Impact Evaluation Mentoring for Governments in East and West Africa
Proposal

Citizen participation and mobilization of local resources in Benin: The case of built and unbuilt property taxes

Presented to
Partnership for Economic Policy (PEP)

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April 2019
SECTION A – FEASIBILITY OF RANDOMIZATION

1. Implementation of random assignment (200 words max.)

The impact evaluation of your proposed policy must be carried out through the use of a randomized control trial (RCT). This experimental methodology requires the creation of a treatment group, made up of eligible subjects participating in the policy initiative, and a control group, composed of equally eligible subjects who are excluded from program participation.

Describe the mechanism you will use in order to randomly select subjects into either group (for example, a lottery among eligible subjects, implementation in certain geographic areas and not others, a progressive inclusion of subjects into the program or phase-in mechanism, etc.).

The target population is made of landholders. We will apply the cluster randomized control trial (CRCTs) at commune level. They are 77 communes in Benin. Using the poverty measurement indicators published by the Benin National Institute of Statistic and economic Analysis (INSAE), we will select the communes that have similar level of poverty in order to obtain our cluster experimental sampling. Then, we will randomize by using lottery on each eligible commune, the treatment and control group.

Another criterion we will use to choose the communes is the existence or not of a system of Urban Land Registry (ULR) in the municipality. Indeed Benin has in some communes, especially those with special status an ULR based on a parcel-tracking plan addressed. It is a powerful tool for urban management and mobilization of local tax resources.

In addition, all individuals in both groups (treatment and control) will be composed of those who have a land title (LT) and those who do not.

Taking into account these two criteria (ULR and LT) will allow us to ensure the robustness of the treatment results.

2. Strategies to deal with contamination and spillovers (200 words max.)

Two common problems affecting random assignment to treatment, and hence, the biasedness of results, are contamination and spillovers between treatment and control groups. Explain how your randomization strategy works to prevent these issues.
We are implementing in our policy initiative a cluster randomization. Then, in this level of assignment, problems of spillovers are limited because they are reduction of spillover effects. So, to ensure of contamination problem, we will take account a geographical criteria of eligible communes in order to avoid any bias that may arise from the communication between the two target sub-groups.

3. Evaluation consent

Accepting the use of a random assignment technique for program evaluation is a compulsory requisite for proposal presentation and grant disbursement. Are you providing a letter from the government office in charge of the program stating their commitment to carry out an experimental evaluation (i.e. involving random assignment)?

Yes [x] No

4. Potential sample size

Enter an estimation of the size of the universe (maximum potential size) of the untreated population that will be available for random assignment into either the treatment or control group during the randomization stage.

Maximum number of untreated persons:
5444 subjects to be investigated: 3764 treated and 1680 controls.

SECTION B – INTERVENTION DETAILS

1. Description of the intervention (300 words max.)

Describe in an exact manner the experience that an eligible subject who is selected for program participation goes through as a result of being selected. This is the definition of the treatment to be tested in the study. If alternatives are to be tested as well, list each treatment below and describe.

As part of this study, we propose to evaluate two types of interventions and therefore two treatment groups:

(T1). Information on why to pay taxes (incentives: consequences on the community: improvement of health care, construction of roads, schools, health centers, reduced or free schooling in public schools and universities, etc.)
(T2). Information on sanctions (coercive measures: deterrence of non-payment)
The purpose of this methodology is to test an assumption in our study that, to further encourage holders of built and/or undeveloped parcels to regularly pay their property taxes, inform them only about the incentives and sanctions of tax payment. Several mass media as videoconferences, screenings and presentations will be deployed.

2. Application mechanism (300 words max.)

Describe in an exact manner the procedure that a potential candidate must follow to be considered for program participation. List the documents that candidates must present and describe, in detail, the activities in which they may be required to participate during the screening process, (interviews, informative sessions, etc.).

The participants in the program will contribute to the implementation of the policy through their participation in the various activities programmed.

The activities to be carried out as part of the study depend on each treatment group.

(T1). Training and sensitization session will be organized with the support of the Village Chiefs (CV) at the local tax centers: The content of the training is based on the following concerns: what is a tax land and who are subject to them? Why should we pay taxes? What central government and the local authorities do with the property taxes? Answers to these questions will be provided using concrete examples.

(T2). Training and sensitization session will be organized with the support of the Village Chiefs (CV) at the local tax centers. The content of these training will be based on following questions: What is a tax land and who are subject to them? What are penalties for non-payment of taxes? Answers will be provided with concrete examples.

These different activities will be carried out in collaboration with the Departmental Tax Directors of the communes concerned, the Tax Services Unit and the Financial Affairs Officers of the communes. At the beginning of the sessions, documents such as purchase paper, or land title will be verified. Also, at each session, the presence will be controlled and it is only those who will have participated in all the sessions of activities that will be taken into account in the final evaluation. Also, we will increase the size of training participant units during the practical phase to take into account other problems other than attrition. The tax notices will be sent to all (treated and untreated) after the various activity sessions. In the end, the research team will go to the tax services, after the regulatory deadline indicated on the notices, to collect the information on the payment made by each of them.

3. Eligibility mechanism (300 words max.)

Detail the eligibility criteria and describe exactly how each item considered for eligibility is assessed in practice. Explain how selected candidates are informed about selection into the program.

The level of randomization is at commune level. Commune are eligible refers its level of poverty. We suppose that the decision to pay built or unbuilt property taxes in Benin will be influenced by the level of poverty of tax payers. So, the homogeneity of our experimental sample will be guarantee by selecting communes that have the similar level of poverty.
For each selected municipality, all individuals (treated and untreated) will be randomly selected from landowners who have received at least one tax notice in the last two years. This list is available in the Tax Centers for Small Enterprises (CIPE) of the General management of taxes.

Only the treated group will be informed by letter. With the help of the agents working in the tax offices, the research team will hand over this letter to each individual in the group. The letter will contain information about the study project, its apolitical nature and the schedule of all the activity sessions to which they will be invited to participate.

A working session will be organized at the beginning of the project with the President of the National Association of Municipalities of Benin (ANCB), the President of the National Commission of Local Finances (CONAFIL), the Departmental Tax Directors of the selected communes and the Financial Affairs Officers of these municipalities.

Primary data collection (baseline data collection) will be organized in each selected village from the two formed groups (treated and untreated) to collect initial information on each individual in the study population.

SECTION C – EVALUATION DETAILS

1. Timeline
Provide estimated dates for the milestones of the impact evaluation project, listed below. Remember that sufficient time must be allowed for the results of policy interventions to materialize, depending on the nature of the policy initiative.

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximate date – baseline data collection</td>
<td>from 9th to 22nd of December, 2019</td>
</tr>
<tr>
<td>Approximate date – start of intervention</td>
<td>January 9th, 2020</td>
</tr>
<tr>
<td>Approximate date – follow-up data collection</td>
<td>November 30th, 2020</td>
</tr>
</tbody>
</table>

2. Main research question (100 words max.)
State your main research question as succinctly as possible.

What is the impact of citizen participation on local mobilization resources performance? This central question raises the following specific questions:

(i) Are there sociological, cultural and religious factors in Benin that explain the oppositions and resistance mentioned by Norreegaard (2013) and that would block property taxes payment in Benin?

(ii) What is the contribution of population’s implication in the process of collecting property taxes and decision-making on the provision of public services on the level of property taxes?
3. **Primary outcomes (200 words max.)**

State your primary outcome of interest, i.e., the most important variable on which you expect to observe an impact as a result of the program. State up to three outcomes, listed in order of importance.

<table>
<thead>
<tr>
<th>Primary outcome</th>
<th>Mobilization rate of property taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary outcome</td>
<td>Payment delay of property taxes</td>
</tr>
<tr>
<td>Tertiary outcome</td>
<td>Decision to pay or not property taxes (binary outcome)</td>
</tr>
</tbody>
</table>

4. **Sample size and power calculations**

If possible, provide preliminary sample size calculations for your experiment, assuming an 80% level of power. Please include values for the minimum detectable effect (MDE) and degree of intra-cluster correlation (ICC), if applicable, as well as the resulting sample size. If you are unsure on how to proceed, leave blank. Proposals with no power calculations will not be penalised, but presenting these numbers is a plus.

1. **Calculation of Intra Cluster Correlation**

```markdown
\[ \text{icc payment} \]

Intraclass correlations
One-way random-effects model
Absolute agreement

Random effects: g

<table>
<thead>
<tr>
<th></th>
<th>Number of targets =</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of raters   =</td>
<td>531</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>ICC</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>.0053749</td>
<td>.0029952 - .0100336</td>
</tr>
<tr>
<td>Average</td>
<td>.7415693</td>
<td>.6146798 - .8433056</td>
</tr>
</tbody>
</table>

\[ \text{F test that } ICC=0.00: F(39.0, 21200.0) = 3.87 \quad \text{Prob > F} = 0.000 \]
```

2. **Sample size**

With an average size of 40 landowners per cluster, an ICC of 0.005 and a performance improvement of 5% (refers to similar studies), we have:

Taking into account the estimates made with STATA 15, we find: **1680 subjects per arm** made up of **42 clusters**. In total, \((1680 \times 2) + 1680 = 5040 \text{ subjects}\) with 3360 for both treatments and 1680 for the control group. Taking into account the 12% attrition bias, we will increase the sample size to **1882** individuals per treatment.

Summarize all; we will have **5444 subjects** to be investigated: **3764 treated and 1680 controls**.
SECTION H – OTHER CONSIDERATIONS

1. Budget

For evaluation projects that are selected, PEP will provide up to $US 87,000 in funding, including a $US 22,000 research (cash) grant, a $US 25,000 data collection grant and up to $40,000 in various subsidies, such as for participation in PEP meetings and study visits, for publications in peer-reviewed journals, for presentations at international conferences, and for the organization of national policy conferences, etc.

Present a budget for research costs and data collection costs, which cannot exceed $US 22,000 and $US 25,000 respectively.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost in US dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESEARCH</strong></td>
<td>21,000</td>
</tr>
<tr>
<td>Research staff</td>
<td>21,000</td>
</tr>
<tr>
<td><strong>DATA COLLECTION</strong></td>
<td>25,760</td>
</tr>
<tr>
<td>Investigator bonus for Baseline</td>
<td>15,680</td>
</tr>
<tr>
<td>Motivation of villages-chiefs</td>
<td>6,720</td>
</tr>
<tr>
<td>Investigator bonus follow-up</td>
<td>3,360</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>46,760</td>
</tr>
</tbody>
</table>

2. Acceptance of ethical ruling by the PEP Research Ethics Review Committee

Accepting the ruling of PEP’s Research Ethics Review Committee (www.pep-net.org/research-ethics-review-committee) is a compulsory requisite for proposal presentation and grant disbursement. Do you agree to abide by the Committee’s ruling?

Yes [x] No [ ]

3. Additional remarks (200 words max.)

Please enter any other information relevant to the impact evaluation project of your proposed policy initiative.

This program is in its first phase of implementation and aims to evaluate the impact of the participation of the population in the effort of mobilization of property taxes. The results of the program implementation would be of paramount importance for the current government, which have been undertaking since the last three years several reforms necessary to improve the tax revenue mobilization performance of the tax administration. Since it is of great interest to political decision-makers, it would receive special attention from them.