. It is however expected that improvements in governance go against the personal interests of unlawful rulers. Tensions between autocrats and NGOs create a dilemma: if NGOs fight to improve governance they might not be allowed in the country and thus cannot help. However, if they decide not to meddle in politics, it is likely that the aid they disbursed is captured by corrupt authorities.

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1 Introduction

The theoretical literature on development aid usually analyses the recipient-donor relationship at the state level (see among others Azam and Laffont (2003); Svensson (2000); Boone (1996); Bourguignon and Platteau (2012)). End-line beneficiaries and civil society are generally staged as passive observers of the aid process. In reality, the donor community has increasingly relied on civil society to implement and warden foreign aid. The High Level Agreements on Aid Efficiency (Paris 2005, Accra 2008, Busan 2011) have explicitly acknowledged NGOs as “full partners” to the donor community. The agreements praise NGOs as vectors of improved governance and overseers of aid allocation. In practical terms, NGOs have been allowed to take part in negotiations at high level forums, as both proponents and monitors of the aid framework (Art. 22, Busan Declaration 2011). Accompanying this institutional recognition, donor countries have also substantially increased financial resources made available to NGOs, doubling contributions to this sector from 4.7 bil. USD in 2001 to 9 bil. in 2009 (gha12).

This increased reliance on the NGO sector is not without creating tensions with host governments. Local rulers might disapprove the presence of overseas organizations chaperoning resources they feel entitled to. High-handed leaders have have been expelling NGOs from their countries adducing sovereignty violations (examples in the last five years include Zimbabwe, Gabon, Bolivia, Venezuela, Nicaragua, Syria, Egypt and Russia). It follows that when NGOs’ operations are removed adducing political reasons, their absence also implies that they cannot alleviate poverty. Paradoxically, if NGOs’ intents to promote good governance are met with oppressive policies, it is ultimately end-line beneficiaries that might be harmed by intents of making aid efficient.

Should NGOs be more politically involved in fostering governance? We find that making this choice creates a dilemma for the NGO sector. We predict that activism and coordination will lead to reduce overall aid while lack of political involvement leads to an inefficient use of these resources. The mechanism trough which this result emerges is the following. Assume that advocacy campaigns are a public good, so that any NGO benefits from the campaigning activities of any other NGO. Then typically campaigning activities will be inefficiently under-supplied. The resulting free-riding problem can be solved if NGOs cooperate with each other. However, if the ruler anticipates that cooperation will affect his personal interests, he can cripple NGOs’ activities in the country, reducing the total amount of aid provided. It is possible to find a optimal level of coordination that maximizes the end-line beneficiaries welfare, buy it will be afflicted with free-riding inefficiencies and high embezzlement by the ruler. Consequently, non-cooperation leads to inefficient but abundant aid, and cooperation leads to efficient but limited aid.

In this paper we develop a game-theoretical model characterizing how this dilemma emerges. Particular emphasis is put into describing the NGOs’ fairly complex environment. In this model, NGOs interact with each other, react to restrictions established by the ruler and anticipate the people’s reaction to their actions. We also allow for heterogeneity of NGOs in income, in preferences towards activism, and examine their reactions when they play cooperatively or not. Our model is therefore innovative in that it constructs a relatively rich scenario characterizing the decentralized aid sector.
An important implication of our model is that foreign aid should not rely too much on the NGO sector because the dilemma indicated that aid will be inefficient irrespective to the level of politicization or coordination. Still, the model does not pledge in favor of returning to the official development aid (ODA) approach for ill-governed countries, given that reliance on NGOs was justified by official channels being too prone to misappropriation to begin with. The grim conclusion is that we cannot think of a way to make aid efficient in ill-governed countries. A conjectured solution to this dilemma is that the ruler should be deceived into underestimating coordination capacities. This might be one of the reasons of why reliable and transparent data on NGOs is so scant. Efforts to create confusion might follow the commendable task of tricking crooked leaders to the benefit of end-line beneficiaries.

The paper unfolds as follows. Section 2 sets the baseline model which is solved in section 3. Section 4 extends the model to specifications where NGOs are able to cooperate or have political preferences. Section 5 concludes.

2 The Model

In this section we set up and solve the benchmark model with a simple characterization of NGOs.

2.1 Set up of the benchmark Model

We set up a game-theoretical model where three types of players interact. These are: the people of a country (denoted $P$), taken as a collectivity; their autocratic ruler (denoted $D$) and a set of $n$ NGOs indexed by $i = \{1,...,n\}$.

Each NGO is endowed with a budget $I_i \in \mathbb{R}^+$ that it can allocate between providing services $S_i$ to the local population and campaigning activities $C_i$. For each NGO the non-distribution constraint is $I_i = C_i + S_i$. These inputs will affect the following payoff function of the people:

$$U^P = \beta(R)S - \frac{R}{\alpha}$$

Where, by a slight abuse of notation, $S = \Sigma_i S_i$ and $C = \Sigma_i C_i$ are the aggregate services and campaigning activities provided by the NGO sector. We define $\beta(R) \in [0,1]$ as the share of services that directly benefit the people and that are not embezzled by corrupt authorities. The share $\beta(R)$ is assumed increasing and concave in $R$, the protest efforts of the people which is their only choice variable. Protest efforts are costly for the people, but this cost can be reduced by the NGOs’ campaigning efforts, whose efficiency is measured by parameter $\alpha \in \mathbb{R}^+$. We assume that campaigning efforts, such as informing people about their rights, training opposition leaders or providing logistical support makes the people’s social activism easier. However, people might be unconvinced by the NGOs’ arguments or unwilling to oppose the ruler by either fear or devotion. This sensitivity to the NGOs’ campaigning is captured by $\alpha$, with low values denoting low responsiveness to campaigning activities.

It results that the ruler of the country will receive a payoff

$$U^D = (1 - \beta(R))S.$$
That is, he will be able to embezzle aid resources provided by the NGO sector that are not devoted to campaigning and that are not protected by the people through protest. To make things simple, assume that the ruler chooses how many NGOs he allows to operate in the country (he delivers $n$ permits). However, we suppose that $C_i$ and $S_i$ are not contractible, either because the NGO sector is too atomistic to verify what each individual NGO is doing or because it is hard to disentangle if poverty reduction projects are just services or are actually nursing future social leaders. The ruler is confronted to a trade-off between letting NGOs in with their appropriable resources and restrain their activities when they encourage too much civil activism.

Finally, we assume that the payoff function of each individual NGO is simply

$$U_i^{NGO} = \beta(R)S_i$$

Subject to the aforementioned no distribution constraint $I_i = C_i + S_i$ where $C_i$ and $S_i$ are the NGO’s choice variables. We assume thus that NGOs are realistic: they care how much of the project actually reaches end-line beneficiaries. They understand that their projects are protected from excessive embezzlement through the peoples’ assertions, but they need to provide a helping hand through campaigning to empower their beneficiaries. We will use this payoff function as benchmark through this section. Next sections will take into account more complex payoff functions, such as those integrating the other NGO’s projects or preferences regarding politics.

Once the players, payoffs and strategy spaces are defined, we describe now the timing of the game. It is sufficient to have a three-stage one-shot game to explicit the main results of our paper. In the first stage, the ruler knows the distribution of incomes of all NGOs willing to enter the country and allows $n$ of them in. In the second stage, all allowed NGOs decide simultaneously to allocate their budget between campaigning $C_i$ and service provision $S_i$. Finally, at the last stage, the people decide upon the intensity of protest $R$, depending on the services and campaigning activities perceived. Ultimately, the level of protest will determine the share of aid $\beta(R)$ that the people will receive, the corresponding payoff of the NGOs and the share that will be embezzled by the ruler. This mechanism is schematized in figure 1.
In next subsection we solve the benchmark model by backward induction.

2.2 Resolution by backward induction

Third Stage At the last stage, a number \( n \geq 1 \) NGOs have entered the country and have provided an amount \( S \) of services and \( C \) of campaigning. All that is left to do for the people is to choose the optimal level of protest. That is

\[
\begin{align*}
\text{Max} & \quad \beta(R)S - \frac{R}{C^\alpha} \\
\text{s.t} & \quad I = \Sigma I_i = \Sigma C_i + \Sigma S_i
\end{align*}
\]

where \( \beta_R > 0, \beta_{RR} > 0, \beta(0) \geq 0 \) and \( \beta(\hat{R}) = 1 \) where \( \hat{R} \) is an arbitrarily large amount of protest, such that \( \forall R > \hat{R} : \beta(R) = 1 \), which is a non-embezzlement situation. It results the following first-order condition:

\[
\beta_R S - \frac{1}{C^\alpha} = 0 \quad (4)
\]

By implicit function theorem we know how people will react to the campaigning efforts of the NGOs

\[
\frac{dR}{dC} = \frac{\beta^2_R}{\beta_{RR}} [I\alpha C^{\alpha-1} - (1 + \alpha)C^\alpha] \quad (5)
\]

This function gives us a inverse U-shaped relation between campaigning efforts and protest levels depicted in figure 2. Its maximum level is reached when the aggregate campaign efforts are such that

\[
C^{\text{max}} = \frac{\alpha}{1 + \alpha} I_i. \quad (6)
\]

Figure 1: Diagram of the model. Numbers in parenthesis denote the four successive sequences of the game.
It is assumed by construction that if NGOs choices result in corner solutions, then there are no protest efforts by the people. Indeed, if all NGO resources are spent in campaigning then there are no aid resources left to fight for, therefore there is no point in taking the streets. Likewise, with no campaigning efforts at all, protest is infinitely costly and therefore there will be no social activism. These assumptions are unrealistic, but they simplify interior solutions that are the most relevant cases.

Figure 2: Non-monotonic response to campaigning.

The role of parameter $\alpha$ is crucial to transpose the model to reality. Recall that we defined $\alpha$ as the sensitivity of the people to NGO’s campaigning. As $\alpha$ tends to zero, then the maximum level of revolt is achieved with low levels of campaigning but require that a large amount of money is spent on services provision. We can interpret $\alpha$ as characterizing different geographical regions. In this interpretation, low-$\alpha$ regions have a well organized civil society willing to defend aid resources as long as the amount is worth it. Additional efforts in campaigning represent for these sectors a waste of resources and would lead to demobilize social protest. On the contrary, high levels of $\alpha$ indicate that people will require a lot of campaigning activities by the NGOs to organize social protest. Even if the resources destined to service provision are small at the end, more service provision is wasteful because people are too disorganized to protect them.

In an interesting empirical study, Boulding and Gibson (2009) find that in rural Bolivia, NGOs are conductive of political change in small municipalities, where their campaigning activities are influential, while this effect disappears in larger municipalities. To fix ideas, we will suppose that low level of $\alpha$ indicate urban areas, well-organized and barely influenced by NGO activism, while a high $\alpha$ indicates rural and unorganized areas where NGOs have a high impact. Having determined the response to NGOs’ activities, let us turn now to the NGOs’ optimization problem in the second stage.

**Second Stage** Each individual NGO solves the following maximization problem:

$$\begin{align*}
\text{Max}_{C_i, S_i} & \quad \beta S_i \\
\text{s.t} & \quad I_i = C_i + S_i \\
& \quad \text{People’s FOC} \\
& \quad (n-1) \text{ NGOs’ FOCs}
\end{align*}$$
Which can be reduced to $\beta(R(\sum S_i, \sum (S_i - I_i))S_i$ taking variable $C_i$ out of the problem and yielding the following first-order condition:

$$\beta + \beta S_i S_i = 0$$ (7)

That is, the last unit of money spent on services gives a benefit $\beta$ (the non-stolen money) but costs a reduction $\beta S_i S_i$, the amount stolen by not using this unit in campaigning.

By the chain rule and the budget constraint we have $\beta S_i = \beta C S_i \iff -\beta S_i = \beta C$. The FOC can be rewritten

$$S_i = \frac{\beta}{\beta C} \perp i.$$

Any NGO will equalize the marginal benefits of advocacy (the public good) to the private marginal benefits of service provision. It results, assuming homogeneous payoff functions, that all NGOs will provide the same amount of services. As a result we get the following Nash equilibrium for all NGOs:

$$S^* = \sum S^*_i = \frac{n}{\beta C}.$$

(8)

Let us now define the elasticity of social gains relative to protest as

$$\frac{d\beta(R)}{d R} \frac{R}{\beta(R)} = \frac{1}{1 + \rho}$$

where $\rho$, taken as a constant parameter, can be interpreted as the resilience of the ruler to protest. We can then solve for the equilibrium amounts of campaigning and service provision:

$$C^* = \frac{\alpha}{1 + \alpha + n\rho} I$$

and

$$S^* = \frac{1 + n\rho}{1 + \alpha + n\rho} I.$$

(10)

All computations are shown in appendix A. This leads us to our first proposition:

**Proposition 1 (Aggregate Campaigning and Service provision Levels)**

For a given number of NGOs:

1. Campaigning efforts increase with campaigning efficiency ($\alpha$) and diminish the ruler’s resilience to protest ($\rho$).

2. Because $C^* < C^{max}$ an increase in campaigning levels leads to an increase in protest levels.

3. Given a fixed income for NGO activities, fractionalized aid (high $n$, $I$ constant) leads less campaigning and thus less protest.

\textsuperscript{1}For NGOs unable to pay $S^*_i$ because of budget limitations, we get a corner solution, that is $S^*_i = \min\{I, \beta/\beta C\}$. 

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Given the public good characteristic of the campaigning activities, the more fragmented is the aid sector, the more free-riding there is in advocacy. Therefore it is in the interest of the ruler to create divisions in the aid sector.

At the individual level, by denoting $I_i = \bar{I} / n$ the average income, we have

$$S_i^* = \frac{1 + n\rho}{1 + \alpha + n\rho} \bar{I}$$

and

$$C_i^* = I_i - \frac{1 + n\rho}{1 + \alpha + n\rho} \bar{I}$$

which yield similar comparative statics. We find however that richer NGOs would be willing to contribute more to the public good, campaigning activities. However, as the average income increases, so does the incentive to free-ride on other contributors.

At this stage, before looking at the ruler’s optimization problem, we can prove that the free-riding problem creates inefficiencies. Consider the FOC of the people (equation (4)). Plugging it back in the people’s payoff function and using the definition of $\rho$ we get

$$U_P = \beta S - \beta R S \left[1 - \frac{\beta R}{\beta}\right] = \beta S \frac{\rho}{1 + \rho}$$

(11)

The number of NGOs that maximizes this payoff function is given by (taking $\rho$ as a constant and thus irrelevant for the maximization problem):

$$\beta_n S + \beta S_n = 0$$

By the chain rule, the budget constraint and the Nash equilibrium provided in (8) we get

$$(\beta C_i S + \beta) S_n = 0$$

$$(1 - n) \beta S_n = 0$$

Given that $\beta \neq 0$ by definition of the optimum and $S_n \neq 0$ by equation (10), it follows that for a given aid budget $I$ the optimal number of NGOs is $n_{op} = 1$.

**Proposition 2 (Free-riding Inefficiency)** For a given aid budget $I$, all aid should be administered by a single NGO.

The optimal level of NGO campaigning should be, by equation (9)

$$C_{op} = \frac{\alpha}{1 + \alpha + \rho} I.$$ (12)

This is plotted with the reaction function of the people in figure 3, adding an indifference curve for a representative NGO.
We close the model by solving the ruler’s problem at the first-stage of the game.

**First Stage** To alleviate notation, we drop the asterisk from equilibrium $C^*$ and $S^*$. Likewise, and without loss of generality, we assume continuity of the number of NGOs, imposing the restriction that, if admitted, there should be at least one NGO (i.e. $n \in [1, \infty[$). The ruler’s program is

$$\max_n \left( (1 - \beta(n))S(n) \right) \quad s.t \quad \sum I_i = \sum C_i + \sum S_i,$$

The People’s FOC,

The NGOs’ FOC.

**Proposition 3 (Number of NGOs allowed by the Ruler)** Assuming that the ruler cannot observe each individual NGO’s income, but that he knows the average income (such that $I = n\bar{I}$, There exists a unique number of NGOs $n^*$ that maximizes the ruler’s payoff. Its comparative statics are the following:

$$\frac{dn^*}{d\alpha} < 0 ; \quad \frac{dn^*}{d\rho} > 0 ; \quad \frac{dn^*}{d\bar{I}} < 0. \quad (13)$$

1. This number decreases with the people’s sensitivity to campaigning $\alpha$.
2. This number increases with the Ruler’s resilience to protest $\rho$.
3. This number decreases with the average income $I$ in the NGO sector.

Although there is not an explicit expression for $n^*$, it is possible to prove it’s uniqueness and existence and to derive it’s comparative statics. This is done in appendix B.

The results provided in proposition 3 are quite intuitive. A leader would take advantage from factors like power on its own people ($\rho$) and the lack of influence from the NGO sector ($\alpha$) to be more tolerant of NGOs activities. The model anticipates that the ruler’s political strongholds (high $\rho$) and urban, unionized
regions (low $\alpha$) will be host more NGOs, which will be timid at the political level.

Empirical accounts find evidence of clustering and more presence of NGOs in or close to capital cities. von Freyberg (2011) finds that 47% of a set of surveyed NGOs are located in the Bolivian capital, La Paz, while less than 10% are located in Santa Cruz which is larger in population. While La Paz remains much more unionized and closer to political power, NGOs in Santa Cruz have more available funds, dismissing arguments of easier access to donations in the capital. In the same survey, less than 10% of NGOs working in Bolivia are found in the countryside. Similar patterns of NGOs proximity to the capital are found in Kenya by Brass (2012), although she does not find significant evidence of political patronage impacting NGO’s location, which she finds to be in contradiction with most of the literature on African political economy. Our model states that NGOs could be pushed into areas where population is not necessarily favorable to the ruler, but where NGO enjoy little influence. If civil society already has its own political safeguards, NGOs are forced to concentrate efforts in apolitical service provision, which is beneficial to the ruler.

The model, quite naively, supposes that the number of NGOs $n$ is the only strategy available to the ruler, because campaigning $C$ and service provision $S$ are non-contractible. However, some other observable variables might allow the ruler to expand his strategy set. He could infer information about the NGO’s income, its activities in other countries, or other signals correlated with political engagement. To the extent that ruler knows the distribution of these correlated signals, for instance income, he can set a threshold income such that any NGO poorer than it is allowed in the country. Choosing a threshold over a distribution is then equivalent to choosing a number of NGOs when the distribution is known. If this threshold monotonically changes with $n$, then is is easy to deduce the comparative statics from the distribution. For instance, suppose the ruler won’t allow any NGO richer than threshold $I(n^*)$, then

$$\frac{dI(n^*)}{d\alpha} = \frac{dI(n^*)}{dn^*} \frac{dn^*}{d\alpha} < 0$$

that is, the ruler will allow richer NGOs in zones where they are less influential.

### 3 Extensions of the Model

In the previous sections NGOs are assumed to take their decisions independently and selfishly. In reality NGOs often try to coordinate through contractual arrangements, such as treaties like the Istanbul Principles form 2011. Even when acting independently, we cannot rule out that NGOs have political motivations that lead them to put more emphasis on the overall national well-being than in the success of their own projects. As organizations, NGOs hold assemblies where their statuses and missions are deliberated and voted upon, thus the objectives of these institutions can be extremely wide and variable in time. We propose two objective functions from which is easy to achieve a social optimum while solving for the under-provision of campaigning activities in stage two of the previous game. From a normative point of view, we can imagine that donors
should select to donate to NGOs whose objectives are conductive to improve the end-line beneficiaries well-being.

3.1 Politically Motivated NGOs

Suppose first that some NGOs are politically motivated, so that they give different weights to the institutional transparency of the country than to their own individual project. The easiest way of modeling this is by transforming each individual NGO’s payoff function into a Cobb-Douglas utility function, that is

\[
\max_{C_i, S_i} \beta \frac{\phi_i}{\beta C} S_i
\]

\[
s.t \quad I_i = C_i + S_i
\]

People’s FOC

\[(n - 1) \text{ NGOs’ FOCs}\]

where \(1/\phi_i \) is a measure of NGO \( i \)’s level of political engagement. If \( \phi_i = 1 \) we fall back into the benchmark model, and the NGO, quite pragmatically, only cares about how much of the project it finances actually reaches the beneficiaries. When \( \phi_i \) tends toward zero, the NGO puts much emphasis into improving transparency and reducing theft, even if this implies driving attention away from the project itself. This can be assimilated to a behavioral bias toward idealism and aversion to corruption\(^2\). If, on the contrary, \( \phi_i \) tends toward infinity, the NGO is unconcerned with transparency issues. What is important for this type of NGO is to report large expenditures in the project without acknowledging if end line beneficiaries benefit from it or not.

Using the same resolution method than in appendix A, we get:

\[
C^* = \frac{\alpha}{1 + \alpha + \rho n \bar{\phi}} I
\]

and

\[
S^* = \frac{1 + \rho n \bar{\phi}}{1 + \alpha + \rho n \phi} I
\]

where \( \bar{\phi} = \frac{1}{n} \sum_{i=1}^{n} \phi_i \) is the average political preference. At the individual level, we have

\[
S_i = \phi_i \frac{\beta}{\beta C} = \phi_i \frac{\alpha}{\phi \left(1 + \alpha + \rho n \phi\right)} I
\]

and

\[
C_i = I_i - \phi_i \frac{\alpha}{\phi \left(1 + \alpha + \rho n \phi\right)} I.
\]

Details are found in appendix C. Results are as expected: more politicized NGOs dedicate more time to campaigning activities. However, we get a richer description of the the NGO sector. In it, campaigning versus services efforts are also determined by their political position relative to other NGOs. For example,

\(^2\)It is biased because in reality beneficiaries will still receive \(\beta S\) from the NGO sector.
suppose that an NGO is pragmatic, in the sense given at the beginning of the section, such that $\phi_i = 1$. If around it all other NGOs are apolitical, that is if $\bar{\phi}$ is high, then the pragmatic NGO will have to put more emphasis on campaigning activities, sacrificing service provision.

Recall, by (11), that the free-ridding problem disappears when

$$C^{OP} = \frac{\alpha}{1 + \alpha + \rho} I$$

In our framework it is easy to find that this inefficiency disappears if

$$\bar{\phi} = \frac{1}{n}. \quad (16)$$

That is, once $n$ NGOs are allowed, NGOs willing to make aid more efficient should, on average, increase the emphasis they put on political issues as the number of NGOs increases. From an individual perspective, this emphasis on idealism and transparency can be tough as disproportionate political meddling, but because it counterbalances the free-ridding in campaigning, idealism can be welfare-improving at this stage. After exploring the effects of political participation, we explore the equivalent effect of cooperation among NGOs.

### 3.2 NGOs cooperate with each other

Now suppose that NGOs decide to coordinate their actions, such that they care about other NGOs’ projects. To make this simple suppose that any NGO’s program becomes

$$\text{Max}_{C_i, S_i} \quad \beta \left( S_i + \gamma \sum_{j \neq i} S_j \right)$$

s.t. $$I_i = C_i + S_i$$

People’s FOC

$(n-1)$ NGOs’ FOCs

where $\gamma$ denotes the weight that any NGO gives to all other NGOS. If $\gamma = 1$, the NGO gives as much importance to its own project than to all other projects. As with the politicization case, we proceed by the same method than in appendix A. At equilibrium we get

$$C^* = \frac{\alpha}{1 + \alpha + \rho^{\frac{n}{1+\gamma(n-1)}}} I \quad (17)$$

and

$$S^* = \frac{1 + \rho^{\frac{n}{1+\gamma(n-1)}}}{1 + \alpha + \rho^{\frac{n}{1+\gamma(n-1)}}} I \quad (18)$$

Details are provided in appendix D. The more the projects of others are taken into account, the more the NGO invests in campaigning. Interestingly, the under-supply of campaigning is compensated by making service provision appear as a public good. Given that NGOs are subject to a non-distribution constraint, the issue is not about how much resources they will allocate but
about how they will allocate them. By internalizing the benefits of other agencies’ projects, NGOs start free-riding on service provision as well. The result is that, because they will anyways use their budget, relatively more resources are spent in campaigning efforts and less on service provision. It is easy to verify that the optimal level of campaigning provided in (12) is reached when $\gamma = 1$. In other words, if NGOs fully integrate all other NGOs successes in their objectives, the free-ridding problem disappears.

Both coordination and politicization can achieve the social optimum at the second stage of the game. However, if the ruler anticipates that these efforts will lead to increased campaigning, he will restrict the size of the NGO sector to reduce the cost that coordination or politicization inflicts him.

By proposition 3 and because $C^* < C^{max}$, we easily find that

$$\frac{dn^*}{d\phi} = \frac{dn^* \partial \beta}{d\beta \partial \phi} > 0$$

(19)

and

$$\frac{dn^*}{d\gamma} = \frac{dn^* \partial \beta}{d\beta \partial \gamma} < 0.$$

**Proposition 4** If the ruler anticipates that NGOs are on average more politicized or more coordinated, he will limit the number of NGOs.

Increasing coordination (or becoming more politicized) has the benefits of increasing activism for a fixed number of NGOs, but given that this number reduces overall campaigning and services might go down with efforts toward making aid efficient. Should then NGOs be more politicized/coordinated?

### 3.3 Optimal Politicization Levels

In this section we look for the level $1/\phi$ of average political engagement than maximizes the end-line beneficiaries welfare. An analogous reasoning can be held for coordination parameter $\gamma$.

By equation (11), we wish to solve

$$\bar{\phi}^* = \arg\max_{\phi} \beta S$$

This can be broken down into a “politicization effect” and an “aid restriction effect”:

$$\frac{d\beta S}{d\phi} = \frac{\partial \beta S}{\partial \phi} \bigg|_{n=n^*} + \frac{\partial \beta S}{\partial n} \frac{dn^*}{d\phi}.$$  

Using the Nash equilibrium resulting from the NGO’s choices in the first term and the ruler’s in the second term, this can be re-expressed as

$$\frac{d\beta S}{d\phi} = \beta (n^* \bar{\phi} - 1) \frac{\partial S}{\partial \phi} + \frac{\partial S}{\partial n} \frac{dn^*}{d\phi}.  \tag{20}$$

Is is immediately obvious that the second stage optimal level of politicization given at (16), $\bar{\phi} = 1/n^*$ is not optimal at the second stage. The second term is positive, therefore if $\bar{\phi}$ is at the no free-ridding level, making NGOs less politicized increases the beneficiaries welfare overall.
Proposition 5  Overall efficiency and no-free riding are incompatible. If aid is efficient at the second stage (no free-riding) there will not be enough aid and vice versa.

The optimal average politicization can be derived when (20) is equalized to zero. This yields the following implicit expression:

$$\bar{\phi}^{**} = \frac{1}{n^*} \left[ 1 + \frac{1}{\beta} \frac{\partial S}{\partial n^*} \frac{dn^*}{d\phi} \right]$$

This can be easily shown to reduce to

$$\bar{\phi}^{**} = \frac{1}{n^*} \left[ 1 + \frac{E_{n,\bar{\phi}}}{\beta} \right] \tag{21}$$

Where $E_{n,\bar{\phi}}$ is the elasticity of the number of allowed NGOs $n^*$ relative to a change in political disengagement $\bar{\phi}$. Although there is not an explicit expression for $\bar{\phi}^{**}$, the second term between square brackets in (21) is positive. Therefore we know that the level of politicization that will get rid of the free-riding problem is too high to maximize the end-line beneficiaries welfare.

This is easily shown in figure 5 by plotting the left and right sides of equations (16) and (21).

Figure 5: Incompatibility of second and third-stage efficiency

All that is left to explore is how parameters $\alpha$ (influence of the NGO sector) and $\rho$ (resilience of the ruler to protest) affect the optimal level of politicization. From equations (14) and (15), it is easy to see that changes in $\bar{\phi}$ will have a small impact on $S$ and $C$ if $\alpha$ is high or is $\rho$ is low. Intuitively, in areas where the ruler has little power or where NGOs are very influential, changes in politicization will not affect much campaigning or service provision efforts, and therefore will not affect much the ruler’s choice of $n^*$. In other words $E_{n,\bar{\phi}}$ will be close to zero in regions where the ruler has little power. Because his policies are already restrictive, there is little room for changes in policy even if NGOs change theirs. Following the same logic, we know that increases in $\alpha$ or reductions in $\rho$ increase
the share $\beta$ of resources received by the people. Therefore the term $E_n,\bar{\phi}/\beta$ of equation (27) vanishes as the influence of the ruler decreases relative to that of the NGO sector. It follows that in such regions no free-riding and overall efficiency can be reconciled. However, because in these regions the ruler is weak to begin with, not much NGOs will be allowed in, so that efficiency still represents small amounts of aid. Simultaneously, in areas where the ruler is powerful relative to the NGO sector, if NGOs coordinate to maximizing beneficiaries’ welfare, aid will be afflicted by free-riding inefficiencies.

4 Conclusion

Several decades of foreign aid have left the bitter impression that the North has been unable of assisting development efforts in the South. Relying on the NGO sector appeared as viable alternative to improve aid when confronted with harsh institutional environments. By delegating aid to a third party, circumventing governments allows aid resources to be earmarked for final beneficiaries of aid, dismissing the issue of fungibility altogether. NGOs, so the argument goes, are closer to the beneficiaries and sidestep rent-seeking officials (for developments and critiques of these arguments, see Edwards and Hulme (1996); Mercer (2002); Collier and Dollar (2004); Dreher et al. (2007); Nunnenkamp et al. (2009)). This argument suffers however from a fundamental defect. As legally constituted organisms, NGOs require the permission and blessing from hosting governments to operate. The issue is even more salient when campaigning activities are taken into account. The contractual framework in which decentralized aid has to be analyzed is more complex than a principal-agent relationship between donors and NGOs, because hosting governments have also considerable power over the modalities of aid implementation. NGOs are thus both agents of donors and of hosting governments.

Taking into account these considerations, we find that aid provided by NGOs can have as much contractual difficulties as official aid in weak institutional contexts. The monopolistic position of the ruler facing an atomistic NGO sector, where NGOs compete with each other, gives considerable bargaining power to the ruler. As a result, delegation of aid to the NGO sector can be inefficient even when NGOs decide to coordinate with each other because of the mechanism discussed in this paper. Indeed, if campaigning constitutes a public good, it will suffer from free-riding by NGOs. However, trying to solve this issue goes against the interest of the ruler who will set in motion a repressive policy toward NGOs. As a result, effort to improve aid efficiency might hurt the beneficiaries. We find that trying to maximize the beneficiaries welfare necessarily creates free-riding inefficiencies. The dilemma arising from this model gives us the grim result that in countries with bad institutions decentralized aid cannot be efficient. Sadly, the same conclusion has been reached regarding official aid (Burnside and Dollar, 2000; Collier and Dollar, 1999).

How can NGOs get around this dilemma? Two conjectured solutions come to mind. First, in a contract where the principal is the ruler of the country and NGOs are the agents, the desirable outcome is to have NGOs get more benefits from the contract (since we assume that their interests are aligned with those of end-line beneficiaries). In agency problems, agents can improve their fate if they get access to informational rents. More uncertainty over NGOs activities
can improve their fate and thus those of end-line beneficiaries. Criticisms of lack of transparency, data concealing and glittering but empty discourses are typically addressed to the NGO sector. Paradoxically, these flaws can in fact deceive autocrats into believing that NGOs are apolitical and uncoordinated, to the benefit of end-line recipients.

A second way around the coordination dilemma is related to the legal framework in which NGOs operate. Examples, in particular during the military dictatorships in Latin America, show that religious NGOs, besides proposing social relief to the poor, greatly contributed to the advent of democracy through clandestine press and training of opposition leaders (Loveman, 1991; Lehmann, 1990). These past actions are today generally perceived as conductive to improved institutions. They act as a reminder that courageous underground action should not be dismissed when rulers are particularly illegitimate.
References


Technical Appendix

Appendix A  Applying the chain rule to the FOC of the people (equation (4)) and using the aggregate budget constraint we get

$$\beta C R S = C^{-\alpha}.$$ 

Using equation (5), rearranging and dividing both sides by \( \beta \) this yields

$$\frac{\beta CS}{\beta} = -\frac{\beta^2 R}{\beta R R} \left[ I \alpha C^{-1} - (1 + \alpha) \right]$$

Where \( \rho \equiv -\frac{\beta R R}{\beta C} \). Finally, combining equations (7) and (8) we can derive the aggregate level of campaigning provided by the NGO sector:

$$C^* = \frac{\alpha}{1 + \alpha + n \rho} I$$

From here, it is easy to deduce that the aggregate level of services provided is

$$S^* = \frac{1 + n \rho}{1 + \alpha + n \rho} I.$$

Appendix B  To start the proof we require the following lemma.

Lemma 1 (No-embezzlement limit) There is an upper bounder-number \( \hat{n} \) of NGOs such that \( \beta(\hat{n}) = 1 \). At this point there is no embezzlement by the ruler.

Proof: Recall that we stated that there is an arbitrarily large level of \( \hat{R} \) such that for any \( R \geq \hat{R} \) we have \( \beta(R) = 1 \). We can rewrite equation (4) as

$$R = \beta^{-1} \left( \frac{1}{SC^n} \right).$$

By (9) and (10), if \( n \to \infty \), then \( \{C, S\} \to \infty \). It follows that \( R \) monotonically increases with \( n \). Therefore there exists a number \( \hat{n} \) that corresponds to the level of protest \( \hat{R} \). Moreover, for any \( n \geq \hat{n} \) we have \( \beta(n) = 1 \). \( \square \)

With this property, we can continue with the proof of proposition 3.

Proof 1 (Proof of Proposition 3) This proof is composed of three steps.

Existence: Objective function \( U^D(n^*) \) is continuous and non-negative and \( U^D(0) = U^D(\hat{n}) = 0 \). By Rolle’s theorem there exists a value \( n^* \in [0, \hat{n}] \) such that \( U^D_n(n^*) = 0 \). Non-negativity of the function implies that it is a local maximum.

Uniqueness: By the chain rule we have \( \beta C = \beta n C_n \). Equation (7) can be then rewritten as

$$\beta n S = \beta n C_n$$

Combining this with the rulers’ FOC we get

$$\frac{n \beta(n)}{1 - \beta(n)} \frac{S_n}{C_n}$$

(23)
The budget constraint can be rewritten as \( \bar{I}n = S + C \). This allows us to write \( S_n = \bar{I} - C_n \). Now take the derivative of \( C \) in (9) with respect to \( n \). This yields
\[
C_n = \frac{1 + \alpha}{(1 + \alpha + n\rho)^2} \bar{I}
\]

The right-hand side of equation (15) can be rewritten as
\[
\frac{S_n}{C_n} - 1 = \frac{(1 + \alpha + n\rho)^2}{1 + \alpha} - 1
\]

Ultimately, equation (16) becomes
\[
\frac{n^* \beta(n^*)}{1 - \beta(n^*)} = \frac{(1 + \alpha + n^*\rho)^2}{1 + \alpha} - 1.
\] (24)

Calling the left-hand side equation \( \text{LHS}(n) \) and the right-hand side \( \text{RHS}(n) \), it is easy to verify that both functions are monotonically increasing in \( n \), that \( \text{LHS}(0) = 0 < \text{RHS}(0) = \alpha \) and finally that \( \lim_{n \to \bar{n}} \text{LHS}(n) = \infty > \text{RHS}(\bar{n}) \). Therefore both lines necessarily cross at a single point \( n^* \) as depicted in figure 4.

Figure 4: Uniqueness of the optimal number of NGOs

Comparative statics: Given that \( n^* \) is the unique maximum of \( U_D(n) \), we then necessarily have \( U_{n n}^D(n^*) < 0 \). If we simply write the first order condition of the ruler as
\[
U_n^D(n^*) = 0
\]

the implicit function theory allows us to compute how \( n^* \) changes in \( \beta \):
\[
\frac{dn^*}{d\beta} = -\frac{U_{n\beta}^D(n^*)}{U_{nn}^D(n^*)}
\] (25)

Using partial derivatives we have
\[
U_{n\beta}^D = \frac{\partial^2 (1 - \beta)S(n)}{\partial \beta \partial n} = -S_n < 0
\]

Notice that when increasing the number of NGOs it has to be taken into account that the available budget increases as well.
Therefore

\[ \frac{dn^*}{d\beta} < 0. \]  \hspace{1cm} (26)

By proposition 1 we have

\[ \frac{dn^*}{d\alpha} = \frac{dn^*}{d\beta} \frac{\partial \beta}{\partial \alpha} < 0 \]
\[ \frac{dn^*}{d\rho} = \frac{dn^*}{d\beta} \frac{\partial \beta}{\partial \rho} > 0 \]

Finally, by plugging values of \( C \) and \( S \) given by (9) and (10) into (15) we get

\[ R = \beta^{-1}_R \left( \frac{(1 + \alpha + n\rho)^{1+\alpha}}{(\alpha n)^{(n + n^2 \rho)}} \frac{1}{I^{1+\alpha}} \right) \]  \hspace{1cm} (27)

Which implies \( \partial R / \partial \bar{I} > 0 \). Therefore

\[ \frac{dn^*}{d\bar{I}} = \frac{dn^*}{d\beta} \frac{\partial \beta}{\partial R} \frac{\partial R}{\partial \bar{I}} < 0 \]

\[ \square \]

Appendix C  The FOC of such an NGO is

\[ \frac{1}{\phi_i} \beta^{-1} \beta S_i + \beta^{1+\rho} = 0. \]

This can be rewritten, using the budget constraint, as

\[ \frac{\beta C}{\beta} S_i = \phi_i \]

By adding these constraints across all \( n \) NGOs we get

\[ S \frac{\beta C}{\beta} = n \bar{\phi} \]

where \( \bar{\phi} \) is the average political preference. Plugging in the reaction function of the people, by equation (8), we get

\[ \frac{1}{\rho} [I\alpha C^{-1} - (1 + \alpha)] = n \bar{\phi} \]

\[ \Leftrightarrow C^* = \frac{\alpha}{1 + \alpha + \rho n \bar{\phi}} I \]

and

\[ S^* = \frac{1 + \rho n \bar{\phi}}{1 + \alpha + \rho n \bar{\phi}} I. \]
Appendix D The FOC of this type of NGO is:

$$\beta S_i S + \beta + \beta S_i \gamma \Sigma_{-i} S_j = 0$$

$$\Leftrightarrow -\beta S_i ((1 - \gamma) S_i + \gamma S) = \beta$$

Using the budget constraint, we get

$$S_i = \frac{1}{1 - \gamma} \left[ \frac{\beta}{\beta_C} - \gamma S \right]$$

that can be written as

$$\frac{\beta_C S}{\beta} \left[ \frac{1 - \gamma}{n} + \gamma \right] = 1$$

Finally, plugging this in equation (8), we get

$$\frac{1}{\rho} \left[ \frac{I\alpha}{C} - (1 + \alpha) \right] \left[ \frac{1 - \gamma}{n} + \gamma \right] = 1$$

$$\Leftrightarrow C^* = \frac{\alpha}{1 + \alpha + \rho \frac{n}{1 + \gamma (n-1)} I}$$

and

$$S^* = \frac{1 + \rho \frac{n}{1 + \gamma (n-1)}}{1 + \alpha + \rho \frac{n}{1 + \gamma (n-1)} I}.$$