Repurposing Skilled Residential Care NGOs in Southern Haiti
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Mission

The Pitt Policy Journal is a student-led initiative founded in December 2008 with a mission to provide a venue for students to contribute exemplary research, inquisitive debate, and constructive dialogue to peers and practitioners of public policy. Our goal is to foster professional exchange and mutual improvement by motivating students to think critically and analytically about contemporary issues. In recognizing the value of creativity and innovation not only to academia, but also to public policy, we seek to incorporate novel ideas and approaches in publishing student work.

Vision

By embracing the values and mission of the Graduate School of Public and International Affairs (GSPIA), the Pitt Policy Journal enhances the quality of scholarly cooperation and interactive engagement among students regarding critical issues of local, national, and international significance. In striving to build a foundation for leadership and competition beyond academia, the Pitt Policy Journal prepares students for careers in public service through the advancement of their analytical, research, and leadership skills. While recognition and awareness of the Pitt Policy Journal on campus has grown over the brief history of the journal, our goal is to significantly increase the notoriety and readership of the journal around the country.
Support

The publication of the Pitt Policy Journal is sponsored by the Fund for Student Initiatives that was launched in the fall of 2008 by GSPIA Dean John Keeler. We are grateful for his support and the generosity of the entire GSPIA community, including faculty, staff, and students.

Selection Information

We welcome submissions that explore diverse policy areas and provide insightful perspectives on domestic and global political, economic, and security matters. Our staff prioritizes the selection of quality, thoughtful scholarship that has practical implications for local and national policymakers. All submissions are reviewed anonymously by the Editorial Review Board, which selects the best among each pool of submissions for publication.

Disclaimer

The views expressed in the Pitt Policy Journal do not necessarily represent the opinions of our editorial staff, the Graduate School of Public and International Affairs, or the University of Pittsburgh. While each selected entry undergoes a rigorous editing process, contributing authors are ultimately responsible for the accuracy and integrity of their work.

Contact Information

To reach one of our staff members or contributing authors, please send an email to pittpolicyjournal@gmail.com.
Letter from the Editors

The Pitt Policy Journal was founded to provide both a venue where GSPIA students could explore a wide array of policy issues and a distinguished academic journal the students and faculty at the Graduate School of Public and International Affairs are proud of. That tradition continues and we are proud to present to you the eighth edition of the Journal. Included in this edition are eight articles on a variety of topics, ranging from disaster management to international health to education to comparative politics.

The world faces many complex public policy challenges without easy or clear solutions. These solutions will not present themselves, but rather will be discovered as the result of rigorous analysis and investigation, bold thinking, and innovative ideas. We hope that the Pitt Policy Journal was useful in serving as an incubator for these ideas and will continue to encourage scholarship and curiosity among the students at the Graduate School of Public and International Affairs.

We are privileged to have worked over the past several months with a dedicated and professional editorial staff who helped the Journal achieve its goals. The 2016-2017 editorial board members committed themselves to putting in long hours behind the scenes to ensure the 2017 edition of the Pitt Policy Journal met the high standards set forth by previous editions. Thank you for being a supporter of the Pitt Policy Journal and all of its efforts.

Sincerely,

Elizabeth Bell & Tyler O’Daniel

Editors-in-Chief
Editors-in-Chief

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Elizabeth Bell is a second-year graduate student at the University of Pittsburgh Graduate School of Public and International Affairs studying Security and Intelligence Studies. Her area of focus is the Middle East and Counterterrorism. She is originally from Atlanta, Georgia. She holds a BA in Linguistics and a minor in Spanish from the University of Georgia.

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*continued on page 6*
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Improving Women’s Health in East Africa by Expanding Services and Access

Tara L. Devezin, MID ’16
Simon Reich Human Security Research Award, Spring 2016

The Ford Institute for Human Security seeks to promote high quality research and writing in the field of human security. To that end, we are happy to introduce last year’s winner of the annual competition for the Simon Reich Human Security Research Award for the best student research paper on a human security topic. Dr. Simon Reich was the founding Director of the Ford Institute, serving from 2003-2008. The author must be a graduating GSPIA Master’s degree candidate and the topic must be directly related to the essential human security concerns of safeguarding the lives and livelihoods of individuals and their communities. It may have either a domestic or an international focus. The winner of the competition is announced during the GSPIA graduation ceremony and we are happy to present the award winning paper from 2016 below.

Introduction

Women in East Africa lack knowledge of and access to healthcare services. High rates of cervical cancer, sexually transmitted disease infection, and unplanned pregnancies throughout the region have further marginalized already vulnerable women. High disease rates and numerous unplanned pregnancies hinder girls from attending school and women from generating income. One way to improve the human security of women in East African countries is to provide access to family planning and reproductive health (FP/RH) education and services. This paper offers two examples of health initiatives as a means to promote gender equality and community resilience: decreasing cervical cancer rates and increasing access to family planning.
Cervical cancer is the most prevalent form of cancer in women in Malawi. \cite{2} Forty-five percent of cancers in women are cervical, and less than 3% of women are screened for HPV (the virus that leads to cervical cancer) every three years (figure 1 in the appendix).\cite{3} Malawi has the highest rates of cervical cancer in Africa with roughly 7.5% of women expected to develop cervical cancer at some point in their lives.\cite{4} In Uganda, women are under-educated about modern contraceptive practices, resulting in a contraceptive prevalence rate (CPR) among women ages 15-24 of 28.7%—which is low and shows a disparity among developed and developing countries.\cite{5}

Jhpiego, a successful nonprofit that is an affiliate of Johns Hopkins University focusing on improving the health of women and families in developing countries, should consider the following: (1) improving cervical cancer rates in 16 Malawian low-resource districts by expanding screening services and (2) increasing access to family planning using mobile phones among Ugandan adolescents to combat the pressing health issues facing women in the region. To address these issues, Jhpiego should identify strong partners to aid in implementation initiatives, train Jhpiego staff on medical screening methods, educate local clinical staff to support medical screening methods, and conduct impact evaluations to determine the project implementation’s success.

\section*{A. Improving Cervical Cancer Rates in 16 Malawian Low-Resource Districts}

\textbf{Jhpiego’s Involvement in Cervical Cancer Prevention and a Need for Further Intervention}

At the current rate of human papillomavirus (HPV) contraction in Malawi, it is estimated that 5% of women will die from the sexually transmitted disease, which causes cervical cancer.\cite{6} Per every 100,000 women in Malawi, there is an incidence rate of 46.5—disproportionate to the regional figure of 25.8 per every 100,000 in Eastern Africa (figure 2 in the appendix).\cite{7} From 1999 to 2006, under Jhpiego’s mission to improve the health of women and families in developing countries, Jhpiego’s Malawi team focused on cervical cancer intervention in Malawi with funding provided by the UK Department for International Development (DFID), USAID, and the Bill & Melinda Gates Foundation.\cite{8}

During this time frame, Jhpiego worked with the Malawian Reproductive Health Unit of the Ministry of Health to implement a cervical cancer screening program, utilizing the low-cost single-visit visual inspection with acetic acid (VIA) method. More than 80 providers were trained, and
approximately 16,000 women were screened. In 2007, Jhpiego partnered with Save the Children to increase utilization of maternal and newborn health services. The new collective goal has been to improve the quality of mother-to-child health services; however, the rate of women being diagnosed with cervical cancer in Malawi has remained an issue.

**Facts on the Problem: Why Cervical Cancer Needs a Refocus in Malawi**
In Malawi, 3,684 women are diagnosed with cervical cancer each year and roughly 2,314 die from the disease annually. Women infected with HIV have a higher incidence of HPV infection rates, as well as greater prevalence and longer persistence rates. In Malawi, there is a 12.9% HIV prevalence among women. If these HIV positive women come in contact with HPV, they have a higher risk of developing precancerous lesions and may have a more rapid progression to cancer than women who are not HIV positive.

**Facts on Solutions: Highly Preventable and Low Cost**
Through screening and vaccinations, 93% of cervical cancers can be prevented. Regular screenings reduce the risk of dying from cervical cancer by 80 to 90%. Given the high number of cervical cancer screenings that Jhpiego’s Malawi team accomplished, Jhpiego still has the opportunity to fulfill their organization’s mission by reintroducing the VIA screening method. The VIA method is cost-efficient, in that it requires less than US $0.50 per capita to implement in primary-care settings in low-resource countries. Jhpiego, along with local organizations and the Malawian Ministry of Health, has the ability to reduce the number of women that die from cervical cancer.

**Recommendations**

**Recommendation 1: Train Jhpiego’s Malawi Staff on VIA Cervical Cancer Screening Methods**
Training Jhpiego Malawian staff will allow for the successful adaptation and implementation of VIA cervical cancer methods before conducting any screenings. In order to re-implement the previous successful Jhpiego VIA screenings, the Malawi team will train its lead district midwives and nurse practitioners that reside in the 16 Jhpiego focus districts around the country. Having Jhpiego dedicate a project that specifically screens in 16 of 29 Malawian districts will decrease the amount of Malawian women that have expressed a lack of accessibility, affordability, and availability to cervical cancer screenings. These trainings will occur at Jhpiego Malawian headquarters and will be conducted by Jhpiego’s lead Malawian Midwife and Country Director to ensure proper training.
and skill attainment. Once the trainings are complete, the midwives and nurses will utilize their learned skills in their respective country districts.

Recommendation 2: Educate Local Nursing Staff to Support Community VIA Screenings
Having Jhpiego’s Malawian team of lead district midwives train their local supportive staff on screening for cervical cancer will allow for successful adaptation into the local communities. With Jhpiego’s Malawian team implementing VIA cervical cancer screenings in 16 districts, support from staff at the local organizations where screenings will take place will be needed to ensure that the organizations are properly conducting these screenings.

Challenges and Opportunities
Despite the importance of reducing this preventable cancer, funding for such interventions can be difficult to acquire. Due to more publically known campaigns, most funding goes toward interventions that address high rates of maternal mortality, HIV/AIDS, and other public health concerns. Since cervical cancer is easily prevented and cost-effective to treat, donors need to consider funding such projects.\textsuperscript{20} In order to fund training sessions and pay for VIA screening supplies, Jhpiego should apply to current and past donors such as USAID, Department of Defense, Department for International Development and the Bill & Melinda Gates Foundation. It is important, when applying for these grants, to explain the low cost of Jhpiego screening methods—proving their cost-effectiveness. Along with the low cost, the majority of Jhpiego staff has medical or health-related backgrounds, leading to a minimal training cost and an overall inexpensive implementation for Jhpiego’s Malawian team.

B. Increasing Access to Family Planning Using Mobile Phones among Ugandan Adolescents

Current State of FP/RH Knowledge, Preparation and Use in Uganda
In Uganda, only 14.95\% of women age 15-24 received family planning and reproductive health (FP/RH) information.\textsuperscript{21} The 2011 Ugandan Demographic and Health Survey (DHS) reported that women age 15-24 are 17.3\% less likely to use contraception in comparison to their female counterparts age 25-44.\textsuperscript{22} Modern contraceptive use among sexually active unmarried women represents a higher unmet need than married women—43\% versus 33\%.\textsuperscript{23} Based on the lack of FP/RH information and services shared with Ugandan
women, the low contraceptive prevalence rate (CPR) persists. More than four in ten births (43%) are unplanned in Uganda. Ugandan women have a 5.9 fertility rate, giving birth to nearly two children more than they would prefer. Adolescent Ugandan women are extremely vulnerable to such pregnancies, as one in five adolescent women (age 15-24) is sexually active. The lifetime opportunity cost of a Ugandan adolescent pregnancy—measured by the young mother’s foregone annual income over her lifetime—is 30% of annual GDP or $670 US—per child per year. The Ugandan DHS found that adolescents are reluctant to seek FP/RH services due to the stigma and consequences (e.g. school dismissal, abandonment from parents and unclear abortion rights) associated with premarital sex.

Aside from contraception use and unplanned pregnancy, the HIV prevalence in Uganda has increased from 6.5% in 2010 to 7.4% in 2015. If Uganda invests in FP/RH education, GDP per capita is projected to reach $6,084 by 2040—up from current GDP, which is currently at $572.

Ugandan Mobile Phone Usage
Ugandan cell phone ownership is currently at 65% (figure 3 in the appendix). Ugandan youth are 66% more likely than adults to use cellphones for text messaging, and 51% more likely to use them for media messages. In 2014, there were 4,196,113 mobile internet subscriptions (figure 4 in the appendix).

An M4RH Model: Tanzania and Kenya
In 2010, Mobile 4 Reproductive Health (M4RH) was introduced as a pilot project in Kenya and Tanzania. Created by FHI 360 (a nonprofit human development organization based in North Carolina) utilizing WHO FP/RH materials, M4RH established an opt-in messaging health communication platform where users accessed information about FP/RH. The pilot was funded by USAID’s PROGRESS project and had a startup cost of $203,475 ($1.62 per user). Most of the costs were attributed to SMS fees because the pilot program paid for outgoing and incoming messages. An evaluation determined users to be willing to pay for M4RH services.

As a part of the Kenyan pilot project, a randomized controlled trial was conducted entirely via text message demonstrating that there was a 13% improvement in FP/RH knowledge among those in the control group. Common queries received in messages included: information about clinic locations, natural methods, condoms, and emergency contraception. With 45,390 messages exchanged, the M4RH program decreased misconceptions and provided privacy and confidentiality free of cost. The M4RH program has reached roughly
70,000 Tanzanian and Kenyan youth.\textsuperscript{39} The cost that users incurred was limited to the cell phone data used—ensuring affordability for beneficiaries.\textsuperscript{40}

**Recommendations**

**Recommendation 1: Implement M4RH Pilot with Marie Stopes Uganda (MSU)**

Jhpiego has the opportunity to provide an innovative FP/RH educational approach to its beneficiaries using the M4RH model. In order to ensure successful M4RH implementation, FHI360 suggests the following: (1) determine Ugandan technology experts capable of supporting the M4RH platform, (2) select a service provider (preferably one with low SMS rates for users), (3) conduct an FHI360 M4RH content review and select cultural content that is applicable for Ugandans, (4) create pre-established responses that will automatically reply to user queries, and (5) make the M4RH appealing by way of sharing its benefits through promotional advertisement throughout Kampala.\textsuperscript{41}

Jhpiego should begin with a pilot program at the Marie Stopes Uganda (MSU) Kavule site in Kampala. Starting in Kampala is crucial, as this urban city has an unmet FP/RH education need of 16\%.\textsuperscript{42} For a year-long period, the M4RH Ugandan pilot should be offered to adolescents who utilize services at the site. MSU should be selected because it is the largest FP/RH organization in Uganda—reaching 931,000 people (figure 5 in the appendix)\textsuperscript{43}—saving the Uganda healthcare system US $137.8 million.\textsuperscript{44}

**Recommendation 2: Conduct an Impact Evaluation on Ugandan M4RH Implementation**

After a year of monitoring the usage quantitatively and receiving feedback and suggestions from users via qualitative methods, the Jhpiego Evaluation Team should conduct an impact evaluation to understand the effects of the M4RH program on Uganda adolescents who utilize MSU. The impact evaluation will be conducted in order to ensure that the M4RH program yields successful results. Upon a successful pilot, the Ugandan M4RH program will be improved and other sites will be explored to determine where the M4RH program can be further marketed.

**Challenges and Opportunities**

Despite the importance of increasing FP/RH knowledge in Uganda, funding is limited due to sub-Saharan African campaigns focusing on high rates of maternal mortality, HIV/AIDS, and other public health concerns. When Jhpiego applies for program support grants, it is essential to explain the low
cost of the M4RH program—especially if users are paying for their queries—to prove cost-effectiveness. Furthermore, it will be important to share the long-term impacts that FP/RH education has on Uganda's GDP.

**Conclusion**

To fill the women's health disparity gap among developed and developing countries and break down the cycle of poverty, women’s health must be addressed. A successful organization, such as Jhpiego, should take a leading role in addressing these global public health issues. Addressing cervical cancer and FP/RH grants women the opportunity to be more effective in their communities. By identifying local partners to aid in implementation initiatives, training Jhpiego staff on medical screening methods, educating local clinical staff to support medical screening methods, and conducting impact evaluations to determine the implementation’s success, the organization has the ability to further its innovative work and provide essential services to marginalized women most in need in East Africa.
Appendix

Figure 1: Estimated coverage of cervical cancer screening in Malawi, by age and study

Figure 2: Age-specific mortality rates of cervical cancer in Malawi compared to Eastern Africa in the World (estimations for 2012)
Figure 3: Cell Phone Ownership in Africa

Figure 4: Fixed and Mobile Internet Subscriptions

Figure 5:

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<tr>
<td>Unintended pregnancies prevented</td>
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<td>Unsafe abortions prevented</td>
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<td>Maternal deaths prevented</td>
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<td>Savings for families and healthcare systems**</td>
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Improving Women's Health in East Africa by Expanding Services and Access | Devezin

(Endnotes)


7 Human Papillomavirus and Related Diseases Report, HPV Centre, 2015.


13 Human Papillomavirus and Related Diseases Report, HPV Centre, 2015.


18 Jhpiego in Malawi, Jhpiego, 2014.


20 Jhpiego in Malawi, Jhpiego, 2014.

21 “Performance Monitoring & Accountability 2020 (PMA2020) Project”.


24 Ibid.
25 Ibid.
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29 “Unintended Pregnancy and Abortion in Uganda”.

30 Population Reference Bureau; 2015 World Population Data Sheet


34 Ibid.


37 “Reaching Young People with FP Information via Mobile Phone: m4RH”.

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40 “Reaching Young People with FP Information via Mobile Phone: m4RH”


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Repurposing Skilled Residential Care NGOs in Southern Haiti

Rachel Vinciguerra

**Executive Summary**

There are 43 residential care facilities run by non-governmental organizations (NGOs) in southern Haiti serving 1,555 children. NGOs have established relationships within the communities in which they operate, employ local Haitians, and offer a multitude of services to children in their care. These services range from free primary education, healthcare, and food to mental health services and vocational training. Through provision of these critical services, NGOs are uniquely positioned to shift away from a residential-care model to a more community-centered approach, which would encourage better, more sustainable outcomes for children and families.

The issues with institutional care for children are well-known, and alternative community-centered models prove to be (1) more beneficial to children’s psycho-social development, (2) more cost-effective, and (3) address issues of child protection more systemically.

Based on lessons learned from UNICEF’s experiences in Haiti as well as the expertise of NGOs, this recommendation calls for a community-centered approach wherein NGOs would provide more comprehensive services to children’s families and communities as an alternative to relatively isolated services for children in residential care. Components of this approach include: (1) reunifying children in residential care with families when appropriate, (2) utilizing skilled staff in community-focused capacities, (3) strengthening government ability to enforce child protection by encouraging NGO accreditation with government, and (4) investing in transparent evaluation of programs to support the success of all children in southern Haiti.

I. The Problem with Residential Care Facilities in Haiti

Many NGOs in Haiti operate residential care facilities with vital services for children in need. Roughly 80% of these children have parents or guardians lacking adequate resources to care for their child. Residential care models do
not address long-term solutions for these 80%. As a result, many children miss out on an opportunity for healthy cognitive and emotional development because they do not often meaningfully engage with families.

II. The Issues of Institutional Care for Children
The problems of institutional care for children have been well researched and documented from a child development perspective. Research shows that children raised in orphanages—deprived of physical touch, healthy intimacy, and the attention of staff—develop issues forming healthy attachments later in life. Children’s brains are wired differently when raised in such settings. Whereas children raised in families tend to have differing neurological responses to their own caregiver as compared to a stranger, children raised in Eastern European orphanages had the same neurological reaction to any face they were shown. The inability to differentiate between faces is an indicator of attachment disorders, which can negatively affect children’s abilities to engage in healthy human bonds and maintain good mental health. For this reason, most developed countries have opted to eliminate orphanages in favor of home-based foster care.

There are more complex factors at hand, however, than the issue of attachment disorders in institutional settings. According to research conducted in the Gaza Strip, residential care facilities can have positive impacts on children. In a collaborative study, supported by UNICEF, two residential care facilities in Eritrea were compared to determine effects of residential care on child psychological development. The research concluded that children had fewer symptoms of emotional distress when living in residential care facilities in which all staff participated in decision-making and children had open communication with staff members. A case study in Zimbabwe similarly highlighted the importance of children’s communication and support from staff. Even in situations with staff support, however, children still have more symptoms of emotional distress when living in residential care facilities than children raised in family settings.

III. Family Reunification Projects
Thus, in many cases, family reunification is preferable to even the best residential care. As noted in the UNICEF publication, Children in Institutions: The Beginning of the End?, which focused on alternatives to institutional care in developed countries, two reunification initiatives in developing countries are worth highlighting for reinforcing the benefits of transitioning children to family care.

In the wake of Eritrea’s liberation war from Ethiopia, up to 90,000 children were orphaned. Since 1994, a reunification project headed by
UNICEF, two NGOs\textsuperscript{11}, and the Eritrean government, proved to be dramatically successful in mental health outcomes for children, sustainability, and cost effectiveness when compared to residential care.\textsuperscript{12} The evaluation showed that economic support to households in the form of livestock was particularly useful in aiding families with children. Additionally, because of the partnership with the government, the reunification program had a capacity-building effect on the government’s role in child protection initiatives.\textsuperscript{13}

In Haiti, \textit{The Apparent Project} similarly utilizes a livelihood approach to train parents in artisan skills to increase their financial resources to care for their children. The project was founded by two Americans who had planned to adopt a child. When they traveled to Haiti and discovered this child had a mother, as did many children living in Haitian care facilities, they decided to support children by supporting their parents.\textsuperscript{14}

\textbf{IV. The Situation in Haiti}

The growing network of residential care NGOs has long been out of the regulatory reach of the Haitian government. In recent years, NGOs in Haiti have been domestically and internationally perceived as better able to nimbly address issues of child protection than the government, which is viewed as corrupt and bureaucratic. This has relegated the government to a secondary role. In fact, in recent years the government has made substantial efforts to become more involved in child protection. In 2011, the Government of Haiti ratified the Hague Convention on Inter-Country Adoption, which ensures compliance with UN guidelines on alternative care through administrative and judicial procedures.\textsuperscript{15} The agreement formally took effect in April 2014. Though the focus of the agreement is international adoption, it has also made a government entity, the Institute of Social Wellbeing and Research (IBESR), the central authority for matching children with adoptive parents. Through this agreement, IBESR requires that, before adoption, children live at licensed orphanages. It also expands the depth of education birth parents receive about alternative options to the international adoption of their children, thus giving the government more regulatory control in terms of child protection.\textsuperscript{16}

In 2013, IBESR and another Haitian government ministry, the Ministry of Social Affairs and Labor (MAST), partnered with UNICEF to create an inventory of residential care facilities (MAST \& IBESR, 2013). This inventory was important because (1) it illustrated the scope of residential care in Haiti, (2) it closed facilities in which care was insufficient for child rights, and (3) it provided the government with increased ability to monitor services and child protection. The inventory showed that most residential care facilities
were not accredited by the government at the time of the report, and many did not comply with minimum government standards. In the south, one of the largest centers of residential care, 55 facilities were identified and 12 were closed because they did not comply with minimum standards.\textsuperscript{17} Of the remaining 43 orphanages accommodating 1,555 children, four were accredited.\textsuperscript{18}

Accreditation does not necessarily indicate service level, as many facilities providing valuable services were not accredited at the time of the inventory. It does, however, correlate to the ability of the government to ensure standards of child protection. Some facilities have sought accreditation since this registry.

In 2015, UNICEF collaborated with the Haitian Red Cross to facilitate the reunification of 567 children with their families.\textsuperscript{19} After the earthquake in 2010, UNICEF also collaborated with Save the Children, the International Committee of the Red Cross, and International Rescue Committee to register and place nearly 2,000 children post-earthquake with families.\textsuperscript{20} Thus, there is recent precedent for family reunification in Haiti, and UNICEF has relevant experiences and resources to share in this area.

UNICEF goals have been historically perceived as “at odds” with residential care facilities, especially in southern Haiti. In the south over the past few years, UNICEF staff have focused on minimizing children’s time in residential care and called for increased transitional programming, which may appear fundamentally contrary to NGO goals.\textsuperscript{21} In fact, UNICEF recognizes the importance of residential care in some instances. For example, such care can be beneficial for children transitioning out of unsafe situations.\textsuperscript{22} Ultimately, however, family and community support are preferred where the possibility exists.

V. Policy Approach
To promote the best care for Haiti’s vulnerable children, this policy approach utilizes the participation of all stakeholders and duty-bearers, starting with NGOs.\textsuperscript{23} The approach centers on community-based care models with whole-community solutions to child protection. It offers a better alternative for children’s psychological development, more sustainable and systemic change, and is more cost-effective.

NGOs in Haiti are uniquely positioned to lead this effort because they are intimately connected with the communities they serve. Additionally, NGOs are a major source of employment and thus central to the fabric of many towns and cities. This approach utilizes the skills of NGO staff in the south and their relationships with locals to refocus attention on family and community care models that offer long-term solutions for child safety and wellbeing.
Additionally, the shift in approach from residential care to community care will likely be more cost effective. Though there is no empirical evidence of cost effectiveness in Haiti specifically, other studies that compare costs of residential versus community-centered care show dramatic savings. For example, in Romania, Ukraine, Moldova, and Russia, institutional care was six times more expensive than services for vulnerable families.24

VI. Policy Recommendations
1. Children over the age of 18 should be reunified with family where appropriate and participate in transitional programming with the support of UNICEF and IBESR trainings.

NGOs should determine which children in their care could be appropriately reunified with family (excluding cases of serious abuse). UNICEF would offer support in this process based on their Haitian reunification program experience in the past.25 Additionally, UNICEF and IBESR would jointly offer trainings for NGOs to (1) provide staff with further competencies to recognize risks and respond to needs of vulnerable children and (2) to set up referral mechanisms for children who may need immediate assistance.

Care facilities in Haiti are already required to transition children out of residential programs at age 18. This policy recommendation calls for a strengthening of these transitional programs to ensure that young adults have appropriate skills, networks to find employment and housing, and the continued support of the NGO. Strengthening these programs could involve diverse actions including developing existing vocational training or offering family planning and parenthood classes.

2. New arrivals should receive comprehensive assessments and efforts should be made to keep them with family.

Moving forward, NGOs would conduct comprehensive assessments of incoming children and work with family members and relatives to maintain support of children. While UNICEF and many other child protection organizations have resources which could be utilized for this effort, ultimately it must be the decision of the NGO as to what assessment procedure would be most useful and productive in their communities.

Although it would be ideal to have one assessment tool and centralized database, the context in which these NGOs operate does not support the infrastructure necessary for such a big system. UNICEF experienced this issue firsthand as they were responding to the earthquake in 2010. They had difficulty implementing a broadly-used child-protection-specific assessment due
to UNICEF staff shortages, NGOs’ hyper-focus on clients’ immediate needs, and insufficient logistical capacity. Though the emergency context complicated the use of this assessment tool, the frequency of natural disasters in Haiti suggests this issue is salient. Additionally, the three issues to which they refer are not absent in non-emergency contexts. Thus, NGO-chosen assessment tools are both more realistic in contrast to the complications of a universal tool and more likely to be utilized because they would be determined by the local staff.

3. Shift resources to community-based care and parental support.
With the financial resources saved by reunification initiatives, NGOs could reinvest in community-based care. Utilizing the relationships employees have with communities and their skills in appropriate child-friendly programming, NGOs could continue to offer such programming with a new focus. For example, facilities with school systems, clinics, and after-school trainings could continue to offer those services. Additionally, they could utilize staff expertise in child protection to train families in methodology. It is true that parents do not always offer the best alternative to residential care if they are unsupported. This is why the role of NGOs remains crucial. The NGO would become a community center with support services for the whole family.

NGOs in Haiti employ many local staff. This policy approach has the benefit that no jobs will be lost with its implementation, merely redefined. Many facilities employ house mothers or monitrices who live with the children 24/7. As facilities downsize and transition children into family homes, monitrices could serve as community care trainers for parents and maintain relationships with family members to ensure children’s safety. Monitrices are equipped to offer this sort of training as experts from the communities they serve. The model has proven successful in the NGO Kore Timoun in Leogane. This shift would also allow monitrices to spend more time with their families as the need to stay overnight declines.

4. NGOs should seek accreditation with the Government of Haiti.
NGOs that have not yet sought accreditation with the Haitian government should do so. NGOs provide a necessary service to Haitian children, and they also have the power to help strengthen the Haitian government to do the same. By seeking accreditation, they support the government’s ability to monitor services and child protection.
5. Monitoring and evaluation procedures should begin or continue with increased transparency.

Finally, all NGOs should strive to monitor and evaluate the success of their reunification programs and shift toward community-centered care. There is precedent for this policy approach and reason to believe that outcomes for children are far better when the whole family receives support. There are not many cases, however, in which NGOs are transparent about their reunification program models and the specific successes and failures therein.

There are many models for community-based care, and it must be left to NGOs to determine the best methods for their respective communities. Some NGOs provide stipends for family participants and require them to attend trainings, while others require less of participant families. No one model can solve all problems, even in the southern region of Haiti.

Given that each NGO will have its own approach, it is crucial to monitor and evaluate program effectiveness so NGOs can learn from one another. Increased monitoring and evaluation would also assist NGOs in telling their stories to donors. The money saved from shifting away from residential care would allow for this increased monitoring and evaluation.

In Summary

This policy approach would empower families through the provision of resources and the ability to care for their children, maintain employment of local staff, and cut costs of already underfunded programs. By increasing transparency and prioritizing monitoring and evaluation of programs, it provides an opportunity for all NGOs to improve their services. As more NGOs seek accreditation with the government, the government’s ability to aid in child protection will also grow. Most importantly, the approach utilizes the strengths of NGOs in southern Haiti to create better and more lasting solutions for the children in their care.
Appendix A:

**Translation:** “Figures of the South (43): Number of children’s houses identified (55), Number of children’s houses evaluated (43), Number of children’s houses accredited (3), Number of nursery homes (1), Number of orphanages and homestays evaluated (42), Number of children evaluated (1555), Centers closed (12)”

(Endnotes)


11 Swedish and Norwegian Save the Children Funds.
13 Ibid.
17 See Appendix A.
22 Ibid.
28 A monitrice (Haitian Creole) is often translated as “house mother.” These women are usually staff members of a NGO and they are responsible for overseeing the welfare of children in their care.
A Structural Equation Approach to the Causal Relationship Between Guns and Violence

Erin Carbone

Abstract: The increasing incidence of mass shootings in the U.S., combined with a homicide rate consistently higher than all other developed nations, has intensified the ongoing debate over gun control in America. One side calls for increased regulation as a means of curbing this recent trend while the other claims that guns deter violence and calls for firearm proliferation. Empirical evidence on this issue has been inconclusive, resulting in a legislative impasse. In an attempt to answer this question of causality, the present research uses a structural equation model to estimate the reciprocal and cross-lagged effects between gun ownership and homicide rates. Models employing a conventional index to approximate firearms prevalence lend support to the position that increases in firearms lead to increases in violence. However, these models are relatively poor in terms of goodness of fit for the data, and research continues to be hindered by the lack of accurate information about gun ownership. These obstacles must be overcome before we can reach a definitive conclusion on the gun control debate.

1. Introduction
There is arguably no topic more pressing for current public policy scholars, practitioners, and indeed the public at large, than that of gun control. As 2016 draws to a close, the number of mass shootings in the United States approaches 500, including the tragic incident in neighboring Wilkinsburg that claimed the lives of six people this past March.¹ These events have drawn attention to the prevalence of violence in the U.S. and intensified the ongoing debate over gun regulation. In 2013, firearms claimed the lives of over 33,000 Americans and accounted for around 66 percent of all murders in the U.S., which has the highest homicide rate of any developed nation at approximately five deaths per 100,000 population.² More than 11 percent of these shootings
had multiple victims, up from around 8 percent in 2008.³

Many blame these tragic events on the widespread availability of firearms, calling on the government to respond with increased gun regulation. But others endorse measures to increase firearm proliferation, claiming as the executive vice president of the National Rifle Association (NRA), Wayne LaPierre, did in the wake of the Newtown school shooting, “the only thing that stops a bad guy with a gun is a good guy with a gun”.⁴ The debate continues in part because empirical evidence on the relationship between gun ownership and mass shootings, and homicides generally, has been inconclusive: research has demonstrated support both for the claim that firearms encourage violence as well as for the claim that firearms act as a deterrent to violence, and many studies have failed to find a significant correlation in either direction. The ambiguity of this relationship has likely contributed to the failed efforts of the Obama administration to advance new gun legislation and otherwise respond effectively to public outcry.

The present study aims to answer this question. While previous research has typically employed ordinary least square (OLS) regression analysis to estimate the relationship between guns and violence, the present analysis adopts a structural equation model (SEM) method using maximum likelihood estimation, thereby circumventing certain OLS assumptions and allowing for the explicit estimation of simultaneous and reverse causality through synchronous effects and cross-lagged models, respectively. The paper proceeds as follows: Section 2 briefly reviews the relevant literature to frame the research question, and Section 3 draws further on this body of research to guide variable selection and model specification; Section 4 presents the hypotheses and a model to be used in testing those hypotheses, and Section 5 presents the results of that test; Section 6 concludes.

2. Brief Overview of the Literature
A substantial body of literature exists that has documented a significant positive correlation between gun ownership and crime rates.⁵ However, the interpretation of this relationship varies across researchers, as, indeed, correlation is not causation. Some scholars conclude that firearms act as an effective deterrent to criminal activity and, in the face of rising crime, gun ownership increases for self-defense purposes. Kleck and Patterson (1993) cite such an argument and present several positive externalities associated with gun ownership.⁶ Hauser and Kleck (2013) find evidence to suggest that fear does, in fact, motivate gun acquisition, and even as fear subsides, individuals are not readily motivated to give up their firearms.⁷
This causal ambiguity is largely attributable to the cross-sectional analysis typically utilized in such studies, which compare the relationship between guns and crime across locations (e.g., states or counties) at a given point in time. This challenge can be overcome by taking advantage of variation for a given locale over time. Many scholars have adopted this strategy and analyzed panel data, typically with a lagged independent variable measuring gun ownership from the previous year in an attempt to assign the direction of the causational effect from guns onto violence. This method will be described in greater detail in the next section. While such studies typically claim that increases in gun ownership precede increases in violence or crime, many employ technically weak research methods that violate critical OLS assumptions. Thus, while research to date has converged somewhat on correlational direction between guns and violence, the causal direction of this relationship – that is, whether gun purchases increase violence or whether violence increases gun purchases – is still very much undecided. This paper attempts to identify the mechanism underlying the relationship of interest by avoiding some of the methodological pitfalls that undermine prior studies.

3. Variable Selection and Model Specification
The above discussion briefly introduced the extant empirical evidence supporting opposing views of the gun control debate. This section introduces two factors that pose the greatest challenge to any attempt at estimating the impact of gun prevalence on violence. The first surrounds the difficulty in measuring gun prevalence in the United States, which will serve as the independent variable for the present research. The second is the ability to establish the causal direction of the relationship between guns and violence. These factors are largely responsible for the general lack of convergence on this issue. The ways in which these challenges have been addressed in the literature will be evaluated in the subsections that follow. Where appropriate, these approaches guide the present paper, and where they are lacking, alternate methods are employed.

3.1 Variable Selection: Measuring Homicide Rates and Firearm Prevalence
The most fundamental precondition for establishing a causal, or even correlational, relationship between two variables is the ability to measure said variables. In the above-summarized literature on guns and violence, the dependent variable has assumed a variety of forms. Some studies look at crime broadly, combining homicide rates with measures of larceny, burglary, aggravated assault, and auto theft. Others limit the outcome variable to
homicide rates alone. Because the present paper is concerned with firearm deaths in America, the dependent variable will be restricted accordingly. Doing so has the added advantage of avoiding potential underreporting: the probability that a crime will be reported increases with the severity of the crime, so homicide records are likely to be the most accurate. There are two commonly used sources for homicide statistics: the Federal Bureau of Investigation Uniform Crime Reports (UCR) and the National Center for Health Statistics (NCHS). The latter comprises a more comprehensive record of all deaths across the U.S., at the national, state, and, to a lesser extent, county levels. In order to maintain a balanced panel and include various control variables from Census data available only at the state level, this paper will employ NCHS data on homicide rates collapsed at the state level. As in Miller et al. (2007), non-firearm homicide from terrorism, as well as gun-related deaths of “undetermined intent” or resulting from legal intervention, are excluded from analysis.

While the choice of dependent variable may vary across studies as noted above, each constitutes a direct measure of the phenomenon of interest, namely violent crime. The same cannot be said of the primary independent variable. Federal law dictates that all licensed firearm dealers maintain a record of gun sales, but no such demands are made of unlicensed private sellers; this so-called “gun show” loophole means that an estimated 40-percent of firearm transfers in the U.S. can take place without any federal record of the transactions. Additionally, firearm sales are subject to state or local jurisdiction, and some states outright prohibit authorities from enforcing any regulation surrounding the registration of firearms.

In the absence of universal mandatory gun licensing and registration or a repository of background check results for prospective purchasers, researchers are forced to measure gun ownership indirectly. Some have used whatever licensing information is available to proxy the prevalence of firearms, including the number of concealed handgun or carry permits issued, gun registration and owners license rates, or retail handgun sales where available. Such proxies are far from accurate and tend to underestimate the prevalence of firearms in a way that systematically biases estimations of the relationship between gun ownership and violent crime. Indeed, individuals who intend to use firearms for illicit purposes are also most likely to circumvent transactions that produce a record of their ownership. Other research has estimated gun ownership using the rate of subscriptions to gun magazines or hunting license rates, but such measures are skewed towards a smaller subset of rural gun-owning population.
More common, and by some accounts more reliable, are estimates of firearm ownership based on population surveys, such as the General Social Survey (GSS) administered by the National Opinion Research Center at the University of Chicago and the Behavioral Risk Factor Surveillance System (BRFSS) administered by the CDC. Such proxies have two potential drawbacks: (1) survey respondents may underreport gun ownership, and (2) the sample sizes are often too small to determine statistical significance, particularly when results are aggregated at the state or regional level. Despite these drawbacks, such self-reports are indeed a direct measure of gun ownership and serve as the standard against which other measures are compared to assess their validity. It is against this benchmark that the final category of proxies fare relatively well: the percentage of various crimes—such as homicides, suicides, aggravated assaults, and robberies—that are carried out by firearms. Similar to the logic guiding dependent variable selection, such measures avoid the problem of underreporting that plagues survey data: the likelihood and accuracy of reporting increases with the severity of the event, rendering homicide and suicide data highly reliable. In addition, the model selected for this paper, discussed in greater detail in the following subsection, requires a more robust dataset than that afforded by population surveys in order to control for unobservables and test for statistical significance.

The prevalence of such proxies in the literature, their accuracy in terms of reporting, and their demonstrated effectiveness in predicting violence makes them a reasonable choice for the present research. One of the most common such measures is known as the Cook Index, which approximates gun ownership rates using the percentage of suicides and homicides carried out with a firearm.\(^{34}\) It may be argued, however, that this measure skews towards criminal gun use in the same way that magazine subscriptions and hunting licenses skew towards recreational gun use. For this reason, a new proxy was developed by Siegel, Ross, and King (2013) (henceforth referred to as the Siegel Proxy) to achieve a more representative approximation: this measure combines the proportion of suicides carried out by firearms with the ratio of state-issued hunting licenses to a state’s population over the age of 15 years.\(^{18}\) Given the high correlation between survey results and the Cook Index and Siegel Proxy, the present paper takes these latter measures as the independent variables.

### 3.2 Model Specification: Establishing Causality

While this research can do little more to solve the first challenge than to choose carefully among the indirect and potentially fallible proxy of gun
prevalence as described in Section 3.1, much can be done to address the second. A critical, and again fundamental, precondition for establishing whether a variable, X, has a causal effect on another variable, Y, is that X is causally antecedent to Y. This is critically important in the context of the gun control debate: as we have seen, there is a plausible account for how changes in either variable might precipitate changes in the other. It may be that high gun ownership engenders violence, but equally plausible is the interpretation that high homicide rates encourage people to arm themselves for protection, resulting in high levels of gun ownership. This is an area where the existing literature has been particularly weak.

One reason for the inability of previous research to capture the causal relationship between guns and violence is the model specification employed to date. Several studies have analyzed cross-sectional data (as discussed in Section 2) to determine whether geographic areas with high (low) levels of gun ownership also exhibit low (high) levels of violence.¹⁹ Such studies not only fail to control for unobservable regional characteristics that may underlie correlational relationships but also fail to account for temporal precedence, making it difficult to determine the direction of causal relationships.

A slightly more sophisticated approach for establishing causation exploits panel data, tracking some unit—again, state or county—over time to see whether variation in firearm ownership is correlated with changes in homicide rates.²⁰ The advantage of this type of panel data lies in the fact that it accounts for unobserved unit-level heterogeneity. In the case at hand, this means that there are multiple observations across time for several states, each of which has characteristics that may foster a culture of gun ownership or make them more (less) prone to violence, which may influence the relationship between guns and homicides. Try as one may with cross-sectional data, a researcher will be unable to account for all of the relevant omitted variables. Observing changes in a given unit over time, however, can control for this heterogeneity, thereby minimizing any bias in estimation.

Panel data not only offers an appropriate means of comparison—that is, between a given unit at two different times, ideally holding all else constant other than the independent variable—but it also offers a solution to the problem of temporal precedence. Because a panel dataset consists of multiple observations for each unit, and some observations precede others, several studies have introduced lagged variables for gun ownership, which represent the prevalence of firearms in the previous period (typically year). Researchers interpret a positive significant coefficient between the lagged-X (previous year’s gun ownership) and current Y (current year’s homicide rate) to mean
that increases in the latter are driven by increases in the former. The majority of studies claiming an increase in violence driven by increasing gun ownership do not, however, include a lagged Y-term to entertain the possibility that the previous homicide rates exert an influence on current gun ownership. This is largely because inclusion of a lagged-Y term violates the OLS assumption of independence between the independent variable and the composite error, which consists of the above-mentioned unobserved heterogeneity unique to each state as well as any idiosyncratic error. Without correcting for this, the regression would overestimate the role of prior homicide and underestimate the role of the unobserved heterogeneity in determining current violence. While there are ways around this, few studies have exploited them effectively.

Establishing with certainty the causal relationship in this system has important implications for gun control reform. As such, the next section presents two hypothesized relationships between guns and violence, as well as a method to test the validity of these hypotheses: a structural equation model (SEM). To my knowledge, only two papers—Kennedy et al. (1998) and Rosenfeld et al. (2007)—have employed the SEM approach in this policy area, and both did so in the interest of modeling the role that social capital and social trust plays in moderating homicide rates and gun purchases.21

4. Hypotheses and Statistical Model
The arguments on both sides of the gun control debate—that gun prevalence leads to violence or that high homicide rates encourage gun purchases—are feasible, and need not be mutually exclusive. SEM allows for a causal relationship wherein a variable both influences another variable and is in turn influenced by that variable. Below, I propose two possible versions of this relationship. Model 1 represents a relationship in which the level of a given variable (gun ownership or homicide rate) in one period has an effect on its respective level in the following time period (represented by the horizontal arrows) as well as a synchronous effect on the other variable (represented by the vertical arrows labeled $a$ and $b$). If there is truth to the theory that violence begets gun purchases, such a relationship would be appropriate, assuming that individuals responded to threats in their environment immediately, or at least within a year of the increase in homicide incidence.22
It is also plausible that increases in the level of violence within a community are not immediately apparent, and so any response of community members will be lagged. To account for this possibility, Model 2 depicts a relationship in which high levels of firearm ownership immediately affect the homicide rate in a given location, which eventually (i.e. in the following year) encourages people to purchase firearms for protection, resulting in even higher levels of gun ownership in the following year.

Note that the structural disturbances of the variables are allowed to covary within the same time period. Both of these models feature equality constraints on the cross-lagged and synchronous effects, as there is no
obvious reason to assume that the effect of guns (homicides) on violence (gun ownership) should change over time. In either model, if the SEM estimation finds the coefficients for $a$, $b$, or $c$ to be statistically significant, there is support for both theories regarding the relationship. If on the other hand, only the coefficient for $a$ is significant, it supports the argument that more guns lead to more deaths. The reverse is true for $b$ and/or $c$. The following section sets out to test these models.

5. Results
This section presents a summary of the data used to analyze the relationship between guns and violence and the results from the statistical analysis of the data, which was performed using STATA SE version 14.0.

5.1 Summary Statistics
The following analysis looks at the relationship between gun ownership and homicide rates using the indirect proxies discussed in Section 3. In order to make the SEM model tractable, six waves of data were selected for analysis, each corresponding to a year in the period from 1999 to 2004. This timeframe was selected because it is the most recent mortality data available through the CDC. The unit of analysis is U.S. state, and all 50 states are included in the analysis.

Table 1. Summary statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook Index</td>
<td>306</td>
<td>0.578</td>
<td>0.097</td>
<td>0.245</td>
<td>0.752</td>
</tr>
<tr>
<td>Siegel Proxy</td>
<td>300</td>
<td>0.341</td>
<td>0.098</td>
<td>0.079</td>
<td>0.615</td>
</tr>
<tr>
<td>Firearm-Suicide Ratio</td>
<td>306</td>
<td>0.549</td>
<td>0.128</td>
<td>0.143</td>
<td>0.803</td>
</tr>
<tr>
<td>Firearm-Homicide Ratio</td>
<td>306</td>
<td>0.607</td>
<td>0.123</td>
<td>0.067</td>
<td>0.846</td>
</tr>
<tr>
<td>Hunting Rate</td>
<td>300</td>
<td>0.130</td>
<td>0.107</td>
<td>0.010</td>
<td>0.477</td>
</tr>
<tr>
<td>Homicide Rate (All)</td>
<td>306</td>
<td>6.016</td>
<td>5.669</td>
<td>0.971</td>
<td>47.198</td>
</tr>
<tr>
<td>Homicide Rate (Firearm)</td>
<td>306</td>
<td>3.945</td>
<td>4.377</td>
<td>0.132</td>
<td>34.787</td>
</tr>
<tr>
<td>Accidental Death Rate (Firearm)</td>
<td>306</td>
<td>0.334</td>
<td>0.271</td>
<td>0.000</td>
<td>1.441</td>
</tr>
</tbody>
</table>

Table 1 presents summary statistics for the variables of interest, including the independent variables and their constituent parts. Firearm-Suicide Ratio (Firearm-Homicide Ratio) represents the proportion of total suicides (homicides) that are carried out using a firearm. A higher rate is
suggestive of a higher level of gun ownership in a given geographic region. The *Cook Index* is then calculated by averaging *Firearm-Suicide Ratio* and *Firearm-Homicide Ratio*, while the *Siegel Proxy* takes into account both the *Firearm-Suicide Ratio* and the *Hunting Rate*. In both cases, an area with higher values for the *Cook Index* and/or *Siegel Proxy* are expected to have higher rates of gun ownership relative to other locations.

One concern in any statistical study is that there is insufficient variation in the level of the independent variable over time. The aim is to see whether change in the independent variable brings about a corresponding change in the dependent variable, which is not possible if the independent variable is more or less constant over time. This should certainly be a consideration for any longitudinal analysis of firearms in the U.S. There have been virtually no broad-sweeping laws mandating that citizens relinquish their arms, and estimates of gun ownership have been relatively stable as a result, especially over relatively short time periods. Table 2 addresses this concern and presents the mean level of all relevant indices pooled across all states for each of the six years analyzed in the present study. Both proxies for the level of gun ownership are more or less monotonically decreasing over time, while homicide rate exhibits no such pattern.

**Table 2. Mean variation in measures across time**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cook Index</th>
<th>Siegel Proxy</th>
<th>Firearm-Suicide Ratio</th>
<th>Firearm-Homicide Ratio</th>
<th>Hunting Rate</th>
<th>Homicide Rate (All)</th>
<th>Homicide Rate (Firearm)</th>
<th>Accidental Death Rate (Firearm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>0.586</td>
<td>0.352</td>
<td>0.570</td>
<td>0.602</td>
<td>0.131</td>
<td>6.076</td>
<td>3.937</td>
<td>0.377</td>
</tr>
<tr>
<td>2000</td>
<td>0.576</td>
<td>0.351</td>
<td>0.563</td>
<td>0.588</td>
<td>0.133</td>
<td>5.910</td>
<td>3.824</td>
<td>0.337</td>
</tr>
<tr>
<td>2001</td>
<td>0.579</td>
<td>0.343</td>
<td>0.554</td>
<td>0.604</td>
<td>0.131</td>
<td>5.978</td>
<td>3.898</td>
<td>0.325</td>
</tr>
<tr>
<td>2002</td>
<td>0.579</td>
<td>0.341</td>
<td>0.549</td>
<td>0.609</td>
<td>0.129</td>
<td>6.178</td>
<td>4.081</td>
<td>0.359</td>
</tr>
<tr>
<td>2003</td>
<td>0.584</td>
<td>0.335</td>
<td>0.536</td>
<td>0.632</td>
<td>0.128</td>
<td>6.056</td>
<td>4.075</td>
<td>0.334</td>
</tr>
<tr>
<td>2004</td>
<td>0.564</td>
<td>0.328</td>
<td>0.520</td>
<td>0.607</td>
<td>0.129</td>
<td>5.899</td>
<td>3.857</td>
<td>0.275</td>
</tr>
<tr>
<td>Total</td>
<td>0.578</td>
<td>0.341</td>
<td>0.549</td>
<td>0.607</td>
<td>0.130</td>
<td>6.016</td>
<td>3.945</td>
<td>0.334</td>
</tr>
</tbody>
</table>

Before fitting a structural equation model to this data, it is a worthwhile exercise to confirm that this particular dataset can replicate the findings from earlier research, thereby confirming that the dataset and composite measures were correctly constructed.
5.2 Fixed Effects Model Replication

As discussed in Section 2, fixed effects models control for unobserved heterogeneity that is stable over time and estimate variation within a given unit. In the models below, the unit is the U.S. state, and at each year in the panel the observed level of gun prevalence is demeaned (i.e. the mean level across all periods is subtracted from its respective current value) to reveal variation across time relative to its average level. Per convention in this research area, the model includes two time-variant control variables that are found to be correlated with homicide rates: income and unemployment rates. There are numerous other factors that are likely to play a role in determining levels of violence within a state, such as inequality as measured by the Gini coefficient, number of males age 15 to 24, racial composition, etc. However, because Census data is gathered once every 10 years, these values are presumed to be constant over the six-year period under investigation and are thus omitted from the model.

The first column in Table 3 presents a basic fixed effects model regressing the logged value of the Cook Index against logged homicide rate. The resulting coefficient of 0.196 suggests that a 1% increase in gun ownership within a given state is correlated, on average, with a 0.196% increase in homicide rates, significant at the 10% confidence level. With the addition of time fixed effects, as well as controls for income and unemployment and the inclusion of cluster-robust standard errors to account for heteroskedasticity, the effect of the Cook Index becomes insignificant. These results are largely consistent with previous literature, although more rigorous controls and more waves of data result in higher correlations.
Table 3. Fixed effects model for relationship between guns and homicide rates (Cook Index)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Log Homicide</td>
<td>Log Homicide</td>
<td>Log Homicide</td>
<td>Log Homicide</td>
</tr>
<tr>
<td><strong>Log Cook</strong></td>
<td>0.196*</td>
<td>0.190*</td>
<td>0.206*</td>
<td>0.190</td>
</tr>
<tr>
<td></td>
<td>(0.113)</td>
<td>(0.115)</td>
<td>(0.116)</td>
<td>(0.154)</td>
</tr>
<tr>
<td><strong>Unemployment</strong></td>
<td>-0.594</td>
<td>-0.594</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.712)</td>
<td>(0.884)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Log Income</strong></td>
<td>-0.741</td>
<td>-0.741</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.615)</td>
<td>(0.598)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>1.673***</td>
<td>1.693***</td>
<td>9.536</td>
<td>1.69***</td>
</tr>
<tr>
<td></td>
<td>(0.064)</td>
<td>(0.066)</td>
<td>6.420</td>
<td>(6.191)</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>306</td>
<td>306</td>
<td>306</td>
<td>306</td>
</tr>
<tr>
<td><strong>Fixed Effects</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>State</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Robust SEs</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>R-squared</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Within</strong></td>
<td>0.012</td>
<td>0.031</td>
<td>0.038</td>
<td>0.031</td>
</tr>
<tr>
<td><strong>Between</strong></td>
<td>0.31</td>
<td>0.308</td>
<td>0.005</td>
<td>0.308</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td>0.26</td>
<td>0.222</td>
<td>0.006</td>
<td>0.222</td>
</tr>
<tr>
<td><strong>rho</strong></td>
<td>0.952</td>
<td>0.952</td>
<td>0.955</td>
<td>0.952</td>
</tr>
<tr>
<td><strong>Number of states</strong></td>
<td>51</td>
<td>51</td>
<td>51</td>
<td>51</td>
</tr>
</tbody>
</table>

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In Table 4, the above models are replicated replacing the Cook Index with the Siegel Proxy. We see from the results that this measure of gun prevalence is not only more theoretically intuitive but is also a better predictor of homicide rates. Both the magnitude and significance of the Siegel Proxy coefficient is high across all models. It is also worth noting that, while the between and overall R-squared values are much higher in the previous model, special attention should be paid to the “within” R-squared, the most relevant
measure for goodness of fit in fixed effects models. This measure represents the squared correlation of demeaned predicted log-homicide values – that is, the difference between predicted and average log-homicide rates – with the demeaned actual homicide rate for a particular state. This measure actually improves with the substitution of the Siegel Proxy for the Cook Index: the difference in within R-squared values for Model 4 in Table 3 as compared to the same model in Table 4 implies that the Siegel Proxy is able to explain an additional 1.5% of the variation in demeaned homicide rates over the Cook Index.

Table 4. Fixed effects model for relationship between guns and homicide rates (Siegel Proxy)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Log Homicide</td>
<td>Log Homicide</td>
<td>Log Homicide</td>
<td>Log Homicide</td>
</tr>
<tr>
<td>Log Siegel</td>
<td>0.213*</td>
<td>0.276**</td>
<td>0.275**</td>
<td>0.275*</td>
</tr>
<tr>
<td></td>
<td>(0.115)</td>
<td>(0.125)</td>
<td>(0.126)</td>
<td>(0.163)</td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.503</td>
<td>-0.503</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.782)</td>
<td>(1.108)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log Income</td>
<td>-0.524</td>
<td>-0.524</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.624)</td>
<td>(0.543)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.760***</td>
<td>1.847***</td>
<td>7.418</td>
<td>7.418</td>
</tr>
<tr>
<td></td>
<td>(0.130)</td>
<td>(0.138)</td>
<td>(6.489)</td>
<td>(5.533)</td>
</tr>
<tr>
<td>Observations</td>
<td>306</td>
<td>306</td>
<td>306</td>
<td>306</td>
</tr>
<tr>
<td>Fixed Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Time</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Robust SEs</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>R-squared</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within</td>
<td>0.014</td>
<td>0.042</td>
<td>0.046</td>
<td>0.046</td>
</tr>
<tr>
<td>Between</td>
<td>0.015</td>
<td>0.015</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Overall</td>
<td>0.015</td>
<td>0.016</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>rho</td>
<td>0.942</td>
<td>0.942</td>
<td>0.948</td>
<td>0.948</td>
</tr>
<tr>
<td>Number of</td>
<td>51</td>
<td>51</td>
<td>51</td>
<td>51</td>
</tr>
<tr>
<td>states</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
We can now proceed to test the hypotheses put forth by the structural equation models presented in Section 3 regarding the causal effects between guns and homicides. The results from the estimation of these models are presented in the following section.

5.3 Structural Equation Model of Guns and Violence
The left panel of Table 5 displays the standardized coefficients from the synchronous effects model (Model 1), where firearms and homicides are allowed to have simultaneous reciprocal effects on one another. In this version of the model, the Cook Index is used to approximate gun ownership within a state. The stability effects, which correspond to the horizontal arrows in Figure 1, are highly significant, suggesting that the causal system is characterized by state dependence between time periods, i.e. the level of a variable in a given period is highly correlated to its respective value from the previous time period. This should not be surprising. One would expect that a state with a high homicide rate relative to other states in 2001, for example, to have a relatively high homicide rate in the years just prior and after 2001, barring any drastic changes in gun regulation, law enforcement practices, etc. Similarly, one would not expect individuals who purchased a firearm one year to return it in the next. The estimates of greatest interest, however, are those for the reciprocal effects. The standardized effect of guns on violence (equivalent to $a$ in Section 3) using the Cook Index is 0.0218, nearly four times as large as those operating in the opposite direction. More importantly, the former effects are statistically significant at the 10% confidence level while the latter are not significant at any conventional level. This lends support to the hypothesis that guns increase the incidence of violence.

continued on page 44
Table 5. SEM synchronous model (Cook Index)

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (Synchronous Effects)</th>
<th>Model 2 (Synchronous Cross-Lagged Effects)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cook Index</td>
<td>Siegel Proxy</td>
</tr>
<tr>
<td>Reciprocal Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guns → Homicide</td>
<td>0.0218*</td>
<td>-0.006</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>Homicide → Guns</td>
<td>0.0058</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.038)</td>
<td>(0.015)</td>
</tr>
<tr>
<td>Stability Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guns_{t-1} → Guns_{t}</td>
<td>0.825***</td>
<td>0.972***</td>
</tr>
<tr>
<td></td>
<td>(0.047)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Homicide_{t-1} → Homicide_{t}</td>
<td>0.986***</td>
<td>0.968***</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.009)</td>
</tr>
</tbody>
</table>

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

These findings are even more pronounced when synchronous effects are replaced with cross-lagged effects from homicide to guns. As shown in the right-hand panel of Table 5 under the column labeled “Cook Index”, the coefficient is an order of magnitude larger and significant at the 99% confidence level. A comparison to the small and insignificant lagged effects in the opposite direction, SEM using the Cook Index supports the claim that gun ownership does, in fact, result in higher incidence of violence.

Also apparent from Table 5, however, is that swapping out the Cook Index for the Siegel Proxy in the structural equation models has the opposite effect as it did in the fixed effects model explored in Section 5.2. In the relevant columns (i.e. those labeled “Siegel Proxy”), the only estimates that are statistically significant are those reflecting the stability effects. Using the Siegel Proxy as an approximation for prevalence of firearms eliminates all reciprocal effects observed in previous models. One possible explanation might be that these measures are essentially constant over time, in which case a multilevel structural equation model (MSEM) may provide a more appropriate estimation of the relationship of interest. This might also be attributable to a possible correlation between homicide rate and the portion of homicides carried out with firearms, which is a composite feature of the Cook Index but not the Siegel Proxy. If the two rates are related, the correlation in
the models above attributed to the relationship between guns and violence may be misleading.

5.4 Goodness of Fit
A final step in evaluating the structural equation models above entails reviewing how well they fit the data. Table 6 presents a comparison of each of the four models. Because none of these models are nested in another, it is not possible to evaluate whether any improvements in the chi-square resulting from modifications are statistically significant. But we can evaluate the models across these measures to determine whether one stands out as an especially good fit.

The likelihood ratio chi-square associated with all four models are quite large, but the two Siegel Proxy models fare better, with a chi-square of 162.5 with 48 degrees of freedom. This highly significant value suggests that it is unlikely that the difference between the above models and a saturated model resulted from chance error; in other words, this model appears to be inconsistent with the data and needs to be revised. This finding is confirmed by the other goodness of fit measures as well. The root mean squared error of approximation (RMSEA) uses the same information as the chi-square statistic but corrects for the fact that large sample sizes are penalized.\(^2\) Here again the Siegel Proxy models outperform the Cook Index models with a value of 0.218; however, any RMSEA value exceeding 0.10 renders the model unacceptable.

<table>
<thead>
<tr>
<th>Table 6. Goodness of fit measures for SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chi2</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>chi2_ms(df)</td>
</tr>
<tr>
<td>chi2_bs(df)</td>
</tr>
<tr>
<td><strong>Population Error</strong></td>
</tr>
<tr>
<td>RMSEA</td>
</tr>
<tr>
<td><strong>Baseline Comparison</strong></td>
</tr>
<tr>
<td>CFI</td>
</tr>
<tr>
<td>TLI</td>
</tr>
<tr>
<td><strong>Size of Residuals</strong></td>
</tr>
<tr>
<td>SRMR</td>
</tr>
</tbody>
</table>
The remaining measures of fit paint a slightly more favorable picture for the SEM results. The Comparative Fit Index (CFI) presents the proportional improvement of the models over baseline in terms of reduction in the chi-square statistic, while the Tucker-Lewis Index (TLI) corrects the CFI to penalize near-saturated models. These values should be as close to 0.95 as possible, and at least over the 0.90 value necessary to accept the model. The Siegel Proxy models very nearly reach this threshold, outperforming the Cook Index. Finally, the SRMR takes the square root of the total squared deviations between the observed and predicted covariances, which should not exceed a value of 0.08. By this measure, all of the models perform well.

6. Conclusions
At the close of another year that has witnessed several tragic mass shootings, and in the midst of the debate regarding gun control that has ensued, this paper marks an attempt to clarify the causal effects underlying the gun ownership and violence in the U.S. The structural equation approach allows for the combinations of nonrecursive and cross-lagged effects of the kind theoretically predicted by the literature but not previously explored empirically. The models employed here, and particularly those using a more conventional approximation of gun ownership, lend tentative support to the claim that increasing the prevalence of firearms causes higher violence, and not the other way around.

It is worth noting, however, that limitations abound in this study. Some may be ameliorated through the use of multilevel structural equation models or a latent variable measurement error approach. But above all, this research highlights the need for a reliable direct measure of gun ownership. In 1996, gun lobbyists effectively pressured lawmakers to insert wording into the CDC’s appropriations bill, effectively banning the organization from using federal funds for the purpose of research on gun control. Perhaps the present paper, and its failure to definitively determine the causal relationship between guns and violence, is a testament to the need to overturn that decision and invest in research in this area. Little more can be done without more accurate information on gun ownership in the U.S. But when improved data does become available, the SEM approach employed in this paper represents a promising starting place for estimating the causal structure between guns and violence.
(Endnotes)


6 Kleck, “The Impact of Gun Control and Gun Ownership Levels on Violence Rates.”


22 In this and all other models herein, a one-year period constitutes one wave of research.

23 This is related to the findings from Hauser and Kleck (2013) discussed in Section 2.

24 This may not be relevant for the present sample of 51 states.
Rationale for Climate Adaptation and Mitigation Policies in Copenhagen, Denmark

Nancy Jones

Abstract:
As climate change continues to increasingly wreak havoc on the natural and built environment, with an ever-growing body of research indicating that human systems are responsible for the changes in the planet’s rising temperature, certain local and federal governments are taking the responsibility upon themselves to adapt to and mitigate climate change. These governments act of their own accord, as international climate policy is underdeveloped and, in many nations, unsupported. The city of Copenhagen is heralded as a leader in the climate policy fields, in both the distinct areas of climate mitigation and climate adaptation. Climate mitigation can be defined as the attempt to slow down or reverse the anthropogenic causes of climate change. Climate adaptation can be defined as the practice of developing human systems for a “new normal” on the planet, one that is plagued by the effects of an unstable climate. This paper is an attempt to outline the rationale that led to these progressive policies in the city of Copenhagen. Primarily, I wondered if the common conception of Danes being characteristically altruistic was a major reason for the adoption of such policies. I also considered reputational benefits, economic benefits, rent-seeking practices on the part of industry players, and civic duty in the form of public safety as possible reasons for the adoption of these policies. I found five strong reasons for the adoption of mitigation and adaptation policies throughout the course of research. In terms of mitigation, reputational benefits, economic benefits, and rent-seeking practices led to the adoption of this policy. In terms of adaptation, I discovered that economic benefits and civic duty led to the adoption of this policy. Other theories were dismissed due to weak evidence, including reputational benefits leading to adaptation policy and public safety leading to climate mitigation policy. I
found that altruism did not, in fact, play a significant role in the adoption of either policy, and neither did rent-seeking in the context of adaptation.

I. Background
In the face of the climate crisis that impacts humanity collectively, certain cities have led to the adoption of robust climate policies. The city of Copenhagen, Denmark, is strikingly progressive, even when compared to similarly developed cities. Copenhagen has developed and employed some of the most progressive climate mitigation and adaptation policies that exist worldwide. This paper is an attempt to understand the reasons behind the city’s adaptation and mitigation policies. For functional purposes, understanding the rationale behind these policies ought to assist in operationalizing parallel policies in other areas.

Climate Scientists believe nearly unanimously that our planet has for decades been on a trajectory for climatic disaster. Drastic changes in the earth’s natural systems are evidence of this prediction of imminent disaster, with more frequent flooding, longer and more severe droughts and heat waves, and melting glaciers cited as only a few of the most obvious and initial changes. Subtler yet equally substantial consequences include a warming permafrost layer, rising sea level, and a mass extinction event.

A clear majority of reputable scientists also agree that humans and the industrialized systems that employed by people directly cause climate change. Anthropogenic climate change suggests that people, by methods including overconsumption, mass manufacturing, and urban sprawl, have increased the level of carbon dioxide in the air, which in turn has warmed the planet.

Many of these problems disproportionately affect urban areas. With more people living in cities than ever before, the anthropogenic systems in place are at their most concentrated and therefore the climatic effects most severe in cities. Demographic trends are unlikely to counter this effect: the UN projects that the global population will continue to relocate to cities beyond 2050. Cities provide a unique paradox: not only are urban areas the largest perpetrator in driving climate change, they are also arguably the most significant victim of it, at least from a human perspective. Another super storm on the scale of Sandy, for example, has the potential to devastate millions of livelihoods in any given urban area, while a severe drought in an unpopulated area has less of a direct impact on the human economy.
This vulnerability necessitates that cities take urgent action, especially since they cannot rely on policies enacted at the national level. International efforts to combat the effects of climate change are important and highly visible but are still in a nascent form due to political stalling and setbacks on the part of the world’s largest nations. Lacking international leadership, certain progressive cities have developed their own localized policies. These policies focus on two distinct areas: climate mitigation, which is the attempt to slow down or reverse climate change, and climate adaptation, which is the attempt to build systems that are resilient in the face of the effects of climate change.

Given the unique characteristics inherent to every city worldwide, it is impossible to uniformly define climate mitigation and adaptation policies. Consider, for example, the droughts and wildfires that wreak havoc in California, which are a consequence of the same climatic changes as the rising ocean levels that threaten the sinking island nation of Kiribati. The policies employed by each of these distinct areas will be as far apart as they lie geographically.

No city is inoculated from the effects of a changing climate, and Copenhagen is no exception. Denmark’s capital, which includes just over 1 million people in its metropolitan area, suffers from increased flooding due to intense rainfall, known as “cloudbursts,” with climate change cited as the reason for the increased intensity and frequency. The July 2011 Cloudburst caused 150 mm of rain to fall in 2 hours, leaving €1 billion in insurance damage in its wake. The Danish Meteorological Institute predicts that there will be 25-55 percent more precipitation in the winter months in 2100, and expects precipitation in the summer months to fall by up to 40 percent. At the same time, the precipitation will be more intense; the intensity of the heavy downpours is likely to rise by 20-50 percent.

My choice to focus on Copenhagen is due to its status as one of the most environmentally friendly cities in the world. It is the cultural, economic, and governmental center of the country, is home to many universities; has seen rapid development in information technology, pharmaceuticals, and clean technologies; and has one of the highest rates of bike-per-capita of any city in the world. The city plans to become carbon neutral by 2025 and has already seen returns on its investments, which are estimated at $472 million in public funds and $4.78 billion in private funds. District heating aims to achieve carbon neutrality by adopting waste incineration and biomass technologies; by 2025 commercial and residential buildings are on track to reduce electricity consumption by 20 percent and 10 percent respectively, and total heat consumption is to fall by 20 percent. Renewable energy
features such as solar panels are becoming increasingly common in the newest buildings in Copenhagen, largely as a result of new energy efficiency laws. At this point in time, all newly constructed buildings must follow Low Energy Class ratings and by 2020 must meet net-zero energy buildings standards. The climate impact of transportation is likewise decreasing. Due to bicycle transportation infrastructure, by 2025, 75 percent of trips are projected to be made on foot, by bike, or by using public transit, and the city estimates that 20–30 percent of cars will run on electricity by 2025. Denmark has a population of 5.7 million. The country recently unveiled an ambitious plan to utilize exclusively renewable energy for all systems by 2050 and is well on its way to achieving this.13

II. Research Question
Given the political challenges to climate policy on an international level, it becomes ever more appropriate for a city to tackle mitigation and adaption in its localized political agenda, as Copenhagen has. In an effort to internationally replicate its policies, it is imperative to articulate the rationale for their support. Therefore, my research has focused on understanding the reasons that have led to such successful adaptation and mitigation policies. I identified hypotheses that might explain the reason for supporting such policies and tested the validity of each hypothesis.

III. Hypotheses
I devised and explored five hypotheses throughout the course of this research, for both climate mitigation and adaptation, resulting in ten hypotheses total. I tested each hypothesis for its likelihood of being a factor in adopting climate mitigation or climate adaptation policy. The hypotheses included altruism, reputational benefits, economic benefits, rent-seeking behaviors, and civic duty, with distinct actors and scenarios for their application to adaptation and mitigation policies.

Climate Mitigation Policies
1. **Altruism:** The city government of Copenhagen adopts and financially supports climate mitigation policies because its citizens and decision makers wish to be good global citizens in the face of climate change.
   a. The hypothesis of altruism leading to mitigation policies would be supported if citizens and the city employed low-carbon practices despite the costs they may carry, and if they attempt to influence other cities.
2. **Reputational Benefits:** The city government of Copenhagen adopts and financially supports climate mitigation policies because the city derives reputational benefits directly from the climate-change related tourism sector.
   a. The hypothesis of reputational benefits leading to mitigation policies would be supported if the tourism sector advertised low-carbon practices that impact climate change.

3. **Economic Benefits:** The city government of Copenhagen adopts and financially supports climate mitigation policies because the city derives economic benefits from the mitigation industry.
   a. The hypothesis of economic benefits leading to mitigation policies would be supported if the job growth derived from mitigation policies directly influenced the decision to introduce such policies.

4. **Rent-Seeking:** The city government of Copenhagen adopts and financially supports climate mitigation policies because a service provider or an industry employs rent-seeking tactics to drive the development of mitigation policy.
   a. The hypothesis of rent-seeking leading to climate mitigation policies would be supported if the renewable energy sector held a large and powerful position in the local economy and if it can successfully use this position to influence policy in the city.

5. **Public Safety:** The city government of Copenhagen adopts and financially supports climate mitigation policies because public safety and the protection of its citizens from climate change is a high priority.
   a. The hypothesis of public safety leading to climate mitigation policies would not be supported because mitigation policies typically do not affect a population on a localized level or in the short run; therefore, I did not test this hypothesis.

**Climate Adaptation Policies**

6. **Altruism:** The city government of Copenhagen adopts and financially supports climate adaptation policies because its citizens and decision makers wish to be good global citizens in the face of climate change.
   a. The hypothesis of altruism would not be supported because adaptation has a minor impact on global climate change, therefore I did not test this hypothesis.

7. **Reputational Benefits:** The city government of Copenhagen adopts and financially supports climate adaptation policies because the city derives reputational benefits directly from the climate-change related tourism sector.
a. The hypothesis of reputational benefits leading to climate adaptation policies would be true if the tourism sector advertised the city as having excellent livability due to climate adaptation projects.

8. **Economic Benefits:** The city government of Copenhagen adopts and financially supports climate adaptation policies because the city derives economic benefits directly from the adaptation sector.
   a. This hypothesis of economic benefits leading to climate adaptation policies would be supported if during the decision-making process the city employed a financial analysis that indicated the positive benefit to the economy derived from adaptation policies.

9. **Rent-Seeking:** The city government of Copenhagen adopts and financially supports climate adaptation policies because a service provider or an industry employs a rent-seeking strategy to drive the development of adaptation policy.
   a. The hypothesis of rent-seeking leading to climate adaptation policy would be true if service providers to the adaptation policy held a large and powerful position in the local economy and if they can successfully use this position to influence policy in the city.

10. **Public Safety:** The city government of Copenhagen adopts and financially supports climate adaptation policies because public safety and the protection of its citizens from climate change is a high priority.
   a. The hypothesis of public safety leading to climate adaptation policy would be true if local government’s public safety department implemented best practices of adaptation projects.

**IV. Methodology**

For this research, I outlined a controlled comparison case study in which I examined the two distinct policy categories of climate adaptation and climate mitigation. To understand why Copenhagen adopted these policies, I researched the reasons for the support of both climate mitigation and adaptation policy. I defined 10 hypotheses in total, five of which applied to adaptation policy and five of which applied to mitigation policy. Two of the hypotheses—number 5 regarding mitigation and number 6 regarding adaptation—were evidently irrelevant without further research; I discarded these at the outset of the research.

Next, I determined who the relevant actors were in the case of each hypothesis. Then, I began testing the validity of each hypothesis. I studied each test as an isolated unit, exclusive from any of the other defined hypotheses. Since I determined hypotheses number 5 and 6 to be untrue without requiring...
a test, I did not include them in the testing phase. Through testing, I proved hypothesis number 1, 7, and 9 to be unsupported, and hypotheses number 2, 3, 4, 8, and 10 to be true; I provide evidence for each determination. In the last part of my research, I performed a cross-case analysis by comparing the hypotheses between mitigation and adaptation policies with the intent to understand the distinctions between the sources of support for such policies.

V. Evidence and Interpretation

1. Climate Mitigation: Altruism

Environmental responsibility is woven into the social fabric of the Danish population. The city has adopted progressive policies that address problems across the spectrum of social and environmental issues. One such policy that directly mitigates the city’s impact on climate change is a formal plan to become the first carbon neutral capital by 2050. Carbon neutrality will require, among other changes, significant retrofits to existing buildings at the expense of the property owners (see Figure 1 below). Commercial and residential buildings are to reduce electricity consumption by 20 percent and 10 percent, respectively.14

However, while altruism is a characteristic found throughout the Danish population, it is not universal within the population and cannot justify the requisite private financial investment. A major barrier is the landlord-tenant dilemma, as many Copenhageners rent and neither tenants nor landlords have a strong financial interest in retrofitting buildings to make them more efficient. Over 70 percent of Copenhagen’s buildings were constructed before the introduction of Denmark’s energy efficiency standards and will require such retrofits. To many Copenhagen residents, household economics are more significant than environmental responsibility. While certain citizens will willingly retrofit their apartment or building, a larger majority will require forceful compliance or incentives to participate. I confirmed this concept during an interview with the Program Manager of the Carbon Neutral Plan.15

Figure 1

<table>
<thead>
<tr>
<th>Green Investments</th>
<th>DRK Millions</th>
<th>Jobs per million kroner invested</th>
<th>Impact on employment (annually)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal investments</td>
<td>kr 2,500.00</td>
<td>1.3</td>
<td>3,000</td>
</tr>
<tr>
<td>New Build: extra investments (private sector)</td>
<td>kr 6,000.00</td>
<td>1.3</td>
<td>7,800</td>
</tr>
<tr>
<td>Retrofitting new investments in energy retrofitting</td>
<td>kr 2,600.00</td>
<td>1.3</td>
<td>4,680</td>
</tr>
<tr>
<td>Energy Production</td>
<td>10,000-15,000</td>
<td>1.3</td>
<td>13,000-19,500</td>
</tr>
<tr>
<td>Total (DRK Millions)</td>
<td>22,100-27,100</td>
<td></td>
<td>28,480-34,980</td>
</tr>
</tbody>
</table>
2. Climate Mitigation: Reputational Benefits

Climate mitigation policies have a tangible effect on the tourism industry. Therefore, I researched the likelihood that these benefits are a reason that led to the strong and progressive policies to address climate mitigation. The city has derived much in the way of reputational benefits, with multiple organizations labeling it as the greenest city in the world. One example of this tourism benefit is the House of Green, which is a building funded by the City of Copenhagen's “State of Green” department, the main body behind the promotion of the green tourism sector. The House of Green hosts policy makers and state diplomats with the intent to showcase the environmental sustainability of the city. Additionally, the Arcadis Sustainable Cities Index ranked Copenhagen in the top 10 list of global cities, citing the carbon neutrality plan and expansion of bicycle lanes. The reputational benefits that take shape in the tourism sector are a large contributing factor to the mitigation plan. The Program Manager of the Carbon Neutral Plan discussed with me the desire for the city to become the world’s first carbon neutral capital, and the regret that Adelaide, Australia, had previously announced its plan to become the world’s first carbon neutral city. Copenhagen will receive much attention for its status as a carbon-neutral capital.

3. Climate Mitigation: Economic Benefits

I tested for economic benefits leading to support for the adoption of climate mitigation policies and found that evidence supports this factor’s relevance. The Danish workforce employs 108,000 jobs in sectors based on natural resources, which is about 6.9 percent of total employment. Considering a broader definition of those employed in jobs only tangentially related to the green industry (i.e. tourism of the green industry), the European Employment Observatory estimates that the total number of employment in Danish eco-industries was roughly 338,000 jobs in the year 2000, or the equivalent of 12.3 percent of total employment.

In a different framework, the Organization for Economic Co-operation and Development published a recent report on the city’s clean tech sector that not only has been driving regional economic growth but also outperformed other sectors during the economic downturn. OECD Secretary-General Angel Gurría has praised the efforts, saying, “Copenhagen is a success story, and cities around the world have much to learn from this success.” The OECD identified conditions responsible for that success: ambitious climate policy, political consensus on the need for action, and innovative public-private partnerships. As clearly stated by the OECD,
ambitious climate policy is a successful strategy employed by the city to drive the economy.\textsuperscript{23}

4. Climate Mitigation: Rent-seeking Practices
Rent-seeking tactics on the part of the wind energy industry are prevalent and comparable to the aggressive rent-seeking strategies that the “big oil” industry employs in the United States. The wind energy industry is booming in Copenhagen, and Denmark more broadly, due in no small part to the tactics employed by the for-profit businesses driving this renewable energy growth. The Danish company and world’s largest wind-turbine manufacturer, Vestas, has urged governments to heavily invest in the wind market. It sponsored CNN’s “Climate in Peril” segment, increasing the support for policies that would increase Vestas’s earnings.\textsuperscript{24}

The rent-seeking efforts have yielded results, as the goal of carbon neutrality by 2025 will require greater use of wind energy, and Denmark is well on its way to utilize exclusively renewable energy by 2050.\textsuperscript{25} In the 1990s, the government inaugurated tariffs that required utilities to offer 10-year fixed-rate contracts for wind power. That sort of security led to a rapid expansion of wind power in the country, which now has more than 5,200 turbines producing more than 3,100 MW of electricity.\textsuperscript{26} In the 1990s, the government inaugurated tariffs that required utilities to offer 10-year fixed-rate contracts for wind power. That sort of security led to a rapid expansion of wind power in the country, which now has more than 5,200 turbines producing more than 3,100 MW of electricity.\textsuperscript{27}

5. Climate Mitigation: Civic Duty
I did not test for civic duty leading to climate mitigation policy because mitigation typically affects systems on an international or national level, but not on a localized, city scale.\textsuperscript{28} Therefore, it is untrue that a sense of civic duty contributed to the adoption of climate mitigation policies.

6. Climate Adaptation: Altruism
I did not test for altruism leading to climate adaptation policy because adaptation does not impact climate change; rather it develops a way of functioning within climate change, meaning that altruism is irrelevant in this scenario. Therefore, it is untrue that altruism contributed to the adoption of climate adaptation policies.
7. Climate Adaptation: Reputational Benefits
I tested for the reputational benefits Copenhagen receives for its adaptation plan as a rationale for the adoption of that policy. What I found was that the city’s policymakers were motivated by different factors that do not include the reputational benefits. Because adaptation projects deal largely with infrastructure (i.e. pipelines or underground water collection areas) the value of these projects is external to the reputational or tourism sector. Adaptation projects simply do not hold the same kind of appeal as mitigation projects, such as massive offshore windfarms, which can attract tourists for educational or recreational purposes.

8. Climate Adaptation: Economic Benefits
I tested for economic benefits leading to support for the adoption of climate adaptation policies and found this factor to be a large contributing factor to the policy’s adoption. The city loses billions of dollars annually to flooding and the ensuing infrastructure damage and loss of business. To quote the Mayor of Technical and Environmental Administration in Copenhagen, “The initiatives set out in this [Climate Adaptation] Plan cost DKK 3.8 billion and will protect the city against extreme rainfall events of an intensity seen only once in a hundred years. This sounds expensive, but last year’s intense downpour caused damage to the tune of DKK 5-6 billion in Copenhagen. Hence recommendations point to using the money for preventing floods rather than on regeneration once the damage has been done.” The mayor further comments that these adaptation projects will create 13,000 jobs. As the Mayor explicitly states, without implementing adaptation measures, the city’s economy will suffer. Despite the massive investment required, the city government believes the economy will fare better with the measures in place.

9. Climate Adaptation: Rent-Seeking Practices
When I tested for the influence of rent-seeking tactics on climate adaptation policies, I found none of the anticipated evidence to support this hypothesis. Anticipated evidence would include, at a minimum, an industry that attempted to lobby the citizen government for business opportunities, and, at most, a successful lobby effort on the part of an industry. I found no evidence of either of these scenarios within adaptation policies. Contrary to that expectation, I found evidence to support the development of adaptation projects from a staff of citizen volunteers and donated resources and equipment.
10. *Climate Adaptation: Civic Duty*

I tested the hypothesis of civic duty and public safety as reasons for adoption of adaptation policies and found that this was present in Copenhagen. The Mayor of Technical and Environmental Administration stated within the Climate Adaptation Plan, “Copenhageners must be able to feel safe in the city where they live, also at times with massive downpours. For this reason, we need to take adaptive action against future extreme rainfall events. We can never protect the city fully, but we can prepare the city far better for the floods than is the case today.”

Public safety and civic duty are issues of high criticality within the city, and therefore rationalized the adoption of adaptation policies.

**VI. Comparative Analysis**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Mitigation</th>
<th>Adaptation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altruism</td>
<td>Not Supported</td>
<td>N/A</td>
</tr>
<tr>
<td>Reputational</td>
<td>Supported</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Economic</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>Rent-Seeking</td>
<td>Supported</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Civic Duty</td>
<td>N/A</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Contrary to my initial assumption that altruism as it relates to environmental responsibility would play an overwhelmingly large role in the decision-making process, altruism was not a factor that led to the adoption of either climate mitigation or adaptation policy. While select citizens of Copenhagen value sustainability, this sentiment is not powerful enough collectively to propel the policy forward.

Evidence supports the hypothesis that the reputational and tourism benefits the city derives from climate mitigation policies are highly relevant, but that those same benefits do not play a role in the adaptation policies. The adaptation projects tend to be small projects that often go unnoticed as they blend into the surrounding environment by design, such as an adaptive park that functions as a catch basin during a large downpour. Mitigation projects, like the Middlegrundens Wind Farm off the coast of Denmark near to Copenhagen, can draw attention curious visitors—myself included.

The economic benefits represented a large part of the motivation to adopt both climate mitigation and adaptation policies. The economics of the green development industry hold great potential and were significant...
contributing factors for both policies; however, this took distinct shapes. In the case of mitigation, much recent growth is due to projects such as the expansion of a bike “superhighway” and the robust development of wind turbines. The economic benefits of adaptation, on the other hand, come in the form of losses prevented by the construction of new infrastructure. There is no immediate economic loss from failures to mitigate climate change, nor is there a direct economic gain from adapting to climate change; nevertheless, the adoption of both policies generates economic growth.

The private wind energy industry stands to gain much from the adoption of mitigation policy, which is the reason for the industry’s involvement in supporting the mitigation. For-profit companies, however, have no such incentive for supporting adaptation and therefore rent-seeking is not a factor in the adoption of adaptation policies.

Civic duty is a critical piece of the rationale to adopt adaptation policies. Failure to act on the flooding caused by Cloudbursts will severely endanger current and future citizens. In mitigation, public safety is not a relevant factor.

The most relevant distinction between the support for both policies is that adaptation tends to generate support on a citizen level, whereas mitigation garners support by considering business communities and external partners. To this point, adaptation measures cite public safety and the economic havoc wreaked on the city as the rationale to adopt such policies. Conversely, mitigation proponents cite reputational benefits, job growth, and the private wind industry as the rationale for adoption.

For mitigation policies, a blend of reputational benefits, economic benefits, and rent-seeking practices all contribute to policy adoption. All three factors are sufficient together, and all three are required. Without even just one of these reasons for adoption, there would not be enough support for this policy. This is due to the novelty of such a policy and the need to appease many varying stakeholders, without one of which the policy would be dead in the water.

Regarding adaptation policies, the economic benefits and civic duty factors are sufficient as a pair. Economic benefits are sufficient alone and required for the adoption. It remains unclear if civic duty as a factor to propel this policy forward would be sufficient by itself.

The overlap between the economic reasons holds significant implications for policy decisions. Not only do economic benefits incentivize the initial adoption of green policies, their strong connection to the city will increase the likelihood of support for these policies over time.
VII. Conclusions

Studying the rationale for their adoption makes it clear that climate mitigation and adaptation projects in the city of Copenhagen are, in most cases, consequences of distinct motivations, with the exception of economic gains. A common misconception is that mitigation and adaptation plans are only slightly different from each other, and some may even consider them to be synonymous. This case study has demonstrated that just as the intent of the policies are different, the reasons to support and adopt them also vary. It is my hope that this case study serves to better inform policy makers on the successful adoption strategies employed in Copenhagen with regards to both mitigation and adaptation.

If support for the policies came from identical factors, then the steps cities wishing to emulate Copenhagen’s success should take would be straightforward. As that is not the case, the obvious concern is that mitigation and adaptation could compete for funding. However, Copenhagen’s case demonstrates that it is possible for each policy to secure significant funding, likely as a result of the disparate reasons for adoption.

Since both policies relied on economics to justify their adoption, it is clear that, for Copenhagen, policies to mitigate and adapt to climate change make good economic sense. Advocates of similar adaptation and mitigation policies must show that these are not alternative or idealized policies, and certainly do not rely solely on the altruistic nature of the affected constituents. Instead, such policies are successful, measured by the financial impact of their adoption. My findings demonstrate that despite the common notion that many cities cannot financially justify effective climate policies, the world should structure their arguments using the framework that Copenhagen has provided.
(Endnotes)


3 Environmental Defense Fund


10 “Denmark’s Future Climate.” Danish Meteorological Institute.


15 Private Interview, 2016


22 OECD


30 Ibid.

Malaysian Water Security: A System in Crisis

Elias Menninger

Executive Summary
Despite Malaysia being blessed with an abundant supply of fresh water, rapid urbanization, industrial development, and population growth have strained the resource. Urban centers throughout the country have created an unsustainable demand for water. This pressure cannot be alleviated under the current policies and practices, which fail to address growing concerns over water supply, distribution, and consumption.

In order to achieve sustainability within the Malaysian water sector, several issues must be tackled. Among these issues are institutional ineffectiveness (public & private), inefficient operation by water operators, and high non-revenue water (NRW) losses. This paper will seek to analyze the current water policy and recommend the following two-pronged solution to deal with these issues. First, the solution advocates a new governmental approach to water security, focusing on incorporating water as a basic human right. This human-rights approach can provide a definitive framework for the Malaysian government to develop appropriate policies aimed at universal water access. Second, the solution suggests using this new basic right framework to re-establish public-private partnerships (PPP) aimed at reducing water authority redundancy and improving efficiency and effectiveness. Furthermore, it is recommended that the Malaysian government emulate the Chilean privatized water system as a guide for implementing the above solutions.

Historical Development of Malaysian Water Sector
While Malaysia currently faces a number of water-related issues, historically, the government has found incredible success in its water policies. The Malaysian water sector can be traced back to its historical development under the British Empire in the 19th century. As early as 1804, the British built a piped water system supplying water to Penang. Since water was an abundant resource throughout Malaysia, the British continued their construction with piped
systems to Kuala Lumpur in 1887 and Malacca in 1889. Following the separation from the British Empire in 1957, rapid urbanization and population growth demanded that the government of Malaysia (GOM) rethink its water sector. In order to supply the rapidly growing population and fuel the intense industrialization, the federal Public Works Department (PWD) “provided consultation and technical advice to state water supply authorities, and coordinated all the water supply projects that were funded by federal loans and grants”. States were given authority and autonomy to modernize their water sectors, gradually increasing the number of Malaysian citizens’ access to clean, improved drinking water sources. And as a result of these decentralization policies, the government has managed to provide clean water access to roughly 98.2 percent of the population.

To achieve this accessibility, the GOM focused much of its efforts on improving the water supply infrastructure. By 1999, the number of dams stood at sixty-three: forty-seven single-purpose dams and sixteen multipurpose dams. A single-purpose dam is used for flood prevention; a multi-purpose dam functions as both a hydroelectricity generator and as a reservoir for water irrigation. As it stands, these dams have an operating capacity of 25 billion m³. The myriads of dams, pipelines, and water treatment facilities throughout the country have sustained Malaysian domestic, industrial, and agricultural needs. With a secured water sector, Malaysia’s industrialization was ensured. Unfortunately, this rapid growth has strained the system, resulting in a variety of issues. In particular, the increasing number of rural-urban migrations and rapid urbanization of the surrounding countryside has stretched the government’s ability to “provide the infrastructure and service needs as well as the necessary environmental conditions for a better living”.

**Malaysian Water: An Abundant, but Over-consumed Resource**

The problems facing Malaysia water security are not of supply, but rather governmental inefficiencies, waste, and increased demand/consumption. In a report conducted by the Food and Agriculture Organization and the...
Malaysian Water Partnership, water resources in Malaysia are quite abundant, “the renewable water resources are 630 billion m³ – the summation of surface runoff and groundwater recharge. This translates into an annual average water availability of about 28,400 m³ per capita”. With an estimated 150 river systems throughout the country, streams and rivers contribute 98 percent of the total water used in Malaysia.

<table>
<thead>
<tr>
<th>Annual rainfall</th>
<th>990 billion m³ (Ref 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface runoff</td>
<td>566 billion m³</td>
</tr>
<tr>
<td>Evapo-transpiration</td>
<td>360 billion m³</td>
</tr>
<tr>
<td>Groundwater recharge</td>
<td>64 billion m³</td>
</tr>
<tr>
<td>Surface artificial storage (dams)</td>
<td>25 billion m³ (Ref 2)</td>
</tr>
<tr>
<td>Groundwater storage (aquifers)</td>
<td>5 000 billion m³ (Ref 3)</td>
</tr>
</tbody>
</table>

Although the resource is readily available, increased demand and consumption among the urban population has overtaxed the current water supply. The government estimates that Malaysia’s water demand will increase by 63 percent from 11 billion m³ in 2008 to 17.7 billion m³ in 2050. In 2014, the average water consumption per day for household use was 212 liters. It is noted that only 30 percent of this consumption is actually used for drinking and cooking, the rest is used for washing cars, filling pools and washing clothes. According to the World Health Organization, recommended water consumption should hover around 165 liters per day. Additionally, since 1980, water demand has expanded at a rate of 12 percent. If Malaysia is to avoid a water crisis, consumption levels must be lowered to the recommended amount. The government might want to enact a daily cap on water usage to prevent overconsumption and limit how much water is wasted on trivial expenditures.

In addition to overconsumption, Malaysia water supply faces a critical issue relating to non-revenue water (NRW) losses. NRW is water that is produced but lost before it reaches the consumer through poor infrastructure, theft, pollution or inaccurate meter readings. In a report filed by the World Bank, it is estimated NRW losses contribute to nearly $14 billion lost yearly, with a third of it occurring in the developing world. Additionally, in a report by the Asian Development Bank, countries like Vietnam, the Philippines, Thailand, and Indonesia all experience high levels of NRW losses (Table 3). The Malaysian government reports that the national average of NRW hovers roughly around 36.63 percent—a loss of 36 liters out of every 100 liters of
treated water produced. Furthermore, some regions report losses as high as 60 percent (Pahang) and 49 percent (Negeri Sembilan). This high percent lost in Malaysia has seriously undermined water operators’ ability to generate enough revenue to not only sustain their operation but to expand their services to new areas. Prolonged non-revenue water loss demonstrates the inefficient management model currently in place. Millions lost in revenue could have been used for service improvements, such as infrastructure maintenance and meter reading expansion.

Malaysia’s Experience with Water Privatization

In an effort to combat growing water security concerns, the GOM opened up its water sector to private investment in 1987. As Malaysia industry rapidly grew, “accessing private capital became the major motive for seeking private sector participation in urban water utilities”. The GOM hoped that through privatization, state water departments could boost efficiency and effectiveness. Currently, “some states have adopted a full privatization mode and/or corporatized their water supply services whilst some states only privatized certain aspects of water supply services”. In the early 1990s, the Malaysian government further amplified the role of business in infrastructure. The Privatization Master Plan was officially launched in 1991. This plan encouraged private-sector investment in all sectors of infrastructure, through both greenfield projects and divestitures.
Although the water sector had already been open to private investment, the deals were small-scale supply contracts. Following the launched master plan, the speed and scale of public-private partnerships (PPP) expanded rapidly. By 2000, Malaysia had several build-operate-transfer (BOT) contracts, state concessions agreements and mixed-ownership companies (Annex 1). BOT is a form of project financing, where a private entity receives a concession from the public sector to finance, design, construct, and operate a facility as stipulated in the contract. Initially, these projects saw success in reducing costs and improving efficiency. Between 2001 and 2005, 3,380 km of old pipes were replaced to reduce non-revenue water. It is estimated that “pipe length increased by an average of 20 percent nationally between 2005 and 2008”. Despite initial successes, the PPPs proved to be financially unsustainable. Low tariff levels and high bill delinquency ultimately led to many contracts being canceled and control returned to the public sector. In particular, the concessions signed in Malaysia’s two most populous states, Johor and Selangor, were “characterized by low levels of efficiency and severe budget constraints”. Service quality and rates of coverage growth actually deteriorated under private management. Between 2000 and 2008, the national average NRW improved by a mere 3 percent, from 40 percent to 2008. Furthermore, government funding that sought to alleviate these issues created an artificial division between states with a higher income (urbanized) and states with a lower income (more rural). Private companies concentrated their efforts on these lucrative, higher income states, essentially “cherry picking” the most profitable segments. This ultimately increased costs and reduced the financial viability of the water sector as a whole.

It is apparent that Malaysian water management has become overly complex and lacks cohesion and vision. Although the federal government has given the choice for its states to adopt privatization as a model for its utilities, the federal government continues to develop and fund its water infrastructure through a series of programs, known as the Malaysia Plans.

**The Government’s Response**

Since its inception in 1966, each subsequent plan has allocated a significant amount of funding for the improvement of rural and urban water supplies. Although the federal government’s water policies have given roughly 98.2 percent of the population access to clean drinking water, the water sector remains inefficient and ineffective. To combat these concerns, the GOM in 2006, released a detailed reform plan aimed at not only addressing many of the concerns mentioned earlier but also reforming the troubled water sector.
The plan looked at seven issues: national water vision, policy and law, river basin organizations, pollution, groundwater, water-demand management and research and development (Annex 1). Additionally, the reform plan introduced the Water Services Industry Act (Act 655), which ensured the “uniformity of law and policy to make a law for the proper control and regulation of water supply services and sewerage services”. The WSIA established a set of ten national policy objectives, which included such provisions as “to ensure the long term availability and sustainability of the water supply,” “to regulate tariffs and ensure the provision of affordable services on an equitable basis,” and “to establish an effective system of accountability and governance between industry players”. The act transferred “responsibility for water supply infrastructure from state government to the federal level” and established a national asset holding company (PAAB) and a national regulatory authority known as the National Water Services Commission.

While the government has finally managed to create a regulatory body to monitor the effectiveness of the PPPs, the measures laid forth by the WSIA still remain ineffective. Some Malaysian civil society organizations believe that the regulatory committee is unable to operate independently and falters under political interference. Furthermore, “political meddling has been one of the major root causes which crippled the functions of regulatory bodies and water utilities in several countries”. Water services managed by the different authorities and companies (public and private) are still difficult to monitor, compare and evaluate the quality of services provided to consumers. In order to create a more comprehensive water policy, many of these authorities must be consolidated and the current public-private partnerships must be re-evaluated. Furthermore, the government must formulate a cohesive and comprehensive vision that incorporates water as a basic human right.

**What Can Be Done – Policy Recommendations**

Due to the issues facing Malaysian water security, a two-pronged solution is recommended. The first step suggests advocating water as a basic human right, and the second proposes re-establishing public-private partnerships that incorporate a more comprehensive strategy aimed at improving efficiency and effectiveness by reducing NRW losses and promoting a demand management scheme rather than supply management.

**Water as a Human Right**

In 2001, in cooperation with the FAO, the Malaysian Water Partnership proposed a vision for 2020 aimed at combating water insecurity in Malaysia.
Titled Malaysia’s Water Vision: The Way Forward, the vision consisted of four key objectives: water for the people, water for food and rural development, water for economic development and water for the environment (Annex 2). Each objective provides a set of concrete initiatives that must take place in order to achieve water security. Particularly important is the objective tied with water for the people. The MWP envisions recognizing water as a fundamental right among all citizens. This belief can shift the current water paradigm from ownership of water to the role of water for individuals and communities.

The MWP has already seen success in a number of countries around the world regarding the implementation of water as a basic human right. South Africa has come the closest to fully implementing water as a universal right. In 1997, the government of South Africa passed the Water Services Act (WSA). This piece of legislation set forth a comprehensive water policy that guarantees and protects the human right to water. As stated in its preamble, it “recognizes the rights of access to basic water supply and basic sanitation necessary to ensure sufficient water and environment not harmful to health or well-being. [The Act] acknowledges that there is a duty of all spheres of Government to ensure that water supply services and sanitation services are provided in a manner which is efficient, equitable and sustainable”. Adding onto the WSA, in 2000, the government mandated “6,000 liters per month to poor households each month free of charge”. This provided a base level for what private companies must provide their consumers. The GOM could provide a monthly allocation of 4,800 liters (160 liters a day). This floor could help reduce consumption by meeting the recommended values set forth by the WHO and provide water to every Malaysian citizen, regardless of income.

While the GOM has enacted the Water Services Industry Act in 2006, the government has yet to take steps to ensure water for all Malaysian citizens. If the GOM can ensure water as a basic right and add a new revision to the WSIA, private companies tasked with water management will be held accountable, meaning, “that states cannot allow market forces and pure profit to drive the provisions of basic services”. The human right framework requires contracting companies to abide by all provisions laid out in the act, and companies cannot cut corners to reduce water service costs. Using a human right framework, public-private partnerships can be re-defined and re-established to create a more cohesive system. Working in conjunction with the government, the solution hopes to see a human-rights approach to water inducted into policy by 2025.
Re-establishing Public-Private Partnerships

In addition to advocating a human right approach to water security, the second step hopes to re-establish PPP to reduce NRW and promote demand management. As mentioned earlier in the paper, the current consumption rate of the average Malaysian citizen far exceeds what can be supplied by the water sector. By establishing effective public-private partnerships, consumption can be reined in through better water supply/demand management. Private operators can make huge improvements in operational efficiency and service quality, through infrastructure improvement and NRW loss reduction. As of 2001, Malaysian private operators have served an estimated 12.6 million people. If private companies are given access to different localities, they might find it easy to establish viable partnerships with local authorities and better mitigate political risks. Unfortunately, many of these private companies operate within the political margins, and water privatization often lacks transparency and accountability.

To address this lack of accountability, the government must mandate water as a basic human right. In doing so, companies will be held to specific standards that must be met if they are to continue business in the water sector. Such standards could include monthly regulatory meetings, yearly contract and audit reviews, and an imposed block tariff structure aimed at providing a baseline water amount for every Malaysian citizen. Furthermore, the GOM can use the monthly regulatory meetings as a means to evaluate service, increase public participation, and create transparent decision-making. The state can monitor for health and safety issues as well as impose hefty penalties when water suppliers do not comply. A block tariff structure provides every citizen with a set amount of water regardless of income. And as per household consumption increases, tariffs also increase. This can provide private companies with incentives to improve infrastructure and meter readings. Additionally, publicly owned water systems lack the funds needed to support the growing water demand. Private companies can front the investment costs needed to rebuild infrastructure and minimize non-revenue water losses.

The GOM should look toward Chile’s water sector as a prime example of a successful public-private integration. The Chilean government has fully privatized its water sector, while greatly subsiding water for lower income brackets and guaranteeing water as a human right. The subsidy system is financed by the national government and is paid directly to the private companies, allowing the private companies to make up revenue that might have been lost due to inaccurate meter reading and households that used
While the average price of water and sanitation rose dramatically since full privatization, the Chilean government through regulation and subsidies were able to cushion the blow of rising prices. Chile provides the perfect model for building a strong public-private water sector with a human right approach.

Conclusion

While Malaysia does not face an immediate water security crisis, institutional ineffectiveness (public & private), inefficient operation by water operators, and high non-revenue water (NRW) losses must be addressed to prevent a water disaster in the future. In order for Malaysia to continue making water security improvements, effective PPPs must be established within a human right framework and with appropriate regulatory requirements. If the state can mandate water as a basic right through either a constitutional amendment or a revision to the Water Services Industry Act and develop accompanying regulations, private companies will be held accountable by the state-run regulatory system. Effective PPPs can utilize a block tariff structure to reduce water consumption and use annual water audits to minimize NRW losses. Moreover, through strict implementation and enforcement of laws and policies, Malaysia’s water sector can be streamlined. Furthermore, the Malaysian government should use the Chilean privatization model as a framework for implementing public-private partnerships.

Appendix 1: Malaysia: Water responsibilities by ownership structure, 2000-2008

<table>
<thead>
<tr>
<th>Public (EI)</th>
<th>Corporatized (EI)</th>
<th>Public-private (EI)</th>
<th>Private (EI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarawak [SAR] (94.8)</td>
<td>P. Pinang [PUL] (109.0)</td>
<td>Kelah [KED] (95.5)</td>
<td>Johor [JOH] (102.9)</td>
</tr>
<tr>
<td>Perlis [PRL] (95.0)</td>
<td>Terengganu [TER] (91.5)</td>
<td>N. Sembilan [NEG] (101.8)</td>
<td></td>
</tr>
<tr>
<td>Pahang [PAH] (96.3)</td>
<td>Kelantan [KEL] (91.9)</td>
<td>Sabah [SAB] (82.8)</td>
<td></td>
</tr>
<tr>
<td>Melaka [MEL] (106.4)</td>
<td></td>
<td>Perak [PRK] (99.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selandor [SEL] (111.4)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Economic Index (EI) from Malaysia (2006).
Notes: Abbreviations for each state in square brackets. Sarawak data exclude LAKU, Kuching, and Sibu. Selangor includes Kuala Lumpur and Putrajaya. Water distribution in Selangor was privatized in 2005.
Appendix 2: Water sector issues to be addressed in Eighth Malaysian Plan (2001-2005) And the Third Outline Perspective Plan (2001-2010)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Remark and action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. National water vision</td>
<td>The adoption of a national water vision to ensure continuous supply of water in terms of quantity and quality to meet all needs, including those of the environment. This vision shall be one of the main agenda in the sustainable national development plan. The strategy guidelines and plan of action to realize the vision are formulated, adopted and disseminated to all stakeholders, so that everybody is committed to conserve water resources and their ecosystems. Water is everybody's business.</td>
</tr>
<tr>
<td>2. Policy and law</td>
<td>The national water policy shall be formulated by the federal government and adopted by the state governments. The policy encompasses integrated management of land and water resources based on river basins, and the protection of watersheds and aquifers. The policy guides interstate water transfers, allocation of water to users, dam monitoring and safety, and development activities in watersheds, including the vicinity of dam reservoirs. Contemporary laws are enacted to facilitate the implementation of the national water policy and shall be adopted by the state governments.</td>
</tr>
<tr>
<td>3. River basin organizations</td>
<td>The state governments are recommended to set up water management institutions similar to the Selangor Water Management Authority (LUAS). This will contribute to the implementation of best practice in the management of water resources to ensure sustained supply of good-quality water. Laws are enacted to support these institutions. The human resources of the institutions comprise inter-discipline water professionals able to overcome present and future challenges in the national water sector.</td>
</tr>
<tr>
<td>4. Pollution</td>
<td>Activities which pollute water resources are monitored and corrected. The surveillance of watersheds is assisted by remote-sensing techniques to detect illegal activities and overcome water pollution problems. The polluted rivers are restored in stages, with the participation of all stakeholders. Awareness campaigns are made among the riverine population and the authorities responsible for the water-polluting activities. The principle of &quot;polluter pays&quot; will be enforced. The programme of restoration of water resources will only be successful if it begins at the source, that is, with the control of polluting sources.</td>
</tr>
<tr>
<td>5. Groundwater</td>
<td>Groundwater exploration programmes are implemented, especially in the main river basins, to identify potential aquifers, and protection zones are provided to safeguard this important resource. Guidelines for the development of potential polluting activities and the appropriate laws will be formulated and enforced.</td>
</tr>
<tr>
<td>6. Water-demand management</td>
<td>Water-supply management shall be replaced by water-demand management in order to minimize the exploitation of new water sources to meet the increasing water demand. Water-demand management consists of all activities to increase efficiency in water supply and water usage and promote water recycling. Incentives will be given to industries that practice water reuse since they contribute directly to water-demand management and to the reduction of effluents. New housing, commercial and industrial estates shall be fitted with water-saving devices, including rainwater harvesting devices, and the new drainage concept of zero peak flow contribution from developed areas shall be implemented.</td>
</tr>
<tr>
<td>7. Research and development</td>
<td>R&amp;D activities in the water sector are enhanced and the water sector becomes a major sector in the Intensified Research Priority Areas Programme. A centre is established to coordinate R&amp;D activities, provide direction for research, allocate funding and act as the National Database and Reference Centre. The centre is staffed with water professionals from different disciplines and incentives are provided to attract the best local and foreign water professionals.</td>
</tr>
</tbody>
</table>

Appendix 3: Malaysia’s Water Vision: The Way Forward

EXECUTIVE SUMMARY

In support of Vision 2020 (towards achieving developed nation status), Malaysia will conserve and manage its water resources to ensure adequate and safe water for all (including the environment). Such is the Malaysian vision for water in the 21st century.

The key objectives of the vision are as follows:
- **Water for people**: all have access to safe, adequate and affordable water supply, hygiene and sanitation.
- **Water for food and rural development**: provision of sufficient water that will ensure national food security and promote rural development.
- **Water for economic development**: provision of sufficient water to spur and sustain economic growth within the context of a knowledge-based economy and e-commerce.
- **Water for the environment**: protection of the water environment to preserve water resources (both surface water and groundwater) and natural flow regimes, bio-diversity and the cultural heritage, along with mitigation of water-related hazards.

The set of initiatives that need to take place in order to achieve the key objectives of the vision is evaluated based on the four challenges towards a better water future, which are (a) managing our water resources efficiently and effectively (addressing both quantity and quality aspects), (b) moving towards integrated river basin management, (c) translating awareness into political will and capacity and (d) moving towards adequate, safe and affordable water services, as will befit developed-nation status by 2020.

The actions for a better water future are also determined based on milestones and targets and they have to do with (a) institutional and legal aspects, (b) participatory approach in the decision-making process, (c) development of innovative technologies, (d) efficient use of water resources, (e) extensive research and development, (f) shift from water-supply to water-demand management, (g) establishment of river basin organizations, (h) integrated water resources management, (i) promotion of water awareness and water education, (j) promotion of networking in the water sector, (k) good databases and dissemination, (l) resource assessment, monitoring and protection, (m) water ecosystems protection, (n) flood and drought contingency plans, (o) water-quality management, (p) frequent dialogues with the stakeholders, (q) a Water Sector Master Plan and (r) formation of a National Water Institute.

The way forward to realize the national water vision is to establish associated programmes in the Eighth Malaysian Plan (2001-2005) and the Third Outline Perspective Plan (2001-2010).
(Endnotes)


6 Malaysian Water Partnership, 28.


8 Ibid., 1.


10 Asian Development Bank and Institute of Water Policy, Lee Kuan Yew School of Public Policy (2010). *Every drop counts: Learning from good practices in eight Asian cities*. Mandaluyong City, Philippines: ADB and IWP-LKYSP


13 Kim, 18.


18 Jensen, 17.

19 Tan, 2558.

20 Malaysian Water Partnership, 40.


22 Kim, 62.

23 Jenson, 17.

24 Kim, 66.

25 Kun et al, 74.

27 Malaysian Water Partnership, 39.


30 Hale, 785.

31 Ibid., 783.

32 Marin, 32.

33 Hale, 786.

Institutional Fragility and Geopolitical Posturing in Disaster Management: A Study of the 2015 Earthquake in Nepal

Lucy Gillespie

Abstract:
Beginning April 25, 2015, Nepal suffered a series of high magnitude earthquakes that produced significant losses of lives and billions of dollars in damages to private homes and public infrastructure. An existing system of underdeveloped infrastructure, delayed recovery, response, and geopolitical maneuvering that compromised relief efforts worsened the disaster. This paper frames the problem of fragility within Nepali institutions by providing an overview of conditions before the earthquake with an emphasis on preparedness and risk assessment. It then outlines the response and recovery process through the lens of India-Nepal relations by looking at the gasoline blockade that stalled recovery and reconstruction. Finally, it presents a set of recommendations to improve the disaster response system in Nepal. There are four main action items suggested to change the way Nepal manages damages from seismic events: expand the cluster system to include local non-governmental organizations (NGOs), develop information sharing protocols and infrastructure, construct a framework for recovery and reconstruction efforts, and expand response protocols from the national to local levels.

Introduction: Framing the Problem
Seismic events punctuate Nepali history in an ongoing series of response, recovery, and a number of insufficient attempts at restructuring disaster management platforms. Nepal suffers from a systemic climate of institutional fragility that, when paired with underdeveloped preparedness, response, and recovery plans and tested by an exogenous shock such as a high magnitude earthquake, proves dysfunctional. In 2015, within this fragile disaster response
framework, the international humanitarian aid community on which Nepal relies was confronted with unstable infrastructure, limited communications networks, and a government functioning under an interim constitution. To further exacerbate the problem of fragility, relations between new Nepali leadership and the government of India were strained when India effectively implemented a specific, unofficial embargo on the import of gasoline into Nepal during an already politically unstable time.

This paper will use the earthquake in Gorkha, Nepal, as a case study to answer the following questions about the reaction of institutions within Nepal: Why did reconstruction efforts only begin in 2016, over a year after the earthquake? What contributed to such a substantial gap between response and recovery? What elements of the institutional frameworks failed? Why, given overwhelming international aid and monetary support, was the reconstruction process delayed so long?

Addressing these questions will consider the institutional, infrastructural, and economic positioning of Nepal, and view the earthquake as an exogenous shock to the system. Responding to these questions will also help outline an account of the response and recovery efforts that spanned the year-and-a-half following the event with attention to geopolitical relationships in the area. This research employed the same method of process tracing used by Andrew Bennett and Jeffrey Checkel in their 2012 publication “Process Tracing: From Philosophical Roots to Best Practices.” By following this method, it was possible to illuminate where response protocols diverged from the expected framework and where gaps exist in an effort to improve the system as a whole.

Initial Conditions: Background and Preparedness

Geography and the Transportation System

Nepal, ranked the 11th most earthquake-prone-nation in the world, sits directly atop an east-west fault and is characterized by its famously mountainous Himalayan regions. As an economically marginalized nation in the global economy, infrastructure for basic transportation, water, electric, and health systems in rural areas are in early stages of development or non-existent. Urban development has occurred rapidly over the last thirty years, but many rural areas and unplanned settlements still face structural deficiencies. While there has been an influx of the population to urban centers like Kathmandu and Pokhara, unplanned rural village communities have also experienced growth, contributing to an estimated national growth rate of 1.24%. With only 18.2% of the population residing in metropolitan...
or sub-metropolitan municipalities (defined as regions with populations over 300,000 and 100,000 respectively): rural public infrastructure services the overwhelming majority of the population.\(^5\)

As a landlocked nation situated in the foothills with starkly contrasted topographical relief of the Himalayas, Nepal’s transportation networks are limited to a nearly unimodal system. Hosting only one functioning rail line from Janakpur, Nepal, to Jainagar, India, and one international airport in Kathmandu, the country relies almost entirely on gas-powered vehicles and its system of 10,844 km of highways, only about 4,952 km of which are paved.\(^6\) The Nepal Department of Roads (DoR), a department of the Ministry of Physical Infrastructure and Transport, manages these roadways and works closely with the Department of Transport Management to create a usable transportation network to help increase economic activity and decrease poverty.\(^7\)

<table>
<thead>
<tr>
<th>Goods</th>
<th>Value (in USD)</th>
<th>% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imports ($7.75B)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refined Petroleum</td>
<td>$1.05 B</td>
<td>14%</td>
</tr>
<tr>
<td>Silver</td>
<td>$288 M</td>
<td>3.72%</td>
</tr>
<tr>
<td>Semi-Finished Iron</td>
<td>$283 M</td>
<td>3.70%</td>
</tr>
<tr>
<td>Petroleum Gas</td>
<td>$271 M</td>
<td>3.50%</td>
</tr>
<tr>
<td>Gold</td>
<td>$248 M</td>
<td>3.20%</td>
</tr>
<tr>
<td><strong>Exports ($1.06B)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knotted Carpets</td>
<td>$78.4 M</td>
<td>7.40%</td>
</tr>
<tr>
<td>Flavored Water</td>
<td>$68.8 M</td>
<td>6.50%</td>
</tr>
<tr>
<td>Non-retail Synthetic Fibers Yarn</td>
<td>$65.4 M</td>
<td>6.20%</td>
</tr>
<tr>
<td>Synthetic Filament Yarn</td>
<td>$56.7 M</td>
<td>5.40%</td>
</tr>
<tr>
<td>Woven Fabric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coated Flat-Rolled Iron</td>
<td>$44.3 M</td>
<td>4.20%</td>
</tr>
</tbody>
</table>

**Transportation Infrastructure and its Influence on the Economy**

Because of its mountainous topography, Nepal faces highly difficult infrastructural challenges in terms of roads planning. Winding through mountainous village communities and economic urban centers like Kathmandu and Pokhara, the country’s highways are the primary means of moving people and goods both within and across Nepal’s borders. The manner in which people and goods are transported is critical to understanding recovery efforts in Nepal. Within a disaster scenario, access to remote areas of the country and humanitarian and governmental cluster hubs with adequate transport can mean the difference between survival and devastation. Considering international trade routes rely heavily on constrained and underdeveloped infrastructure, any exogenous shock that compromises vital transportation infrastructure can have significant economic consequences.
infrastructure can have sizable impacts on the national economy. Unraveling why the institutional response framework failed and reconstruction delay requires looking closely at the underlying infrastructure network and the reliance of the Nepali economy on international trade.

Nepal maintains a negative trade balance of US$6.69b, which dictates a reliance on Nepal’s trading partners to maintain the Nepali economy. The table below shows the top five imports and exports. The highlighted cells indicate that the combined imports of refined petroleum and petroleum gas make up 17.5% of the GDP. Aside from having major impacts on the trade economy, the implication of such a large portion of the GDP dedicated to the import of fuel is that Nepal is heavily reliant on India (61% of imports), China (14.9%), and the United Arab Emirates (around 5%) to keep the transportation and backup generator systems running in rural communities. Even more striking is the reliance of the Nepali government on foreign aid that is built directly into its disaster management plans discussed in detail in the following section.

**Risk Assessment & Preparedness**

In 2013, the Government of Nepal adopted the National Disaster Response Framework (NDRF) to synthesize national risk assessment into a comprehensive guide for the region. The framework outlines the response expected from government entities, NGOs, and international aid organizations. The NDRF was the response to the Natural Calamity Relief Act of 1992, which requires the country to develop and maintain a National Strategy for Risk Management, an item that had not been previously addressed. The NRDF reveals a substantial reliance on international humanitarian aid. Even in the forward to the framework, Secretary of the Ministry for Home Affairs, Navin Kumar Ghimire, writes: “[NRDF] plays a vital role to mobilise [sic] international humanitarian assistance in mega disaster, in case the government response is beyond its capacity.” The following will briefly summarize the NDRF before addressing where problematic policies exist.

The NDRF describes a preparedness and response strategy from the national, regional, district, and local Village Development Committee (VDC) levels with a strong focus on differentiating between “normal” disaster circumstances and “mega” disasters in how response strategy will be implemented. The discernable difference between a normal and mega classification is the involvement of international assistance. In the event of a normal disaster, the process for financing national relief work involves a direct appeal to the Ministry of Finance for monetary assistance (which encompasses
any and all response activities). This is a problematic approach in that it has the potential to confuse the relative magnitude of the disaster with resource availability and potentially improperly call on international aid.

The following graphic shows a progression of expected responses over time for a “generic” disaster response (i.e. this should hold between earthquake, landslide, or massive flood). The theory behind this framework is that response should happen through a cluster system in which government agencies are paired with humanitarian agencies in a coordinated approach. The NDRF keeps the expected timeframe and the directed response channels separate in their diagrams; however, here they have been conflated to give a more holistic view of the expectations toward response. (Acronyms can be found in Appendix 1).

Figure 1: Data from Government of Nepal, Ministry of Home Affairs: NDRF Report, July 2013.

<table>
<thead>
<tr>
<th>Name of Cluster</th>
<th>Government Lead</th>
<th>Humanitarian Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>MoPH</td>
<td>WHO</td>
</tr>
<tr>
<td>Nutrition</td>
<td>MoPH</td>
<td>UNICEF</td>
</tr>
<tr>
<td>WASW</td>
<td>MoUD</td>
<td>IOM</td>
</tr>
<tr>
<td>Shelter</td>
<td>MoUD</td>
<td>IFRC/UNHABITAT</td>
</tr>
<tr>
<td>CCCM</td>
<td>MoUD</td>
<td>IOM</td>
</tr>
<tr>
<td>Education</td>
<td>MoE</td>
<td>IOM</td>
</tr>
<tr>
<td>Food Security</td>
<td>MoAD</td>
<td>WFP/FAO</td>
</tr>
<tr>
<td>Logistics</td>
<td>MoAD</td>
<td>WFP</td>
</tr>
<tr>
<td>Protection</td>
<td>MoWCSW/NHRC</td>
<td>UNICEF/SC</td>
</tr>
<tr>
<td>Telecom</td>
<td>MoIC</td>
<td>WFP</td>
</tr>
<tr>
<td>Early Recovery</td>
<td>MOFALD</td>
<td>UNDP</td>
</tr>
</tbody>
</table>
In this diagram, following the yellow circles around the frame of the diagram outlines the official NDRF National and International Response Coordination System, the dotted blue lines give a broad timeframe outline, the blue boxes show the initiation of the response action, and the green boxes highlight where the Government of Nepal is reliant on mass media to relay information through the system. The orange circle encompasses the initial response of the information sharing system that is managed by the Ministry of Information and Communications. The column on the right of the diagram shows that sometime in the first 24 hours the cluster system should be activated. The table on the right is a reconstruction of an NDRF table to show the pairing between the humanitarian and governmental responses (acronym list can be found in Appendix A). Understanding the expected response system is integral to identifying weaknesses in the system. The government-led organizations in the middle column are all Nepali government ministries, while all the humanitarian-led organizations are international non-governmental organizations (INGOs). This presents an initial situation of proximity-based problems surrounding response times. Ideally, in a more complete (albeit more complex) response system, there would be a subdivision within the humanitarian cluster with a local Nepali and international aid organization working with the government. This will be discussed further in the “Recommendations” section.

Three major elements characterize the response to the Gorkha Earthquake: first, the level of infrastructural development of roadways and the Nepali reliance on Indian imports; second, the NDRF focus on response and the reliance on international aid; and third, most importantly, the institutional fragility within the Nepali political system at both the national and local level. These features, combined with a substantial seismic disaster, created an environment that made recovery a slow process, compromising the people of Nepal in unanticipated ways.

What happened: The Gorkha Earthquake and Immediate Impact

The disaster in Nepal was punctuated by two seismic events occurring over a roughly two-week period. On April 25, 2015, a 7.8 magnitude earthquake, with a depth of 15 km struck Nepal; soon after, a 7.3 magnitude aftershock struck on May 12, further devastating the region. The epicenter of the original quake was just 77 km northwest of Kathmandu and 73 km west of Pokhara; whereas the second event occurred 18 km southeast of Koradi. The map below shows the locations of the two epicenters in relation to Kathmandu. Damages were worst in rural Himalayan mountain villages...
where the seismic activity induced several landslides. While landslides at lower altitudes had a substantial impact on infrastructure and village inhabitants, higher altitudes experienced landslides that triggered avalanches, killing 22 people on Mt. Everest alone. The Post Disaster Needs Assessment (PDNA) published statistics by the National Planning Commission of Nepal in June 2015, which reported over 8,790 fatalities and 22,300 injured people, with nearly 8 million Nepali residents impacted (roughly one-third of the national population).

High numbers of fatalities and injuries were reported as a direct result of the seismic event and the subsequent landslides, in a nation ravaged by destruction. In the wake of the earthquake, school, medical, transportation, electric, and water systems were all compromised to varying degrees depending on their proximity to the epicenters and nearness to response hubs. Damage to resident homes was extensive, leaving a reported 494,717 houses destroyed and another 267,373 damaged. As a result, hundreds of thousands of families were rendered homeless or displaced in the months following the quake. Healthcare facilities were struck the hardest in rural areas with 456 hospitals and clinics destroyed. Those who were injured had to compete for medical attention at limited facilities that may have been a significant distance from their homes. Village communities located in the northern part of the country (namely the Dolakha district) experienced the most troublesome aftermath. With landslides and damages from the quakes and large numbers...
of resulting injuries, the disaster was worsened by widespread damages to the transportation infrastructure network. The damage left residents trapped in decimated villages without access to healthcare or, in many cases, clean water and power. To worsen matters, relief workers could not readily access these towns due to the damaged transportation network and the extent of damage across the nation for months. This meant that many communities began localized recovery work with improper equipment and support and attempted to clear structurally unsound debris with no training or proper equipment, creating further injuries.

Charikot (Dolakha), Gorkha, and Sindhupalchowk districts had the greatest need for debris management due to the impact of rockslides on the landscape. Debris clearing, demolition, and reconstruction of vital infrastructure (such as roads and bridges) became a race against the clock in many areas experiencing food insecurity. The damage to the transport networks meant that foreign relief efforts to provide life-sustaining medical treatments and food supplies were severely hampered, and while roads were slowly being cleared, people in mountain villages were left without even the most basic necessities. As the Ministry of Foreign Affairs and Local Development worked in coordination with the Ministry of Home Affairs to clear transport channels, the monsoon season fast approached. Each June, Nepal's monsoon season, coupled with the topography of the region, regularly causes rock and mud slides in rural areas. Thus, relief efforts in May and early June of 2015 were racing to clear debris before the onset of monsoon season. Preparedness for typical weather and destruction incurred from isolated landslide and monsoon-related events has a characteristically different face than seismic preparedness, but the combination of seismic, landslide, and annual extreme weather spelled disaster for Gorkha recovery efforts.

While the expected and actual response patterns were problematic, the larger obstacle was observed in recovery efforts. The NDRF outlines an expected timeline for recovery efforts after initial response, which was not met during the Gorkha earthquake. This can be attributed to three major factors: first, the transportation infrastructure was so deeply compromised that many rural areas were unreachable except by foot or helicopter and only by foot at higher altitudes; second, there was not sufficient information sharing infrastructure in place to allow for accurate reporting to governmental and humanitarian clusters; and third, the gasoline blockade, discussed below, prolonged recovery efforts by further limiting transport opportunities.
In assessing the structure of response before a disaster event, there are a few systemic weaknesses that could (and did) compromise the Nepali response system. Understanding Nepal’s fundamentally fragile government structure frames the problem of disaster management and helps explain why recovery was so delayed. Additional weaknesses come into sharper focus in parts 2 and 3, which describe the disaster and the geopolitical climate respectively. While the 2013 National Disaster Response Framework summarized above shows a base response, it is important to understand the institutional framework within which this document emerged. In 2007, Nepal adopted an interim constitution while the government worked to design a more stable and comprehensive document. Among the primary objectives of the new constitution was institutionalizing and formalizing a plan for disaster preparedness, response, and recovery. Since the adoption of the 2007 interim constitution, there have only been two documents drafted as formal national policies on disaster risk management: the NDRF and a National Strategic Action Plan on Search and Rescue, also adopted in 2013, suggesting that Nepal’s official national disaster response policies (those translated into English so that international humanitarian response has ready access) focus on response alone, leaving preparedness and recovery unattended. Meanwhile, the national mandate focuses on mobilizing humanitarian and governmental clusters.

When the Gorkha earthquake struck, government and humanitarian agencies were prepared to mobilize emergency responders, but they were unprepared to mobilize recovery and reconstruction efforts. Looking back to figure 1, above, the most striking features of the NDRF are its overwhelming focus on locating and managing bodies and providing temporary structures for displaced persons (with special attention to non-Nepali people) in the first weeks following a disaster. While developing reconstruction plans at the national level does little but formalize channels for coordinating subordinate levels of government; it is more effective for these plans to be designed and implemented at the regional, local, or village level to allow for regional differences and place-specific needs. This concept is integral to the recommendation for the first recommendation offered in the conclusion of this paper.

After 2002, in the face of freezing development funds at higher levels of government, village officials changed from elected officials to assigned committees of representatives from each political party (unelected). VDC appointments of this nature bred distrust in local government and catalyzed a disconnect between municipalities that did not have a cohesive singular
Thus, at the local level, there was no formal structure for inter-municipal cooperation, no plan for resource sharing, and a reliance on the national governmental and international humanitarian response. Without the socio-technical infrastructure, a protocol for information sharing, and open lines of communication between rural village governments and the national government, many areas did not have any way to alert government or humanitarian responders to their local status. This left rural villages at the mercy of search and rescue teams to relay status reports to a central cluster lead. Measures of inefficiency, in many accounts, cost lives and valuable resources.

Response & Recovery: Geopolitics and a Questionable Blockade
A basic systems analytical approach can be used to identify critical faults in the operation of Nepal’s response and recovery efforts. Assuming that pre-earthquake Nepal operated outside of disaster protocol as a system of physical and digital infrastructure moving people, services, information, and goods within and outside of the country, it is then safe to assume that all of these elements were flowing in and out and within Nepal each day in varying degrees of effectiveness. While the system was, by no means, perfect, it held a degree of functionality. However, during a disaster, the flow was impeded at different points due to actual, metaphorical, or political roadblocks. As stated previously, Nepal’s physical infrastructure systems for water and sanitation, transportation, electricity, and healthcare were fragile to begin with, but in a disaster scenario these systems fell apart.

While roadways, bridges, sanitation systems, hospitals, homes, electric systems, information systems, and even family units fell to pieces, the problems compounded on one another as the dominos began to fall. Landslides in rural areas rendered the roads impassable, which meant that supplies could not reach rural medical facilities, resulting in shortages and declining health or death. Although devastating, these are expected occurrences (to some degree) in understanding disaster management in Nepal. What was not expected was the political maneuvering of resources (the gasoline blockade) and the complete lack of adherence to the NDRF.

Directly following the April 25 earthquake, the humanitarian cluster was activated and the humanitarian hub was stationed in Chautara (located in the Sindhupalchowk district) to provide a base for International Red Cross divisions. According to the European Commission on Humanitarian Aid and Civil Protection, the most immediate response was from the Nepali Army and the International Urban Search and Rescue (USAR). They conducted an aerial assessment to determine the extent of damages and the
magnitude of response required, by mapping geolocation of damage. One of
the biggest criticisms here is the relative proximity of the humanitarian hub to
the disaster site, as well as the proximity of cluster coordination to damaged
areas. This reflected the paired governmental and INGO cluster-led systems.
Had Nepali NGOs been tasked to lead local cluster response efforts, there
would have been another level of actionable local support. Coordination of
response efforts naturally happened from the nation’s capital, Kathmandu. Yet
the coordination to activate the cluster system from a central location relies
heavily on information and transportation systems to be functional in the
event of a disaster. With widespread infrastructural damage and an overload
of the information sharing networks, the humanitarian and governmental
clusters were slow to mobilize.

The Response
Although the response from both governmental and humanitarian clusters
mobilized slowly in the first two weeks, once the second major earthquake
hit on May 12, most organizations had already been called to action and
were able to deploy rescue teams and humanitarian aid more quickly from
cluster hub locations. A major concern in the response was the lack of a
sociotechnical infrastructure for information sharing. In addition to having
no communications framework, the problem of misinformation and
misrepresentation of information in the media had substantial impacts. An
Earthquakes and Megacities Initiative report suggested that media coverage
of the Kathmandu Valley represented damages to urban and suburban areas
as more severe than they were while ignoring or underreporting damages to
rural villages in the Gorkha district.27 Had the national government outlined
and implemented an information sharing system at any level, reports of
damages could have been more accurate; however, with the media as an
intermediary, and limited search and rescue responders collecting first-hand
accounts, there were biased and inaccurate reports sent to cluster leads and
misallocated responses initiated.

The most effective way to characterize response efforts is over three
time periods: April 2015 to September 2015, October 2015 to February
2016, and March 2016 to present. These periods mirror a progression of
changes to the system that impacted the response and recovery process. The
first period, April-September, directly followed the quakes and encompassed
the rapid planned response for early disaster management. The second period
is characterized by the imposition of the gasoline blockade and the selection
of the new Nepali Prime Minister, Khadga Prasad Oli (KP Oli), of the Unified
Marxist-Leninist Communist Party of Nepal, which affected the national and international recovery efforts. The third period begins after the blockade was lifted and there was a return to the delayed recovery efforts.

**April 2015 – September 2015**

Four days after the first earthquake struck, the humanitarian cluster launched a “flash appeal” for additional international assistance. The appeal eventually was to include resources to service 2.8 million people with a requested $422 million USD that would cover efforts through September 30. As previously noted, with the impending monsoon season running from June through September, recovery efforts that would fall under the flash appeal could only apply funding from the appeal during the month of May because the flash period would end before monsoon season. The initial state of road infrastructure was poor to begin with and destruction due to seismic activity worsened it; monsoon-related rock and mud slides ensured that the majority of rural communities in the affected areas were unreachable.

To combat the accessibility problem, three humanitarian cluster hubs were established in Gorkha, Sindhupalchowk, and Dolakha districts to mobilize local relief efforts across fourteen severely devastated districts. While these allowed for a more integrated approach, there was no official effort to coordinate governmental and international humanitarian organizations with local non-governmental organizations, which led to limited access within the districts and heavy reliance on foreign aid. Moving ahead through monsoon season (which saw earthquake recovery grind to a halt, existing damage escalate, accessibility decrease, and the health and displacement problems worsen), national level politics experienced an upset as well. Around September 20, major roadblocks prevented the import of gasoline into Nepal from India. Although the blockade did not involve a complete embargo, it further limited the transport of goods, services, and people. Just as the flash appeal funding period ended (September 30), the effects of the blockade began to impact daily functioning associated with fuel shortages. Notably, this coincided with what should have been a period of recovery.

**October 2015 – February 2016**

As monsoon season ended and recovery efforts became possible again, the blockade hampered efforts in several ways. First, there was the issue of fuel availability to transport people and goods between districts. This was especially important for its implications for healthcare: with the widespread damage to healthcare facilities in rural areas, even healthcare unrelated to the
disaster was hindered and regularly scheduled operations could not continue because people could not physically get to facilities. The mobility issue was compounded by the fact that there were so many Nepali people displaced after the earthquake, and transportation between humanitarian aid camps and their home villages was limited or altogether impossible. The transportation and mobility crisis also significantly diminished Nepalis’ access to work and livelihood; Nepal’s economy suffered as the ability to export goods was compromised. In the middle of widespread fuel shortages, the Nepali people turned to illicit economies for black market petrol. The market was actualized by individual smugglers crossing the border with between 40 and 50 liters of gasoline at a time with an estimated influx of 100,000-150,000 liters smuggled per day. Pattison, in an article from *The Guardian*, claims that the only reason the economy of Nepal did not fail spectacularly during the blockade was the vast system of fuel smugglers who enabled minimal transport during that time. The implications of the blockade were far reaching. An article published in the *BMJ Global Health Journal* provides an anecdotal account that warrants consideration. The article outlines the challenge in finding transportation from a rural village to Kathmandu to access the proper equipment and specialists to deal with an acute heart problem. The story was set in January 2016, seven months after the earthquake, and tells of a man who experienced severe heart troubles that could not be managed at the local health facility. Due to the blockade, the only transport option available was a driver who offered to take the man and his daughter to Kathmandu (87 km away) for services if they could find 30 liters of fuel. Only 25 liters could be procured at three times the price, which was just enough to make the trip. This situation suggests an unintended impact of the gasoline blockade on import-dependent Nepal in the face of disaster recovery. More than half a year after the earthquakes, facilities were still understaffed, under supplied, and often inaccessible. What sparked the gasoline blockade? Why, in a time of disaster recovery and devastation, was there an imposed shortage on fuel? There is still not a consensus on the origins of the blockade. Outlets such as *Time*, BBC, Al Jazeera, and *The Guardian* reported that the Madhesi protests were to blame for the blockades. They argued that the Madhesi people were making a statement against provisions in the constitution that were directed at the people of the Madhesh region and limited their representation in the Nepali Parliament. This view was consistent between Indian publications and some publications from Western Europe and the United States. Meanwhile, many Nepali sources like *The Diplomat* and
Himalayan Times,\textsuperscript{38} reported that India, in control of 61\% of Nepal’s imports\textsuperscript{39} and at odds with the newly elected Nepali Prime Minister, KP Oli and the tenants of the Unified Marxist-Leninist Communist Party of Nepal, imposed the blockade to influence the election and left it in place to protest KP Oli’s leadership.\textsuperscript{40} When asked to comment by the Himalayan Times, the Indian government stated that there was no such blockade, that PM Modi had not stopped the flow of gasoline supplies into the country, and that any shortages being experienced were due to roadways at major border crossings being physically blocked by protesters, making it impassable to Indian transport vehicles. Many accounts over the four months of the gasoline crisis showed cleared roadways and no attempts by Indian trucks to continue supplies.\textsuperscript{41}

Individual fault aside, during the time of the blockade, recovery efforts halted while management of ongoing and emergent threats became a matter of triage. Without access to fuel, hospitals, schools, and government agencies shut down, and as the winter wore on, those reliant on generators for power, heat, cooking fuel, and transportation suffered greatly. Recovery under these conditions was nearly impossible. Lack of resources within the country, a serious trade stall with Nepal’s biggest trading partner, and physically impassable roads along the northern border made supplementing the trade deficit with China impossible. Not only did Nepal’s reliance on India for fuel damage day-to-day life, but the entirety of the Nepali economy was hampered without access to fuel for transporting goods. Though China was more sympathetic with the new Communist party leadership in Nepal, there were physical constraints to extending trade to the north, and so government and humanitarian reconstruction stopped almost entirely. This left individuals without accessible resources and capacity within their village to begin reconstruction.

\textbf{March 2016 – December 2016}

International reports attribute the lifting of the blockade to the Nepali Parliament signing an amendment to the new constitution in January that met several provisions of the Madhesi demands articulated during protests and workers strikes.\textsuperscript{42} Regardless of the political motivations, in late February 2016, the blockade was finally lifted and the import of petroleum through official channels resumed. Efforts delayed by the monsoon season and then the blockade could finally resume. The problem, however, was that most of the international humanitarian cluster had been deactivated during this time because of the fuel crisis and monsoon season; thus, humanitarian reconstruction efforts had to be activated before beginning the arduous task of
rebuilding communities and public infrastructure. The *Daily Telegraph UK* reported on the one-year anniversary of the quake that not a single home had been reconstructed by the Government of Nepal since the quake, a devastating realization that can be explained, once again, by political disagreements.

The Government of Nepal was subject to internal confusion about who would manage reconstruction funds. Though the 2013 NDRF did not explicitly outline who would manage reconstruction funds, there was an assumption that the Nepal Reconstruction Authority (NRA) would manage the distribution of international humanitarian aid and government funding to assist with rebuilding homes. However, even with the NRA designated to manage funds the question remained of how best to distribute the $2,000 USD direct donations to families, and the additional loan funding. Since May 2016 there has been little coverage on the distribution of these funds, which raises the problem of operating without transparency in disaster management, especially in relation to the reconstruction process.

After addressing the problems associated with the response time frame, preparedness, recovery, and reconstruction planning, there are several points of weakness within the system that could be significantly improved. As demonstrated, the earthquake and its aftereffects highlight the need for new national policy mechanisms to mitigate and relieve the effects of natural disasters to which Nepal is highly prone. As such, the final section outlines a series of recommendations to help strengthen the response and recovery efforts at both the national and local levels.

**Recommendations to Improve Preparedness, Response, and Recovery**

Within the framework of Nepal’s recovery from the 2015 earthquakes, there is still a lack of strategic, actionable items to address systemic problems. This paper has focused on relations between Nepal and India, the disproportionate reliance of Nepal on imports, and the constitutional changes that sparked mass protests. These are all contributors that built the context in which the disaster was set, and, if unaddressed, affect the recovery from future disasters. Four specific recommendations are suggested to improve the response and recovery process in the event of seismic disasters in the context of Nepal.

1. **Expand the cluster system to include local Nepali NGOs.** By creating a triad of organizations involved in the response effort, with a cluster led by the Government of Nepal, a second by INGOs, and a third by the local humanitarian equivalent (or near match), response rate could potentially improve. Local and regional NGOs were activated much later in the process and proved effective;
however, had they been involved from the outset, there could have been a more holistic, organized approach to response, recovery, and reconstruction. Diversification of cluster leads could also help strengthen the ability to respond to disasters rapidly. Jiuh-Biing Sheu highlights the importance of “bi-level hierarchical decomposition approach” in problem (and sub-problem) solving during disaster management, which follows the same logic of diverse multi-level response systems to target multi-level problems within a government hierarchy.

2. **Develop a protocol and sociotechnical network for information sharing.** Some of the problems that arose in early response were attributed to the unusable physical information systems. While this is not unusual in disaster management, outlining a protocol for information sharing between NGOs and all of the governmental levels could alleviate the problem of misinformation and distortion. Further, developing technical infrastructure for information sharing, independent from wireless or hard-wired communications networks (such as satellite phones), would improve connectivity between and within clusters. This recommendation directly complements the first in that establishing a framework for cluster leads to share information between themselves and designated humanitarian hubs could decrease response times and accelerate coordination efforts.

3. **Develop a recovery and reconstruction protocol.** Many of the problems Nepal experienced in the recovery efforts were that they extended beyond the expected timeframe and were subject to delays caused by an unclear or non-existent protocol. By developing protocols and a time frame for relief work and governmental assistance in the reconstruction process, the Government of Nepal can better budget for disaster management by understanding the funding flows through the system, when increased funds will be required, and through what channels they should be allocated.

4. **Expand preparedness and response protocols and training at the VDC, district, and regional levels.** By sharing information and decentralizing the response efforts from the national governmental and INGO levels, local preparedness and response could improve markedly. Many rural communities, despite being in high-risk areas, were wholly unprepared for disaster and had limited or no plans in place to respond to medical emergencies. By decentralizing the response effort and equipping rural communities with the necessary
tools to respond (at least in part) to disaster, a more self-sufficient and ultimately less costly response system could emerge to supplement the national system. Logistically speaking, a decentralized approach to disaster management incorporates protocols for information sharing, response, recovery, and reconstruction as a multi-level response, relieving pressure at the national level to respond to dozens of impacted communities simultaneously. Borrowing again from the model strengthened by Sheu, he calls for identifying the initial (national) problem within the response framework, and dividing the problems into correlated sub-problem groups by both geography and problem type, then solving each sub-group systematically at the local level under the same schematic decision-making model as the national level.47

By adopting these recommendations, the Nepali Disaster Relief Framework would function as a more substantive set of protocols and greatly improve both response and recovery. Undertaking this shift, however, will be an ongoing process as technologies continue to advance and the political climate within and outside of Nepal changes. Building a relief framework that is both clear and adaptable will contribute to reducing the impact of delayed recovery efforts and ultimately benefit the people of Nepal, a policy-oriented response to protect the people of Nepal from experiencing the same hardships brought by the Gorkha earthquake. 🌝
## APPENDIX 1: Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Organization Name</th>
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<tbody>
<tr>
<td>CAAN</td>
<td>Civil Aviation Authority of Nepal</td>
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<tr>
<td>CNDRC</td>
<td>Central Natural Disaster Relief Committee</td>
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<td>CCCM</td>
<td>Camp Coordination Camp Management</td>
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<td>DDRC</td>
<td>District Disaster Response Committee</td>
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<tr>
<td>DEOC</td>
<td>District Emergency Operation Center</td>
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<tr>
<td>EDCD</td>
<td>Epidemiology and Disease Control Division</td>
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<tr>
<td>FAO</td>
<td>United Nations Food and Agriculture Organization</td>
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<td>IFRC</td>
<td>International Federation of Red Cross</td>
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<td>INSARAG</td>
<td>International Search and Rescue Advisory Group</td>
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<td>IOM</td>
<td>International Organization of Migration</td>
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<td>MoAD</td>
<td>Ministry of Agricultural Development</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<tr>
<td>MoFALD</td>
<td>Ministry of Federal Affairs and Local Development</td>
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<td>MoHA</td>
<td>Ministry of Home Affairs</td>
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<td>MoIC</td>
<td>Ministry of Information and Communication</td>
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<td>MoPH</td>
<td>Ministry of Population and Health</td>
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<td>MoUD</td>
<td>Ministry of Urban Development</td>
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<td>MoWCSW</td>
<td>Ministry of Women, Children, and Social Welfare</td>
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<td>NEA</td>
<td>Nepal Electricity Authority</td>
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<td>NEOC</td>
<td>National Emergency Operation Center</td>
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<td>NHRC</td>
<td>National Human Rights Commission</td>
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<td>NSC</td>
<td>National Seismological Center</td>
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<tr>
<td>RDRC</td>
<td>Regional Disaster Response Committee</td>
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<tr>
<td>SC</td>
<td>Save the Children</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNHABITAT</td>
<td>United Nations Human Settlements Program</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>VDC</td>
<td>Village Development Committee</td>
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<tr>
<td>WASH</td>
<td>Water, Sanitation, and Hygiene</td>
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<tr>
<td>WFP</td>
<td>World Food Programme</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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(Endnotes)


9 Ibid.


11 Ibid.


18 Ibid.


24 Ibid., 30.
25 Ibid., 30.
29 Ibid.
31 Ibid.
47 Ibid.
Improving Access to Quality Education for Syrian Refugee Children in Jordan

Emily Francis

Executive Summary:
The war in Syria has created massive outflows of refugees displaced by violence, many of whom are seeking safety in neighboring countries. There are 1.3 million Syrians in Jordan, a country of 6.6 million total citizens, increasing Jordan’s population 10-20 percent since 2011.1 Approximately 660,000 are registered as refugees with United Nations Refugee Agency-Jordan, including 226,000 school aged children between the ages of 5 and 17 yrs.2 The duration of the recent Syrian refugee crisis and sheer number of migrants put overwhelming stress on the systems in place, especially education institutions for children. Child refugee populations are overcrowding formal Jordanian education institutions, yet the United Nations High Commissioner for Refugees (UNHCR) estimates that only 40 percent of Syrian refugee children are enrolled in formal education.3 A lack of resources amongst providers of alternate education, poor coordination, and absence of a standardized curriculum have made it difficult to ensure quality education for refugee children. This paper recommends that the European Commission develop policies to facilitate the delivery of education to refugees through the United Nations Children’s Fund (UNICEF) and its partners to decrease the burden on Jordanian institutions. Preventative efforts will improve the situation of the current education crisis in the Middle East, thereby stabilizing future regional prosperity, and reduce the number of refugees that enter the European Union host-country education systems. Policy specifics in this recommendation outline improving access to education specifically for vulnerable children in the Jordanian UNHCR refugee camps.

A Lack of Access to Quality Education for Syrian Refugees in Jordan:
Despite receiving increased international attention since 2013 and the Jordanian Government’s benevolent commitment to provide services, education for Syrian refugees throughout camps is inconsistent in quality
and accessibility, and often fails to reach the most vulnerable factions of the population. NGOs that provide education services must coordinate to standardize teaching and create efficient alternative systems of education with the help of international actors led by the European Commission.

**Educating Syrian Refugee Children in Jordan: Current Policies and Approaches**

Article 22 in the 1951 Convention Relating to the Status of Refugees states that refugees and civilian populations deserve the same treatment in and access to elementary education. This policy relates directly to the welfare and public education of refugee children a host-country is responsible for providing; since Jordan is not currently capable of providing such systems, it is responsible for coordinating the efforts of partner organizations and NGOs that can provide the service. Additionally, in 2013, a year when over 60 percent of Syrian refugees of school age were not attending school, the United Nations and other NGOs championed the “No Lost Generation” Initiative, to prevent loss of education for Syrian refugees in the region.

Informal and non-formal education are the primary two approaches to providing alternative education for Syrian child refugees. Informal education is mobile and typically lasts six months to provide basic literacy, numeracy, and life skills instruction. Unfortunately, the programs lack certification because organizations avoid registration and the bureaucratic layers of government to provide services quickly, sacrificing quality to maintain low cost. Non-formal education consists of home schooling and a two-year program that often takes place in schools after regular hours to target dropouts and those that may work during the day. Voice of Africa reported in May 2016 that Jordan’s Al-Zaatari camp in Mafraq would receive 100 million USD to enroll all refugee children in schools within the month and support the addition of “double shifts” for non-formal education at 200 schools. Though the month timeline of 100 percent enrollment was not met, donor countries’

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1 Other documents that contribute to policy outlining children’s right to education include the Universal Declaration of Human Rights (1948); the Convention Relating to the Status of Refugees (1951); the Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War; the Covenant on Economic, Social and Cultural Rights (1966); the Convention on the Rights of the Child (1989); and the Dakar World Education Forum Framework for Action (2000). The Sustainable Development Goals also provide benchmarks for education by 2030.

2 Some informal education programs encourage and offer vocational opportunities in addition to basic education.
commitment, specifically Britain, the U.S., Norway, and Switzerland will continue since grant agreements with Jordan have been signed.\(^\text{10}\)

Since 2003, the NGO Questscope has opened “Non-Formal Education Centers” in Jordan with the approval of the Jordanian Ministry of Education and funds from UNICEF, and will continue to operate for the duration of 2015-2017 with additional funding from USAID.\(^\text{11}\) This program is an integrated attempt to provide informal education services to refugees while also improving the formal education system for Jordanian children, since about 143,000 refugees and 30,000 Jordanian children lack formal schooling. The mission was originally to provide tenth-grade equivalency certificates, and as over two dozen NGOs operate to provide informal education, has continued to expand to include vocational training opportunities.\(^\text{12,13}\)

Jordan has made significant progress in the provision of education services but the sustainability and effectiveness of the programs can now be called into question since not all education programs are as integrated as the Questscope Program. The many NGOs implementing various education programs are largely uncoordinated and sometimes compete for donor funds. The Inter-Agency Network for Education in Emergencies\(^\text{3}\) states that the minimum guidelines must be used in emergency response in natural or man-made disasters, often due to conflict. This policy has developed minimum standards but these guidelines serve as only a rough framework and provide minimum standards outlining access, quality, and content without a suggestion for adaptation per emergency as noted in a disclaimer within the document.\(^\text{14}\) These standards include securing community participation, mobilization of community resources, documentation of efforts, and common curricula outlining relevant population-centric subjects that may include primary, secondary, or higher education; life skills; vocational training; literacy and numeracy; and accelerated opportunities where appropriate.\(^\text{15}\) Additionally, for the Syrian refugee crisis, many have not been met including the provision of educators, materials, and access.

In response to these constraints, many NGO initiatives have focused on the proliferation of temporary, informal education. As the Syrian war stretches on, these efforts are not enough to provide quality, standardized education to a growing refugee population, and there is little coordination.

\(^{3}\) “INEE is a network of more than 12,000 individual members and 130 partner organizations in 170 countries. INEE members are practitioners working for national and international NGOs and UN agencies, ministry of education and other government personnel, donors, students, teachers, and researchers who voluntarily join in the work related to education in emergencies.” (http://www.ineesite.org/en/who-we-are)
among groups to bridge the gaps. The Jordanian Education Reform, a multi-step effort by the government to improve primary and secondary education institutions, is failing refugees because the system is overburdened and the government cannot afford construction or materials for new locations specific to the refugee population. Additionally, operating costs associated with transportation of refugees to formal institutions and their supplies are high; refugee parents are unable to afford formal education for children since they are not allowed to work, and reports of safety concerns make funding such an initiative unattractive to international donors. With no support system for refugees to reach the formal education process in areas where alternatives are not available, child labor and early child marriage have increased. Furthermore, three years outside of formal institutions makes Syrian refugees ineligible for formal schooling, and access stagnates as more refugees enter the country, and that number continues to grow.\textsuperscript{16} The use of alternative education is failing students on an operational level because informal education is a last resort that not enough can access.\textsuperscript{17}

Failing students can have dangerous consequences; the British Council conducted research in Jordan and concluded that refugees “who lack higher education opportunities have a less positive view of their future, and are more likely to engage in the conflicts that caused their displacement in the first place.”\textsuperscript{18} Additionally, Gordon Brown, the UN special education envoy, argues that “policies to address violent extremism must start with prevention,” and extremism is more likely in areas where human rights are violated or ignored and too many people lack prospect or meaning in life.\textsuperscript{19} Vulnerabilities in individuals are correlated with poor quality education because social benefits of schooling are developmentally important in addition to the education received.

Despite barriers, there are additional benefits to providing education for refugee children that surpass direct learning. Children are more empowered to overcome challenges and are far less likely to be in a dangerous environment if they are attending school. Children with some level of schooling are more likely to be additions to the formal system when integration opportunities for Syrian children to attend formal schools arise. Approaches such as the Makani program developed by UNICEF and partners, which aims to reach 90,000 of the most vulnerable Syrian refugees aged 6-18 by utilizing existing community networks to build self-development, self-confidence, and identity, are testament that comprehensive approaches through collaboration yield positive results for child education.\textsuperscript{20}
Implications for the European Commission:
European Commission efforts to address the refugee crisis are currently reactive, as they aim to “respond” to the crisis situation by reducing incentives for irregular migration, saving lives and securing external borders, developing a strong common asylum policy, and creating a new policy on legal migration.\textsuperscript{21} This approach inherently assumes that there is little that can be done to stem the flow of refugees and they must be dealt with upon their arrival at each country’s external border if not at the Schengen border. Actions related to fulfilling this approach include facilitated intelligence-sharing and providing shelter to refugees, managing borders and sharing management of migration flows without any mention of what can be done to prevent refugees from arriving on the doorstep to the European Union in the first place.\textsuperscript{22} A holistic approach needs to be taken to address the refugee situation with preventative actions elevated in the agenda.

Despite the geographic barrier, a failure in Jordan to provide education services to refugee children exacerbates the already overwhelmed education systems within the European Union. Furthermore, the EU will likely experience renewed inflows of refugees since Turkey is no longer a “safe third country” and communication between the EU and the Erdogan regime is deteriorating.\textsuperscript{23} Poor education quality and access, especially as they indicate a lack of basic services, make Jordan and other neighboring states transit rather than destination countries prior to eventual entry into the EU.

The European Commission has already outlined the need for education within its own countries as the population of school-aged children is surpassing the current institutions’ ability to provide quality services. In 2015, the Commission launched a survey to assess the field of education, including refugee children, to share best practices and determine threats to success.\textsuperscript{24} According to their studies, children born and raised in a different country place a strain on language teaching and the children are underserved, evident in their poor performance and significantly higher drop-out rates. By providing education for refugee children in Jordan, the EU will create a safe area with effective services that will serve as an attractive resettlement alternative to the EU, and the time for maximum impact is now.

A Non-Zero Sum Approach to Educating Syrian Refugees in Jordan:
Adult refugees in camps across Jordan have begun to address barriers to

\textsuperscript{4} The term “safe third country” refers to a country’s ability to reject a person’s asylum application if they have already been granted protection by another country.
education by taking it upon themselves to provide guidance to the children in the most vulnerable populations. This action highlights not only a gap in services provided but also the inherent problem with the current system: a lack of coordination and standardization. The European Commission, as an international policy body, has the opportunity already to affect positive change in Jordan to preempt further inflows into the EU and decrease the transit distance for refugees, and through subsidizing education for refugee populations it also has the potential to improve the future of education for refugee children directly. UNICEF is already a major player in providing educational services to individuals on the ground, but its diversity in NGO partners and lack of coordination with the Jordanian Government to secure certifications for educational programs highlights a need for policy guidance and additional codified structure for its activities. This paper posits that the European Commission has the incentive and capability to fill such a position.

The new approach consists of using appreciative inquiry to highlight what is already working in successful programs such as Makani and Questscope in the informal and non-formal education systems, and combining successes with community-led education approaches, to address standardization in practices and improve reach to underserved populations. Sustainable Development Goal 4, Quality Education, also provides a higher authority for ensuring all children receive a quality education. The many actors and barriers to education for refugees in Jordan create an uncertain outlook for the future of the “lost” generation of refugees. This paper recommends that the European Commission facilitate cooperation between UNICEF, education delivery NGOs such as Questscope, aid donors, and the Jordanian Ministry of Education, to assess the current climate of education delivery and fill necessary gaps in access to protect refugees’ right to education. The European Commission should adhere to the following recommendations in order to best address these institutions.

Policy Recommendations:

I. Assessing Programs and Developing Policy in Coordination with Other Actors

The European Commission should propose to EU member states that the governing body act as a primary funder for the implementation of informal education systems in Jordan through programs implemented by UNICEF and smaller NGO partners. The European Commission has the capacity and buy-in to coordinate the bodies on the ground and compare their experiences in education
delivery while working with the Jordanian Government to improve its own capacity building for education systems. In publishing joint reports, best practices and reasons for failure being communicated will create a solid foundation to develop programs, share resources, and improve the likelihood of success for current and future projects. The primary challenge for coordination is the competition for funds among NGOs aiming to deliver the same service, albeit through different methods, especially as the demand for formal and informal services grows. The European Commission and UNICEF have broad networks of donors and the capacity to deliver aid. This partnership will help ensure resources are devoted to the best projects. Open lines of communication should be established immediately and surveys developed and proliferated to assess the on-the-ground threats and opportunities within the next month and diversified funding sources to maintain the effort should be championed by the European Commission.

II. Improving Access to Programs Through Highlighting Underserved Populations

Once the current education climate is identified and the delivery of services understood, improving access to education amongst all refugees, specifically underserved populations, must become a priority. In a RAND report, one suggestion included mapping through the use of Geographic Information Systems to identify areas where education is provided and highlight gaps in service geographically. In March 2015, 52 percent of children in the Al Zaatari Refugee Camp accessed formal education while 62 percent of their counterparts in host communities had access. Barriers to education include a shortage of school space, language, curriculum, registration, child labor/early marriage, transportation, and expenses. The proliferation of informal and non-formal education institutions address school space since it is repurposed after hours and the rest of the barriers are dependent upon the needs of each community. Utilizing informal and non-formal education spaces as a cohesive platform for discussing and tackling other barriers and highlighting alternatives to formal education is a recommended starting point for a community-led solution process with more permanent alternatives as a long-term goal.

III. Addressing Personal Development of Refugee Children

Students from differing backgrounds face diverse challenges; the after-hours and other time-adaptive programs should be explored based on
regional need to ensure that those with work and family obligations during normal school hours can receive an education. In order to address the high dropout rates recorded for Syrian refugee students and the poor treatment they experience, the education system needs to improve flexibility to accommodate children and adult students that have multiple coping methods. In addition to extending hours, the education system is likely to become the most consistent point of contact for many children; therefore, project implementers should include support resources for those who have experienced trauma to improve their likelihood of receiving a meaningful education and remaining in an education system. These could include an expansion of certified learning or work programs.

IV. Changes to the Government Approval Process for Individuals and Programs

The government needs to decrease the number of children ineligible for receipt of education due to a lack of documentation, refugee registration or years outside formal institutions, and increase the number of certified education programs by decreasing the length of the certification process and decreasing the associated payment amount. The bottom line for financing projects seldom addresses costs for certifying programs so many initiatives occur without government input and aid. Expediting the documentation delivery process for individuals is unlikely but education can be provided regardless of status in some informal settings. Furthermore, the Jordanian government should work with NGOs that deliver education programming to pinpoint reasons for not being certified and expedite the education program approval and implementation process at a lower cost to the organization for certification.
(Endnotes)


3 Culbertson, Shelly, and Louay Constant. “Education of Syrian Refugee Children: Managing the Crisis in Turkey, Lebanon, and Jordan.”


7 Ibid.

8 Ibid.


10 Ibid.


15 Ibid.


21 Ibid.


27 Culbertson, Shelly, and Louay Constant. “Education of Syrian Refugee Children: Managing the Crisis in Turkey, Lebanon, and Jordan.”

28 Ibid.


Is Egypt a Strong State? A Comparative Analysis of the State’s Strength under Nasser, Al-Sadat, and Mubarak

By Arwa Elboraei

Introduction
Modern states have three key governance characteristics: bureaucracy, sovereignty, and impersonality, which determine whether states are strong or weak. In his book *State-Building: Governance and World Order in the 21st Century*, Fukuyama has distinguished between two main dimensions of “stateness” that encompass the above key governance characteristics. First, the scope of state activities refers to state activities, which refers to the different functions and goals taken on by governments. Second, states’ institutional capacity refers to the strength of the state power, or the ability of states to plan and execute policies and to enforce laws clearly and transparently.¹ This paper underlines factors that contributed in the development of the modern state of Egypt. It also examines Fukuyama’s dimensions in the case of Egypt.

Almost six years have elapsed since the eruption of the Egyptian Revolution on January 25, 2011, but the country remains politically unstable. The successive governments have failed to achieve genuine structural reforms. Consequently, the country has faced a number of economic challenges, including persistently high unemployment, growing public debt, unsustainable subsidies on food and fuel, and declining revenues in key sectors, such as tourism.²

Since the July 23, 1952 Revolution that toppled the King, abrogated the monarchy, and announced Egypt a republic, the Egyptian army has played a central role in governing the country. Five of the six presidents who have ruled Egypt were military men, including the current President, Abdel Fatah El-Sisi. The only civil-democratically elected president ruled for almost a year, but was ousted by a military coup in July 2013. Military officials...
have been recruited by the government to occupy key positions. Since the 1973 war with the Zionist occupation, the Egyptian military has enjoyed high status within the society even though it has twice been called on to put down internal disturbances: the 1977 bread riots and the 1986 mutiny by the Central Security Forces.³

The successive regimes controlled much of the media, dominated political life, and suppressed opponents. They also controlled political parties, civil society, and interest groups. The presidents and their regime structures combined with socio-economic and cultural factors made Egypt a classic example of stable authoritarianism, or more precisely, electoral authoritarianism.

Each president envisioned Egypt’s socio-economic development differently. Since 1954, the country has experienced the extreme ends of ideological spectrum, from the planned centralized economy during the 1950s through 1960s, to open or free-market economy in the 1970s and 2000s, and then to structural adjustment. Politically, Egypt’s ideology reversed from nationalism and pan-Arabism during the 1950s through 1960s, to recognizing the Zionist occupation as a state and discontinuing Egypt’s support to the Palestinian cause. The different socio-economic policies and ideologies resulted in various levels of stateness.

This paper is divided into three parts. The first part claims that the emergence of the contemporary state of Egypt was based on cultural and economic theories. It explains how successive occupations of the Egyptian land formulated nationalist ideology, which intertwined with principles of the economic theories and led to the creation of the state of Egypt. The second part discusses the stateness of Egypt and applies Fukuyama’s Scope of State Functions and State Capacity Criteria to three distinct periods in which Egypt experienced different levels of state strength and weakness. The third part explains the constraints that faced political participation and limited political parties’ evolution and development.

**Part 1: History, Identity, and Ideology**

A combination of cultural and economic factors led to the emergence of the contemporary state of Egypt. First, the idea of national identity and nationalism has existed in Egypt for a long time. It was clearly voiced by Egyptians in 1882 when they protested against the European influence and settlement. Second, before 1952, capitalists aimed to maximize their profits. They established the state as an organization to manipulate the circumstances in their favor and exploit the Egyptian people.

The modern state of Egypt was founded in 1952 and is characterized
by monopoly over the use of force within a specified territory, bureaucratic organizations, provision of public goods, and internal and external legitimacy. Several scholars argue that the state of Egypt was founded before 1882. At that time, however, the country had never been entirely independent, as all its rulers were foreigners: descendant from the Ottoman Empire.

1.1. The Birth of Nationalism and Pan-Arabism (1952-1970)

After World War I, the Egyptian economy under the British Empire (1882 to 1922) was integrated into the world capitalist market in which Egypt produced cotton for the British industry. Access to education shrank due to the high fees that were imposed by the British. The country became a constitutional monarchy ruled by the Muhammad Ali Dynasty after it gained its nominal independence from the British in 1922. However, the British forces and advisors remained in Egypt for thirty years. They interfered in the internal affairs and foreign relations of Egyptian Monarchy until 1952. As a result of this interference, the Egyptian government lacked monopoly over its own economic, social, and political affairs. Additionally, the presence of British forces prevented the Egyptian government from exercising monopoly of force over its territory.

In 1923, the monarchy adopted a constitution that led the government to establish a democratic parliamentary system that resembled contemporary European nations. The monarchy created an elected parliament, known as the “Chamber of Deputies,” as well as a cabinet headed by a prime minister. The 1923 Constitution stated that the people were the source of all powers, and it included some democratic principles such as separation of powers, ministerial responsibility, and freedom of the press. It also included a wide range of civil and individual liberties, but the right to suffrage extended only to adult males. The constitution granted the King overwhelming power but still allowed British interference in local affairs.

Under the monarchy, the mainly capitalist-leaning government had monopoly over agriculture, industry, and foreign trade. The main feature of the economy was feudalism. By the end of the 1940s, five percent of the population held sixty-five percent of the assets. In agriculture, three percent of the population held eighty percent of cultivable land.

From 1923 to 1952, Egypt witnessed constant political instability between the British, the King, and the parliament, dominated by the liberal Wafd Party. King Fu’ad dissolved the parliament several times and repealed the constitution, but in 1936, his successor King Faruq was forced to reinstate it.

The period between 1963 and 1952, heightened tensions due to
the increased British military presence in Egypt, leading to a series of rigged elections and a rapid succession of cabinets from.⁸ As a result of this instability, the country failed to solve its socio-economic problems. Consequently, the military, led by the Free Officers, toppled King Farouk on 23 July 1952, turned Egypt into a republic, abrogated the monarchy and its 1923 constitution, and ousted the British forces. Major General Muhammad Naguib became the first president of Egypt. He stayed in power until his resignation in 1954. That same year, Colonial Gamal Abdel Nasser came to power as the second president in the post-colonial period. During this time, many newly independent countries including Egypt launched a program of Import Substitution Industrialization and massive expansion of the public sector.⁹

The Revolutionary Command Council (RCC) led by Nasser took charge of the country’s affairs and pledged to turn the country into an Arab independent strong state. This era witnessed the birth of Nasserism, nationalism, and Pan-Arabism ideologies. As mentioned earlier, the idea of national identity and nationalism previously existed in Egypt; it was formulated due to successive occupation of the Egyptian land by strong countries that exploited the country’s resources and people. That nationalism, however, was not crystalized and integrated into policies until Nasser rose to power.

The nationalism and pan-Arabism ideologies were consistent with The Philosophy of the 1952 Revolution, in which Nasser defined the three “circles” that Egypt’s foreign policy needed to address: the Arab, the African, and the Islamic countries. Regionally, he provided political, diplomatic, financial, and military support to all liberation movements and revolutionaries across the Arab World. Consequently, several countries gained their independence, including Yemen, Syria, Algeria, Jordan, Sudan, Tunisia, Libya, and Iraq. Nasser also supported the Palestinian people in their struggle against the Zionist occupation. Locally, Nasser established a one-party system and took serious measures to end imperialism and its agents, end feudalism, end monopoly and capitalistic control, establish a powerful army, and establish social justice.¹⁰


In 1970, after the death of President Nasser, his Vice President Anwar Al-Sadat came to power. Al-Sadat drastically redefined the focus of the national and international policies of the Egyptian government. At the national policy level, Al-Sadat symbolically re-instituted the multi-party system, allowing a certain degree of “controlled” political freedom. In reality, Egypt remained a single-party system. Al-Sadat further departed from Nasser’s socialism
through the revitalization of the Egyptian private sector under the so-called *infitah* policy, or open-door neo-liberal policy.\(^\text{11}\)

Internationally, the alliance with the Soviet Union, which had existed for decades, would give way to an Egyptian-American axis founded on the normalization of Egyptian-Zionist relations and the dismantling of Nasser’s pan-Arab politics.\(^\text{12}\) These political and economic changes clearly displayed Egypt's new position in the world, moving from Nasserist independence to Sadat’s dependence on the West.

In October 1977, Al-Sadat visited the Zionist occupation leaders to negotiate a peace treaty. Unsurprisingly, this action devastated the entire Arab World and made them lose their trust in Egypt as a strong regional leader. This visit led to the loss of Arab League membership until 1989. Furthermore, the Gulf States dissolved the Gulf Organization for Development of Egypt they had previously established specifically to support Egypt during its financial difficulties and ended their support of Egypt. Following Al-Sadat’s visit, he signed the Egypt-Israel peace treaty in 1979.

Since then, Egypt has been among the top recipients of U.S. foreign aid. The U.S. government has historically provided Egypt with both security and economic help. For example, the United States has given Egypt almost $64 billion in assistance since 1979, including about $40 billion in security assistance and $24 billion in economic assistance. While U.S. security assistance funding to Egypt has stayed generally constant since the 1980s, economic assistance funding has declined significantly since that time.\(^\text{13}\)

### 1.3. Structural Adjustment and Globalization (1981-Present)

Upon Sadat’s assassination in 1981, his Vice President Hosni Mubarak ascended to power. He maintained Al-Sadat's economic and political policies. In contrast to Nasser and Al-Sadat, Mubarak was a colourless and cautious individual without a personal vision or agenda for the country.\(^\text{14}\) During the Mubarak era, Egypt did not have a well-defined identity, ideology, or strategy. The government worked hard to satisfy the West at the expense of the nation’s development; thus, the socio-economic situation deteriorated. In May 1987, Egypt agreed to implement an IMF structural adjustment policy that included reducing public spending, shrinking the welfare system, privatizing the public sector, decreasing the role of the state, liberalizing the private sector, devaluing the currency, and facilitating free-market functions.\(^\text{15}\)

In 1991, Egypt signed “Economic Reform and Structural Adjustment Program (ERSAP)” agreements with the International Monetary Fund (IMF) and the World Bank. With the signing of these agreements,
the IMF succeeded in installing a modern form of occupation in which Egypt voluntarily imprisoned herself in an IMF jail. The Egyptian state had to implement the IMF economic vision, lost monopoly over its own market, and remained vulnerable economically and politically to what the West would dictate. The structural adjustment policies had many negative implications, including labor displacement that resulted from privatization, unemployment, inflation, and reduction in social services and welfare spending. Without a doubt, the structural adjustment policies added layers of challenges to the ones that already existed. Over time, it destroyed Egypt’s economy, weakened its political systems, and widened the gap between social classes. Indeed, this policy imprisoned Egypt in debts, turned the country into a big consumer, proliferated corruption, and pushed Egyptian civilians to overly occupy themselves with how they would secure their basic needs. As a result, the nationalism identity that had previously dominated society remained dormant for 30 years. As the levels of the regime’s corruption and authoritarianism increased, Egyptians were compelled to restore their identities. Thus, they erupted in the January 25 Revolution in 2011 and ousted Mubarak. This revived sense of nationalism now needs to be translated into actionable policies to free Egypt from the IMF’s “modern form of economic occupation” and rebuild the country’s economic and political systems.

Conclusion
The modern state of Egypt emerged due to the evolution of nationalism that was formulated under the successive occupation. Colonizers exploited the country’s resources and its people; their colonial entourage and accompanying bourgeoisie manipulated the economic and political systems for their own gains and to the detriment of Egyptians. The Egyptian people’s persistence to achieve independence developed over time into the nationalist ideology that crystallized after the 1952 Revolution. During 1950s, the Egyptian government adopted nationalism and Pan-Arabism as Egypt’s main ideologies. Nasser, the leader of this era, could gather Egyptians around nationalism and mobilize them to act collectively to build the country’s economic and social sectors.

Following Nasser’s death, his successor, Al-Sadat, dismantled nationalism and Pan-Arabism ideologies and replaced them with the neo-liberal, Western ideology. The new ideology and policies reversed the economic, social, and political achievements that were obtained by Nasser’s government.

Starting in 1981, Egypt under Mubarak did not have a clear ideology. The government surrendered to the IMF’s policies and served as a guard to the organization’s agenda. Under Mubarak, the government was unable to
formulate a higher goal that would gather the Egyptian people around it.

The period from 1952 to 1970 witnessed the emergence of a strong modern state that enjoyed an advanced industrial economy and strong national and regional identities, but these identities and the economy begun to wane when President Al-Sadat came to power in 1970. From this time until 2011, Egypt almost lost its identities and strong economy as a result of a lack of common vision from the Al-Sadat government and the negative impact of the International Monetary Fund’s structural adjustment policies under President Mubarak. Yet, Egyptians started to restore their national identity, and they revolted against the regime and ousted it in 2011.

As will be shown in the second part of this paper, nationalism ideology as a higher goal and vision along with subsequent policies played a major role in strengthening Egypt’s position at the local, regional, and international levels. Thus, the cultural theories not only explain the emergence of the state of Egypt, but they also explain why Egypt was a strong state during 1950s and 1960s but started to wane when the government decided to dismantle nationalism.

Citizens opt to fully participate in the development process of their countries when they feel they fully belong to them. Belonging is not just being a part of a community—sharing the same language, culture, or religion— it is a rights-based principle; when people have rights and duties they feel respected, and their right to live a decent life becomes their government’s top priority.

History is loaded with examples of how ideologies transformed countries into empires, and Egypt is no exception. Nationalism once turned Egypt from a mere feudalist monarchy controlled by the British into an advanced industrial country. Therefore, nationalism with its belonging, rights-based principle should be restored. Egypt needs to free herself from the “modern form of occupation” led by the IMF, the World Bank, and the International Trade Organization, and adopt nationalism again as its main ideology. Contrary to what many may believe, nationalism is not against openness or modernity. Rather, it is about investing countries’ own resources, particularly, human resources.

**Part 2: Stateness**

Examining Fukuyama’s two dimensions of stateness—the first is the scope of the state activities, which refers to the different functions and goals taken on by governments, and the second is institutional capacity, which refers to the strength of the state’s power, or the ability of states to plan and execute policies and to enforce laws clearly and transparently—in the case of Egypt
reveals that the country experienced different levels of the dimensions since the 1950s. Comparing the state of Egypt during the Nasser, Al-Sadat, and Mubarak eras shows that the state of Egypt under Nasser was strong, then it started to wane under Al-Sadat and Mubarak, particularly due to economic and foreign policies.

Furthermore, the essence of Nasser’s policies was to modernized Egypt; the modernization theory fits Nasser’s vision and achievements. This section illustrates this argument. Before comparing the three periods, it is worth highlighting that this section examines the socio-economic development and its correlation to the strength and weakness of the state. As for the political participation and democracy aspects, the nature of the three regimes was the same: electoral authoritarianism. Part three of this paper covers political participation and explains how the three regimes succeed in staying in power.


Fukuyama divides the scope of state functions into three categories: minimal functions, including proving pure public goods and improving equity; intermediate functions, including addressing externalities, regulating monopoly, and overcoming imperfect education; and activist functions, including industrial policies and wealth redistribution.

If we benchmark these three categories against Nasser’s policies, we can conclude that Egypt was strong because it had the capacity to plan and implement socio-economic policies in an accountable and transparent manner and to fulfill its functions. Several achievements support this argument, including establishing the industrial sector, providing public goods like education and public health, improving standards of living for the poor, redistributing wealth, regulating monopoly, expanding the welfare and social insurance system, organizing collective actions at the national and regional levels, and addressing externalities such as high rent. Through these policies, Nasser planted the seeds to modernize Egypt. He skillfully considered the four key aspects of modernization theory: provide universal and free education to all Egyptians, build a strong well-educated middle class, urbanize several areas by extending roads and infrastructure to them, and eradicate illiteracy. The below figure applies Fukuyama’s scope of state functions to Nasser’s era.
**Figure 1:** The scope of state functions during Nasser’s era. Checked boxes (√) mean functions were fulfilled, (X) means functions were not fulfilled, and (↓) mean functions have weakened compared to the previous period.

### 2.1.1. Fukuyama’s First Category of the Scope of State Functions: Minimal and Intermediate Functions

The figure shows that Egypt was strong based on a number of indicators. First, the successive direct and indirect colonization that occurred during the monarchy period motivated the Free Officers to revolt against the King in the aim of building a strong independent state. President Nasser’s goal was therefore centered on transforming Egypt into an independent and modern country that enjoyed a strong economy, polity, and identity and where Egyptians could live with dignity, equality, and social justice. To achieve these goals and to eliminate oligarchy, Nasser replaced the laissez-faire economy with a centrally planned economy in which the burden of social and economic development was placed upon the shoulders of the Egyptian bureaucracy.

The Egyptian bureaucracy under the monarchy was used primarily to maintain order and to feed the King’s insatiable demands for revenue. The monarchy lacked the capacity to address the country’s growing social and economic issues. Thus, the bureaucracy Nasser inherited from the monarchy was inadequate to carry out the Revolution’s goals. Nasser expanded the bureaucracy and transformed the country into a bureaucratic state. The Egyptian bureaucracy would swell from 250,000 employees in 1952 to approximately 1,200,000 by 1970. Furthermore, the number of ministries would increase from fifteen to twenty-eight during the same period.

### Assessment of the State of Egypt Functions (1954–1970)

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**Notes:**

16 The monarchy lacked the capacity to address the country’s growing social and economic issues. Thus, the bureaucracy Nasser inherited from the monarchy was inadequate to carry out the Revolution’s goals. Nasser expanded the bureaucracy and transformed the country into a bureaucratic state. The Egyptian bureaucracy would swell from 250,000 employees in 1952 to approximately 1,200,000 by 1970. Furthermore, the number of ministries would increase from fifteen to twenty-eight during the same period.
Second, Nasser emphasized social justice and redistribution of wealth, and he undertook several measures to achieve these goals. He imposed land ceilings and redistributed land from feudalists to peasants. According to the Agrarian Reform Law (Law 178) of September 11, 1952, individuals were allowed to own up to 200 acres. The surplus land was redistributed by the government with fixed compensation paid to the landowners. The land for redistribution was gradually sold to individuals in small lots not exceeding five acres. New co-operatives were established for those who owned fewer than five acres. The government also imposed a minimum wage for farm workers and a limit on tenant rents. These measures boosted the standards of living of the Egyptian peasants.18

Third, to enhance equity and to guarantee the rights of poor and vulnerable groups, like farmers and workers’ rights, Nasser added an article to the constitution requiring one-half of members of all elected bodies to be either peasants or workers.

Fourth, to improve the living standards of poor people, Nasser took thirty-five to forty percent of the total planned investment from 1960 to 1970 and allocated it to health care, free universal education, access to safe drinking water, subsidized transport, public utilities, construction of dwellings for low-income workers, and investment in infrastructure, especially paved roads between cities and throughout rural areas.

The most important gain was the substantial decline in the infant mortality rate from 130 per 1,000 live births in 1952 to 103 per 1,000 live births in 1970, leading to increased longevity. During the same period, government expenditure on health and education as a percentage of the GDP increased nearly fourfold.19

Fifth, Nasser implemented several measures designed to address externalities. For example, he imposed price control and initiated a policy of consumption subsidies for basic commodities like food and fuel to make them widely affordable to the middle and lower classes.

Sixth, Nasser was aware of the serious problems stemming from a quickly growing population. He secured fatwas from al-Azhar that family planning was permissible from a religious perspective. Accordingly, he launched a massive family planning campaign that had active participation from nongovernmental organizations.20

Seventh, Nasser was able to mobilize people to act collectively at the national and regional level. Nationalism was the main ideology the Egyptians centered around because they wanted an independent, strong, and modern state. Pan-Arabism became the main ideology all Arab countries adopted and fought for.
2.1.2. Fukuyama’s Second Category of the Scope of State Functions: Activist Functions

To achieve one of the Revolution’s objectives as captured by Nasser’s wish to have Egypt “produce from the needle to the missile,” Nasser launched a program of mass industrialization and nationalization of all large industries and the entire banking sector. This program took place from 1954 into the early 1960s. During this time, Nasser invested heavily in public sector manufacturing enterprises. Through this structural transformation, the state controlled all major sectors of the economy.

To further support farmers, local production, and industry, the government launched one of the most vital projects in Egypt’s modern history: the High Aswan Dam. This project was crucial in providing water for agricultural development, land reclamation, generation of hydroelectric power, and recreation. During this time, Egypt was under arms embargo from the West because the latter considered Egypt in a state of war with the Zionist occupation. To defy this embargo, Nasser contracted Czechoslovakia to obtain weapons. Consequently, the World Bank and Washington withdrew their promises to fund the construction of the dam. In response to this withdrawal, Nasser nationalized the Suez Canal to use its revenue to cover the dam’s construction. At the same time, the Soviet Union provided funding for the dam project. Because of this, Egypt remained in the Soviet orbit until Nasser’s successor Al-Sadat rose to the presidency.

2.1.3. Assessment of the State’s Strength

As a result of Nasser’s social and economic policies, the 1960s was characterized by nearly full employment with the unemployment rate amounting to only 2.2 percent in 1960. The result was a per capita annual growth of income at three percent, on average, during this long period of 1952–70. This sustained growth was combined with a low inflation rate of just three percent. In a single decade, between 1952 and 1962, public investment increased tenfold. By 1963, the contribution of the public sector to national income (GDP) was quite high; industry and electricity constituted sixty percent, transport totaled seventy-five percent, and public utilities totaled one hundred percent. In contrast, the economy in the early 1950s was dominated by agriculture, with industry (manufacturing, electricity, and mining) accounting for only twelve percent of national income, eight percent of the total workforce, and nine percent of export earnings. Based on the above, Egypt under Nasser was not only a strong state, but it was also a modern industrialized state.
Nevertheless, due to the rapid mushrooming of bureaucracy, there was low productivity due to overstaffing in government units and the public sector. The country ran into serious difficulties in spite of the sweeping structural transformation that improved the living standards of the Egyptian people in the middle and lower rungs of the economic ladder. Domestic consumption increased to levels above domestic saving and investment, which led to a huge fiscal gap. To address this gap, the government borrowed money from international resources. This did not help, however, as the country still faced a balance of payment deficit crisis. As a result of this economic breakdown, the political support to the regime started to fade. Moreover, the 1967 Arab Zionist war had disastrous political and economic consequences, and part of the Sinai Peninsula was occupied by the Zionists. To fix the situation, the regime lifted restrictions on private sector activities and started to take steps towards liberalization. Consequently, opposition against opening space for the private sector developed, because easing the restrictions contradicted the country’s socialist principles.

The expanded bureaucracy experienced serious shortcomings. The newly graduated were guaranteed bureaucratic positions upon graduation, but their skills were not well-suited to the demands of the government’s social and economic development policies. Furthermore, bureaucratic responsibilities overlapped, proliferating unnecessary regulation. To address these shortcomings, the regime relied on the military to provide the bureaucracy with the force and discipline necessary to accomplish its tasks. During the 1960s, twenty-five percent of the public sector’s corporate managers were seconded from the military. Top bureaucratic officials were also shifted from one unit to another in an effort to increase productivity.

Al-Sadat departed from Nasser’s socialism by focusing on the revitalization of the Egyptian private sector under the so-called infitah policy, or open-door policy. However, the state would still play a key role in planning, price support, and public corporation. Approximately seventy percent of the manufacturing sector remained in the public sector. While maintaining elements of the state’s socialist policies, Egypt’s economy was increasingly influenced by free-market forces. In 1974, Al-Sadat followed the neoliberal “Washington Consensus” economic policies and launched his Open Door Policy that encouraged foreign direct investment and local entrepreneurs in an effort to cut back the public sector. Indeed, these market forces focused mainly on luxury construction and tourism, and they gave very little attention to industrial activities.
If we benchmark Al-Sadat’s policies using Fukuyama’s three categories, we can conclude that Egypt as a strong state began to wane at the national level. Egypt’s industrial sector shrunk, the gap between poor and rich increased, monopoly started to re-emerge, subsidies were gradually eliminated, the state capacity to mobilize people to act collectively decreased, and Egypt voluntarily lost sovereignty over part of its land. At the regional level, Egypt’s status as a regional power collapsed due to the peace agreement with the Zionist occupation. Based on the above factors, the figure below illustrates these decreases in power according to Fukuyama’s categories.

Figure 2: The scope of state functions during Al-Sadat’s era. Checked boxes (√) mean functions were fulfilled, (X) means functions were not fulfilled, and (↓) mean functions were weakened compared to the previous period.

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Notes: State functions weaken as a result of the Open-Door Policies

Assessment of the state of Egypt functions (1970–1981)

2.2.1. Fukuyama’s First Category of the Scope of State Functions: Minimal and Intermediate Functions

Figure 2 shows that Egypt’s power began to wane because of a number of factors, including the United States replacing the Soviet Union as an Egyptian ally upon the normalization of the Egyptian-Zionism relations and the dismantling of Nasser’s pan-Arab policies. In 1972, Al-Sadat expelled the Soviet Union’s advisors, and the United States committed itself to provide Egypt with some $35 billion in various forms of aid in the years between 1975 and 1980. This aid, however, revealed the ideological divergence between the Egyptian and U.S. governments. The former insisted on strengthening its bureaucracy, while the latter wanted to dismantle the public sector and rely on the private sector.
The gap that was left due to cutting relations with the Soviet Union remained unfilled without an alternative for a significant period.

Second, despite Al-Sadat’s free-market policies that aimed to downsize the public sector, the number of employees in the Egyptian bureaucracy increased to approximately 3,200,000. Additionally, Al-Sadat’s foreign policy further weakened the Egyptian bureaucracy and added new challenges to its still unsolved shortcomings.

Third, during the 1970s, Egypt’s main economic resources were revenue flows from remittances, the Suez Canal, and petroleum exports. Egypt then fell into the same trap Nasser experienced: domestic consumption exceeded domestic production and led to a budget deficit and balance of payment deficit.

Fourth, although the 1952 Revolution abrogated the monarchy that had been controlled by the British government since 1922, Egypt still did not have full sovereignty over its land until 1956, when the last British troops withdrew from Egypt. After World War II, Britain relinquished its military presence in other parts of Egypt, but continued its military presence in some camps, a number of airfields, and military installations along the Suez Canal. President Nasser signed an agreement with the British government on July 27, 1954, named the Anglo-Egyptian Treaty, to end the British occupation of the Suez Canal Zone that had lasted for more than seventy years. With the withdrawal of the last troops from the Canal in June 1956, Egypt gained full sovereignty over its land. A few weeks later on July 26, Nasser nationalized the Suez Canal Company.

Nonetheless, Egypt lost part of its sovereignty over the Sinai Peninsula when Al-Sadat signed the Camp David Accords with the Zionist occupation on September 17, 1978. According to the Accords, the Zionists withdrew from Sinai, which they had occupied in 1967. Additionally, the Sinai Peninsula was divided into three zones: A, B, and G. The Accords stipulated that Egypt should limit its military presence in Zones A and B, while Zone G located along the borders between Egypt and occupied Palestine would be a buffer zone where the Egyptian military presence was replaced by multinational forces. At the time of this writing, the Camp David Accords are still valid, which means that Egypt has no control over part of its land: incomplete sovereignty.

2.2.2. Fukuyama’s Second Category of the Scope of State Functions: Activist Functions

In 1976, a mission from the IMF visited Egypt and provided a number of recommendations. Al-Sadat implemented those recommendations,
labeled structural adjustment, which included reducing subsidies on basic commodities and foodstuffs. In response to this action, nationwide “bread riots” erupted on January 18-19, 1977. Al-Sadat had made his decision on the IMF recommendations without consulting Parliament, but after the riots, he restored subsidies and suspended the IMF plan. Despite the government restoring the subsidies, these have been gradually eliminated since then.\(^{32}\) By the end of 1977, Al-Sadat’s economic policies had failed to benefit the poorest citizens, his popularity began to wane, and, he became increasingly dictatorial.\(^{33}\)

After the riots, Al-Sadat took a number of measures to suppress his opponents. He began to use the Constitution’s articles to his liking, which allowed him to propose amendments to the constitution through referendum, like removing presidential terms and appointing or removing the Prime Minister without any approval from Parliament. Al-Sadat also used his power to imprison dissenters, particularly religious ones, which became key factor leading to his assassination in 1981.\(^{34}\)

In 1976, Saudi Arabia, Kuwait, Qatar, and the United Arab Emirates formed the Gulf Organization for Development of Egypt (GODE) to finance Egypt’s development projects and balance of payment needs. Gulf States then dissolved GODE and ended its assistance to Egypt when Egypt signed the Camp David Accords in 1979.\(^{35}\) Al-Sadat was assassinated two years later.

2.2.3. Assessment of the State’s Weakness

Besides losing control over part of its land, unemployment started to emerge in the mid-1970s, reaching 4.3% according to the data from the 1976 Census.\(^{36}\) In 1977, the GDP rose an average of nine percent a year, and foreign investment rose an average of thirty-five percent. This increase in foreign investment also raised foreign debt; between 1973 and 1978 Egypt’s foreign debt rose from thirty-one percent to sixty-six percent of GNP. Egypt also went into further debt to the United States.\(^{37}\)

Throughout the 1970s and 1980s, Egypt’s manufacturing sector deteriorated. The overall level of investment stagnated at 25.5 percent of GDP, manufactured exports declined from four to one per cent of GDP, and imports rose from ten to fifteen per cent of GDP.\(^{38}\) As a result of privatization, the gap between rich and poor became wider, and inequality was a prominent feature. The state’s ability to provide public goods, subsidies, and social security declined due to implementation of the Open-Door policies.
2.3. The Waning State Becomes Weaker (1981-2011): Privatization and Structural Adjustment

If we benchmark Mubarak’s policies using Fukuyama’s three categories, we can conclude that Egypt’s economic, social, and political capacities were further weakened during this period. The state’s role further shrunk in terms of providing public goods and addressing externalities, the poor became poorer and the rich became richer, monopoly and oligarchy emerged, subsidies were largely eliminated except for very limited public goods, the state capacity to mobilize people to act collectively eroded, the lack of sovereignty over the Sinai Peninsula remained unchanged, many terrorist attacks occurred, and structural adjustment caused the country to lose control over its economy. The figure below use Fukuyama’s scope of state functions to illustrate that these functions declined under Mubarak.

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Notes: State functions weaken as a result of the IMF’s Structural Adjustment Policies

**Figure 3:** The scope of state functions during Mubarak’s era. Checked boxes (✓) mean functions were fulfilled, (X) means functions were not fulfilled, and (↓) means functions were weakened compared to the previous period.

2.3.1. Fukuyama’s Categories of the Scope of State Functions: Minimal, Intermediate, and Activist Functions

The government economic conference in 1982 emphasized the implementation of the Open Door Policy toward production. The state announced its Five Years Investment Plan (1982–1987) that was a throwback to the period of Import Substitution Industrialization. Many infrastructure projects were
undertaken during this time. Mubarak also implemented a set of policies to boost industrial activities.\textsuperscript{39}

In May 1987, Egypt agreed to implement the IMF structural adjustment policies that included reducing public spending, liberalizing the private sector, devaluing the currency, and facilitating free-market functions. By the end of that year, Egypt had failed to comply with the terms of the agreement. International organizations including the World Bank and the United States Agency for International Development (USAID) began to pressure the Egyptian government to comply with the IMF program.\textsuperscript{40}

Egypt managed to get its creditor nations to cancel half of Egypt’s external debt after Iraq invaded Kuwait in 1991, but in return, Egypt signed the ERSAP agreements. The government implemented these agreements through Law 203 of 1991, which listed 314 public-sector enterprises eligible for privatization.\textsuperscript{41} Following that action, the government shrunk the economic role of the government and introduced new investment laws. These policies, however, did not boost indoctrination and productivity. Moreover, Egypt joined the World Trade Organization (WTO) in 1995, which implied that Egypt would comply with WTO trade regulations. The structural adjustment policies also had negative implications attached to them, including labor displacement resulting from privatization, increased unemployment, increased inflation, and reduction in social services.

Mubarak maintained the Camp-David Accords unchanged. The Sinai Peninsula’s communities were thus entirely neglected. These communities were totally excluded from all the government’s development projects; today, this area’s socio-economic statistics are among the worst in Egypt. By this time, public resentment had evolved, and resulting tensions pitted the communities on one side and the police and government on the other. On top of this, several terrorist attacks occurred in different parts of Egypt which resulted in a sharp decline in tourism. These attacks negatively impacted both the Egyptian public’s and the world’s trust in the ability of the Egyptian government to maintain security.

2.3.2. Assessment of the State’s Weakness

Unemployment became more pronounced in the 1980s, with rates reaching 11.1 percent in 1986 and nine percent overall between 1986-1996. The unemployment rate then remained constant at only eight percent from 1997-2000.\textsuperscript{42} The rate of unemployment then skyrocketed to 12.8 percent in 2015 according to the Egyptian government official statistics.\textsuperscript{43} According to a 2015 report issued by the Egyptian government’s Central Agency for Public
Mobilization and Statistics (CAPMAS), youth in Egypt represented 23.6% of the total population, around 20.7 million, with around 26.3% of those youth suffering unemployment and 51.2% suffering poverty.44

Despite this, the IMF considered Egypt a successful example of structural adjustment policies in its report titled *Egypt: Alleviating Poverty during Structural Adjustment* published in 1991. The World Bank noted that 20-25 percent of the Egyptian population can be considered poor. It also highlighted that poverty levels were higher in rural areas as a result of inequality in land ownership; the richest 20 percent of landowners controlled 70 percent of agricultural land, while the bottom 20 percent of landowners controlled only five percent of agricultural land. This situation closely resembled the period under monarchy feudalism. The report also stated that between 1982 and 1987, the cost of a “minimum cost diet” in Egypt increased by 242 percent in rural areas and by 216 in urban areas. Food prices witnessed dramatic increase while wages stagnated. Recent statistics reveal that 25.2 percent of the population lives below the poverty line and a further 23.7 percent are “near poor,” hovering just above the line. The statistics also note that the average Egyptian spends 40.6 percent of his or her income on food, identifying an area where vulnerability to price fluctuations is particularly high.45

**Conclusion**

Part 1 of this paper argues that Nasser was able to mobilize Egyptians collectively through the higher goal of nationalism. This section shows how this higher goal motivated the Egyptian people and positively impacted the Egyptian government’s socio-economic policies and strategies. Egypt turned from a mere monarchy controlled by the British Empire into an independent industrialized country that could be considered a strong state.

The absence of this higher goal of nationalism under both Al-Sadat and Mubarak’s rule divided the Egyptians instead of uniting them. Moreover, instead of focusing on strengthening the country’s industrial sector, these two presidents selected the easier but less beneficial alternative: opening the country to direct foreign investments, reducing government spending and its role in the economy, and surrendering to the IMF, the World Bank, and the International Trade Organization’s “new economic occupation.” Accordingly, the socio-economic status deteriorated, corruption became “the government’s system,” and the country had no sovereignty over the Sinai Peninsula, making Egypt a weak state.

Egypt and other countries’ histories illustrate clearly that strong countries are those who produce by having successful industrial sectors. It
is impossible for a country to be strong if it has a weak economy where its consumption is larger than its production. Unsurprisingly, the strength of the Egyptian state started to wane when the Al-Sadat and Mubarak governments decided to decrease the size of the industrial sector, borrow without producing, and open the door widely to foreign direct investment without considering increasing the GNP. As a result, these governments did not have enough resources to fulfill their functions and implement their plans. Instead, they could have reduced the role of the government and eliminated restrictions on the private sector without sacrificing industrial capabilities.

Nasser’s state was strong because he established strong foundations in industry and developed this sector. For comparison, during Nasser’s time both Egypt and South Korea were pursuing policies focused on industry. Whereas South Korea continued following these policies, Egypt after Nasser did not. The results of this can be seen today, where South Korea enjoys a strong industrialized state but the strength of the Egyptian state has fallen. Therefore, Egypt now should focus on rebuilding its national industrial sector and freeing herself from the IMF’s “economic occupation.”

**PART 3: POLITICAL PARTICIPATION UNDER ELECTORAL AUTHORITARIANISM**

Early political parties in Egypt were formed as secret societies before evolving into political groups. Mostafa Kamal, an Egyptian leader who demanded the end of British occupation, established the first political party in 1907 and named it the National Democratic Party (NDP). In the following decade, several parties were formed. Some were national in scope, while others were dominated by the royal palace, occupation, or different ideologies. However, between 1907 and 1920, the successors of the British occupation and the Ottoman Empire restricted these parties.

The 1923 Constitution was based on party pluralism and principles of liberal democracy. Because of this, a multiparty parliamentary Kingdom ruled Egypt between 1923 and 1952. Yet, two main aspects of the 1923 Constitution thwarted democracy in Egypt: intermittent British interference in Egyptian politics and policymaking and the King’s overwhelming power.

The July 23, 1952 Revolution established a single mass party system under the Arab Socialist Union (ASU) that was maintained until 1977. During this period, the ruling party would be called different names: the Liberation Group from 1953 to 1956, the National Union from 1956 to 1962, and the Arab Socialist Union from 1962 to 1976.
Nasser’s Constitution was amended during President Al-Sadat’s era. In March 1976, Al-Sadat formally split the single party created by Nasser in 1953 into three “platforms.” President Al-Sadat issued a decree allowing three forums that would represent the right wing (the Liberal Socialist Organization), the middle wing (Egypt Arab Socialist Organization-the National Democratic Party), and the left wing (the National Progressive Unionist Organization). In late 1976, Al-Sadat turned the three forums into official parties.

Al-Sadat’s Constitution essentially allowed him as president to control who could form a party and what parties were allowed to take part in elections. This assured that any political opposition to him personally would remain minimal and easily brushed aside, if it even existed at all. These reforms did nothing to change the fact that the National Democratic Party (NDP), Al-Sadat’s own party, still dominated parliamentary elections, and Al-Sadat continued to run unopposed in presidential elections.

The roots of the current law on political parties trace back to Al-Sadat’s era. He issued Law No. 40/1977, the first post-independence law governing political parties, which stated that “Egyptians have the right to create political parties and every Egyptian has the right to belong to any political party.” One of the main criticisms of the 1977 law addresses the provision of the Political Parties Committee (PPC), which essentially gave the president and the ruling party the right to control parties. The PPC had the power to refuse the registration of new parties, to freeze existing parties’ licenses, to close parties’ newspapers, to reverse parties’ decisions, and to halt parties’ activities based on the “national interest.” The PPC could also ask Cairo’s Supreme Administrative Court to dissolve parties and redistribute their funds.

The PPC had seven members, six of whom the president appointed. The six members included the Minister of Justice, the Minister of the Interior, the Minister of State for Parliamentary Affairs, and three former judges. The seventh member, the Head of the Upper Council (Shura Council), lacked any true independence in decision-making, given that the President appointed one-third of the Council members and that the ruling party dominated the rest of the Council.

As mentioned earlier, political opposition and confrontations escalated in 1977 following Al-Sadat’s agreement with the Zionist occupation. In response to this opposition, Al-Sadat placed more restrictions against the opposition and political participation.
Following the assassination of Al-Sadat, President Hosni Mubarak took office on October 15, 1981. To contain the tensions that had mounted during the last years of Al-Sadat’s era, Mubarak took a broad range of measures, including releasing political detainees, allowing the re-publishing of some newspapers, and easing restrictions on the political parties’ activities.

The second Palestinian Intifada and the American invasion and occupation of Iraq in 2003 resulted in a growing political dynamism in Egypt in the early 2000s. A number of opposition parties and groups demanded political reform and amendments of the Constitution to allow for competitive presidential elections, an end of the declared state of emergency, the elimination of restrictions on political parties and civil society organizations, freedom of the media, and guarantees of a free and fair electoral process. These demands forced the government to enact some limited amendments that allowed for the direct popular election of the president. However, the presidential candidacy remained under the ruling party’s control.56

In July 2005, the People’s Assembly, the lower chamber of the Egyptian Parliament, issued Law No. 177/2005 that amended the political parties’ previous law No. 40/1977. The new law required parties to notify the PPC about operations instead of first applying for permission to operate as the previous law had stipulated. The PPC had the right to object to parties’ notifications within a 90-day period. The new law also removed some of the previous restrictions; for example, it removed requirements that a party’s “founding pillars, principles, goals, programs, policies, or methods” should not contradict “the principles of both the July 23, 1952, and the May 15, 1971 revolutions” or Islamic jurisprudence. The new law also removed stipulations that no members of a proposed party should have called for or conspired to call for the abrogation of Egypt’s peace treaty with Israel.57

The amendments made cosmetic changes to the PPC, expanding its membership from seven to nine and reducing the Cabinet’s share of seats. Yet, the President still appoints all but one of the committee’s members, and he does not appoint the ninth member, who is still the head of the Shura Council and the chair of the committee. Law No. 177/2005, authorizes the PPC to examine and consider notices of the establishment of parties, to temporarily suspend the activities of leaders of any existing party and to reverse any of leaders’ decisions or acts considered delinquent.58

In 2007, the regime introduced a series of amendments that further constrained political freedom, such as removing the judiciary’s role as electoral supervisor, empowering the President to dissolve the parliament
without referendum, and banning explicitly religious parties. This curtailed attempts by the Muslim Brotherhood to form a political party and gave Mubarak the authority to refer civilians suspected of terrorist offences for trial in military tribunals. 59

Before the January 25, 2011, Revolution, Egypt had twenty officially licensed political parties. The parties were relatively inefficient and weak as a result of the government’s tight legal control over their actions. Opposition parties could be classified into three main categories based on the nature of their relationship with the regime. 60 The first category included small licensed parties without funding or members. These parties were virtually unknown to Egyptian citizens and had no real political influence, but the state granted them a number of privileges and resources. The second category consisted of parties that were forbidden from holding official licenses and excluded from the political scene. The third category included parties that were part of the political system and were officially licensed. 61 The parties’ complicated relationships to the Mubarak regime contributed significantly to the parties’ lack of legitimacy in eyes of Egyptian citizens. The people perceived these parties not only as part of the regime, but also as players in the regimes’ maintenance and durability. 62

Conclusion
The old saying that history repeats itself applies to the case of Egypt. Here, it is the political regime repeats itself, but it dresses differently each time. Egypt’s presidents, fully used the formal, partisan, and informal powers they had at their disposal to maintain their regimes and stay in power. With no exception, they all tailored the constitutions and laws to their liking, granting privileges to their own parties and manipulating presidential and parliamentary election as well as public opinions to strengthen their positions.

Civil society organizations (CSOs) should continue their struggle to ensure democracy. Though it is not easy for CSOs to fully function in such an oppressive environment, the January 25, 2011, Revolution teaches us that Egyptians have changed. They are no longer willing to stay silent for long periods under regimes that do not act in the public’s best interests. The government should realize this and accordingly try to not manipulate the constitution and laws or extend the role of the military. Otherwise, the current government will soon fall into the same trap that ensnared the previous regimes; in fact, it already has in regards to its relations with Saudi Arabia. Thus, CSOs should monitor government policies and contribute in efforts to raise ordinary citizens’ awareness and organize them into collective action.
The weak but sincere political parties should strengthen their internal structure, develop coherent alternatives to the government’s policies, work hard to increase their membership base, and build alliances where possible to form a strong front against the regime in the case that the regime chooses to act against people’s will. History shows that even up to the current time, Egyptians cannot find a strong trusted alternative to the military. Therefore, parties will have to offer that alternative. Interest groups and movements like those that triggered the January 25 Revolution should continue on the path they started. They need to continue to monitor the government’s policies and mobilize people when needed to make real changes toward democracy.
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Endnotes


8. Ibid.


17. Ibid., 4.


19. Elie Podeh and Onn Winckler, eds., *Rethinking Nasserism: Revolution and Historical Memory in Modern Egypt*, 1st edition (Gainesville: University Press of Florida, 2004), 261. “An enormous amount of academic literature has been published on Nasserism since the 1950s and, to my mind, Rethinking Nasserism is without a doubt the last word on the subject. . . . An outstanding reappraisal of Nasserism as a major force in the 20th-century Middle East.”--Israel Gershoni, Tel Aviv University President Gamal ‘Abd Nasser was a beloved figure of the Egyptian people and loomed large over the Arab world during his period of influence (1952-1970)

20. Ibid., “An enormous amount of academic literature has been published on Nasserism since the 1950s and, to my mind, Rethinking Nasserism is without a doubt the last word on the subject. . . . An outstanding reappraisal of Nasserism as a major force in the 20th-century Middle East.”--Israel Gershoni, Tel Aviv University President Gamal ‘Abd Nasser was a beloved figure of the Egyptian people and loomed large over the Arab world during his period of influence (1952-1970)


23 Nagarajan, “Egypt’s Political Economy and the Downfall of the Mubarak Regime.”


25 Podeh and Winckler, Rethinking Nasserism, 257. "An enormous amount of academic literature has been published on Nasserism since the 1950s and, to my mind, Rethinking Nasserism is without a doubt the last word on the subject. . . . An outstanding reappraisal of Nasserism as a major force in the 20th-century Middle East."--Israel Gershoni, Tel Aviv University

26 President Gamal Abd Nasser was a beloved figure of the Egyptian people and loomed large over the Arab world during his period of influence (1952-1970)


28 Ibid., 6.

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34 Feuille, “Reforming Egypt’s Constitution: Hope for Egyptian Democracy?”

35 Nagarajan, “Egypt’s Political Economy and the Downfall of the Mubarak Regime.”


39 Nagarajan, “Egypt’s Political Economy and the Downfall of the Mubarak Regime.”

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