

# AFRICA POLICY JOURNAL

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We thank Martha Foley, our publisher at the Harvard Kennedy School for her constant availability and support throughout the publication process. We also congratulate her for the remarkable achievements she has made for all the Kennedy School's student journals.

Our gratitude goes out to our faculty advisors, Calestous Juma, Ishac Diwan, and Nahomi Ichino who have extended their credibility and insights, which are essential for making this journal a success.

Most of all, we must thank our dedicated contributors. Together they have produced an impressive collection of articles and Op-Eds that discuss a wide array of important and pressing challenges for the African continent and its people.



# 2014 Edition

## CALL FOR PAPERS

***DEADLINE: Sunday, January 5, 2014***

A short 200-300 word abstract should be submitted by **November 25, 2013 by 5:00PM EST.**

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***In addition, all authors must observe the following:***

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- Submissions must be sent in Microsoft Word formatting, no PDFs please
- All papers must be formatted according to the 15<sup>th</sup> edition of the *Chicago Manual of Style* guidelines. See [http://www.chicagomanualofstyle.org/tools\\_citationguide.html](http://www.chicagomanualofstyle.org/tools_citationguide.html)
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## EDITOR'S REMARKS

Dear Readers,

On behalf of our editorial team we would like to present to you the 8<sup>th</sup> Volume of the Harvard Africa Policy Journal. The APJ was started in 2006 by a group of students at Harvard Kennedy School who believed that there needed to be a publication at Harvard University which addressed and discussed issues related to Africa. Seven years later we are still dedicated to our mission of “promoting dialogue about Africa policy and current affairs in the realms of governance, law, education, business, health, design and culture.” In this edition you will find articles which cover issues from agricultural development in Ethiopia to health care in Sierra Leone. These articles are the product of the hard work of our amazing contributors from around the world, who have graciously decided to share their intimate knowledge of issues in Africa.

The 2012-13 year was a period of transition for the APJ. We moved from a printed to a web based journal in order to make our material widely available free of charge to anyone in the world. In addition, we established a partnership with Harvard University's Committee on African Studies (CAS), which has provided us support for our transition into an online journal. Finally, with the help of CAS we have expanded our organization to encompass all schools at Harvard University. Although the APJ remains based at Harvard Kennedy School of Government, we intend to include staff from various departments in Harvard, from Law to Medicine, because we believe this will make for much richer perspectives and content for our journal.

There are many people for whom this journal would not be possible. We would first of all like to thank our incredible and passionate contributors, and the effort they have put into generating such excellent academic articles and opinion pieces. In addition, we would like to thank the extremely dedicated APJ editorial team, who has devoted so much of their time to make this journal a reality. We also thank the Committee on African Studies for their support during this time of transition. Finally, we would like to thank you, the reader, for visiting our journal and taking an interest in these issues. As you read and find articles which pique your interest and maybe incite you to debate, share them with your friends and colleagues. In this way, we believe we can involve more individuals within the dialogue on a rapidly changing continent, and hopefully to create solutions to its problems. We hope that you will join us in advancing this dialogue and our mission.

Warmest Regards,

**Bakary Seckan**

Editor in Chief

Harvard Africa Policy Journal

**Nicholas Birger**

Senior Editor for Academic Articles

Harvard Africa Policy Journal

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# Symptoms of an Enduring Crisis: Prospects for Addressing Mali's Conflict Catalysts

José Luengo-Cabrera

## Abstract

*Despite the peace agreements and disarmament processes implemented since the 1990s, conflict in Mali has proven to be resilient. Conflict symptoms pertaining to deficient governance and sustained societal discontent have recurrently generated armed violence. This paper will explore the multifarious factors that have continually undermined the political stability and integrity of the Malian state. It will rely on a historically informed analysis to provide an insight on Mali's protracted conflict and will search to contextualize the eruption of an enduring crisis triggered by the January 2012 armed rebellion. A multi-level conflict diagnostic will serve to set the ground for the elaboration of policy recommendations seeking to address Mali's resurgent conflict catalysts in the prospects of a forthcoming post-conflict reconstruction process.*

## Introduction

Mali has been immersed in an enduring crisis since the outbreak of conflict in January 2012. With the overthrow of the Malian government in the March 2012 military coup, constitutional rule was suspended and a number of armed groups took advantage of the power vacuum to gain control of the northern territory. Despite the formation of a transitional government, efforts to find a political solution to the crisis effectively failed. As armed groups consolidated their presence in the north, international efforts to dismantle them were sluggish whilst an exacerbated food crisis caused great displacement. With the undermining of the Ouagadougou peace talks, the situation became critical following a southwards advance of the armed groups that precipitated a military intervention. Despite the efforts by the international forces in displacing the armed groups, Mali remains in a state of crisis amidst prevalent insecurity, political instability and mass displacement.

As of early March 2013, although the deployed West African troops under the auspices of the African-led International Support Mission to Mali (AFISMA) had regained control of the main towns of the north, French and Chadian forces continued to fight the Islamist armed groups in the Adrar des Ifoghas mountains of the northeast. As a result of the reported guerrilla attacks in Gao and suicide bombings in Kidal, widespread insecurity and substantial infrastructural damage caused by aerial bombardments continued to limit the delivery of humanitarian assistance. With 260,665 internally displaced Malians and a total of 170,313 refugees registered in neighbouring countries, an estimated 585,000 people remained food insecure under precarious living conditions.

Whereas tensions between the different ethnic groups of the north have been heightened during the past year, signs of instability recently emerged in Bamako following an attack on the President's National Guard by soldiers loyal to Captain Amadou Sanogo. In addition, regional threats have erupted as evidenced by the retaliatory attacks in Algeria and Nigeria by armed groups with alleged links to Al-Qaeda in the Islamic Maghreb (AQIM) and Boko Haram. As such, despite the swiftness of the military intervention and the preliminary plans to deploy a United Nations (U.N.) peacekeeping operation, threats to the security of the Malian and neighbouring states persist.

With the prospect that the turbulence in Mali will take some time to subside, government authorities have set a tentative date for holding

national elections while civil society organizations are progressively turning their attention to the pressing launch of a conciliatory political process. As discrepancies over legislative representation and the future administrative status of the northern regions are likely to emerge, an urgent necessity to prepare for an inter-communal national dialogue process arises. As a result, the displaced and disaffected communities of the north will require international assistance to gain the necessary political and economic leverage to reiterate their protracted grievances and initiate a programme of political reform. Simultaneously, international efforts must focus on addressing the amalgamated conflict catalysts that have recurrently undermined the stability and integrity of the Malian state through the promotion of peace-building initiatives, regional security cooperation and sustained financial aid.

## Framework of Analysis

This investigation is premised on an endeavour to offer an integrated diagnostic of the multifarious factors that precipitated the January 2012 armed rebellion and ensuing crisis following the overthrow of the Malian government in the March 2012 military coup. In the wake of the military intervention and prospective launch of a post-conflict reconstruction process, it is fundamental to gain a comprehensive understanding of the intertwined phenomena that have intermittently sparked armed violence in Mali. Retrospectively tracing an underlying chain of causality will allow us to make the cautious assertion that Mali witnessed a crisis in the making. This paper will therefore rely on an evaluation of past and currently evolving events to elucidate the eruption of a crisis that has been sustained by ineffective governance and sluggish international action amidst meddling trans-Saharan externalities. It will seek to offer a historically informed analysis of the protracted conflict as a means to contextualize the currently enduring crisis and formulate tentative policy recommendations to address Mali's resurgent conflict catalysts.

The primary analytical exploration will be focused on the conflict symptoms pertaining to the idiosyncratic Malian history since independence; the deficient governance arising from neo-patrimonial politics as well as climatic and economic adversity and the societal disgruntlement emanating from sustained political marginalization and socio-economic exclusion in an ethnically divided society. Particular attention will be paid to the political instability deriving from poor governance propagated by low public resources, unbridled corruption

and military coups as well as the recurrent armed rebellions amidst failures to effectively implement the numerous peace accords since 1991. In addition, an analytical component will focus on trans-Saharan dynamics relating to regional spillovers and the burgeoning of a regional illicit trade economy and kidnapping industry that enabled a number of resourceful armed groups to take de facto control of northern Mali up until the launch of Opération Serval on 11 January 2013. Finally, a detailed account of the events leading up to the military intervention and evolving situation will serve as the backdrop for the formulation of policy recommendations in the prospects of a forthcoming post-conflict reconstruction process. A concluding conflict synopsis will hopefully serve to assert the idea that Mali constitutes a paradigmatic case study for conflict in ethnically divided societies as it integrates well into the various cadres of the comprehensive conflict incidence theory.

### **I. Mali's Protracted Conflict**

The Malian state has been scarred by a history of internecine conflict since its inception as an independent state in 1960. Despite the numerous peace agreements and disarmament processes that have been implemented since the early 1990s, conflict has proven to be resilient. This resilience derives from a complex interconnection between structural conflict catalysts that have sporadically fused to cause conflict outbreaks.

These conflict triggers are both anthropogenic and exogenous. The idiosyncratic socio-economic composition of the Malian polity and the sustained application of policies ill-suited to accommodate divergent political demands have recurrently precipitated armed rebellions by the disenfranchised communities of the north. In addition, the prevailing climatic conditions of intermittent droughts and the challenges to promote economic development in the sparsely populated arid north have adversely affected the livelihoods of the northern populations. Most importantly, public and international resources have not only been continually insufficient to generate economic activity and guarantee security across the territory, they have also been embezzled as a result of widespread clientelism. This has generated serious discontent and propagated armed violence, both in the form of insurgencies and military coups.

The history of conflict in Mali has been a complex one, involving violent confrontations at different levels between different actors. The primary source of conflict can be attributed to the recurrent armed insurgencies led by the Kel Tamasheq (commonly known as the Tuareg) against state authorities. Although it is not the only group that has engaged in violence, the Tuareg have been pivotal as they have been at the forefront of four armed insurgencies since 1963. Conflict has also arisen among the different communities of the north and acute rivalries have emerged between different Tuareg tribes, particularly in Kidal. Most importantly, deep political schisms have developed between politico-military elites in Bamako and instability has been exacerbated by the resurgence of military coups motivated by sustained discontent towards the alternating governments.

The multi-level nature of conflict in Mali must therefore be understood in context as it requires a coherent breakdown of the enduring antagonisms between conflicting actors. This necessitates a

comprehensive diagnostic of evolving phenomena dating back to the colonial era. It primarily requires an ethnographic exploration of the constituting communities in Mali and their interactions across time. A holistic diagnostic of the history of conflict in Mali will hopefully serve to contend that the symptoms for the outbreak of conflict and durability of the subsequent crisis were present at the outset of the January 2012 insurgency. As such, although the fall of the Qaddafi regime and subsequent inflow of arms arguably precipitated the armed rebellion, the presence of resourceful armed groups in the north coupled with aggravated discontent by the military towards the authorities in Bamako and an international reticence to take prompt action would effectively undermine the resolution of an enduring crisis.

#### **1.1 Ethnic Diversity under Authoritarian Rule**

The roots of the conflict must be traced back to the pre-independence era under French colonial rule as it marked the inception of a sustained process of discriminatory policies towards the northern communities. An important point of departure requires an appreciation of Mali's diverse ethnic composition as this diversity was exploited and manipulated by both the colonial and post-colonial authorities.

Northern Mali is composed of three sparsely populated regions; Timbuktu, Gao and Kidal. Their inhabitants make about ten percent of the total population. Four main groups have historically inhabited the northern regions and although they are often distinguished by their racial attributes, the most salient feature of interest relies with their distinct socio-economic lifestyles. Whilst the various Tuareg (Ifogha, Idnan, Iwelmeden and Imghad, amongst others) and Arab (Berabiche, Kounta and Telemsi) communities have led nomadic, pastoralist lifestyles, the Songhai have pursued sedentary subsistence agriculture around the banks of the Niger River. The Fulani community is said to combine elements of both. The inter-group relations between these communities have been predominantly characterized by conflict and rivalry, primarily deriving from competition for scarce resources and asymmetrical political aspirations.

Prior to colonisation, the prevalent forms of violence were mainly inter-group; pertaining predominantly to Tuareg raids on other communities' land. In the mid-1960s, inter-communal conflict was sparked by contestations over land rights between the nomadic and sedentary populations and in the 1990s, a self-defense Songhai-based militia was created to withstand Tuareg rebel attacks. In addition, over the last decades, an underlying rivalry emerged between Tuareg and Arabs in a struggle for control over the trans-Saharan trade routes. Although there have been instances of alliances based on inter-communal marriage, the prevailing relations between these communities have remained antagonistic. In addition, the northern communities have been burdened by the adverse climatic conditions that have not only caused destruction of livestock and land but also mass displacement. Most importantly, the policies that have been implemented by the central authorities have largely been discriminatory and public investments have largely been siphoned off through corruption whilst the post-colonial modernisation policies of land reform directly disadvantaged the livelihoods of the nomadic communities.

Having claimed possession of the Malian territory in 1894, the French implemented a divide and rule strategy that essentially disturbed the

underlying societal structures of the country. This was evidenced by the promotion of educational programs that favoured the Mandé populations of the south. The Tuareg, who had fervently rejected the imposition of colonial rule, had for long advocated the creation of a trans-Saharan state encompassing their scattered populations in Mali, Algeria, Libya and Niger. During the colonial era, the Tuareg, led by Firhoun Ag El Insar, launched a rebellion against the colonial authorities as a result of a virulent opposition to the “highly unjust, authoritarian and centralized colonial state”. The French authorities had imposed heavy taxes on their trade, confiscated their camels for military use and had reneged on their promise to grant the Tuareg people their autonomous “Azawad”. The French authorities violently repressed the rebellion and subsequently confiscated important grazing lands and imposed forced labour on the Tuareg population. This fed into an increasingly ingrained sentiment by Tuareg communities of deliberate repression by the ruling authorities which intensified during the first years of independence.

### 1.2 Repressive Marginalization, Drought and Insurgency

When Mali became a sovereign state on 22 September 1960, a one party regime was installed with Modibo Keita as its president. Northern communities had been side-lined in the de-colonization process and were minimally represented in the civil administration. The senior leadership of the first government was disproportionately drawn from elites of the southern ethnic groups that inherited the French authorities’ legacy to disregard the pastoral lifestyle of the northern nomadic populations as regressive. The Keita regime established a centralized authoritarian system which proved to be unresponsive to the demands for local representation by the northern communities. As a result of the military rule over the north and the prospective implementation of anti-nomadic land reform policies, a group of poorly armed Tuareg launched a series of attacks on government facilities in 1963. The government response was brutal as it launched counter-insurgency operations that began to terrorize the populations deemed sympathetic to the rebellion.

In 1968, Colonel Moussa Traoré overthrew the Keita government in a military coup and installed a repressive regime that “appeared more interested in maintaining its control than promoting development”. Under the Traoré government, corruption thrived as funds for development programs were diverted into private pockets. Most importantly, the northern communities were prohibited from partaking in the management of local affairs and continued to be virtually excluded from positions in the central government, administration and army. Under Traoré, the northern communities suffered proportionately more as a result of political neglect, economic marginalisation and abuse by the commanding military governors deployed in the north. Crucially, the northern regions suffered severely from a series of droughts in 1972-73 and 1983-85 that destroyed 40% of its livestock and prompted mass displacement. With insufficient relief efforts that were allegedly detracted through corruption, many fled to neighbouring Algeria and Libya. In Libya, Tuaregs received active support from Qaddafi and hundreds of young Tuareg men were recruited into the “Islamic Legion” where they received sophisticated military training and fighting experience in Chad and Lebanon. As a result of Qaddafi’s defeat in Chad in 1986, the fall in oil prices and subsequent economic downturn in Libya, thousands of Malian Tuaregs

were forced to return to northern Mali. The influx of militarily trained young men inspired by revolutionary discourses in Algeria and Libya created the fertile ground for the second post-independence Tuareg rebellion.

On 28 June 1990, a group of 50 Tuareg armed men took over a prison in Ménaka and stole large numbers of weapons as well as four-by-four vehicles. These attacks were orchestrated by the leader of the Popular Movement for the Liberation of Azawad (MPLA), Iyad Ag Ghali; a prominent Ifogha Tuareg from Kidal who would form the notorious Ansar Dine in late 2011. Once again, this insurgency unleashed an indiscriminate military retaliation by the Malian armed forces. President Traoré declared a state of emergency in the north and there were allegations that non-Tuareg populations in the region were encouraged to attack the Tuareg. Faced with severe financial constraints and growing political opposition in Bamako, Traoré belatedly recognized that ending the rebellion was dependent on a non-violent reconciliatory process. Accepting a mediating role by Algeria, government representatives and leaders of the MPLA and Arab Islamic Front of Azawad (FIAA) signed the Accords of Tamanrasset on 6 January 1991.

These accords included provisions of an immediate cease-fire between warring parties as well as the disarmament of rebel combatants and demilitarization of the north. Most importantly, it envisioned the integration of rebel combatants into the Malian army and planned an accelerated process of administrative decentralization. In addition, a final clause guaranteed that 47.3% of Mali’s infrastructural investment funding would be devoted to the North, a figure that had been as low as 17% since the 1960s. The agreement was however shrouded in secrecy as many representatives of the northern communities and opposition movements in Bamako were not represented in Tamanrasset. These opposition movements, and most notably the military, were enraged by the pledges of the agreements and perceived the concessions made to the Tuareg as a threat to the integrity of the country. No Songhai representatives were invited to partake in the accords and they later expressed their discontent for the disregard of their interests amidst fears that the implementation of the agreements would lead to an Arabo-Tuareg dominance of the north. In 1991, public dissatisfaction with an economy suffering from deteriorating terms of trade and poor social conditions prompted frequent popular demonstrations that were violently suppressed by the National Guard. Amidst rampant state corruption and mounting dissatisfaction with Traoré’s handling of the Tuareg issue, Colonel Amadou Toumani Touré (ATT) overthrew the regime in a military coup and formed the Committee of Transition for the Safety of the People.

The new de facto authorities overlooked the Tamanrasset Accords and with rising pressures from pro-democracy civil society groups in Bamako, a National Conference was initiated in August 1991 that eventually led to the launch of the Pacte National at the end of the year. In the wake of the meeting, representatives of the Tuareg and Arab armed groups of the north created a common platform and formed the United Movements and Fronts of Azawad (MFUA). Following preparatory meetings, the pact was signed between the Malian government and the MFUA in April 1992. The agreement included four broad key points relating to; 1.) peace and security in the north, 2.) national reconciliation, 3.) special initiatives to promote socio-

economic development and 4.) the granting of a special autonomous status for the north within the framework of a unitary state. In addition, a commission was established to monitor the ceasefire, the new administrative region of Kidal was created and a clause guaranteeing Tuareg representation in the National Assembly was passed.

### 1.3 Fragile Peace in a Fragile Democracy

In June 1992, the first democratic elections took place and Alpha Oumar Konaré was inaugurated as president. However, fighting in the north continued and the implementation of the National Pact was stalled. The government's concessions to the Tuareg created a backlash within the northern military personnel as well as the Arab and Songhai populations who felt neglected. Important discrepancies emerged within the Tuareg community as secessionist factions rejected the National Pact and tensions rose in 1994 when former Tuareg rebels that had been integrated into the army mutinied in Tonka and Kharous, killing a dozen fellow Malian army soldiers. Meanwhile, Arab minority groups demanded political inclusion along with the Songhai. They were primarily concerned with the relatively disproportionate political concessions granted to the Tuareg as well as the relief and economic support being supplied to them. During this time, the Songhai felt insecure amidst intermittent Tuareg bandit attacks which prompted the formation of their own militia; the Ganda Koy Malian Patriotic Movement (MPGK). In addition, discipline and leadership problems within the army started to surge. Many military officers perceived the National Pact as a capitulation to the demands of a northern insurgency that they had for long resisted amidst continuous poor provisions of military equipment by the government. Soldiers stationed in the north began to disregard orders from the central command and local units began to operate independently, essentially disregarding the demilitarization clauses of the National Pact. With rising inter-factional fighting between different militias in the north, President Konaré was pressured to launch a series of regional consultations through civil society initiatives. In November 1994, several inter-community meetings were held, bringing traditional leaders to negotiate ceasefires in the north. As Konaré announced a large withdrawal of military units from the north, grass-roots organizations began to organize inter-community meetings that raised hopeful prospects for peace and reconciliation.

With a renewed international involvement under the leadership of the U.N. Development Program (UNDP), the Konaré government launched a Disarmament, Demobilization and Reintegration (DDR) process. The DDR programme received USD\$ 10 million from international donors and between 1995 and 1997, a total of 12,000 former combatants allegedly benefitted from it. In addition, an estimated 2,400 former combatants joined the Malian armed forces. This program culminated in the Flamme de la Paix ceremony on 27 March 1996 in which 3,000 arms from demobilized combatants were symbolically burnt in Timbuktu with the announcement of the dissolution of the MPLA and other Tuareg movements, notably the Idnan-led Revolutionary Army for the Liberation of the Azawad (ARLA).

Despite the initial success of the program, the 1990s witnessed a surge in illicit trafficking activities as a result of the porous borders and poor security provision throughout Western Sahel. With the eruption of civil wars across West Africa, trade in small arms surged

as Mauritanian and Nigerian criminal groups began to supply illegal weapons to northern Mali. This arms inflow essentially undermined the arms decommissioning process. With persistent problems of underdevelopment and minimal presence of government security authorities, armed banditry began to flourish in the northern territory.

### 1.4 Armed Groups and the Illicit Trans-Sahelian Economy

Arab and Tuareg communities with historical knowledge of the northern terrain and control over the trade routes began to engage in smuggling activities as it presented new opportunities for economic gain. Alluding to the non-implementation of the National Pact amidst new droughts and rising discontent among the Tuareg soldiers in the Malian army, a third Tuareg-led rebellion was launched in May 2006. Condemning the discriminatory treatment of Tuaregs in the army, it was led by Tuareg officers Hassan Ag Fagaga and Ibrahim Bahanga, who had founded a new Kidal-based armed group under the name of the 23 May Democratic Alliance for Change (ADC). Their recruits were former members of the MPLA who carried out attacks on Malian army installations in Kidal and Ménaka.

As a result, Algeria was once again called to the negotiating table and brokered a peace deal known as the 2006 Algiers Peace Accords that envisioned the creation of a northern security force dubbed as the Saharan Security Units. However, as a result of the lack of regional commitment to provide financial resources for the implementation of the accords, Tuareg rebel attacks continued until 2009 when the Malian government and the ADC agreed to the disarmament of the ADC in return of the reintegration of their combatants to the military barracks in Kidal. A faction of the ADC did not agree to the Algiers Accords and instead formed the Tuareg Alliance of Northern Mali for Change (ATNMC) that continued to organize attacks against the Malian military.

In 2011, ATT launched the Programme Spécial pour la Paix, la Sécurité et le Développement au Nord Mali (PSPSDN). It was financially backed by the European Union (E.U.) with a budget of USD\$ 65 million to invest in regional security and youth employment. This project was however deplored by the Advocacy Network of Peace, Security and Development in Northern Mali led by Alghabass Ag Intallah; a prominent Ifogha leader from Kidal who in mid-January 2013 formed the Ansar Dine splinter faction under the name of the Islamic Movement for the Azawad (MIA). The network criticized the program for lack of participation by local populations and disproportionate allocation of resources to security as opposed to development programs and the establishment of a "southern" military presence in the north. As such, although there were evident efforts to attenuate the dire economic circumstances in the north, corruption and the flourishing of a trans-Sahelian illicit trade economy proved to undermine them.

With very weak capacity to manage the porous borders, smuggling activities began to thrive as armed groups gained a stronghold over the trade routes. With the economic attractiveness of the smuggling economy, Tuareg and Arab merchant groups increasingly relied on purchasing arms as a means to gain leverage over the control of the trade routes. This propagated an arms race between different local militia groups that began to interact with AQIM; a fundamentalist armed group created from the remnants of the Algerian Salafist Group for Preaching and Combat (GSPC).

Capitalizing on the illicit trade networks managed by Malian merchants, a synergic process of commercial interaction and local recruitment started to consolidate between the Algerian command of AQIM and prominent Arab merchants of the north. The economic benefits reaped from the illicit trade economy that relied on northern Mali as a transit route contributed to the proliferation of small armed groups that trafficked goods ranging from arms inflowing from Liberia and Sierra Leone to cocaine flown in from Latin America. The continual incapacity of the Malian state to govern its northern territory coupled with bleak economic opportunities for the youth of the north began to create a fertile ground for the operability of armed groups that saw the northern territory as a safe haven in which to pursue their lucrative activities. A prevalent security vacuum in the north enabled the armed groups to operate almost without restraint and the continuing incapacity of the Malian state to address the protracted grievances of the northern communities began to set the ground for what would become the fourth post-independence Tuareg-led rebellion.

## **2. The 2012 Crisis: Tuareg-led Insurgency and Subsequent Military Coup**

Amidst allegations that ATT was capitalizing on the perceived instability of the north to attract further international resources under the guise of combating terrorism, funds were still not being channelled appropriately as evidenced by the poorly equipped Malian military in the wake of the January 2012 Tuareg-led insurgency. The main security challenge was now focused on the threat posed by AQIM which had been consolidating its presence in Mali since 2003.

Carrying out various kidnapping operations on Western tourists, the payment of large ransoms generated large economic rewards not only to AQIM but to local intermediaries responsible for negotiating the hostage releases which included government officials and Ag Ghali amongst others. Stratfor calculated that between 2008 and 2012, AQIM received a total of USD\$ 88,900,000 in ransoms, averaging a total of USD\$ 3,316,000 per hostage. This indicated that that the group was financially resourceful prior to the eruption of the crisis. Taking advantage of the scant government control in the north, AQIM progressively began to integrate and recruit young Arab Berabiche in the Timbuktu region that were attracted by the economic opportunities brought about from the income-generating kidnapping industry. Under this setting, a strategic alliance deriving from a convergence of commercial interests emerged between local trafficking networks and AQIM. AQIM capitalized on the trafficking networks to obtain weapons and, in turn, the trafficking networks received a share of the revenues generated from kidnapping ransoms. These mutually beneficial alliances set the ground for the progressive consolidation of local armed groups and those with political agendas began to organize themselves as a result of ATT's failure to implement the PSPSDN.

In July 2011, different Tuareg factions came together to plan the formation the National Movement for the Liberation of Azawad (MNLA) with the asserted objective to realize a long-standing endeavour to establish an independent state of Azawad. Officially formed in October 2011, the MNLA came under the leadership of Bilal Ag Cherif after Iyad Ag Ghali's candidature was rejected, allegedly due to the fact that his Islamist aspirations contrasted with the more secular ambitions of the MNLA's core members. As a result, Ag Ghali

formed Ansar Dine; a Kidal-based Islamic movement aspiring to apply Sharia law across the Malian territory. Mohamed Ag Najem became the MNLA military commander. He was an experienced combatant and former Colonel of a unit of the Libyan army who formed the military apparatus of the MNLA with an alleged 3,000 heavily armed Tuareg fighters returning from Libya. Amidst warnings of the dangers of the mass inflow of former Libyan mercenaries and military equipment, the regional and Malian authorities were unable to control the mass transfer of arms from Libya. Equipped with heavy weapons and vehicles, the MNLA launched an armed insurgency against the Malian military in January 2012.

On 16 January 2012, MNLA militants carried out an attack on the military barracks of Ménaka. The next day, attacks were reported in the north-eastern cities of Aguelhoc and Tessalit where they fired at the Malian army with heavy weapons but the Malian army reportedly regained control of these towns after three days of combat. In response, the MNLA sent reinforcements to Aguelhoc and re-launched an attack on 24 January. The Malian army was reportedly forced to abandon the town following a depletion of available ammunition. Continuing its advance, the MNLA carried out armed assaults in Andéramboukane, Léré and Niafunké; demonstrating a solid deployment across the northern territory. In early March, at a Malian army base in Tessalit, the army was unable to resupply itself and was subsequently besieged by the MNLA with the assistance of Ag Ghali's Ansar Dine. Following a takeover of the towns of Ménaka, Aguelhoc and Léré, the army was forced to retreat out of the northern territory, at which point Captain Amadou Sanogo launched a military coup on 21 March whilst the MNLA and Ansar Dine took advantage of the security vacuum to occupy the main towns of Kidal, Gao and Timbuktu. Having taken de facto control of the main towns of the north, the MNLA released a statement on 5 April 2012 claiming the independence of the state of Azawad. Soon after, however, Ansar Dine broke away from the MNLA to form an implicit alliance with AQIM and its alleged offshoot; the Movement for Unity and Jihad in West Africa (MUJAO).

### **2.1 Security Vacuum and Armed Groups in the North**

As AQIM reinforced its presence in Timbuktu, MUJAO progressively established its stronghold in Gao whilst Ansar Dine controlled the Kidal region. By June 2012, the MNLA had been expelled from all the major northern towns that were now at the hands of a synergic Islamist alliance. The military junta's justification for the coup was directly related to the government's failure to provide adequate equipment for the army's fight against the armed groups as they posed a significant threat to the territorial integrity of the country. In the aftermath of the coup, the military junta suspended the constitution and formed the Committee for the Restoration of Democracy and State (CNRDR) whilst the armed groups consolidated their control of the north.

In the following months, the Islamist tripartite asserted its de facto control of the north by imposing their authority and subjugating local populations to Sharia law. Over the course of the summer of 2012, Human Rights Watch and Amnesty International reported numerous instances of arbitrary punishments, particularly towards the Fulani and Songhai communities. These attacks sparked the formation of a Songhai militia known as Gando Iso; a new hybrid of the MPKG that carried out reprisal attacks against MUJAO elements in the region of Gao. The

prevailing environment in the north for the next coming months would be one of anarchy in which the armed groups continued to consolidate their presence across the northern territory whilst members of the international community were sluggishly taking action to respond to a deteriorating situation exacerbated by a food crisis.

### **3. Belated International Response**

The Economic Community of West African States (ECOWAS) took the leading role as the mediating external actor of the crisis. After a meeting in Abidjan on 27 March 2012, ECOWAS exerted substantive pressure on the CNRDR to return to constitutional order and established a standby brigade force for possible deployment to Mali. Having appointed Burkinabé President Compaoré as regional mediator, constitutional order was finally re-established on 20 August 2012 as a transitional government was announced; placing Dioncounda Traoré as interim president. Over the months of November and December 2012, weakened by the Islamist takeover, the MNLA announced its intention to enter into negotiations and was startlingly joined by an Ansar Dine delegation headed by Ag Intallah during the December 2012 Ouagadougou peace talks. During these talks, both delegations pledged to an immediate cessation of hostilities, honouring a respect for the territorial integrity of the country and willingness to work towards finding a political solution to the crisis.

Meanwhile, on 20 December 2012, the United Nations Security Council (UNSC) approved resolution 2085 which tasked AFISMA, under the Chapter VII mandate, to take “all necessary measures [...] to strengthen Mali’s defence and security forces [...] supporting the Malian authorities in their primary responsibility to protect the population; transitioning to stabilization activities following the recovery of national territory; and assisting with humanitarian access to northern Mali.” Although this epitomized the mobilization of international political will to find a solution to the Malian crisis, the deployment of an international force was not due until September 2013. This raised serious concerns for a northern population that was already being subjugated to mass displacement as a result of intermittent clashes and grave food insecurity. In the meantime, instability was sparked in Bamako following the arrest and subsequent resignation of Prime Minister Cheikh Modibo Diarra. Although a new cabinet was swiftly re-appointed, the transitional government remained unable to manoeuvre the situation as it began to escalate in the early days of 2013.

Following Ag Ghali’s announcement on 3 January 2013 that Ansar Dine would renege on its commitments made during the Ouagadougou peace talks, international concerns were heightened as the prospect for a negotiated solution to the crisis was undermined. As tensions remained high, convoys of armed AQIM and Ansar Dine vehicles were reportedly moving southwards from Timbuktu in a strategic endeavour to capture the town of Mopti. Following the takeover of the town of Konna by the Islamist armed groups on 10 January 2013, President Traoré declared a state of emergency and called upon France to assist Malian forces in halting the southwards advance of the armed groups.

#### **3.1 International Military Intervention**

Following President Hollande’s announcement of the launch of a French military intervention on 11 January 2013, a campaign of airstrikes were

immediately carried out over the course of several days that bombarded the main towns of Timbuktu, Kidal and Gao. French ground forces were subsequently deployed to the military base in Ségou whilst ECOWAS states authorized the deployment of their troops under the AFISMA mandate. In the course of two weeks, amidst clashes in Diabaly and Douentza, the French and Malian armed forces progressively gained control of the main towns in the regions of Timbuktu and Gao whilst ECOWAS followed to secure them. In late February 2013, the region of Kidal had not been fully secured but Chadian troops alongside the French gained control of Aguelhoc and Tessalit, forcing armed group elements to take refuge in the Kidal mountains and over to the Libyan border.

Over the course of the intervention, two separate retaliatory attacks were carried out in Algeria and Nigeria. In Algeria, the Ain Amenas gas plant was attacked by the Al-Mulathameen brigade led by former AQIM commander Mokhtar Belmokhtar. Following a failed rescue attempt, the hostage crisis ended with several casualties. In Nigeria, the Ansaru group allegedly affiliated to Boko Haram attacked Nigerian forces on their way to Mali and were reportedly responsible for the kidnapping of seven foreigners in late February 2013. These attacks heightened the risk of residual regional insecurity as the presence of armed groups across the Sahel continued to pose a significant threat amidst reports that “Malian jihadists” were finding refuge in Northern Darfur. Following the reported instances of Islamist insurgent attacks in Gao and suicide bombings in Kidal, there is a clear necessity for international actors to begin implementing a coherent security package seeking to minimize the recidivism of the Islamist armed groups.

#### **3.2 Policy Implications amidst Destruction and Displacement**

At the time of writing, aid delivery in the north remains limited as insecurity prevails amidst mass displacement and food shortages. Despite the positive news coming out of the African Union summit in Addis Ababa at the end of January, where international donors pledged to donate \$600m to support military operations and humanitarian aid in Mali, the Consolidated Appeal for Mali estimated that a total of USD\$ 373,131,447 is needed to support the 4.3 million people in need of humanitarian aid but only 4.6% of the total requirements have been funded. As such, the current situation in northern Mali remains precarious as a result of heightened insecurity and bleak prospects for economic recovery in the north. Whilst ethnic retributions against Tuareg and Arab communities continue to be reported in the north, in Bamako, the attacks in early February by soldiers loyal to the military junta on the President’s National Guard raised important concerns towards the integrity of the transitional government.

Whereas the international military intervention has proven successful in regaining the control of the northern territory, looming security threats persist due to an observed capability of the armed groups to disperse and re-arm. Most importantly, the severe displacement and prevailing food insecurity will inevitably hamper the ability of the northern communities to partake in an eventual post-conflict reconstruction process in which their participation is evidently paramount. What has become evident is the reality that following a belated international response from the international community; infrastructural destruction, institutional decay and displacement will hinder the initiation of an urgently needed post-conflict reconstruction process.

The policy implications that arise at this stage are primarily concerned with humanitarian assistance, the restoration of security in the north and eventual political reform. Given the precarious humanitarian situation, there is an urgent need to facilitate the entry and secure operation of relief agencies to assist the displaced and disaffected communities. With the looming instability emanating from Bamako, there is a need to address the rising discrepancies between the military junta and the interim authorities. An important first step that may be taken to avoid any escalation of violence in Bamako is the consolidated presence of ECOWAS troops to monitor the actions of the military junta to prevent any further attacks. In addition, although elections are scheduled for the 7 July 2013, there is a clear priority to launch, ex-ante, a conciliatory process between the different political groupings to agree on a way to address the recurrent threat posed by the military junta and the unaddressed political demands of the northern communities. Holding elections without prior restoration of security across the Malian territory or ensuring a fair representation of all political leaders may prove to be counterproductive.

With a view set on the north, a crucial implication arises with the need to launch a dialogue process between the political representatives across the country. The creation of the Coalition for Mali on 26 May 2012; uniting political parties and civil society leaders from all regions raises hopeful perspectives for the launch of a cross-regional platform searching to engage leaders from all communities in an eventual post-conflict reconciliation process. However, what becomes mandatory at this point is the need to empower the disaffected northern communities with sufficient political leverage to ensure that their protracted political demands are addressed. This will require Track II diplomacy initiatives seeking to engage northern community leaders in inter-communal dialogue and enable respective delegations to participate in high-level meetings with external mediating actors and the interim Malian government. In addition, the necessity may exist to deploy Islamic civil society groups with the objective to organize inter-communal initiatives so as to assuage the heightened tensions that may have been created as a result of a year-long control by groups upholding extremist views of Islam.

Finally, the need for regional cooperation on trans-Saharan security is paramount, albeit elusive. Although Algeria has managed to close its border completely, its role during the crisis has been largely characterized by passiveness, seeking only to ensure it is not affected by any cross-border spillovers. In a similar vein, Mauritania has remained cautious and has not shown concrete signs of active involvement in a post-reconstruction process whilst Libya is currently in the midst of a constitutional process that has detracted much of its attention from the neighbouring crisis. In contrast, Burkina Faso and Niger have demonstrated their commitment to the cause by deploying troops under AFISMA. Nevertheless, there is an evident need for Western Sahel states to agree on a common security and development framework as hopeful prospects have been raised following the pledges made during the February 2013 Brussels and Dublin E.U. meetings on Mali, promising up to €250 million in development aid. At the outset, what becomes evident is that in order to curtail the illicit trade economy and promote economic development, a regional security cooperation mechanism should be set up to mitigate the cross-border flows of illicit goods and development programs implemented to reduce the economic attractiveness of illicit trade networks and armed groups.

#### **4. Post-Conflict Reconstruction Process: Policy Recommendations**

In the event of the launch of a post-conflict reconstruction process, there is an urgent need to focus on the secure return of the displaced northern communities. This will require humanitarian relief agencies to operate across the territory under the protection of ECOWAS forces. However, with the possibility that this may take a prolonged period of time, it will inevitably necessitate a revision of the AFISMA mandate to ensure that there is no withdrawal of ECOWAS troops until there is an agreement to revamp the security forces deployed in the north. This will require greater local representation in the ranks of the patrolling police and army as a means to minimize the instances of abuse or discrimination by the security forces over the local communities.

##### **4.1 Track II Diplomacy**

Assuming that the repatriation of refugees and return of law and order in the northern towns will take sometime, Track II diplomacy organizations should begin to engage with local leaders and facilitate the launch of inter-communal talks. With the objective of gaining some consensus on their political agendas, Track II diplomacy organizations could facilitate the creation of delegations comprising members from different groups of the north to be sent to negotiate with the transitional government in Bamako. Assisted by foreign governments and organizations, these delegations should receive the right amount of external support to ensure that they are able to negotiate a roadmap for a national dialogue process. The end-goal would be to initiate a national dialogue for political reform with a special focus on the future administrative status of the northern regions and the role of northern political representatives in a democratically elected government of national unity.

##### **4.2 Constitutional Reform**

During a prospective political process, there will be an inevitable call to reconsider the configuration of the current constitution. Given that the recurrent Tuareg rebellions have been motivated by grievances emanating from little or no control over the policies that affect them, it may be recommendable to consider the implementation of a consociationalist constitution offering power-sharing guarantees at the executive level for minority groups as well as greater autonomous powers for the three regions of the north. This may serve to ensure that decision-making at the executive is not devoid from input by the political representatives of the north such that it can minimize the incidence of future violence arising from political exclusion. In a similar vein, it may be recommendable to think about implementing a preferential system of voting in northern constituencies as it can induce campaigning politicians to seek cross-communal support to maximize votes. This can enhance political moderation and work as an efficient mechanism to create inter-ethnic political coalitions capable of promoting coherent reconciliatory political reform programmes.

##### **4.3 Civil-Military Relations in Bamako**

In Bamako, there is a pressing need to reconsider the prevailing civil-military relations. Given the track record of corrupt practices among government elites and the sustained under-funding of the military, there is an evident call to set up a non-partisan anti-corruption commission

seeking to address the dishonest practices sustained by political elites in Bamako. This will inevitably require the holding of hearings from both military representatives and civil society leaders to help the commission investigate recent corrupt practices and use legal measures to punish the lurking culprits. Important shifts may have to take place within the command of the military forces as part of an endeavour to de-politicize them. This may require the assistance of ECOWAS to negotiate the appointment of military commanders with a track record of integrity and political neutrality. Although controversial, the mid-February appointment of Captain Sanogo as head of the army reform committee may prove to be a wise bid if it successfully manages to lure Sanogo away from the core of his military junta, but the prospects for this remain uncertain.

#### **4.4 Trans-Sahelian Security Cooperation**

The setting up of a trans-Sahelian security cooperation apparatus will require concerted international efforts to induce all stakeholders to contribute to its financing and operationalization. Given the evident regional spillovers of the trans-Sahelian illicit trade economy, resourceful countries affected by the inflow of illicit goods transited through the Sahel may demonstrate greater resolve and willingness to broker an agreement and bring all Western Sahel states to set up special border units to monitor the cross-border trade hotspots. The current implementation of the E.U. Strategy for Security and Development in the Sahel, which has allocated over €660 million in programs for Security, Rule of Law and Good Governance in Mauritania, Niger and Mali raises hopeful prospects. Under its Common Security and Defence Policy civilian mission, the E.U. recently deployed a European Training Mission with a 15 month mandate with up to 500 military trainers to assist in the reformation of the Malian army and reboot its capacity to safeguard the integrity of the national territory. As all contiguous Western Sahel states are members of Interpol, it may be recommendable to set up a regional security apparatus under its auspices and capitalize on its existing trans-Sahelian operations to facilitate its implementation. This will require a continuous flow of international financing that may not be readily available but as the flourishing of armed groups in northern Mali demonstrated, fighting the criminal networks operating in the Sahel falls under the security interests of countries within and beyond the Sahel.

#### **5. Conflict Synopsis and Conclusion**

This analysis has sought to offer a historically informed insight of the protracted conflict in Mali to shed light on the need to adopt structural policy reforms to mitigate its multifarious conflict catalysts. The sustained policies of exclusion and marginalization that have been continually implemented by the alternating authorities in Bamako have proven to be detrimental for the political stability of the country.

The Tuareg armed rebellions have been motivated by protracted grievances towards the Malian authorities and have been made viable as a result of the poor government control over the north and the availability of arms in the region; a reality that syncs well into the hybridized Collier-Hoeffler and Fearon-Laitin models of conflict incidence. With the subsequent repressive counter-insurgency strategies adopted by the authoritarian military regimes, the sentiment of relative deprivation and frustration by the Tuareg communities fed into the

recurrent reliance on armed insurgencies as the only means to express their political discontent. In parallel, the failure of the government to implement the various peace agreements and disarmament processes adversely affected security in the north. The different northern communities resorted to the creation of armed militia to protect themselves as a result of a security dilemma emanating in a northern territory plagued by inter-ethnic rivalry and security vacuums.

With the rise of the trans-Sahelian illicit trade economy coupled with the instalment of AQIM in northern Mali, the latest Tuareg rebellion found its strength through its capitalization on the mass inflow of arms and trained combatants from Libya. Scarred by a history of corrupt practices, government authorities proved to be inept in managing the Tuareg insurgency and the failure to appropriately equip its military created a backlash against ATT's government in the form of a military coup. With the withdrawal of security forces from the north, a security vacuum reigned in which resourceful Islamist armed groups ousted the MNLA and took de facto control of the north. As such, the conflict symptoms of ineffective and repressive governance coupled with protracted grievances were present at the outset of the 2012 armed rebellion that was simply precipitated by the spillovers of the Libyan civil war. The 2012 conflict was in effect the result of an amalgamation of intertwined conflict catalysts that fused to expedite armed violence and facilitated the territorial takeover of the north by Islamist armed groups.

With a belated international response to an enduring crisis, challenges to provide security in the northern territory persist. Whereas residual threats arising from the resilience of scattered Islamist armed group elements persist, ECOWAS forces are required to continue consolidating their presence in the northern territory as a means to facilitate the arrival of humanitarian relief agencies to assist the return of the displaced and disaffected northern communities. With the prospects of a forthcoming conciliatory process seeking to engage all constituting communities of the north, it is fundamental to stress the need to devote international resources to assist and monitor its progression. Whilst it may require the deployment of U.N. peacekeeping forces in future, it is paramount to allocate international resources to the reconstruction of the livelihoods of the northern communities as well as the launch of Track II diplomacy programs to empower the prospective political representatives of the north with sufficient leverage to reiterate their long-standing grievances.

The prospect of a government of national unity that is responsive to the diverse political demands of its constituent political groups may require the revamping of the constitution into a consociational one. With power-sharing guarantees for minority groups and greater autonomous powers granted to the northern regions, political grievances may be assuaged as northern communities gain greater control over the policies that affect them. In addition, the implementation of preferential electoral systems in the north could potentially reduce the political salience of ethnicity as they can induce political parties to appeal to voters across ethnic groups to maximize electoral gains. These political reforms may raise the likelihood of greater political stability as it could facilitate the creation of peaceful channels for the expression of discontent.

Finally, given the security threats posed by the emergence of armed groups in the largely ungovernable northern territory, a trans-Sahelian



security cooperation apparatus must be set up to address the prevalent security vacuums that have allowed criminal networks to thrive and armed groups to carry out their attacks. Only when a consolidated regional framework of cooperation to reinforce the state capacity of a

democratically integral Malian government is set up can we aspire to see improvements in the endeavour to mitigate the multifarious conflict catalysts that have recurrently undermined the integrity and stability of the Malian state.

### Brief Biography

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### NOTES

- Al Jazeera Online, "France confirms tough fight in Northern Mali", 26 February 2013
- Al Jazeera Online, "Mali Rebels launch Guerrilla attack on Gao", 11 February 2013; Al Jazeera Online "French Troops in Very Violent Mali Combat", 27 February 2013
- OCHA, "Complex Emergency Situation Report", No. 27, 27 February 2013
- The Guardian Online, "Inside Gao where Arab jihadis took bloody Sharia retribution on Mali's Black Africans", 2 February 2013
- Press TV, "Mali junta troops attack Toure loyalists in Bamako", 8 February 2013
- CNN Online, "Algeria attack changes terror landscape in North Africa", 23 January 2013; Reuters Online, "Islamist Ansaru claim attack on Mali-bound Nigeria troops", 20 January 2013
- BBC online, "Mali: France seeks UN peacekeeping role", 6 February 2013
- Think Africa Press Online, "Post-Conflict Mali: Reprisal or Reconciliation?", 27 February 2013
- Horowitz's definition of an ethnically divided society; "a society in which ethnic group identities have a high degree of salience, exceeding that accorded to alternative identities and in which the levels of antipathy between ethnic groups are high", Horowitz (1999), p. 4
- In this paper, rebellions and insurgencies will be used interchangeably. See All Africa online, "North Africa: Tuareg, Mali and a Post-Gadaffi Sahel - Rising Risks to Oil Exploration and Mining Operations", 18 November 2011
- Sidibé, K., (2012) "Criminal Networks and Conflict-Resolution Mechanisms in Northern Mali", IDS Bulletin, Volume 43, No.4
- See Global Security Portal, Mali Country Profile – Tuareg for detailed elaboration of the different Tuareg tribes <http://www.globalsecurity.org/military/world/war/tuareg-mali.htm>
- Schraeder, P.J. (2011), "Traditional Conflict Medicine? Lessons for Putting Mali and Other African Countries on the Road to Peace", Nordic Journal of African Studies, Vol. 20, No.2
- Sidibé, 2012
- Ibid.
- Keita, K. (1998) "Conflict and Conflict Resolution in the Sahel: The Tuareg Insurgency in Mali", Strategic Studies Institute, U.S. Army War College
- Abdalla, M.A. (2009) "Understanding of the Natural Resource Conflict Dynamics: The Case of Tuareg in North Africa and Sahel", ISS Paper No. 194
- Pulton & Ag Youssef (1998), A Peace in Timbuktu: Democratic Governance, Development and African Peacemaking, United Nations Institute for Disarmament Research
- Schraeder (2011)
- World Directory of Minority Rights and Indigenous Peoples, Tuareg Profile: <http://www.minorityrights.org/?lid=5315&tmpl>
- Schraeder (2011)
- Pulton & Ag Youssef (1998), p. 12
- Keita (1998)
- Schraeder (2011)
- Lode, K. (2002) "Mali's Peace Process: Context, Analysis and Evaluation", ACCORD Issue 13
- Lode (2002), p.27
- Ibid.
- Poulton & Ag Youssef (1998), p.13
- Global Edge Online, "Mali: Economy", <http://globaledge.msu.edu/countries/mali/economy/>
- Benjaminsen, T.A. (2008) "Does Supply-Induced Scarcity Drive Violent Conflicts in the African Sahel? The Case of the Tuareg Rebellion in Northern Mali", Journal of Peace Research, Vol. 45, No. 2
- Ibid.
- French acronym. All acronyms of armed groups henceforth will employ their French form.
- Keita (1998), p. 15
- Keita (1998)
- Ibid., p. 16
- Lode (2002)
- Ibid.
- Poulton & Ag Youssef (1998)
- Keita 1998
- Keita (1998). p. 20
- Lode 2002
- (Ibid.)
- Florquin, N. and S Pezard, (2005) "Insurgency, Disarmament and Insecurity in Northern Mali 1990-2004", 2005, Small Arms Survey Book Series
- Ibid.
- International Crisis Group (2012) "Mali: Avoiding Escalation", Africa Report no. 189, 18 July 2012
- Bondersholt, S.F. & Gyldenholm, C.K. (2012) "Conflict in Northern Mali: Tuareg Livelihood", International Development Studies, Roskilde University, p. 55
- Ibid.
- ICG (2012), p.7
- Wikileaks Cable 08BAMAko371, BERABICHE AND

- AQIM IN NORTHERN MALI, <http://wikileaks.org/cable/2008/04/08BAMAKO371.html>
- Lacher, W. "Organized Crime and Conflict in the Sahel-Sahara Region", Carnegie Papers, Carnegie Endowment for International Peace, Middle East, September 2012
- Marchal, R. (2012) "The Coup in Mali: The result of a long-term Crisis or Spillover from the Libyan Civil War", Norwegian Peacebuilding Resource Centre, May 2012, p.2
- ICG (2012), p.6
- Stratfor, "Mali: Al Qaeda in the Islamic Maghreb's Ransom Revenue", 15 October 2012
- Diarra, O. (2012), "Insecurity and Instability in the Sahel Region: The Case of Mali", United States Army War College
- Sidibé (2012), p.79
- Stratfor, "Mali Besieged by Fighters Fleeing Libya" February 2, 2013
- Ibid.
- ICG (2012), p.13
- Ibid.
- McGregor, A., Zenn, J. & Cristiani, D. (2012), "Mayhem in Mali: A Militant Leadership Monitor Special", The Jamestown Foundation, Quarterly Special Report Volume 1 Issue 4
- Ibid.
- The Guardian Online, "Mali rebels claim to have ousted regime in coup", Thursday 22 March 2012
- Human Rights Watch, "Mali: War Crimes by Northern Rebels", April 30, 2012 // Amnesty International, "Mali: Five Months of Crisis – Armed Rebellion and Military Coup, May 2012
- Guardian Online, "Sahel Food Crisis has been made worse by the widespread Unrest in Africa", 29 March 2012
- ECOWAS Peace and Security Report, "Mali: Making Peace While Preparing for War", Issue 1, October 2012
- Reuters Online, "Mali government, Islamists and Separatists Agree on Peace Talks", 4 December 2012
- United Nations Security Council (2012), "Security Council authorizes deployment of African-led International Support Mission in Mali for initial year-long period" SC/10870, <http://www.un.org/News/Press/docs/2012/sc10870.doc.htm>
- Reuters Online, "No military intervention in Mali before September: U.N. Peacekeeping Chief", 5 December 2012
- BBC Online, "Mali PM Cheick Modibo Diarra resigns after army arrest", 11 December 2012
- Reuters Online, "Mali Islamist Group Says ends Ceasefire with Government", January 4 2013
- The Guardian Online, "Malian army attacks Islamist rebels in the north", 8 January 2013
- France 24 Online, "Ansar Dine Islamists Seize town of Konna", 10 January 2012
- CNN Online, "State of Emergency Declared in Mali", 11 January 2013
- New York Times Online, "French Airstrikes in Mali Deter Islamist Rebels", 12 January 2013
- New York Times Online, "As Troops Advance in Mali, U.S. Begins Airlift", 22 January 2013
- Reuters Online, "Maliens celebrate, French-led forces clear Timbuktu", 27 January 2013
- Reuters Online, "Mali Tuaregs seize two fleeing Islamist leaders", 4 February 2013
- The Guardian Online, "The Algeria Hostage Crisis: The Full Story of the Kidnapping in the Desert", 25 January 2013
- Reuters Online, "Islamists Ansaru claim attack on Mali-bound Nigeria Troops", 20 January 2013; The Telegraph Online, "Islamist Group Ansaru claims Nigeria Kidnapping", 18 February 2013
- Sudan Tribune Online, "Mali's jihadists transported to Darfur – JEM", 12 February 2013
- Reuters Online, "Gunbattle rocks Gao after rebels surprise French and Malians", 10 February 2013
- OCHA (2013), "Mali: Complex Emergency Situation Report", No. 27, 27 February 2013
- Ibid.
- The Guardian Online, "Inside Gao where Arab Jihadis took bloody Sharia Retribution on Mali's black Africans", 2 February 2012
- BBC News Online, "Mali sets 7 July election date, says minister", 15 February 2013
- ICG (2012), p. 30
- Europolitics Online, "E.U. to resume aid to Mali", 13 February 2013
- See McChulloch (2012)
- See ICG (2012) for elaboration on the need to De-politicize the Malian security forces.
- 78 Interpol News Today, "The European Union and the Sahel", 16 January 2013
- 79 News 24, "EU Military Trainers Arrive in Mali", 8 February 2013
- 80 Agence France Presse, "Malian Coup leader sworn in as Head of Army Reform Committee", 13 February 2013
- 81 see Collier & Hoeffler. (2004) and Fearon & Laitin (2003) for an exploration of conflict incidence models.
- 82 see Gurr (1970) and Tilly (1977) for theoretical elucidation on armed insurgency/rebellion.
- 83 see Posen (1993), Roe (1999) and Melander, E. (1999) for theoretical elaboration on security dilemmas between ethnic groups in conflict.

## REFERENCES

- Abdalla, M.A. (2009) "Understanding of the Natural Resource Conflict Dynamics: The Case of Tuareg in North Africa and Sahel", ISS Paper No. 194
- Amnesty International (2012), "Mali: Five Months of Crisis – Armed Rebellion and Military Coup", May 2012
- Benjaminsen, T.A. (2008) "Does Supply-Induced Scarcity Drive Violent Conflicts in the African Sahel? The Case of the Tuareg Rebellion in Northern Mali", *Journal of Peace Research*, Vol. 45, No. 2
- Bondersholt, S.F. & Gyldenholm, C.K. (2012) "Conflict in Northern Mali: Tuareg Livelihood", *International Development Studies*, Roskilde University
- Collier, P. & Hoeffler, A.. (2004), "Greed and Grievance in Civil War", *Oxford Economic Papers*, Volume 56, No.4
- Diarra, O. (2012), "Insecurity and Instability in the Sahel Region: The Case of Mali", United States Army War College
- ECOWAS Peace and Security Report, "Mali: Making Peace While Preparing for War", Issue 1, October 2012
- Fearon, J.D. & Laitin, D.D. (2003) "Ethnicity, Insurgency and Civil War", *American Political Science Review*, Volume 97 Issue 1
- Florquin, N. and S Pezard, (2005) "Insurgency, Disarmament and Insecurity in Northern Mali 1990-2004", 2005, *Small Arms Survey Book Series*
- Gurr, R.T. (1970) *Why Men Rebel*, Princeton University Press

- Human Rights Watch (2012), "Mali: War Crimes by Northern Rebels", April 30, 2012
- International Crisis Group (2012), "Mali: Avoiding Escalation", Africa Report no. 189, 18 July 2012
- Horowitz, D. (1999) "Constitutional Design: Proposals Versus Processes", Paper Prepared for Delivery at the Kellogg Institute Conference, Constitutional Design 2000: Institutional Design, Conflict Management and Democracy in the Late Twentieth Century, University of Notre Dame, December 9-11, 1999
- Keita, K. (1998) "Conflict and Conflict Resolution in the Sahel: The Tuareg Insurgency in Mali", Strategic Studies Institute, U.S. Army War College
- Lacher, W. "Organized Crime and Conflict in the Sahel-Sahara Region", Carnegie Papers, Carnegied Endowment for International Peace, Middle East, September 2012
- Lode, K. (2002) "Mali's Peace Process: Context, Analysis and Evaluation", ACCORD, Issue 13
- Marchal, R. (2012) "The Coup in Mali: The result of a long-term Crisis or Spillover from the Libyan Civil War", Norwegian Peacebuilding Resource Centre, May 2012
- Melander, E. (1999) "Anarchy within: The Security Dilemma between Ethnic Groups in Emerging Anarchy", Uppsala University, Faculty of Social Sciences, Department of Peace and Conflict Research
- McCulloch, A. (2012), "Does Moderation Pay? Centripetalism in Deeply Divided Societies", *Ethnopolitics*, 6 March 2012, pp. 1-22
- McGregor, A., Zenn, J. & Cristiani, D. (2012), "Mayem in Mali: A Militant Leadership Monitor Special", The Jamestown Foundation, Quarterly Special Report Volume 1 Issue 4
- OCHA (2013), "Complex Emergency Situation Report", No. 24, 6 February 2013
- Posen, B.R. (1993) "The Security Dilemma and Ethnic Conflict", *Survival*, Volume 35, Issue 1
- Pulton & Ag Youssef (1998), *A Peace in Timbuktu: Democratic Governance, Development and African Peacemaking*, United Nations Institute for Disarmament research
- Roe, P. (1999) "The Intrastate Security Dilemma: Ethnic Conflict as a "Tragedy"?", *Journal of Peace Research*, Volume 36, No.2
- Schraeder, P.J. (2011), "Traditional Conflict Medicine? Lessons for Putting Mali and Other African Countries on the Road to Peace", *Nordic Journal of African Studies*, Vol. 20, No.2
- Sidibé, K. (2012) "Criminal Networks and Conflict-Resolution Mechanisms in Northern Mali", *IDS Bulletin*, Volume 43, No.4
- Tilly, C. (1977) "From Mobilization to Revolution", Center for Research on Social Organization, Paper #156, University of Michigan

#### **MEDIA SOURCES**

- Agence France Press Online
- Al-Jazeera Online
- BBC Online
- CNN Online
- The Guardian Online
- The New York Times Online
- News 24 Online
- Reuters Online
- Sudan Tribune Online

# At What Cost? Aid-Security Relations in East and West Africa

John Miller

Meet America's new ally in Africa. With 16 million people, a per capita income of \$360 (PPP), 52,875 refugees, and dysfunctional neighbors, Niger seems less than the ideal partner in the growing U.S. strategic footprint in Africa, but its geographic location places it at the frontlines. Landlocked between the hotbed of Mali and the oil basin in the Gulf of Guinea, Niger represents a new crossroads of American foreign policy. It is quickly becoming a buffer between uncertainty and instability in the north of Africa and uncertainty and dependency in the Gulf of Guinea. This strategic hedgerow intends to separate radical Islam from the void created in Nigeria by the autonomous, yet mostly inward looking Boko Haram.

While the new drone base at Diori Hamani International Airport is meant for intelligence, surveillance, and reconnaissance (ISR), the AfPak and Yemen stigma of such bases remains strong. For a country that has experienced an attempted coup, protracted famine, and multiple rebellions over the past twenty years, it is not surprising that Niger would align with the U.S. and agree to provide facilities for drones. With the Al-Qaeda in the Islamic Maghreb marauding in the north and the Nigerian separatist movement Boko Haram just south of the Niger-Nigerian border, the regime's discount rate is high, valuing present security and an economic boon over future consequence. The cost-benefit analysis of the policy is rightfully biased towards generating social, economic, and political stability today. However, the political consequences for the Mahamadou Issoufou regime remain uncertain. Does the new status of forces agreement and the aid that will certainly follow provide the legitimacy (albeit external legitimacy) that a fledgling regime requires? Or, does it further undermine political development and the internal legitimacy that is required as a basis for economic development?

The answer is both. The impact is temporal. In the short term, aid inflows and increased U.S. interest in the uncontrolled hinterlands of northwestern Niger, the site of the Taureg Rebellions from 1990-1995 and 2007-2009, provide a smoothing effect. The increased aid will serve to alleviate the persistent Nigerian and Malian refugee problem and provide a valuable supply of food within a volatile agrarian landscape (11.5% arable land). While the U.S. footprint will be small, increased intelligence resources will provide the Nigerien army with the capability to secure the Malian frontiers and most importantly the supply chain for Niger's principal export: uranium. Equitable distribution of the food and physical security dividend will determine the short-term advantages of the U.S.-Niger linkage.

In the long term, the effects of this political linkage could be damning for a fledgling democracy such as Niger. The question remains whether the spillovers from Nigeria and Mali are existential threats to the Nigeriens. Time will be the determinant. In the interim, electoral democracy has been inadequately institutionalized, regions remain marginalized, and the economic foundation is weak with subsistence agriculture predominating. While the 2011 election could mark a watershed in political reform, it is too early to tell. A fine line exists between self-determination and externally imposed mandates

for political reform. If the net impact of this evolving relationship is to be positive, the consolidation of democratic norms must be demanded first by the Nigerien citizenry and then reinforced in U.S. bilateral agreements. At present, security is of a higher U.S. priority than democratic norms. If past regional relationships foreshadow the path followed by U.S. host nations and partners, the Nigerien electorate should be wary of external legitimacy generated by linkage politics with the United States. This is especially true with respect to drone bases. Escalation to force and violations of sovereign borders, condoned via a status of forces agreement, may jeopardize regional relationships. Furthermore, the U.S. may not always be interested as the security landscape changes.

As the U.S. presence grows in West Africa, the experience in East Africa over the last two decades demonstrates the domestic policy consequences of security-aid exchanges. The fear of spillovers from Al-Shabaab in Somalia and the Lord's Resistance Army in the Democratic Republic of Congo, Central African Republic, Uganda, and the new Republic of South Sudan has led to a strategic hedgerow of U.S. foreign aid in exchange for new surveillance and drone bases.

It is no coincidence that the top African recipients of U.S. foreign aid are also the home bases of U.S. military and intelligence activities. The quid-pro-quo, security-aid exchange is rich in tradition. Kenya, Ethiopia, and Uganda are among the top-15 recipients of U.S. foreign aid in the world, yet their democratic record is wanting. Since Bill Clinton's declaration of hope in a "new generation of African leaders" and near simultaneous bombings of the U.S. embassies in Dar es Salaam, Tanzania, and Nairobi, Kenya in 1998, this "new generation" has been able to secure external legitimacy by exchanging status of forces agreements for additional aid dollars without any preconditions for democratic reform.

A survey across these three major African recipients is enlightening as it demonstrates disregard for internal democratic norms in favor of an "any-cost" security agenda:

In 2010, former Ethiopian Prime Minister Meles Zenawi and his EPRDF received 91% of the parliamentary vote and Ethiopia was declared "not free" by Freedom House International. Today, Arba Minch Airport bases MQ-9 Reapers that execute strikes in neighboring Somalia. In 2011, Ethiopia received 607 million dollars in U.S. foreign aid.

In 2005, President Yoweri Museveni of Uganda and the NRM amended the constitution to eliminate term limits. Museveni has been in power since 1986. He has made it a habit of harassing and prosecuting opposition figures, including the arrest of his principal opponent, Kizza Besigye, in the days preceding the 2006 election. Since the late 2000's, the U.S. has been providing aerial intelligence out of Entebbe, Uganda, in the search for Joseph Kony. 2011, U.S. forces were deployed to serve as advisors in the prosecution of the Ugandan counter-insurgency against the Lord's Resistance Army. In the same year, Uganda received 469.90 million dollars in U.S. foreign aid.

In 2007, the last presidential election in Kenya was marred by ethnic conflict and bloodshed: 1,300 people were killed and half a million people displaced. On March 4, Uhuru Kenyatta, the accused catalyst of the violence and a presidential frontrunner stands for election. He has been indicted for crimes against humanity by the International Criminal Court at The Hague. Today, the U.S. shares a base with the Kenyan military at Manda Bay. Geographically, its proximity to Somalia makes it an ideal location for either drone or special operations activities against al-Shabaab. In 2011, Kenya received 1.03 billion dollars in U.S. foreign aid.

The creation of the new strategic hedgerow in Niger and Burkina Faso is a consequence of two factors. First, the Mali experience demonstrated the ability of radical Islamic groups to fill the political void created by indigenous separatist groups. The obvious fear is that Niger, who is dealing with its own issues, would serve as a medium for the transmission of AQIM into the Nigerian insurgency. Second, the experience in Somalia demonstrates the effectiveness of containing the contagion, al-Shabaab, and prosecuting the would-be creator of a political void, the Lord's Resistance Army.

As demonstrated in East Africa, the strategic hedgerow has negative democratic externalities. As the U.S. enters the anti-terrorism game in West Africa, partner and host nations should be careful not to follow the East African political precedent. The a-priori characterization of

a regime as progressive provides future flexibility in consolidating democratic norms, for better or worse. Niger and Burkina Faso, most importantly their respective citizenries, must learn from the past decade of U.S.-host relations. With the U.S.'s narrow security-oriented focus, demand for democratic reform must come from within. Poor countries such as Niger and Burkina Faso must consolidate democratic norms in order to be future recipients of foreign aid when the U.S. security interest in them dissipates. In essence, they must take the aid-security windfall and hedge against future losses through democratization. By following the lead of Kenya, Uganda, and Ethiopia, they run the risk of becoming irrelevant in the future. They can't afford not to play the democratic game.

### **Brief Biography**

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Disclaimer: The thoughts and opinions expressed in this publication are those of the author and are not necessarily those of the U.S. Navy or Department of Defense.

# Vulnerability Analysis and Policy Development in Democratic African States

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The development challenges for contemporary democratic states of Africa are enormous. This somewhat sweeping phrase takes for granted the question of whether those countries claiming to be democratic are so in organisation and practice. For instance, only Mauritius was categorised as full democracy out of 44 sub-Saharan African countries evaluated in Democracy Index, 2010; 8 were failed democracies, 10 hybrid democracies, and 25 autocratic regimes (Economist Intelligence Unit, 2010). For the past five decades, the pervasive crises of governance, poverty, diseases, conflicts, overdependence on commodity export, haphazard economic ideals, disconnected visions of progress, policy failures and misapplication, climate change, uncontrolled population, low institutional capacity, regional disunity and generalised social disintegration have all contributed to this reality. Although some countries experienced economic growth in the last decade, the problems of poverty and social insecurity are still prevalent on the continent.

According to the African Human Development Report, more than one in four Africans is undernourished and recent rapid economic progress has not brought food security for the substantial proportion of the population still gripped by hunger. Also, the continent showed weak progress on creating more equality, employment generation, better health and qualitative education, and Africa is currently off-track in achieving critical Millennium Development Goals (MDGs) of poverty eradication, reduction of child mortality, improvement of maternal health, and in combating HIV/AIDS, malaria and other diseases. Meanwhile, the political environment of most nations of Africa is also considered to be polluted with corruption and inefficiency and often too complicated to navigate due to bad governance.

Part of the concern in solving these multiple problems is that Africa had depended on external agents for too long for her policies, most of which failed as much as they worked. Fundamentally, these locally and externally-conceived policies suffered greatly from insensitivity to the context that shape and create patterns of socio-economic relations and politics of Africa and generally disregard how “peculiar-internal constraints” to governance at the institutional level have worked against the establishment of robust and effective policy management principles.

Attempt is made in this paper to point out some of these peculiar internal constraints by analysing the challenges of policy development in democratic African states using concepts from vulnerability analysis as currently adopted in development discourse. The view expressed in the paper is that policy management principles of institutions in Africa are plagued by risky conditions that severely undermine their capacity to produce desired ends. It argues further that the integration of institutional vulnerability analysis into African development discourse will assist in policy administration across the continent.

## Vulnerability Analysis in Development Thinking

Vulnerability analysis seeks to identify, quantify and prioritise vulnerabilities or risks in order to eliminate them – when possible – or mitigate their effects. It owes its development to many fields of study, including social science disciplines like economics, sociology, geography, environmental and conflict studies, and policy science. The concept had proliferated because of this and no generally acceptable meaning of it exists. While the spread of the concept derived from its flexibility and applicability under varied circumstances, differences in meaning, as well as approaches to vulnerability among the disciplines, is perhaps a function of tendency among practitioners to focus on different components of vulnerability.

In development studies, vulnerability analysis is widely applied in poverty research. Development experts draw on concepts in vulnerability to bring into focus the interaction among social, economic, political, and geo-environmental phenomena of inequality, gender, conflict, exclusion, climate change, age, etc. in determining poverty conditions and adaptations. For instance, Triulzi, Tommasoli, and Montalbano, in their analysis of socioeconomic vulnerability within the context of conflict, explained that vulnerability should be understood, first, as a group of characteristics and tools that a particular unit (e.g. household, community, region, or country) possesses. They explained that vulnerability is the endogenous inability of the unit to face shocks.

In the work of international organisations such as the World Bank, Action-Aid International, and UK Department of International Development (DFID), vulnerability analysis, as adopted in poverty research, focused on two important areas. Whereas the first focuses on the “role of risk in the dynamics of poverty and the strategies households use to address the exposure to various sources of risks,” the second deals with analysis of “specific vulnerable groups that are characterized by limited resilience to avoid poverty and few opportunities to escape chronic poverty”, however, the underlying idea in both areas of concentration is the same: to identify risks, determine those at risk to what, when, and how, and use that knowledge to predict whether certain kinds of risk will impact negatively on people’s lives.

As presently conceived in development discourse, the central focus of vulnerability analysis are humans, the social, environmental, economic, political, geographic risks they face, how they manage these risks and their capacity to withstand negative outcomes as a result of the risks they were exposed to. Vulnerability analysis has assisted policy planners and donor agencies in capturing the array of preventive and mitigating strategies adopted by poor households in rural areas and in designing and implementing effective intervention programmes to improve rural livelihood and strengthen community resilience to shocks.

Interestingly, vulnerability analysis has not been extensively accommodated in the analysis of institutions where the concept may also have some practical relevance. Suffice it to note that although institutional vulnerability analysis is being incorporated in the work of some organisations to assess aspects institutional capacity in conditions of environmental uncertainties and climate change, the linkages between policy management, the vulnerabilities of implementing institutions to social forces and development is yet to receive the level of attention it deserves. For African countries particularly, the absence of consensus on the “real” causes of policy failures makes institutional vulnerability analysis a viable frame of reference for providing alternative explanation. In a situation where commitment, or lack of it, to policy is not enough to account for institutional failures in terms of policy development and implementation, it is necessary to explore other plausible explanations which may prove useful in envisioning how best to tackle Africa’s developmental challenges.

### **Re-affirming the Relevance of Institutions in Socio-Economic Development**

The relevance of efficient and effective institutional governance to national development is not in doubt although opinions differ on whether capable institutions are sufficient. Sachs et al. for instance, with respect to sub-Saharan African countries, maintained that their crises require a better explanation than governance alone and that more policy or governance reform, by itself, will not be sufficient to overcome Africa’s seemingly intractable problems.

The Breton Woods Organisations have been criticized for their fixation on institutions in a continent that is too poor to build and run sustainable institutions. Regrettably, the prioritisation of aid, as panacea for Africa’s development challenges, over strong institutions masks fundamental issues of relevance. First, aids cannot be effective without focused, strong, transparent and properly administered institutions. Second, but most importantly, institutions matter for planned and sustained economic growth and social development to be possible. The central idea on which our plea for institutional vulnerability analysis in Africa, later in the article, is incorporated within the second issue of relevance stated above, and so deserves further consideration.

Institutions are lifeblood of any society and it is basically within them that goals for progress are conceived shaped and modified from generation to generation. Here, institutions included all economic, social and political structures present in a given society at any one point in time within which individual values and relations of exchange are casted and harmonised to achieve collectively defined objectives. As such, the structure of an institution has direct ramifications for the specific sphere of society to which it is related while having indirect impact on other spheres.

For example, the advocates of development economics known as the New Institutional Economics (NIE) were vocal in claiming that the difference between high-performing and low-performing economies of the world was the structure of their economic institutions. They insisted that the economic institution of societies, such as structure of property rights and presence and perfection of market, was of primal importance for economic outcomes. Acemoglu and colleagues can be criticised for presenting a capitalistic idea of economic institution as

the good one, and for giving higher hierarchy to economic institution amongst other institutions, including political and social institutions, as the greatest force determining economic success or failure, but the main proposition in their thesis, and the entire school of NIE, is no less useful. While critics have not found a common ground for deciding on which form of economic institution is the good one, they nonetheless accept the key premise of NIE which states that institutions do indeed matter for growth to occur and for development to happen. The relevance of the framework for our purpose is that it recognised that economic change and development are both products of institutional environment and arrangement and for its admittance of the fact that culture, historical experiences and ideology can influence the social, political and economic outcomes of a society and the capacity of those living in that society to manage change.

In explaining developmental challenges of Africa, therefore, it is necessary to analyse the institutions within the continent and see whether the environmental context is constraining to the evolution of relevant development/growth policies or not; and also find out if institutional arrangements in African countries were, by default, configured to succeed or fail in the administration of policies.

### **The Context of Africa’s Institutions and Policy Development**

Policy performance in any given society is dependent on the context of the institutions that created, and that will manage, that policy. Therefore, the unsatisfactory experiences of African countries in terms of policy development for the past decades must be explained within the context of its institutional emergence. In other words, the understanding of the nature of institutions should be of major concern as current exercise is to explain why Africa had performed poorly in initiating locally-relevant development policies or why the continent, for the most part, constituted a tragic failure for policies that seemed to have succeeded in other continents. We shall proceed with this task by providing some background information on the origin and nature of states in contemporary Africa since the institutions we intend to describe are reflections of the states themselves. In what follows, the intersections of colonial legacy, ethnicity, militarism and personification of power, political clientelism, and kinship and patrimonialism are particularly focused on as descriptive elements of states on the continent, and ultimately their institutions as well.

With few exceptions, almost all the countries in Africa were colonised by Europeans following the Berlin Conference of 1884 to 1885. In pre-colonial times, most of the thousands of ethnic nationalities that formed new independent states from mid-twentieth century operated patrimonial societies, rulership was dependent on ancestral lineages, and power was diffused, with large empires maintaining loose control over distant provinces. Colonialism replaced this system of administration by establishing a more centralised rule that covered distant provinces. Existing structures of control were also seconded to European laws and judiciary. The adoption of indirect rule in British-controlled territories also afforded some local elites the opportunities to be free from direct control of traditional authorities and a chance to not be accountable to their people. Accordingly, colonial indirect rule, notes Platteau affected the social and political structure of African societies.

New political elites learned to value the sense of invincibility that accompanied absolutism and freedom from accountability. The manner in which public policies were adopted and abandoned without consultation is an indication that colonial discretionary powers were imported almost wholly into post-colonial institutions. In Ghana, Senegal, Guinea, Tanzania, Nigeria and other countries across Africa, nationalist argued for, and in some cases deployed, socialist, authoritarian form of governance, claiming that they understood the need of their peoples even when the people had different ideas of how the new states should be organised. While some level of political stability could have opened up the public space for more inclusive/consensual debates on public policies, decades of intermittent military interference in politics were decisive in blocking out any form of dissention.

Put together, these realities in post-colonial Africa coalesced into a form of power that, in practice, rose above, and determines all that occur in all, the structures and institutions in most countries. Thus, as political officeholders initiate and implement unilateral decisions, their counterparts in other public institutions and agencies followed suit – in so far as the decisions made by the latter cohered with the position of the absolute masters. The implication of these for policy development is easily discernible. For one, absolute power is antithetical to good policy practice. Social/public policies that work are almost always not imposed but negotiated. A policy process that ignores important stakeholders will most likely meet with resistance, perhaps running the risk of failure on arrival. Such failure may occur even if authoritarian regimes were committed to the letters of the policy because success also depended greatly on collective ownership at the community level. The best example of a policy that suffered from lack of ownership, and, as a result, failed, and still failing, in most African countries is the Structural Adjustment Programme (SAP): the people resisted the programme not because it lacked practical usefulness at the time but due to the fact that its origin and intentions were not trusted and African governments were not able to convince them to believe otherwise through open debate and consultation. Countless other macro-level social policies in individual African states suffered similar fate, especially those related to poverty reduction, population control and rural development because they were formulated and implemented using a top-bottom approach that ignored the views of those directly affected by the policies. Suffice it to note that the prevalence of absolutism just described is being sustained in contemporary democratic African states where political power and economic resources are over concentrated in the central state at the expense of the federating units .

African states are also multi-ethnic. The continent is home to thousands of ethnic groups that are perhaps as distinct as they are related and this single factor remained a constant in public sphere. While ethnicity played an important role in selection of tribal leaders that served in colonial administration Orji observed that ethnicity is still the most dominant form of identity in contemporary Africa, and that the public sphere is basically “ethnicised” such that the relations between the ethnic publics are usually conflictual because the rhetorical contestation among the ‘publics’ is a part and parcel of overarching struggle by the ethnic groups to capture and dominate the state . Orji asserts further that marginal groups contest the primacy of the dominant groups, while dominant groups attempt to undercut any proposed alternatives and block pressures for reform.

For the most part, independent African states have focused more on maintaining “ethnic-equilibrium” than on the actual business of nation-building and development. Policy planners and administrator alike have struggled to sustain fragile co-existence among ethnicities that relate on the basis of mutual suspicion, and who perceive politics as a zero-sum game in which the winner takes all. This fact has made it extremely difficult to encourage every group to support collective vision. Rather than strive towards integration, African states created systems of political relations that incorporated unhealthy oppositions that camouflaged as political consensus. In countries like Ethiopia and Nigeria, ethnic nationalism was accorded a special status and was especially accommodated to an extent that it implicitly makes demands on the state and questions integrative agenda that have potentials for creating stable and progressive communities.

In Nigeria for instance, the Principle of Federal Character relegated meritocracy to the background and undermined the idea of citizenship because it institutionalised ethnicity in employment . Since 1991, Ethiopia had operated a political system of “ethnic federalism” that constitutionally established structure made up of ethnic-based territorial units and provides for an option of secession in case any of the ethnic group in the union gets tired of being Ethiopian . Even in relatively old democracy like Botswana without explicit rules that accommodated ethnic group interests, ethnically distinct groups were nonetheless suspicious of public policies especially in circumstances when they feel that political decisions were reached in order to benefit dominant ethnic elites .

Institutional ethnicity had worked against policy development in Africa and had for many decades frustrated the realisation of conditions that may have enhanced good policy practice on the continent. It continues to drown meritocratic procedures while also influencing official decisions on who gets (and becomes) what. And because of this, low-skilled ethnic appointees were able to secure policy administering institutions which would normally require highly-skilled personnel to manage. Indeed, low capacity at institutional level is one of the most enduring problems that policy planners and administrator and international donor agencies have had to deal with in African countries since most institutions are now used as sources of ethnic patronage and as tools for satisfying kin’s demands on political officeholders.

Managerial and administrative deficiency of local regulators created loopholes for multinationals to exploit terms of public –private-partnership programs and agreements. Regulatory agencies and institutions are particularly vulnerable to manipulation by more informed and business wise foreign partners. In nascent and largely unstable democracies, experienced multinational lobbyists easily influence policies to their client’s advantage. This is done, sometimes brazenly, through corruption and outright blackmail and intimidation.

Furthermore, contemporary African states are also shaped by globalising forces outside the continent, especially from Europe, the United States, and now China. While former colonialists still benefit from the ties established prior to the granting of political freedom to African countries, the activity of United States and China in recent time is primarily driven by economic interest in oil, arable land and other resources. These international players are key stakeholders in Africa’s political and economic institutions and their influence in the area of



democracy, promotion of good governance, violent regime changes in Libya, Egypt, and Somalia, resource control battles and state breakup in Sudan, strategic infrastructural investment in new oil states and in countries with vibrant extractive industries. Moreover, new proxy battle for hegemony is brewing between China and the West in many resource-rich countries of Africa. What these add up to is that the institutional environment and arrangement within national institutions must now harmonise internal and external interests and conflicts in the policy process. How African countries will do this successfully is a subject for research and critical reflection.

### **The Need for Institutional Vulnerability Analysis in Policy Discourse on Africa**

Amongst other issues of importance, the paper has described the concept of vulnerability analysis and pointed out that the utility of the idea is still restricted. Institutions are important agents of societal growth. In Africa, where absolutism and crass ethnicity had smeared strategic institutions, causing citizens to distrust public institutions and

policies emerging from them, vulnerability analysis can be a valuable heuristic tool for understanding the institutional aspects of policy issues in Africa's overall development challenges. It is imperative for experts in Africa to begin to envision the possibilities of successes that will most probably follow a policy development agenda that captures risks at institutional levels, and that anticipates all conceivable vulnerabilities that specific policies management institution have right from the planning stages. Not only will this process yield better results now and in the future, it will also ensure that policies are fortified with necessary measures that would prepare institutions to confront, or cushion, the effects of uncertainties originating from the larger society.

### **Brief Biography**

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### **REFERENCES**

1. Acemoglu, D., Johnson, S., & Robinson, J. A. "Institutions as the Fundamental Cause of Long-Run Growth", in P. Aghion, & S. Durlauf (Eds.), *Handbook of Economic Growth* (Vol. 1A). North Holland: Elsevier B.V.
2. AfDB. (2010). *African Development Report 2010*. Oxford: Oxford University Press.
3. Africa Progress Panel. (2012). *Jobs, Justice and Equity: Seizing Opportunities in Times of Global Change*. Africa Progress Report, Switzerland.
4. Alwang, J., Siegel, P. B., & Jørgensen, S. L. (2001). *Vulnerability: A View From Different Disciplines*. Washington: The World Bank.
5. Badmus, I. A., "Under Reconstruction: Ethnicity, Ethnic Nationalism, and the Future of the Nigerian State", *The Journal of Alternative Perspectives in the Social Sciences* (2009)
6. Biswas, A. . "NEPAD: Forum for Growth and Unity", *Economic and Political Weekly*, 39(8), 793-796 (2004).
7. Burgis, T. (2012, 5 22). *FDI - A Blessing or a Curse for West Africa?* (C. House, Editor) Retrieved 12 15, 2012, from ISN, Center for Security Studies (CSS), ETH Zurich.
8. Chiwaka, E., & Yates, R. , *Participatory Vulnerability Analysis: A Step-by-Step Guide for Field Staff*. Johannesburg: ActionAid International (2004).
9. Dixit, A., McGray, H., Gonzales, J., & Desmond, M., *Ready or Not: Assessing Institutional Aspects of National Capacity for Climate Change Adaptation*. Washington DC: World Resources Institute (2012)
10. Economist Intelligence Unit, *Democracy Index 2010: Democracy in Retreat*. London: The Economist Intelligence Unit Limited (2010)
11. Habtu, A. . *Ethnic Federalism in Ethiopia: Background, Present Conditions and Future Prospects*. Second EAF International Symposium on Contemporary Development Issues in Ethiopia. Addis Ababa July 11-12 2003.
12. Hoogeveen, J., Tesliuc, E., Vakis, R., & Dercon, S. ,*A Guide to the Analysis of Risk, Vulnerability and Vulnerable Groups* . Washington: The World Bank (2004).
13. Leibfritz, W., "Briefing Note on the African Economic Outlook 2010 Africa Rebounding". *Market Brief*, 1(2), 1-8 (2010).
14. McCord, G., Sachs, J. D., & Woo, W. T., "Understanding African Poverty: Beyond the Washington Consensus to the Millennium Development Goals Approach".in J. J. Teunissen, & A. Akkerman (Eds.), *Africa in the World Economy: The National, Regional and International Challenges* (pp. 23-45). The Hague: FONDAD (2005)
15. Mkandawire, T. (2002), "Incentives, Governance, and Capacity Development in Africa" *African Issues*, 30(1), 15-20 (2002).
16. Mustapha, A. R. . *Ethnic Structure, Inequality and Governance of the Public Sector*. Geneva: United Nations Research Institute for Social Development Programme (2006)
17. Mutunga, C., Zulu, E., & De Souza, R.-M., *Population Dynamics, Climate Change, and Sustainable Development in Africa*. Washington & Nairobi: Population Action International and African Institute for Development Policy (2012).
18. Organisation of Economic Co-operation and Development. (n.d.). *The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action 2005/2008*. Organisation of Economic Co-operation and Development.
19. Orji, N. , "Governing 'Ethnicised' Public Sphere: Insights from

- Nigeria”, *Africa Development*, 35(4), 165–178 (2010).
20. Ottosen, H. L., NEPAD’s Contribution to Democracy and Good Governance in Africa. Stockholm: International Institute for Democracy and Electoral Assistance (2010).
21. Pitcher, M. A., “Conditions, Commitments, and the Politics of Restructuring in Africa”, *Comparative Politics*, 36(4), 379-398 (2004).
22. Platteau, J.-P. (2008), “Institutional Obstacles to African Economic Development: State, Ethnicity, and Custom”, *Journal of Economic Behavior and Organization* (2008)-(doi:10.1016/j.jebo.2009.03.006).
23. Sachs, J. D., McArthur, J. W., Schmidt-Traub, G., Kruk, M., Bahadur, C., Faye, M., et al. . “Ending Africa’s Poverty Trap”, *Brookings Papers on Economic Activity*, (1), 117-216 (2004)
24. Selolwane, O. D., *Ethnic Structure, Inequality and Governance of the Public Sector in Botswana*. Geneva: United Nations Research Institute for Social Development Programme (2004).
25. Tack, S. (2007, 8 23). Political warfare and the modern scramble for Africa . Retrieved 12 15, 2012, from Geopolitical and Conflict Report: <http://gcreport.com/index.php/analysis/142-political-warfare-and-the-modern-scramble-for-africa->
26. Teunissen, J. J., & Akkerman, A. (Eds.). *Africa in the World Economy: The National, Regional and International Challenges*. The Hague : FONDAD (2005).
27. Triulzi, U, Tommasoli, M., & Montalbano, P., “Policy Options For Socioeconomic Vulnerability Analysis: Conflict Analysis and Long-Term Development Programmes and Strategies”, *FAO International Workshop on “Food Security in Complex Emergencies: Building Policy Frameworks to Address Longer-term Programming Challenges”*. Tivoli 23-25 September (2003)..
28. UNDP, *Africa Human Development Report 2012: Towards a Food Secure Future*. New York: United Nations Development Programme (2012)
29. UNECA, *Governing Development in Africa: The Role of the State in Economic Transformation*. Addis Ababa: United Nations Economic Commission for Africa (2011)
30. UNECA/AU/AfDB/UNDP. *Assessing Progress in Africa toward the Millennium Development Goals: Emerging Perspectives from Africa on the post-2015 Development Agenda*. United Nations Economic Commission for Africa; African Union; African Development Bank; United Nations Development Programme (2012).
31. Zeleza, P. T., “Economic History” in M. C. Horowitz (Ed.), *New Dictionary of the History of Ideas* (Vol. 3, pp. 1002-1005). Detroit: Thomson Gale (2005).

# South Sudan's Entry into the East African Community: Prospects and Challenges

Christopher Zambakari

On July 09, 2012, the Republic of South Sudan celebrated its first year anniversary. The previous year, on November 11, 2011, it submitted an application to formally join the East African Community (EAC), a regional organization consisting of Burundi, Kenya, Rwanda, Uganda, and Tanzania. South Sudan, a landlocked country in East Africa, emerged from four decades of war that cost the lives of more than two-and-half million people. It has an estimated population of 8,260,490 with the majority (83 percent) constituted by rural peasants, nomadic communities, pastoralist and farmers. Citizens of South Sudan depend on farming and animal husbandry for their livelihood. The Government of the Republic of South Sudan (GRSS) is attempting to build a developmental state in the face of ethnic violence that poses an existential threat and undermines the process of nation-building. Amidst the many outstanding challenges and aspirations facing the new Republic, is a campaign to include South Sudan in the EAC.

The task of reviewing the case of South Sudan was delegated to the Council of Ministers, the decision-making body of the EAC, responsible for determining whether a country complies with the requirements. This essay analyzes prospects and development challenges facing South Sudan and exposes the problems embedded in its quest for membership in the EAC. The issues that will constrain EAC's attempt to build a common monetary union and political federation will be discussed. In particular, two issues will be highlighted: the relationships between the market and society, and between land and citizenship. In order to become an EAC member state, a country must adhere to a series of standards such as principles of good governance, democracy, rule of law, social justice, and respect for human rights.

The development challenges facing South Sudan include at least the following: the "absence of good infrastructure and skilled labor, heavy dependency on oil revenues, and corruption." In addition, the majority of civil servants lack formal education and training as a result of decades of war. Institutional weakness is furthermore exacerbated by problems of violence, unemployment, illiteracy, extreme poverty affecting predominantly women and youth and an inflow of refugees and internally displaced persons. A report by the African Development Bank (AfDB) noted that "Infrastructure services are virtually non-existent in many parts of South Sudan. Its dilapidated infrastructure constitutes a formidable barrier to economic development and hinders economic diversification, inclusive private sector-led growth and productive employment.

## **Sovereignty, Markets and Social Democracy within the EAC**

Two issues sorely neglected in discussions about South Sudan's inclusion into the EAC are the relationship between the market and society and that between land and citizenship. The EAC has an ambitious plan to adopt "a single currency, harmonize fiscal and monetary policies, and ultimately evolve into a political federation." The issue at stake for South Sudan is sovereignty. Losing sovereignty

to the federation could mean a loss of control over currency as well as fiscal and monetary policies. When governments lose sovereignty over their national currency, the outcomes can be serious for the citizens who must live with the consequences, particularly if decisions are made by an undemocratic bureaucracy that fails to consult with those it governs. In the absence of democratic decision-making processes and public discourse over national policies, decisions tend to be delegated to a body that is politically unaccountable. Drawing lessons from the European Union (EU), which inspired the African Union (AU) and the EAC, Mamdani noted that "without a mechanism to ensure political accountability at the centre, the EU has turned towards market fundamentalism." Without resolving the underlining issues that led to the failure of the old community, the EAC is setting itself up for a similar fate.

If admitted to the EAC, South Sudan will join not as the biggest and strongest economy but as one of the weakest. The following questions must be asked; what programs and initiatives exist to manage market weaknesses so that South Sudan will not become the dumping ground of goods and services from neighboring economies?; what provision is there by the EAC to assist South Sudan to develop the production capacity of its infant industries?; have South Sudanese citizens been consulted about ascension into the EAC?; has there been a sustained, internal debate about the inclusion of South Sudan within the EAC? Without a democratic process, the outcome will not represent the will of the people and South Sudanese society may be sacrificed to achieve narrow political and economic aims for a minority interest.

While South Sudan faces formidable challenges, the wider East African region is also experiencing pressures. According to Mamdani, the fault line in the region is similar to that which has emerged in Europe: the division of countries into categories of 'rich' and 'poor', the Germans and Greeks of the world. The question that immediately arises is: who will protect the weakest countries from being dominated by the strongest? Historically, the safety mechanism against market forces has been political democracy. Without political democracy, nothing stands between market forces and the population. Mamdani summarizes the relationship between market forces and social democracy as follows:

"If the law of the market is right, then the basis of citizenship is political equality. If the market stands for rights, then citizenship stands for justice. In a democracy, the poor and the weak look to political power to give them minimum protection against those who rule the marketplace."

The challenge before South Sudan and EAC member states is to form a monetary union without sacrificing the political unity that protects social democracy. Without a political union, monetary unions have a tendency to turn towards market fundamentalism. The second challenge that remains unresolved within the infrastructure of the EAC is that of land tenure and citizenship, namely reconciling between claims based

on ethnicity and those based on residence. Contested citizenship and competing rights to land are problems that have led to mass violence throughout East Africa. South Sudan and the EAC member states will have to reconcile between private, public, state and communal land ownership within the framework of an inclusive citizenship.

It seems the call for fast-tracking the development of the EAC federation is premature and represents an attempt to ignore deep, divisive issues which, if left unresolved, will lead to the demise of the community like its predecessor in 1977. The lessons of the European Union should provide an example of the dangers of rushing to a monetary union without first building adequate political structures to sustain the process of economic integration. The EAC has deferred to all land and citizenship policies to individual states instead of attempting to reform a colonially-imposed land tenure system and citizenship laws. Mamdani, summarizes the problem as follows:

“Can the principle of land to the tiller (security of tenure) inherent in customary tenure be preserved in a united East Africa? Or will unity sacrifice this to freehold tenure and principles of market fundamentalism? Second, can unity create something more than a market – a playing field where the rich and powerful will inevitably dominate? Can it create a meaningful citizenship, a political shelter for the majority?”

Can the EAC states create a union that is more than a simple market? Can they set up a system that is democratically accountable rather than an “urban dictatorship over rural areas?”, a system that can overcome the weaknesses evident in the European Union?. The EAC has an opportunity to learn from the lessons of history by creating sufficient political unity before attempting a monetary union. To ignore these lessons is to run the risk of facilitating a potentially despotic system

of freehold land tenure, the demise of peasant landownership, and an ethnicized citizenship.

## Conclusion

The Russian-born economist, Alexander Gerschenkron, noted that for countries that are catching up from behind, there are increasing disadvantages in developing late. When the EAC was launched, Tanzania and Uganda were given sufficient time to protect infant industries and prepare for entry into a common market. Rwanda and Burundi lobbied for time to prepare for the ascension and were allowed several years to adjust to the requirements of the Treaty of the EAC. Should South Sudan proceed with its plan of joining the EAC, it must request additional time to develop strong institutions for governance, economic sectors, and labor.

Without this preliminary step, it is unlikely that South Sudan can reap the benefits of the community. South Sudan’s development agenda is severely constrained by almost total absence of key institutions, infrastructure or the skilled labor force essential to carry forward the development objectives outlined in its guiding framework, The South Sudan Vision 2040.

At the regional level, the EAC must reform the infrastructure embedded during the colonial period, which is currently weak and fragmented and will undermine the community’s development. This infrastructure was inherited by all countries in East Africa except for Tanzania which has implemented successful reforms. South Sudan’s development and ability to benefit from the EAC will depend on significant investment in human resources and institutions of governance as well as physical infrastructure.

## BRIEF BIOGRAPHY

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## REFERENCES

AfDB (2012). The African Development Bank Group in East Africa: Consolidating the Present

And Shaping the Future. Tunis-Belvedere, Tunisia: African Development Bank (AfDB) Group.

Available at

<<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Final%20English%20versionThe%20AfDB%20in%20EA%20publication%20.pdf>>

AfDB (2012). South Sudan: Interim Country Strategy Paper 2012-2014. Tunis-Belvedere, Tunisia: Regional Department, African Development Bank Group. Available at <<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/2012-2014%20-%20South%20Sudan%20-%20Interim%20Country%20Strategy%20Paper.pdf>>

<<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/2012-2014%20-%20South%20Sudan%20-%20Interim%20Country%20Strategy%20Paper.pdf>>

Dagne, T. (2011). The Republic of South Sudan: Opportunities and Challenges for Africa’s Newest Country. CRS Report for Congress: Prepared for Members and Committees of Congress. Congressional Research Service. Available at <<http://www.fas.org/sgp/crs/row/R41900.pdf>>

EAC (2007). Treaty For The Establishment of the East African Community (As amended on 14th December, 2006 and 20th August, 2007). Arusha, Tanzania: East African Community (EAC). Accessible at <<http://www.eac.int/www.eac.int/index.php>>

Gerschenkron, A. (1962). Economic backwardness in historical perspective; a book of essays, New York, Praeger

Government of the Republic of South Sudan. (2011). South Sudan

- Development Plan 2011-2013: Realising freedom, equality, justice, peace and prosperity for all. Juba, South Sudan: Ministry of Finance and Economic Planning, South Sudan. Accessible from <<http://www.jdt-juba.org/wp-content/uploads/2012/02/South-Sudan-Development-Plan-2011-13.pdf>>
- IDMC & NRC. (2012). South Sudan: New displacement adds to critical humanitarian situation in the country since independence. Geneva, Switzerland: Internal Displacement Monitoring Centre & Norwegian Refugee Council. Available at [http://www.internal-displacement.org/8025708F004CE90B/\(httpCountrySummaries\)/F119FED29B958D06C1257A2800443BD5?OpenDocument&count=10000](http://www.internal-displacement.org/8025708F004CE90B/(httpCountrySummaries)/F119FED29B958D06C1257A2800443BD5?OpenDocument&count=10000)
- Jok, J. M. (2012). Insecurity and Ethnic Violence in South Sudan: Existential Threats to State? Issue Papers. Juba, South Sudan: The Sudd Institute. Available at <http://www.suddinstitute.org/assets/Publications/insecurity-and-ethnic-violence.pdf>
- Kamau, A. W. (2012). South Sudan's Quest for Regional Integration. South Sudan One Year After Independence: Opportunities and Obstacles for Africa's Newest Country. Washington, DC.: The Brookings Institution. Available at <<http://www.brookings.edu/~media/research/files/reports/2012/6/south%20sudan/06%20regional%20integration%20kamau.pdf>>.
- Lacher, W. (2012). South Sudan: International State-Building and its Limits. SWP Research Paper 2012/RP 04. Berlin: Germany Stiftung Wissenschaft und Politik/German Institute for International and Security Affairs. Available at <[http://www.swp-berlin.org/fileadmin/contents/products/research\\_papers/2012\\_RP04\\_lac.pdf](http://www.swp-berlin.org/fileadmin/contents/products/research_papers/2012_RP04_lac.pdf)>
- Mamdani, M. (2011). The East African Federation: Challenges for the Future. Text of keynote address to the East African Legislative Assembly Symposium, "A Decade of Service towards Political Federation," Arusha, 30th June 2011. Arusha, Tanzania: Makerere Institute of Social Research & Pambazuka News. Available: <[http://www.misr.mak.ac.ug/index.php?option=com\\_content&view=article&id=148:mamdani-on-the-east-african-federation&catid=1:latest-news&Itemid=50](http://www.misr.mak.ac.ug/index.php?option=com_content&view=article&id=148:mamdani-on-the-east-african-federation&catid=1:latest-news&Itemid=50)>; Accessible also from Pambazuka News <<http://www.pambazuka.org/en/category/features/74912>> [Accessed July 16 2011].
- National Bureau of Statistics (2012). Key Indicators for South Sudan. Juba, South Sudan: National Bureau of Statistics. Available at <<http://ssnbs.org/publications/key-indicators-for-south-sudan.html>>. for key indicators on South Sudan.
- Zambaraki, C. (2012a). Post-Referendum Sudan: The Nation-Building Project and Its Challenges. Rutgers Journal of Law & Public Policy, 9, 505-544.
- Zambaraki, C. (2012b). The role of women in nation-building in South Sudan. Pambazuka News.
- Zambaraki, C. 2013. Post-Referendum South Sudan: Political Violence, New Sudan and Democratic Nation-Building. The Georgetown Public Policy Review, Forthcoming in Spring 2013 edition.

# The Hierarchy of Poor: The Tension Between Favoring Smallholder Farmers or Domestic Consumers in Ethiopian Agricultural Development

**Overview:** illustrating the challenge in supporting producers and consumers through agricultural policies

A pressing challenge facing Ethiopia today is one that has long been a dilemma facing many African governments. This paper discusses the challenge of supporting smallholder farmers while ensuring benefits for consumers. Attaining a balance often involves a tradeoff when policy and economic decisions force a choice with no clear “pro-poor” solution – many of the rural farmers who produce staple crops are poor, yet many of the consumers who depend upon these crops are as well.

To illustrate the challenge facing Ethiopia, the example of tef export activities will be used. In January 2006, the government of Ethiopia banned the export of unprocessed tef grain. Tef is cereal crop that is indigenous to Ethiopia and has been produced in the Ethiopian highlands for thousands of years. Tef has high nutritional value and strong cultural significance. It is grown by 6 million smallholder farmers, including both male and female-headed households, accounts for 15% of total calories consumed by Ethiopians, and is the dominant cereal grown in Ethiopia by area.

The export ban is a clear example of the difficult choices at hand. The ban enables the government to prioritize food security and domestic demand. However, this comes at a cost as the ban prevents Ethiopia from engaging in the growing global Tef market, which could boost GDP and benefit farmers. What does supporting smallholder farmers really mean? How does ensuring affordability for consumers affect the agriculture sector?

This paper aims to describe the tension in agricultural development solutions that aim to support both producers and consumers through the example of tef production in Ethiopia. It is important to note, however, that this paper will not attempt to provide a clear policy recommendation but rather to illustrate the implications of both maintaining the tef export ban and lifting the tef export ban. As in many cases for Ethiopia and Ethiopians, there is no clear correct answer. The author does not attempt to assert one. Rather, the Ethiopian policy that bans the export of tef grain represents a challenging question that promotes a continued debate amongst producers, consumers, and policymakers, as Ethiopia strives to successfully develop into a middle-income country.

## History of Tef in Ethiopia and the 2006 ban on export of Tef

Tef is a hugely important crop to Ethiopia, both in terms of production and consumption. In a country of over 80 million people, tef is the one crop that is most powerfully associated with Ethiopians. It is used to make the staple cereal product, called injera, an Ethiopian form of bread. Furthermore, approximately 6 million households grow tef and it is the dominant cereal crop in high-potential agricultural woredas. In terms of production, tef is the dominant cereal by area planted and second only to maize in production and consumption. However, it has been historically neglected compared to other staple grain crops, yields are relatively low,

and some farmers under certain conditions sustain high losses which result in reduced quantity of grain available to consumers.

Agriculture is a major contributor to the national economy of Ethiopia, representing 41% of Ethiopia’s GDP. The tef value chain is of vital importance, as the grain sector comprises a large part of the agricultural sector. Specifically, tef is one of the most important cereal crops of Ethiopia and there are many reasons to focus agricultural development on the tef value chain, including opportunities to:

- Enhance the sustainability of the tef production process to increase the income of over 6 million smallholder farmers and so that the future potential of tef production in Ethiopia remains fruitful and intact.
- Improve the availability of tef grain and tef-related products so that Ethiopian consumers, both urban and rural dwellers, can benefit from additional consumption of a highly-nutritious, culturally significant grain.
- Create local economic multipliers resulting from increased tef-based employment that benefits the local economy through production and marketing activities.
- Develop and strengthen tef value-addition opportunities by making different products. Tef can be used in innumerable food products and every product that is normally made from wheat can be made with tef.

As Ethiopia’s population has increased so has the demand for tef. From 2007 to 2008, the price of tef soared, hitting above 1,000 USD per metric ton, which is four times more than the 2000–2008 average of 250 USD per metric ton. In 2010, the tef price was still above 700 USD per metric ton, which created hardship for many Ethiopian families, who were forced to switch to other cereals as substitutes. Still, tef has remained the preferred staple cereal for Ethiopians, as evidenced by persistently high prices in recent years.

Annual tef production has been increasing year after year by about 11%. Increased productivity is believed to contribute about 6% of that 11% growth with 5% attributed to expansion in total area cultivated to Tef. During 2009–2010, it was estimated that 3.2 million tons of tef was produced on 2.6 million hectares of land. This is equivalent to 21% and 28% of the total cereal production and acreage in the country, respectively, making tef the leading crop among cereals and among other annual crops.

The composition of tef includes many chemical components that make it a highly nutritious cereal. In addition, since tef is a cereal, it is possible to use it to make products normally produced with other cereals such as wheat, for example, bread, pasta, pancakes, pizza and even some beverages. Given its composition, tef could play an important role as a “super food” in school feeding programs, as well as emergency food aid programs and a counteracting force to malnutrition in youth.

Enhancing the industrialization of this crop will result in a more attractive and stable market for the producers and will incentivize the adoption of yield-enhancing investments.

Breaking down its nutritional content, tef has the highest amount of protein among the commonly consumed cereals in Ethiopia and its energy content is only surpassed by maize. In addition, tef has high levels of calcium, phosphorous, iron, copper, barium, and thiamin. It has a well-balanced amino acid composition, with lysine levels higher than wheat or barley and slightly lower than rice or oats. A major contributing factor to tef's nutritional value is the size of its grain: the grain is extremely small compared to the other components of the tef plant (the bran and endosperm). Thus, during milling, it is impossible to separate out the endosperm from the bran so the whole grain is milled into flour. This makes tef flour highly rich in fiber and nutrients, because the bran and germ are the most nutritious parts of the grain. Importantly, tef is also gluten-free so it is well-suited to addressing growing global gluten-free demand which is driven both by the existence of Coeliac disease as well as a general health-conscious trend. Moreover, tef flour can be artificially enriched with specific nutritional components at the time of milling the grain. This process could be used to create value-added products with even more nutritional content, such as enriched injera, cookies, bread or cakes.

Given the undeniable significance of tef in Ethiopian history, diet, and culture, it is unsurprising that tef has found its way into national policy. In January 2006, former Prime Minister Meles Zenawi enacted a policy that banned the export of unprocessed tef grain. Interpretations of the motivations behind this ban vary, but consensus largely indicates that this move was intended to fight commodity price inflation that was taking place at an alarming rate in Ethiopia. Additionally, it was meant to focus tef production on addressing domestic food security to ensure that this highly nutritious, indispensable grain continued to serve domestic demand only. Arguably, this move was in favor of Ethiopia's tef consumers, many of whom are poor and find tef increasingly unaffordable.

Despite the importance of these goals, the export ban has been less than successful at achieving them. Since 2006, tef prices continue to increase as domestic demand for tef outweighs production. In addition, domestic production of tef continues to be outmatched by supply. In fact, tef remains a luxury cereal and consumption is mostly an urban phenomenon. People in rural areas are unable to afford much tef and rely mostly on maize, sorghum, wheat and barley to make injera and other staple foods. The average urban Ethiopian derives 600 calories per day from tef (which comprises roughly 30% of total daily caloric intake), whereas for rural residents this figure is closer to 200 calories per day. This disparity has nutritional consequences, since tef is the most nutritionally valuable grain in Ethiopia.

### **The struggle to support producers and consumers – why does it matter in Ethiopia today?**

The tension between favoring producers and consumers in food policy is not a new one. African governments have struggled in the past to design policies that promote improved livelihoods and quality of life for their poorest citizens, but of course this is not an easy feat. In the case of West Africa, many food product boards designed initiatives

targeted at stabilizing prices of commodities such as cotton and cocoa to increase access and affordability for urban consumers. However, this came at a steep price as these measures often decreased farmers' income to provide this subsidy to its urban poor. Attempting to design policies and navigate agricultural development of a country that supports both producers and consumers is an ongoing struggle, and one that is particularly relevant for Ethiopia at this time.

Ethiopia is facing a number of changes. The Government of Ethiopia recently created and endorsed a National Growth and Transformation Plan, which is the blueprint intended to transform Ethiopia's status from a low-income country to a middle-income country by 2025. Rapid industrialization and development is taking place across many sectors, particularly driven by international investment of states such as China and Korea.

In addition, for the first time in more than 20 years, Ethiopia finds itself with new leadership. Former Prime Minister Meles Zenawi was a strong advocate for agricultural development and, in particular, stated food security for his country as one of his main goals, in the context of the country's experience of major famines in the last 40 years. His government created an "acceleration unit" similar to those created Taiwan and South Korea. In 2010, a federal regulation was passed to establish the Ethiopian Agricultural Transformation Agency, dedicated to supporting the achievement of the Growth and Transformation Plan targets and sustainably improving the agriculture sector. In particular, an effort is currently underway, led by major stakeholders including the Ministry of Agriculture, the Ethiopian Agricultural Research Institute, and the Ethiopian Agricultural Transformation Agency, to create a National Tef Strategy aimed at doubling national tef productivity in five years through concerted efforts to disseminate new technologies that improve yield.

Should these efforts succeed, it is not clear how this increased tef productivity will be managed, and who the ultimate beneficiaries will be. Will Ethiopian consumers benefit, as tef is made affordable and more available, potentially even at a lower price than current market prices? Or will it be the Ethiopian smallholder farmers, who will experience a substantial increase in income as their sales volumes jump, supplying tef to more Ethiopians and potentially international buyers? The new national leadership must determine the role and nature of Ethiopian agricultural activity and must specifically decide how Ethiopian agriculture will engage on the global trading floor.

### **The benefits of the Tef export ban**

There are many strong benefits that support the maintenance of the 2006 ban. First, regardless of the specific motivations behind the initial policy enacted in 2006, the ban signals that domestic food security is the Government of Ethiopia's key priority. It communicates to the country and to the world that Ethiopia is focusing its priorities on support its poor consumers, for whom affordability and availability of tef is almost a non-negotiable aspect of Ethiopian life. If the export ban was lifted, this could have undermine this assertion. Tef is already unaffordable for many Ethiopians and exporting could have the potential result of raising prices further, making tef even more unaffordable at home. Given existing concerns of inflation and rising commodity prices, a

policy shift could worsen conditions for Ethiopia's lowest economic class if managed incorrectly.

Of further concern, enabling international export of tef grain could simply eliminate domestic supply if all tef production was used to supply international demand. Given the highly nutritious nature of tef, many experts believe that tef plays a vital role in promoting good nutrition for the average Ethiopian. The staple meal of injera and shirotwot (a stew made of chickpeas) has enough protein to meet daily requirements. In particular, the consumption of injera contributes to the prevention of many diseases and conditions that can result from an unbalanced diet, including anemia, obesity, osteoporosis, and diabetes. Introducing exporting could contribute to malnutrition, as Ethiopians would be forced to switch to cheaper substitutes such as sorghum, barley, or wheat as a staple cereal in their diet. Already, the continued price increase of tef has forced many Ethiopians, primarily its rural consumers and even tef smallholder farmers, to dilute injera with other cereals, such as sorghum.

Opening the doors to international trade would expose Ethiopia to additional risks. For example, land conflicts may arise as tef-producing areas would become increasingly valuable particularly given limited tef land expansion opportunities. This predicament faces Bolivia today, as exports of its indigenous 'superfood' quinoa have soared and led to malnutrition in youth and violence over land ownership. Finally, the ban limits Ethiopia's exposure to international trade risks. This in turn limits the vulnerability of tef smallholder farmers who benefit strongly from a consistent, demand-driven tef market today. One of the new sources of agricultural finance risks is speculation, which may cause added price volatility, and end up hurting both smallholder tef farmers as well as Ethiopian tef consumers. There is also a risk of bio-piracy: by allowing the export of tef grain, Ethiopia is more vulnerable to foreign national or multi-national companies' attempts to modify and patent its indigenous cereal.

On this point, the Fridtjof Nansen Institute (FNI) created a report that investigated the disastrous effects of an 2005 agreement that provided access and benefit-sharing of tef genetic resources between two parties, Ethiopia and a Dutch company, HPFI. The agreement gave HPFI access to 12 Ethiopian tef varieties, which would be used for exploring tef-based food product development that could be marketed to the European and US food markets, given tef's gluten-free and other highly nutritious properties. In return for access to these genetic resources, HPFI was to share both financial and other benefits with Ethiopia. FNI's report describes the unsatisfactory outcomes for Ethiopia of this agreement. Specifically, Ethiopia only received 4,000 USD financial return as HPFI went bankrupt, however other companies set up by the same owners were able to continue to exploit the benefits of Ethiopia's genetic resources without sharing further returns.

The benefits of keeping an export ban in place to favor Ethiopian consumers and protect smallholder farmers in certain respects are significant. However, this policy decision comes at a large opportunity cost for Ethiopia as it continues to limit its involvement in the global cereal market. In particular, this ban seems to prioritize the plight of Ethiopian's consumers over its smallholder farmers, who could stand to gain significantly from engagement in international trade.

## **The potential benefits of trading Tef internationally**

Much like the agriculture sector of Ethiopia in general, the tef market is also changing; there is a growing global demand for tef and other countries are capitalizing on this through international trade of tef. Many countries around the world have begun to produce and export tef. The largest international sellers of tef include: South Africa, Cameroon, Canada, Netherlands, United Kingdom, India, USA, China and Uganda. While Ethiopia is the world's largest producer of tef by volume, it cannot currently benefit from this trade by exporting its indigenous crop.

The ability to export tef could significantly impact smallholder farmers' incomes as well as spur Ethiopia's agricultural development. In addition, involvement of international players in the tef market could serve to accelerate the development of what is now a relatively immature market, given its low volumes, fragmentation, and lack of significant value-addition and product development.

The tef export policy allows for international export of processed tef, largely in the form of tef flour or ready-to-eat injera. Presumably, this nuance in the policy is intended to drive value-addition of tef products in Ethiopia. However, while the export of fresh and dry injera is increasing, it remains limited. For example, in 2011, the export volume for fresh and dry tef for Ethiopia was 1,800 metric tons. This is 0.21% of the overall national tef market production (which is roughly 3.5 million tons) and represents only 56 million Ethiopian birr (which is roughly 3.1 million USD) of export revenue.

By exploring opportunities to export tef grain, Ethiopia's GDP stands to gain. Tef grain prices have increased annually by 12% from 2008 to 2012, driven by consumer preference for tef and population growth. The benefits that tef market suppliers reap from this price trend are a strong indication of the great economic potential of international tef trade. If traded internationally, global demand for tef will raise prices further and incentivize production volume increases, which will directly drive economic growth. Exporting tef grain would therefore increase export earnings, increase GDP, and help achieve the goals of Ethiopia's Growth and Transformation Plan.

The rapid development anticipated by opening the market to export would also benefit smallholder farmers. Farmers' income could be significantly increased, as demonstrated by current tef market prices, for example, tef is currently traded in Ethiopia at about 800-1,000 USD per metric ton, compared with a price range of 2,300-2,600 USD per metric ton in the U.S.A. Thus exporting would directly increase the income of farmers as well as benefitting the national tef market.

The current tef market is extremely underdeveloped, due largely to fragmentation and price variability. Firstly, the market lacks large-scale processing or purchasing to capture economies of scale. For example, Mama Fresh Injera, one of few large-scale buyers, purchased only ~0.12% of the market in 2012. Secondly, price volatility, caused by seasonal variation and a lack of standardization, negatively impacts farmer liquidity and consumer consumption patterns. Introducing international demand would drive efficiency through commoditization of tef.

Finally, this commoditization would be attained through the creation of large-scale activities that would be necessary to support



exporting, such as processing, storage, and the addition of tef to the Ethiopian Commodity Exchange. These changes would increase farmer profitability by lowering high production costs and would also indirectly benefit Ethiopian consumers through long-term price stabilization (though equilibrium price is likely to be slightly higher than today). Rationalizing the tef industry would generate large wins for smallholder farmers - and the market overall - through lower production costs and increased revenues from domestic sale and international export.

If Ethiopia were to overturn this ban and allow tef grain to be exported, it is possible that farmers would benefit from higher international prices, there would be improved domestic availability of tef at affordable prices, and the Government of Ethiopia would receive export earnings. Regardless of the specific outcomes, lifting the ban would alleviate the opportunity cost incurred daily as Ethiopia limits its involvement in international tef trade, particularly as other countries (e.g., India, United States) produce and export Ethiopia's indigenous crop. Enabling tef grain export with smart controls could help Ethiopia to attain its vision of preventing future famine. The question facing Ethiopia's political leadership today is whether or not the potential benefits of such a

decision outweigh the dramatic potential risks and setbacks of a policy that keeps tef affordable and available at home.

### **Deciding the direction of its agricultural development**

As stated above, this paper does not attempt to design a policy recommendation either for or against the existing tef export ban. It is a situation fraught with complications and rooted in deep historical significance. This is a clear example of the all-too-common tension that African governments face between serving their poor consumers and supporting their producers, many of whom are also poor smallholder farmers. Ultimately, the case of tef export will be one of many tests facing Ethiopia's new leadership. In order to drive agricultural growth in Ethiopia, its leadership must decide how it will proceed with regard to engaging the international agricultural sector. This decision will prove significant for the future of a rapidly developing, internationally appealing country such as Ethiopia. It will signal the manner in which national leadership intends to deal with other economic and political decisions regarding agricultural development, and will have significantly impact Ethiopia's mission to achieve its National Growth and Transformation Plan targets.

### **Brief Biography**

Nadia Viswanath is a former management consultant from McKinsey and Company, where she focused on public and nonprofit sector work. She is a graduate of the Stephen M. Ross School of Business at the University of Michigan, where she also studied international development, focusing on post-colonial modernization in French West Africa. Currently, Nadia works as an external consultant in agricultural development for an Ethiopian government agency, focusing efforts on development of tef production strategies in collaboration with the Ethiopian Ministry of Agriculture.

### **REFERENCES**

- Andersen, R. & Winge, T. (2012). "How Ethiopia Lost Control of its Teff Genetic Resources," Fridtjof Nansen Institute. Accessed December 30, 2012, <http://www.fni.no/news/121112.html>.
- Bekabil F., Befikadu B., Rupert S. & Tareke B. (2011). Strengthening Tef Value Chain: In: Tef Improvement: Achievements and Prospects. Proceedings of Second International Workshop. November 7-9, 2011. Dreamland Hotel and Resort, Debre-Zeit, Ethiopia.
- Bultosa, G., Hall, A. N., & Taylor, J. R. N. (2002). "Physico-chemical Characterization of Grain Tef [Eragrostis tef (Zucc.) Trotter] Starch" In: Starch/Stärke 54.
- CIA (2012). CIA World Factbook: Ethiopia. Accessed: November 14 2012: <https://www.cia.gov/library/publications/the-world-factbook/geos/et.html>.
- Central Statistics Agency, Federal Democratic Republic of Ethiopia, various years. Statistical Abstracts and Statistical Bulletins. Addis Ababa, Ethiopia.
- Dijkstra, A. (2008). TEFF "Survey on the nutritional and health aspects of teff (Eragrostis Tef)". Hogeschool van Hall-Larenstein. The Netherlands.
- Ethiopian Grade Trade Enterprise (EGTE). Various years. (website). Addis Ababa, Ethiopia.
- Friedman-Rudovsky, N. (2011). "Quinoa's Global Success Creates Quandary at Home," New York Times, Accessed: December 28, 2012, [http://www.nytimes.com/2011/03/20/world/americas/20bolivia.html?\\_r=0](http://www.nytimes.com/2011/03/20/world/americas/20bolivia.html?_r=0).
- Stallknecht (1997). In Dijkstra, A. (2008). TEFF "Survey on the nutritional and health aspects of teff (Eragrostis Tef)". Hogeschool van Hall-Larenstein. The Netherlands.

# Equity and Core Concepts of Human Rights in Namibian Health Policies

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## Abstract

*Delivering health services to vulnerable populations is a significant challenge in many countries. Groups vulnerable to social, economic, and environmental challenges may not be considered or may be impacted adversely by the health policies that guide such services. We report on the application of EquiFrame, a novel policy analysis framework, to ten Namibian health policies, representing the top ten health conditions in Namibia identified by the World Health Organization. Health policies were assessed with respect to their commitment to 21 Core Concepts of human rights and their inclusion of 12 Vulnerable Groups. Substantial variation was identified in the extent to which Core Concepts of human rights and Vulnerable Groups are explicitly mentioned and addressed in these health policies. Four health policies received an Overall Summary Ranking of High quality; three policies were scored as having Moderate quality; while three were assessed to be of Low quality. Health service provision that is equitable, universal, and accessible is instigated by policy content of the same. EquiFrame may provide a novel and valuable tool for health policy appraisal, revision, and development.*

## Introduction

The delivery of healthcare to vulnerable populations is a significant challenge in many countries. Groups vulnerable to social, economic, and environmental challenges may not be considered or may be adversely impacted by the policies that guide health services. The elderly, migrants, refugees, and people with disabilities and chronic illnesses are some groups that experience social vulnerability due to the shared resource and capacity shortages generated by their common ethnic, racial, cultural and geographical position (Allotey et al. 2012). 'Regarding access to and equity in health, these populations are still underprivileged due to their status and identity' (Mannan n.d.). There is an urgent need to evaluate what health policies actually state and to what they commit with regard to social inclusion and human rights (Mannan, Amin, et al. 2012).

The Republic of Namibia is amongst Africa's largest, though least populous nations (U.S. Global Health Initiative n.d.). With an estimated population of 2.2 million and a landmass equaling that of France (824,292 square kilometers), Namibia's population is sparsely and unevenly distributed in urban centers and rural communities across vast distances, with a population density of 2.6 people per square kilometer (U.S. Global Health Initiative n.d.). On March 21, 1990, Namibia realized its independence subsequent to a century of colonial rule, first by Germany and then by South Africa, following the successful implementation of United Nations Resolution 435 (Ministry of Health and Social Services [Namibia] and Macro International Inc. 2008). Namibia's governance under the South African apartheid regime has resulted in substantial social and economic disparities and consequential socioeconomic challenges, including high poverty, illiteracy, poor access to sanitation, and so forth, which are still evident today (World Health Organization 2009). Although Namibia's per capita income of US\$4,700 (2011, Atlas method) positions it in the World Bank's upper-middle income classification, Namibia's income distribution is amongst the most unequal in the world, with a Gini coefficient estimate of 0.5971 by the 2009/2010 household survey (World Bank 2012). Since independence, health has remained a priority for the Government of Namibia, substantiated by the number of health sector reforms and developments that have been realized under the Primary Health Care strategy, including a substantial increase in

coverage of and access to health and social welfare services (Republic of Namibia Ministry of Health and Social Services and World Health Organization 2010). Total expenditure on health per capita (Intl \$, 2010) is \$436; and total expenditure on health as percentage of GDP (2010) is 6.8% (World Health Organization 2012).

Notwithstanding the number of existing health and social welfare points, access to healthcare is difficult for an extensive number of Namibians due to remoteness and long distances, challenging equitable and accessible healthcare (Republic of Namibia Ministry of Health and Social Services and World Health Organization 2010). Considerable differences in access are evident between urban and rural households: urban households are, on average, 25 minutes away from the nearest government health facility, while this distance is 114 minutes for rural residents (Republic of Namibia Ministry of Health and Social Services and World Health Organization 2010). Further substantial challenges confronting the public health sector include the high burden of communicable diseases such as Human Immunodeficiency Virus (HIV), a high maternal mortality ratio, and child malnutrition (Republic of Namibia Ministry of Health and Social Services and World Health Organization 2010). Namibia's Vision 2030 presents the long-term development framework for the country: to be a prosperous and industrialized nation, developed by human resources, and enjoying peace, harmony, and political stability (Namibia High Commission London n.d.; Government of the Republic of Namibia 2004).

This paper reports on the application of EquiFrame, a novel analytical and peer-reviewed framework that serves to identify the strengths and weaknesses in current health policy according to the degree to which a policy promotes and protects Core Concepts of human rights in healthcare, particularly among Vulnerable Groups. EquiFrame evaluates the degree of explicit commitment of an existing health policy to 21 Core Concepts of human rights and inclusion of 12 Vulnerable Groups, guided by the ethos of universal, equitable, and accessible health services. Health policies established on the values of equity are more likely to result in health services that are more justly distributed throughout a population. This requires that policy-makers strive to ensure the provision of health services for all, particularly for Vulnerable Groups, in response to their needs (World Health Organization 2008). If a commitment to Core Concepts of human

rights and the inclusion of Vulnerable Groups underpin policy formation, it is more likely that this will be inculcated in health service delivery. EquiFrame has been applied in the analysis of 51 health policies across Namibia, Malawi, South Africa, and Sudan. This paper reports on the findings of this application to ten Namibian health policies. We sought to identify, at the policy level, the degree of commitment of these Namibian health policies to Core Concepts of human rights and their inclusion of Vulnerable Groups. Accordingly, our aim was to identify best-practice Namibian health policies, and to ascertain health policies that may require urgent revision.

## Method

### Development of EquiFrame

There is a scarcity of literature that outlines and utilizes analytical frameworks for the content of policies, or policy 'on the books' (Stowe and Turnbull 2001). There is, however, a body of research on the process of health policy development (Gilson et al. 2008). While this body of research focuses on the critical importance of how policy is made, only little guidance is offered on evaluating policy 'on the books'. Developing and applying a method for analyzing the actual content of policies was the focus of the present research. EquiFrame has been devised with the intention of developing a health policy analysis framework that would be of particular relevance in low-income countries in general, and in Africa in particular, and is guided by the ethos of universal, equitable, and accessible health services. EquiFrame has been developed as part of a work package led by Ahfad University for Women, Sudan, within a large EU FP7 funded project, EquiAble, which is led by the Centre for Global Health at Trinity College Dublin, Ireland, and which has a consortium of international partners (see [www.equitableproject.org](http://www.equitableproject.org)).

### Selection of Policies

The World Health Report, 'Working Together for Health' (World Health Organization 2006), noted that Africa has the greatest disease burden of any continent but has the poorest health services. The four African countries that are the focus of this policy analysis framework each represent distinct challenges in terms of equitable access to healthcare. These four countries allow us to address how access to the healthcare systems for Vulnerable Groups can best be promoted in contexts where the population is highly dispersed (Namibia); where chronic poverty and high disease burden compete for meager resources (Malawi); where, despite relative wealth, universal and equitable access to healthcare is yet to be attained (South Africa); and where a large proportion of the population has been displaced (Sudan).

EquiFrame has been applied in the analysis of 51 health policies across Namibia, Malawi, South Africa, and Sudan. Health policies were included if they met the following criteria: (1) Health policy documents produced by the Ministry of Health; (2) Policies addressing health issues outside of the Ministry of Health; (3) Strategies that address health policies; and (4) Policies related to the top ten health conditions identified by the World Health Organization within the respective country. A search was carried out to locate available health policies. The relevant ministries, agencies, and libraries were contacted and asked to identify policy documents falling within the scope of our research. The policy documents meeting the inclusion criteria in

the four countries were: Namibia, 10; Malawi, 14; South Africa, 11; and Sudan, 16. We sought to assess the extent to which health policy documents in Namibia, Malawi, South Africa, and Sudan promoted equitable, accessible, and inclusive health services.

## The Framework

'Core Concept' may be defined as a 'central, often foundational policy component generalized from particular instances (namely, literature reviews, analyses of statutes and judicial opinions, and data from focus groups and interviews) (Umbarger, Stowe, and Turnbull 2005). EquiFrame's 21 Core Concepts are presented alongside series of key questions and key language, each series tailored to elucidate the specified Core Concept (Table 1). These 21 Core Concepts represent a broad range of salient concerns in striving for universal, equitable, and accessible healthcare.

Vulnerable Groups may be defined as 'social groups who experience limited resources and consequent high relative risk for morbidity and premature mortality' (Flaskerud and Winslow 1998), and this may include children, the aged, ethnic minorities, displaced populations, people suffering from chronic illnesses, and persons with disabilities. This definition of Vulnerable Groups chimes with the idea that vulnerability should be related to claims for special protection (for instance, in health policies), where there is a) a greater likelihood of people experiencing 'wrongs', and b) a duty to avoid identifiable 'wrongs' (Hurst 2008). Importantly, Eichler and Burke (2006) have recognized that the social discrimination and bias that arises based on such categories is the result of social hierarchies: similar exclusionary practices disadvantage and disempower different groups, undermining their human rights and their rights to health, other social services and to inclusion – to being full participants in society.

The World Report on Disability (World Health Organization and World Bank 2011) estimates that over one billion people, or approximately 15% of the world's population, are living with disability, yet many people with disabilities do not have equal access to healthcare, education, and employment opportunities; do not receive the disability-related services that they need; and encounter exclusion from everyday activities (World Health Organization and World Bank 2011). Accordingly, a particular interest of the research team was to assess the degree to which persons with disabilities (identified by EquiFrame as a Vulnerable Group) were incorporated in policy documents for the purpose of promoting more accessible healthcare. Definitions for Vulnerable Groups are provided in Table 2.

EquiFrame has been devised with the aim of generating a systematic evaluative and comparative analysis of health policies on technical content and design. In its current form, EquiFrame is directed towards health policy-oriented researchers and policy-makers. The framework has been presented at a workshop conducted for the Ministry of Health in Malawi comprising senior policy-makers, and has provided guidance towards the redrafting of the Malawian National Health Policy. We believe, therefore, that the utility of EquiFrame will extend beyond a tool for evaluation of policies to the promotion of equity, human rights, and inclusion in the revision of existing policies and development of new policies. For further details specific to EquiFrame and the process of its formulation, including a discussion of literature sources for Core

Concepts and Vulnerable Groups, readers are referred to the EquiFrame manual (Amin et al. 2011; Andersen and Mannan 2012; MacLachlan et al. 2012; Mannan et al. 2011; Mannan, Amin, et al. 2012; Mannan, MacLachlan, et al. 2012; Mannan, McVeigh, et al. 2012; VanRooy, Amadhila, Mannan, et al. 2012).

### Scoring

Each Core Concept received a score from 1 to 4. This was a rating of the quality of commitment to the Core Concept within the policy document:

1 = Concept only mentioned.

2 = Concept mentioned and explained.

3 = Specific policy actions identified to address the Concept.

4 = Intention to monitor Concept expressed.

If a Core Concept was not relevant to the document context, it was stated as not applicable.

Each policy document was assessed by two independent raters. For each document, the presence of Core Concepts was assessed for each Vulnerable Group that was identified in the policy. If no Vulnerable Group was mentioned but a Core Concept addressed the total population (e.g. 'all people), the Core Concept was scored as 'Universal'. The total number and scores for mentioned Core Concepts and Vulnerable Groups was calculated for each document across the four countries.

### Summary Indices

The four summary indices of EquiFrame are outlined below:

(1) Core Concept Coverage: A policy was examined with respect to the number of Core Concepts mentioned of the 21 Core Concepts identified; and this ratio was expressed as a rounded up percentage. In addition, the actual terminologies used to explain the Core Concepts within each document were extracted to allow for future qualitative analysis and cross-checking between raters (Amin et al. 2011; Andersen and Mannan 2012; MacLachlan et al. 2012; Mannan et al. 2011; Mannan, Amin, et al. 2012; Mannan, MacLachlan, et al. 2012; Mannan, McVeigh, et al. 2012; VanRooy, Amadhila, Mannan, et al. 2012).

(2) Vulnerable Group Coverage: A policy was examined with respect to the number of Vulnerable Groups mentioned of the 12 Vulnerable Groups identified; and this ratio was expressed as a rounded-up percentage. In addition, the actual terminologies used to describe the vulnerable groups were extracted to allow for qualitative analysis and cross-checking between raters.

(3) Core Concept Quality: A policy was examined with respect to the number of Core Concepts within it that were rated as 3 or 4 (as either stating a specific policy action to address a Concept or an intention to monitor a Concept) out of the 21 Core Concepts identified, and this ratio was expressed as a rounded-up percentage. When several references to

a Core Concept were found to be present, the top quality score received was recorded as the final quality scoring for the respective Core Concept.

(4) Each document was given an Overall Summary Ranking in terms of it being of High, Moderate, or Low standing according to the following criteria:

(i) High = if the policy achieved  $\geq 50\%$  on all of the three scores above.

(ii) Moderate = if the policy achieved  $\geq 50\%$  on two of the three scores above.

(iii) Low = if the policy achieved  $< 50\%$  on two or three of the three scores above.

### Results

Four policies received an Overall Summary Ranking of High quality; three were assessed as Moderate quality; while a further three policies were scored as Low quality (see Table 3). With respect to Vulnerable Group Coverage, six of the ten policies analyzed scored equal to or above 50% on this summary index. As illustrated in Table 4, the National Reproductive and Child Health Policy scored highest on this summary index, explicitly mentioning 10 Vulnerable Groups (83%). The National Malaria Policy, Control of Acute Respiratory Infections (ARI) Programme Policy, and Integrated Management of Childhood Illness (Diarrhoea) Policy scored lowest on this index, explicitly mentioning 3 Vulnerable Groups (25%). The Vulnerable Group of Children (with special needs) was mentioned across all ten policies, while all policies, with the exception of the National Policy on Disability, did not explicitly mention the Vulnerable Group of Aged. Further details of findings, including Core Concept Coverage of Namibian policies, are presented elsewhere (MacLachlan et al. 2012).

### Discussion

Substantial variability was identified in the degree to which Vulnerable Groups were explicitly included in these Namibian health policies. These findings lend themselves to the question of why some Namibian policies can be formulated to explicitly name up to ten Vulnerable Groups (National Reproductive and Child Health Policy), while others mention only three (National Malaria Policy). Our findings illustrate that Vulnerable Group inclusion can be high in Namibian policies – yet some policies have yet to stipulate such inclusion. The explicit inclusion of some Vulnerable Groups and exclusion of others is utterly inequitable, and may ultimately exacerbate inequities in access to healthcare services.

The Vulnerable Group of Children (with special needs) was explicitly mentioned across all ten Namibian health policies. Namibia's high number of orphans and vulnerable children, primarily due to the HIV/AIDS epidemic in Namibia (World Health Organization 2009), renders this policy response an important one. Indeed, Namibia is among the minority of countries in Africa that provide social grants to orphans and vulnerable children on a monthly basis (Office of the High Commissioner for Human Rights 2012). According to Namibia's 2011 national census, almost 40 per cent of the population was under the age

of 15 years, and approximately 60 per cent was under the age of 25 years (Office of the High Commissioner for Human Rights 2012). Namibia's population is composed to a large extent by younger generations, and this is reflected in its health policies, perhaps in part to reap a potential demographic dividend for the country, as is evident in policy responses more extensively across the African continent (African Population and Health Research Center 2012). Yet Namibia's demography is set to change. Namibia's population share of elderly persons is 6%, which is estimated to increase to approximately 30% by the end of the century (African Population and Health Research Center 2012). Across all policies, with the exception of the Namibian National Policy on Disability, the Vulnerable Group of Aged was not explicitly mentioned.

Policy responses to the elderly tend to disregard the linking of this demographic to the situation of other groups, such as young women and youth (HelpAge International 2002). Aside from their role in caring for those with HIV/AIDS, older people are caring for children orphaned and made vulnerable by HIV/AIDS, in the capacity of 'Africa's Newest Mothers' (Nhongo 2004). Further to their own economic capacity, strong intergenerational networks mean that older generations in the context of HIV may provide nutrition, healthcare, and education to grandchildren in their care, while their sociocultural beliefs may influence the fertility behaviors of younger generations (African Population and Health Research Center 2012). As affirmed by HelpAge International and the African Union, the rights and needs of elderly people are cross-cutting and thus issues relating to ageing need to be integrated into policies and initiatives of all Ministries at every level (HelpAge International Africa Regional Development Centre and African Union 2002). In the African region, by far the most significant health problem faced by older generations is the cost of and access to healthcare, with barriers ranging from lack of knowledge regarding prevention and management of common diseases, to denial of treatment, distances to health services and lack of money for transport to such services, to negative attitudes of healthcare personnel (HelpAge International 2002). 'An understanding and mitigation of the scope and social determinants of inequities in health, service access and socio-economic outcomes between older and younger people and within the older population is important not only on human rights and equity grounds but also for fostering the capacity and contributions of current cohorts of older persons' (African Population and Health Research Center 2012). Namibia is already implementing comprehensive programs on ageing, including a national social pension scheme (African Population and Health Research Center 2012). An extension of this commitment to providing support for its older cohort to the health policy sphere is crucial however.

A prominent finding is the exclusion of the Vulnerable Group of Living away from services in three Namibian health policies: the National Gender Policy, the National Guidelines for the Management of Tuberculosis, and Control of Acute Respiratory Infections (ARI) Programme Policy. As Namibia is for the most part rural, addressing the rural-urban disparity is essential to ensure health for all Namibian citizens (VanRooy, Amadhila, Mufune, et al. 2012).

In December 2007, Namibia ratified both the United Nations Convention on the Rights of Persons with Disabilities and the Optional Protocol to the Convention (UNCRPD) (United Nations 2007), thereby

establishing legal obligations on the State to promote, protect, and ensure the rights of persons with disabilities (United Nations Enable n.d.). Article 4 of the UNCRPD outlines 'General Obligations' of the Convention and stipulates that "States Parties undertake: To take into account the protection and promotion of the human rights of persons with disabilities in all policies and programmes" (Art 4: 1(c); United Nations 2007). Our findings highlighted that persons with disabilities were not explicitly mentioned in five Namibian policies, namely, the National Reproductive and Child Health Policy, National Guidelines for the Management of Tuberculosis, National Malaria Policy, Control of Acute Respiratory Infections (ARI) Programme, and Integrated Management of Childhood Illness (Diarrhoea) policy. A qualitative inquiry conducted in Northern Namibia indicates that there is a need for health policies to recognize the unique issues affecting access to healthcare services for persons with disabilities to achieve equitable access to healthcare (VanRooy, Amadhila, Mufune, et al. 2012). For example, the Vulnerable Group of Disabled was not explicitly mentioned in the National Reproductive and Child Health Policy. The World Health Organization and United Nations Population Fund's Guidance Note on 'Promoting Sexual and Reproductive Health for Persons with Disabilities' certifies that persons with disabilities have equivalent sexual and reproductive health needs to other people, yet frequently confront barriers, including attitudinal barriers, to information and health services (World Health Organization and United Nations Population Fund 2009). It asserts that existing services can frequently be easily adapted to accommodate persons with disabilities, with their participation in program design and monitoring, and affirms that 'Now is that time for action concerning sexual and reproductive health of persons with disabilities' (World Health Organization and United Nations Population Fund 2009, 1).

Both through the process of undertaking this policy analysis initiative and by providing feedback of results to stakeholder workshops in different countries, several factors were observed that are important to consider when interpreting the results of our analysis. While the inclusion criteria sought the relevant policy documents in each country, not all of the documents analyzed were official 'policies'; some were described as 'guidelines', or 'strategic plans', or 'programs'. Clearly these instruments may not have been designed with an equivalent purpose and so in some cases it may be misleading to deem them as being policy-related or to compare them, even in the absence of a policy document in that area. To the extent that such documents are not policy-related, one could simply highlight the lack of a policy.

While EquiFrame has been developed for the purposes of policy analysis, we believe that this form of analysis can also be usefully applied to other types of planning and guiding documents, and that the coverage of Core Concepts of human rights and the inclusion of Vulnerable Groups is pertinent to a range of diverse guiding documents too. Fuller understanding of the content of any such documents can always be and should always be strengthened by understanding of the context in which the document was developed, the process of its development and the implementation actions that must accompany it for it to take effect. However, describing 'policy on the books' is not only a legitimate practice, but a vital one, if we are to recognize and develop documents that are most likely to support human rights and promote greater inclusion in health service provision. If we fail to do this, we risk privileging some groups over others, perhaps addressing the concerns

of dominant groups, particularly in the context of services provided through international aid support (MacLachlan, Carr, and McAuliffe 2010).

Health policy analysis may be beneficial both retrospectively and prospectively in the understanding of past policy failures and successes and the development of future policy implementation (Walt et al. 2008). Accordingly, we believe that the utility of EquiFrame as a policy analysis tool will extend beyond its application as a framework for evaluation to the development of new policy documents and to the revision of existing documents. By highlighting some high quality health policy documents, EquiFrame can navigate those developing policies towards some best-practice examples of human rights coverage and Vulnerable Group inclusion. It can also provide a check-list of factors for consideration, as well as indicating specific terms and phrasing for use in a policy. Finally, it is important to consider that since this framework was used to perform what was inherently a content analysis, it is bound by the limitations of using such a methodology, including expertise required to perform this type of analysis. Further, the framework

requires the use of two independent raters, generating some scope for diverging interpretations of the material analyzed.

Since independence, health has remained a priority for the Government of Namibia, and there has been a substantial increase in coverage of and access to healthcare services (Republic of Namibia Ministry of Health and Social Services and World Health Organization 2010). We believe that the inclusion of Vulnerable Groups in all Namibian health policies could further strengthen efforts to increase access to healthcare services in Namibia. For policies that are aiming to achieve universal coverage, recognition of vulnerabilities can guide the slinging of a wider net that can cover many who are in situations not effectively represented by mainstream services (Allotey et al. 2012). The provision of quality and equitable healthcare services to all Namibian citizens continues to be prioritized by the Government of the Republic of Namibia, and is upheld amongst Namibia's development objectives (World Health Organization 2009), and specified by Namibia's Vision 2030 (Government of the Republic of Namibia 2004). Provision of equitable health services, and realizing 'Health for All', begins with health policy.

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### REFERENCES

African Population and Health Research Center. 2012. Aging and Development in Sub-Saharan Africa: An APHRC Research Program.

Allotey, P., S. Verghis, F. Alvarez-Castillo, and D. D. Reidpath. 2012. Vulnerability, equity and universal coverage - a concept note. *BMC Public Health* 12 (Suppl 1).

Amin, M, M MacLachlan, H Mannan, S ElTayeb, A ElKhatim, L Swartz, A Munthali, G VanRooy, J McVeigh, A Eide, and M Schneider. 2011. EquiFrame: A framework for analysis of the inclusion of human rights and vulnerable groups in health policies *Health and Human Rights: An International Journal* 13 (2):1-20.

Andersen, A, and H Mannan. 2012. Assessing the quality of European policies on disability and development cooperation: A discussion of core concepts of human rights and coherence. *Disability and International Development* (1):16-24.

Eichler, M., and M. A. Burke. 2006. The BIAS FREE Framework: a new analytical tool for global health research. *Can J Public Health* 97 (1):63-8.

Flaskerud, J. H., and B. J. Winslow. 1998. Conceptualizing vulnerable populations health-related research. *Nurs Res* 47 (2):69-78.

Gilson, L., K. Buse, S. F. Murray, and C. Dickinson. 2008. Future directions for health policy analysis: a tribute to the work of Professor Gill Walt. *Health Policy Plan* 23 (5):291-3.

Government of the Republic of Namibia. Namibia Vision 2030: Policy Framework for Long-Term National Development (Summary). Office of the President, Government of the Republic of Namibia 2004 [cited 08 Jan 2013. Available from <http://www.npc.gov.na/vision/pdfs/Summary.pdf>.

HelpAge International. 2002. State of the World's Older People 2002.

HelpAge International Africa Regional Development Centre, and African Union. 2002. AU Policy Framework and Plan of Action on Ageing. Nairobi, Kenya: HelpAge International Africa Regional Development Centre.

Hurst, S. A. 2008. Vulnerability in research and health care; describing the elephant in the room? *Bioethics* 22 (4):191-202.

MacLachlan, M., M. Amin, H. Mannan, S. ElTayeb, N. Bedri, L. Swartz, A. Munthali, G. VanRooy, and J. McVeigh. 2012. Inclusion and human rights in health policies: Comparative and benchmarking analysis of 51 policies from Malawi, Sudan, South Africa and

- Namibia. PLoS ONE 7 (5):e35864.
- MacLachlan, M., S. C. Carr, and E. McAuliffe. 2010. *The Aid Triangle: Recognizing the Human Dynamics of Dominance, Justice and Identity*. London: Zed.
- Mannan, H. . n.d. Different perspectives on the conference. Radis.
- Mannan, H. , M. MacLachlan, J. McVeigh, and The EquitAble Consortium. 2012. Core concepts of human rights and inclusion of vulnerable groups in the United Nations Convention on the Rights of Persons with Disabilities ALTER - European Journal of Disability Research 6 (3):159-77.
- Mannan, H., M. Amin, M. MacLachlan, and The EquitAble Consortium. 2011. *The EquiFrame Manual: A tool for evaluating and promoting the inclusion of vulnerable groups and core concepts of human rights in health policy documents* Dublin: Global Health Press.
- Mannan, H., M. Amin, M. MacLachlan, and The EquitAble Consortium. 2012. Non-communicable disease priority actions and social inclusion. *Lancet* 379 (9812):e17-e18.
- Mannan, H., J. McVeigh, M. Amin, M. MacLachlan, L. Swartz, A. Munthali, and G. VanRooy. 2012. Core concepts of human rights and inclusion of vulnerable groups in the disability and rehabilitation policies of Malawi, Namibia, Sudan, and South Africa *Journal of Disability Policy Studies* 23 (2):67-81.
- Ministry of Health and Social Services [Namibia], and Macro International Inc. 2008. *Namibia: Demographic and Health Survey 2006-07*. Windhoek, Namibia and Calverton, Maryland, USA: MOHSS and Macro International Inc.
- Namibia High Commission London. n.d. About Namibia - Vision
- Nhongo, T. M. . 2004. Impact of HIV/AIDS on Generational Roles and Intergenerational Relationships. Paper presented at the Workshop on HIV/AIDS and Family Well-being, Namibia, 28-30 January 2004.
- Office of the High Commissioner for Human Rights. 2012. *Committee on the Rights of the Child examines Report of Namibia*.
- Republic of Namibia Ministry of Health and Social Services, and World Health Organization. 2010. *Namibia Country Cooperation Strategy 2010-2015*. Windhoek, Namibia: World Health Organization.
- Stowe, M. J. , and H. R. Turnbull. 2001. Tools for analyzing policy “on the books” and policy “on the streets”. *Journal of Disability Policy Studies* 12 (3):206-14.
- U.S. Global Health Initiative. n.d. *Namibia: Global Health Initiative 2011-2015/16*.
- Umbarger, G T., M. J. Stowe, and H. R. Turnbull. 2005. The core concepts of health policy affecting families who have children with disabilities *Journal of Disability Policy Studies* 15 (4):201-208.
- United Nations. 2007. *Convention on the Rights of Persons with Disabilities and Optional Protocol*.
- United Nations Enable. n.d. *Frequently Asked Questions Regarding the Convention on the Rights of Persons with Disabilities*
- VanRooy, G. , E. Amadhila, H. Mannan, J. McVeigh, M. MacLachlan, and M. Amin. 2012. Core concepts of human rights and inclusion of vulnerable groups in the Namibian Policy on Orthopaedic Technical Services. *Disability, CBR & Inclusive Development* 23 (3):24-47.
- VanRooy, G. , E. M. Amadhila, P. Mufune, L. Swartz, H. Mannan, and M. MacLachlan. 2012. Perceived barriers to accessing health services among people with disabilities in rural northern Namibia. *Disability & Society* 27 (6):761-75.
- Walt, G., J. Shiffman, H. Schneider, S. F. Murray, R. Brugha, and L. Gilson. 2008. ‘Doing’ health policy analysis: Methodological and conceptual reflections and challenges. *Health Policy & Planning* 23 (5):308-17.
- World Bank. 2012. *Namibia Overview*.
- World Health Organization. 2006. *Working Together for Health: The World Health Report 2006*. World Health Organization.
- Repeated Author. 2008. *The Tallinn Charter: Health Systems for Health and Wealth (WHO European Ministerial Conference on Health Systems: “Health Systems. Health and Wealth”, Tallinn, Estonia, 25-27 June 2008)*. Copenhagen, Denmark: WHO.
- Repeated Author. 2009. *Bringing It All Together - Annual Report 2008 - WHO Namibia*. Windhoek, Namibia: WHO.
- Repeated Author. 2012. *Namibia*.
- World Health Organization, and United Nations Population Fund. 2009. *Promoting Sexual and Reproductive Health for Persons with Disabilities (WHO/UNFPA Guidance Note)*. Geneva, Switzerland WHO.
- World Health Organization, and World Bank. 2011. *World Report on Disability* World Health Organization.

Table 1. EquiFrame Core Concepts of Human Rights;  
Key Questions and Key Language

No	Core Concept	Key Question	Key Language
1.	<b>Non-discrimination</b>	Does the policy support the rights of Vulnerable Groups with equal opportunity in receiving healthcare?	Vulnerable Groups are not discriminated against on the basis of their distinguishing characteristics (i.e. Living away from services; Persons with disabilities; Ethnic minority or Aged).
2.	<b>Individualized Services</b>	Does the policy support the rights of Vulnerable Groups with individually tailored services to meet their needs and choices?	Vulnerable Groups receive appropriate, effective, and understandable services.
3.	<b>Entitlement</b>	Does the policy indicate how Vulnerable Groups may qualify for specific benefits relevant to them?	People with limited resources are entitled to some services free of charge or persons with disabilities may be entitled to respite grant.
4.	<b>Capability-based Services</b>	Does the policy recognize the capabilities existing within Vulnerable Groups?	For instance, <u>peer to peer</u> support among women headed households or shared cultural values among ethnic minorities.
5.	<b>Participation</b>	Does the policy support the right of Vulnerable Groups to participate in the decisions that affect <u>their</u> lives and enhance their empowerment?	Vulnerable Groups can exercise choices and influence decisions affecting their life. Such consultation may include planning, development, implementation, and evaluation.
6.	<b>Coordination of Services</b>	Does the policy support assistance of vulnerable Groups in accessing services from within a single provider system (interagency) or more than one provider system (intra-agency) or more than one sector (inter-sectoral)?	Vulnerable Groups know how services should interact where inter-agency, intra-agency, and <u>inter-sectoral</u> collaboration is required.



7.	<b>Protection from Harm</b>	Are Vulnerable Groups protected from harm during their interaction with health and related systems?	Vulnerable Group are protected from harm during their interaction with health and related systems.
8.	<b>Liberty</b>	Does the policy support the right of Vulnerable Groups to be free from unwarranted physical or other confinement?	Vulnerable Groups are protected from unwarranted physical or other confinement while in the custody of the service system/provider.
9.	<b>Autonomy</b>	Does the policy support the right of Vulnerable Groups to consent, refuse to consent, withdraw consent, or otherwise control or exercise choice or control over what happens to him or her?	Vulnerable Groups can express "independence" or "self-determination". For instance, persons with an intellectual disability will have recourse to an independent third party regarding issues of consent and choice.
10.	<b>Privacy</b>	Does the policy address the need for information regarding Vulnerable Groups to be kept private and confidential?	Information regarding Vulnerable Groups need not be shared among others.
11.	<b>Integration</b>	Does the policy promote the use of mainstream services by Vulnerable Groups?	Vulnerable <u>Groups</u> are not barred from participation in services that are provided for general population.
12.	<b>Contribution</b>	Does the policy recognize that Vulnerable Groups can be productive contributors to society?	Vulnerable Groups make a meaningful contribution to society.
13.	<b>Family Resource</b>	Does the policy recognize the value of the family members of Vulnerable Groups in addressing health needs?	The policy recognizes the value of family members of Vulnerable <u>Groups</u> as a resource for addressing health needs.
14.	<b>Family Support</b>	Does the policy recognize individual members of Vulnerable Groups may have an impact on the family members requiring additional support from health services?	Persons with chronic illness may have mental health effects on other family members, such that these family members themselves require support.
15.	<b>Cultural Responsiveness</b>	Does the policy ensure that services respond to the beliefs, values,	j) Vulnerable Groups are consulted on the acceptability of the service provided.

		gender, interpersonal styles, attitudes, <u>cultural</u> , ethnic, or linguistic, aspects of the person?	ii) <u>Health</u> facilities, goods and services must be respectful of ethical principles and culturally appropriate, i.e. respectful of the culture of Vulnerable Groups.
16.	<b>Accountability</b>	Does the policy specify to whom, and for what, services providers are accountable?	Vulnerable Groups have access to internal and independent professional evaluation or procedural safe guard.
17.	<b>Prevention</b>	Does the policy support Vulnerable Groups in seeking primary, secondary, and tertiary prevention of health conditions?	???
18.	<b>Capacity Building</b>	Does the policy support the capacity building of health workers and of the system that they work in addressing health needs of Vulnerable Groups?	???
19.	<b>Access</b>	Does the policy support Vulnerable Groups –physical, economic, and information access to health services?	Vulnerable Groups have accessible health facilities (i.e., transportation; physical structure of the facilities; affordability and understandable information in appropriate format).
20.	<b>Quality</b>	Does the policy support quality services to Vulnerable Groups through highlighting the need for evidence-based and professionally skilled practice?	Vulnerable Groups are assured of the quality of the clinically appropriate services.
21.	<b>Efficiency</b>	Does the policy support efficiency by providing a structured way of matching health system resources with service demands in addressing health needs of Vulnerable Groups?	???

Table 2. EquiFrame Vulnerable Groups Definitions

No.	Vulnerable Group	Attributes or Definitions
1.	<b>Limited Resources</b>	Referring to poor people or people living in poverty
2.	<b>Increased Relative Risk For Morbidity</b>	Referring to people with one of the top ten illnesses, identified by WHO, as occurring within the relevant country
3.	<b>Mother Child Mortality</b>	Referring to factors affecting maternal and child health (0-5 years)
4.	<b>Women Headed Household</b>	Referring to households headed by a woman
5.	<b>Children (with special needs)</b>	Referring to children marginalized by special contexts, such as orphans or street children
6.	<b>Aged</b>	Referring to older age
7.	<b>Youth</b>	Referring to younger age without identifying gender
8.	<b>Ethnic Minorities</b>	Referring to non-majority groups in terms of culture, race or ethnic identity
9.	<b>Displaced Populations</b>	Referring to people who, because of civil unrest or unsustainable livelihoods, have been displaced from their previous residence
10.	<b>Living Away from Services</b>	Referring to people living far from health services, either in time or distance
11.	<b>Suffering from Chronic Illness</b>	Referring to people who have an illness which requires continuing need for care
12.	<b>Disabled</b>	Referring to persons with disabilities, including physical, sensory, intellectual or mental health conditions, and including synonyms of disability

Table 3. Overall Summary Ranking of Namibian Health Policies

Namibian Health Policy	Overall Summary Ranking
1. National Reproductive and Child Health Policy	High
2. National Gender Policy	High
3. National Policy for Mental Health	High
4. National Policy on Disability	High
5. National Guidelines for the Management of Tuberculosis	Moderate
6. National Policy on HIV/AIDS	Moderate
7. Policy on Orthopaedic Technical Services	Moderate
8. National Malaria Policy	Low
9. Control of Acute Respiratory Infections (ARI) Programme	Low
10. Integrated Management of Childhood Illness (Diarrhoea)	Low

Table 4. Vulnerable Group Coverage of Namibian Health Policies

Namibian Health Policy	Vulnerable Group Coverage %
1. National Reproductive and Child Health Policy	83
2. National Gender Policy	75
3. National Policy for Mental Health	58
4. National Policy on Disability	58
5. National Guidelines for the Management of Tuberculosis	33
6. National Policy on HIV/AIDS	75
7. Policy on Orthopaedic Technical Services	50
8. National Malaria Policy	25
9. Control of Acute Respiratory Infections (ARI) Programme	25
10. Integrated Management of Childhood Illness (Diarrhoea)	25

**i. Top 10 health conditions identified by the WHO:**

- Namibia: HIV/AIDS; Perinatal conditions; Cerebrovascular disease; Tuberculosis; Ischaemic heart disease; Diarrhoeal disease; Malaria; Violence; Lower respiratory infections; Road traffic accidents.
- Malawi: HIV/AIDS; Lower respiratory infections; Malaria; Diarrhoeal diseases; Perinatal conditions; Cerebrovascular disease; Ischaemic heart disease; Tuberculosis; Road traffic accidents; Protein energy malnutrition.
- South Africa: HIV/AIDS; Cerebrovascular disease; Ischaemic heart disease; Violence; Tuberculosis; Diarrhoeal diseases; Road traffic accidents; Diabetes mellitus; Chronic obstructive pulmonary disease.
- Sudan: Ischaemic heart disease; Malaria; HIV/AIDS; Diarrhoeal diseases; Measles; Tuberculosis; Cerebrovascular disease; Perinatal conditions; War; Road traffic accidents.

# Supporting & Strengthening Maternal, Neonatal, and Child Health Services Using Mobile Phones in Sierra Leone: A Research Protocol

Frédérique Vallières, Eilish McAuliffe, Isaac Palmer, Edward Magbity, & Allieu S. Bangura

## Introduction

Sierra Leone is consistently ranked among the countries with the highest maternal mortality ratio (970 per 100,000) and women in Sierra Leone have a 1 in 21 lifetime risk of dying as a result of pregnancy. Despite some progress, Sierra Leone still ranks 5th in the world for countries with the highest under-five mortality rates (140 per 1000), and 1 in every 7 children die before reaching their fifth birthday. The inequitable distribution of health facilities, a severe lack of health equipment, and a shortage of skilled health staff are some of the identified factors underlying the poor performance of health systems to deliver effective maternal and child health care services.

The Ministry of Health and Sanitation (MOHS) introduced free health care for pregnant women, breastfeeding mothers, and children under-five in April 2010. Early reports show that the uptake of these services has improved significantly but that health centers are struggling to keep up with increasing demand for health care. In response to this, the government of Sierra Leone is in the process of finalizing a revised policy on the integration of community health workers (CHWs) into the formal health system. This form of task shifting, or “the rational redistribution of tasks among health workforce teams [whereby] specific tasks are moved from highly qualified health workers to health workers with shorter training and fewer qualifications”, recognizes CHWs as a key alternative cadre in the delivery of maternal and child health services in Sierra Leone.

Results from systematic reviews of CHW programmes confirm that CHWs provide critical links between rural communities and the formal health system and

have been shown to reduce child morbidity and mortality when compared to usual healthcare services. With appropriate support and sufficient training, CHWs can potentially play a pivotal role in strengthening health systems in areas with poor human resources for health. More specifically, they are an important resource for implementing interventions targeting reductions in neonatal mortality and tracking women throughout their pregnancy while simultaneously promoting appropriate maternal and newborn care practices. Their potential however, is hampered by inadequate supervision, lack of locally relevant incentive systems, loss of motivation, insufficient recognition and community support, poor connectivity to health facilities, and knowledge retention problems. Moreover, higher attrition rates are often observed in programmes where CHWs are asked to volunteer. The motivation of CHWs and the risk of high attrition rates therefore have important implications for the effectiveness, success, cost, credibility and continuity of CHW-based programmes.

The current enthusiasm around information communication technology for development (ICT4D) has sparked international interest and large investments in mobile telecommunication and multimedia technologies across the globe. Mobile health, or mHealth, is a sub-segment of the broader field of electronic health (eHealth) that uses mobile phones to enhance the efficiency of service delivery and improve the quality of health care. mHealth tools have shown important promise in providing better access to care in low income countries, especially in rural and underserved populations. Low and middle income countries (LMICs) are seeing massive growth in the mobile technology sector with over 3.8 billion subscriptions, comprising 73% of worldwide subscriptions. The growing availability of mobile phones in LMICs has the potential to address a number of current healthcare challenges including: addressing the shortage of skilled health workers, strengthening health information systems; improving timely data collection, diagnosis and disease surveillance; increasing treatment adherence and compliance; better administration of drug inventories and drug supply chain management; and improving case-management among health workers.

## Rationale

Despite growing enthusiasm, the evidence demonstrating the impact of mobile phones as a human resource management tool for CHWs however, remains scarce. Globally, a high interest in mHealth, or mobile health, has led to an abundance of pilot project, the vast majority of which have failed to deliver sustained impact at scale. Moreover, mHealth projects can potentially place a high burden on already overextended health resources and health centre staff as they are forced to reconsider and reconfigure their current workflows and protocols. Lastly, there is a lack of evidence demonstrating how the use of mobile phones can mediate CHW attrition rates through impacting CHW motivation, supervision, and organizational commitment of CHWs.

## Background

The Centre for Global Health, Trinity College Dublin is partnering with the MOHS, World Vision Ireland, and World Vision UK to increase access to maternal, newborn and child health (MNCH) in Bonthe District. As part of this initiative, CHWs will be trained in the delivery of the 7-11 timed and targeted counseling (7-11/ttC) strategy for pregnant women and their newborn children. The 7-11/ttC strategy trains CHWs to promote 7 key health interventions for pregnant women and 11 key health interventions for children under the age of 2. The key health interventions are summarised in Table 1:

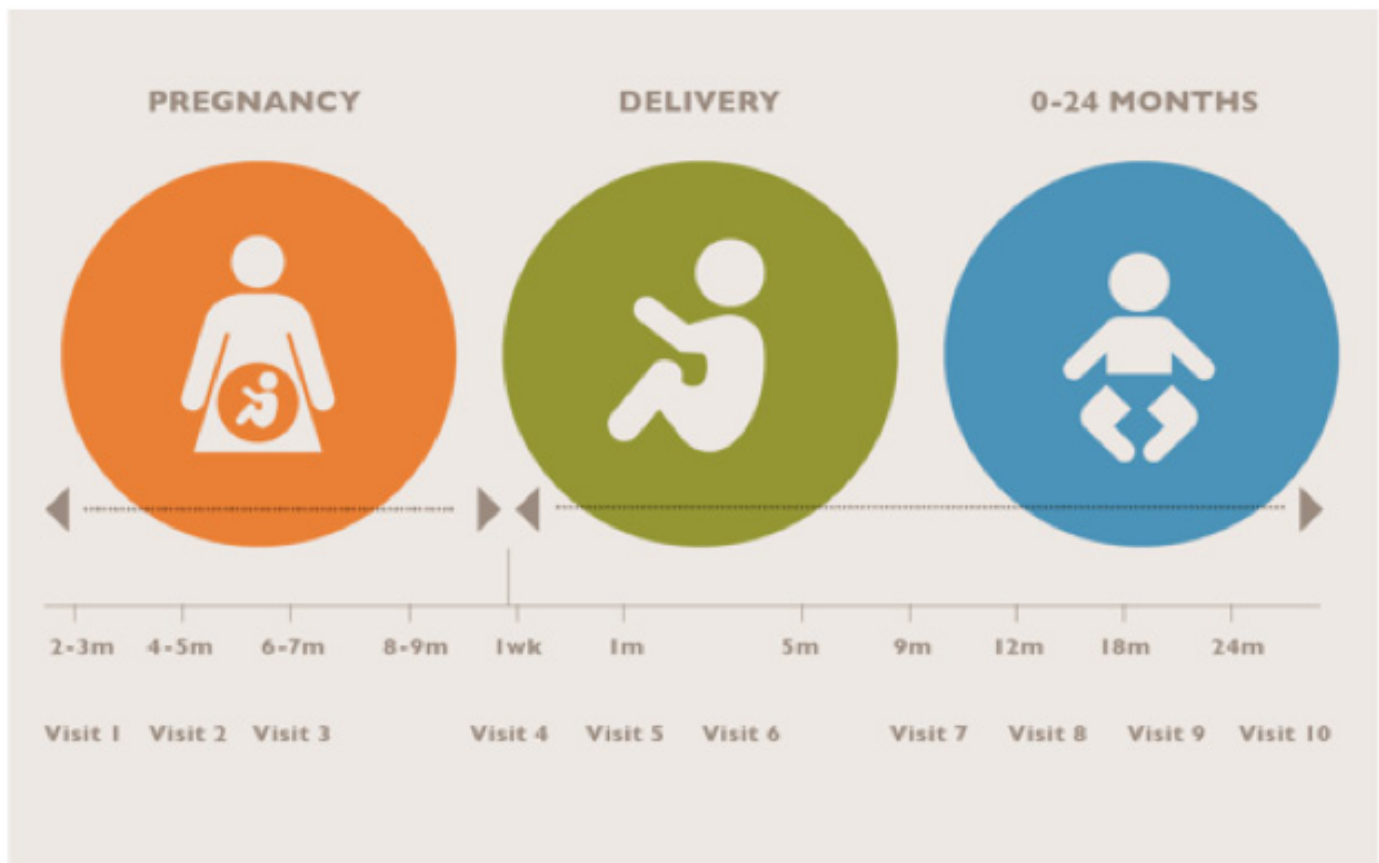
These core interventions are delivered over the course of 10 timely household visits made by the CHW at specific times during a woman’s pregnancy and during childhood as per the schedule in Figure 1.

The ttC mobile application is an innovative component of 7-11/ttC that will allow CHWs to receive reminders about household visits, to register pregnant women for 7-11/ttC, to make referrals to their affiliated peripheral health unit (PHU), to track their own progress, and to collect household data for transmission to the health facility to support clinical and managerial decision-making.

### Research Objectives

The main objective of the proposed research is to examine changes in CHW motivation, triggered by the introduction of the 7-11/ttC mobile application, and assess how this mediates health worker performance over time. The hypothesis to be formally tested is whether there are statistically significant changes in the motivation levels of participating

Targets	Pregnant Women: -9 months	Children: 0-24 months
<b>Core interventions</b>	<ol style="list-style-type: none"> <li>1. Adequate diet</li> <li>2. Iron/folate supplements</li> <li>3. Tetanus toxoid immunisation</li> <li>4. Malaria prevention and intermittent preventive treatment</li> <li>5. Healthy timing and spacing of delivery</li> <li>6. De-worming</li> <li>7. Facilitate access to maternal health service: antenatal and postnatal care, skilled birth attendance, Prevention of Mother-to-Child Transmission, HIV/STI screening</li> </ol>	<ol style="list-style-type: none"> <li>1. Appropriate breastfeeding</li> <li>2. Essential Newborn Care</li> <li>3. Hand washing</li> <li>4. Appropriate complementary feeding (6-24 months)</li> <li>5. Adequate iron</li> <li>6. Vitamin A supplementation</li> <li>7. Oral Re-Hydration Therapy/Zinc</li> <li>8. Care seeking for fever</li> <li>9. Full immunisation for age</li> <li>10. Malaria prevention</li> <li>11. De-worming (+12 months)</li> </ol>



CHWs over a minimum period of 18 months of 7-11/ttC deployment across three different various intervention groups and whether these changes are associated with changes in CHW performance indicators. Motivation levels will be assessed in conjunction with other factors including: supervision, organisational commitment, and job satisfaction. This is the first study that we are aware of, which assesses the effects of both mobile phones and the ttC mobile application on health worker motivation and health care service delivery structures.

As a secondary research objective, we will explore how the mobile component of 7-11/ttC changes MNCH health care delivery practices as well as identify the potential challenges and obstacles to scale-up of the 7-11/ttC intervention. A better understanding of how the mobile component of 7-11/ttC contributes to health worker performance, changes existing system workflows, and influences communication pathways between community health structures and peripheral health units has important implications for how the programme will be scaled-up across the 20 countries where it is currently being implemented.

### **Methodology**

We will employ a longitudinal cohort design to monitor individual and group changes in motivation, organizational commitment, supervision and job-satisfaction across three intervention groups over a period of 18 months. Participants will initially be contacted from a list of active CHWs in the area, provided by the Bonthe District Health Management Team (DHMT). All 333 community health workers on the mainland in addition to one in-charge member of staff from all 26 health care centres in the area will be asked if they would be willing to participate in the study. Within this sample size, both males and females will be represented equally as part of the selection criteria for CHWs within each PHU. In order to ensure that all CHWs have the same basic level of 7-11/ttC training, CHWs must have completed the 7-11/ttC training jointly conducted by the DHMT and World Vision. The inclusion and exclusion criteria as part of this research project is therefore as follows:

#### **Exclusion Criteria**

- CHWs or PHU workers in either Jong, Imperi, Sogbeni or Kpanda Kemoh chiefdoms who were not trained as part of the 7-11 ttC programme, or who have not completed ttC training.
- CHWs or PHU workers under the age of 18.

#### **Inclusion Criteria**

- CHWs or PHU workers over the age of 18 in either Jong, Imperi, Sogbeni or Kpanda Kemoh chiefdoms who have been trained in ttC as part of the 7-11 ttC programme.

An initial prototype to test the 7-11/ttC will be tested in January 2013. Once the proof of concept has been completed, and adjustments have been made, the 26 health centers and their associated CHWs will be randomly assigned to one of three intervention groups:

The first intervention group will be comprised of CHWs having only received ttC training from the MOHS appointed Bonthe District Health Management Team (DHMT) in collaboration with World Vision Sierra Leone. CHWs assigned to this intervention group will use the existing paper forms for referrals, registrations, and for reporting to their affiliated PHU. Likewise, any counter-referrals made from the PHU for follow-up by a CHW would also be paper-based. In other words, this first intervention group will be receiving all of the benefits of 7-11/ttC without the mobile component and acts as our control group for the implementation of a mobile component.

The second intervention group will receive ttC training in addition to being given a mobile phone without the mobile ttC application. The CHWs assigned to this second group will be set up on a closed-user-group, permitting them to make unlimited calls to one another and to their affiliated PHU. They will not however, have access to the mobile ttC application. This second group will allow us to see how CHWs communicate amongst each other and with their supervisor and affiliated community health committee. Moreover, it will allow us to differentiate any impact attributable by sole virtue of access to a mobile phone as part of 7-11/ttC from the mobile ttC application itself.

The third and final intervention group will receive ttC training and a mobile phone equipped with the aforementioned mobile ttC application. All referrals, registration, and reporting forms will therefore be available to CHWs electronically and delivered in real-time to their supervisor at the PHU. As the closed-user group will also be available to this group, this third intervention group will allow us to evaluate the added value of the mobile ttC application in terms of mediating both CHW motivation, supervision, organisational commitment, and job satisfaction and allow us to see how the added technology influences the change in workflows over time.

#### **Assessment**

Follow-up questionnaires will take place every 5-6 months to assess the impact of the 7-11/ttC mobile phone application on maternal and child referral rates as well as on the motivation, organisational commitment, and supervision amongst CHWs. CHW motivation will be assessed using the Volunteer Motivation Inventory (VMI). The VMI is a validated psychometric measure containing 44 statements with 4-5 statements associated with each of the 10 identified motivational factors, scored with a Likert scale. The 10 sub-scales are as follows: values, reciprocity, recognition, understanding, self-esteem, reactivity, social, protective, social interaction, and career development. Motivations to volunteer identified by the VMI are not assumed to be independent of one another. CHW's perception of supportive supervision will be assessed using a series of 20 statements, scored with a 5-point Likert scale. The supportive supervision scale that will be used is based on the findings of research conducted by Mathauer et al. Organisational commitment will be assessed using a series of 20 statements, scored with a 5-point Likert scale based on the Allen & Meyers scale. Job satisfaction will be assessed using the Minnesota Satisfaction Questionnaire (MSQ) short form. This is a validated measure using a series of 20 statements scored with a 5-point Likert scale. Work and Wellbeing will be assessed using the UWES scale, with 3 sub-scales: vigour, dedication, and absorption in work engagement.

CHW performance will be measured using a number of MNCH and performance-based indicators such as the number of completed emergency referrals made to their affiliated PHU, the number of registered households for the 7-11 ttC programme, the number of tardy or missed scheduled household visits, the number of completed counter-referral follow-ups made, the number of mothers and children accessing health services at appropriate times (ante and post natal clinics, immunisations, etc.), the percentage of pregnant women delivering in health centres, and the number of pregnant women and children under five sleeping under insecticide treated nets (ITNs), for



example. These indicators will be monitored and compared across the three different intervention groups. The attrition rate of CHWs will also be monitored over time and any decision to withdraw from 7-11 ttC will be followed-up with a key informant interview to further explore the reasons behind this decision.

The second research objective will observe changes in community uptake and demand of MNCH care services, MNCH behaviour practices, referral cases, case management, and existing health system workflows. By examining how the technology shapes and reshapes professional, social, and organizational structures we can track how the mobile component of 7-11/ttC may or may not be contributing to reconfigurations in health care practices in the programme areas. Such an analysis would additionally focus on the exploration of the emergence of new and innovative ways of health service delivery and the collection of health information, and what role mobile systems have played in this process. By adopting this focus, we hope to identify the organisational, institutional, political, and socio-technical challenges and opportunities that are relevant to the effective scale-up of 7-11/ttC.

In order to achieve this, existing workflows and MNCH health care delivery procedures will be mapped out prior to the introduction of the mobile component. This will be achieved through a number of key informant interviews and focus group discussions with existing formal and informal structures within the health care system. This includes interviews with traditional birth attendants, community health workers, community health committees, PHU workers, district health management team members, and those in charge of the PHU and hospitals. Moreover, interviews will also be conducted with pregnant women and women with small children, documenting their own experiences with the health care system to date.

The paper-based workflow system present in the first intervention group will subsequently be compared to the other two intervention groups through regular follow-up interviews with these stakeholders. Any reported anecdotal changes will be compared to the paper-based referrals, registration, and reporting forms, the closed user group phone records, and the back-end of the ttC mobile application for the purposes of triangulation.

### **Data Analysis**

Inferential statistics will be used to test for significant differences across the three different intervention groups. The aforementioned Likert scale questionnaires with sub-scales will be analysed to yield sub-scale scores for the purpose of analysis. A coefficient of reliability such as Cronbach's alpha will be used to assess internal consistency scores for each of these scores. The data will subsequently be subjected to factor analysis. Among the hypotheses to be tested are that volunteer motivation is positively correlated with organisational commitment, supportive supervision, job satisfaction and CHW performance over time. More specifically, we hypothesise that the link between motivation and these constructs would be mediated by autonomous motivation. Demographic variables such as age, education level, marital status, number of dependent children, income, and gender will be used to test for possible interaction effects with the main variables included in this study. A formal qualitative assessment will also be performed after 12 months of the intervention and will be designed to complement the quantitative assessment to allow us to better

triangulate our findings.

The second objective of our proposed research will be met through an extensive collection and analysis of qualitative data. This will be triangulated with data gathered from the mobile use, which will allow us to see who CHWs call or contact in the case of an emergency referral, how often they contact their supervisor at the PHU, and how often they communicate with one another.

### **Research Timeline**

The first phase is taking place during November 2012-January 2013 and is comprised of the following activities: An early version of the ttC mobile application will be piloted and tested in a local chiefdom not included in the study area. This first phase will also be characterised by the finalisation of research tools and interviews through initial piloting of the proposed questionnaires and interviews. Once this is completed, we will begin the informed consent process whereby CHWs participating in 7-11/ttC across the four chiefdoms will be contacted to participate in the research component. Once participants have been recruited, the informed consent procedure has been completed, and written consent has been obtained for their participation in the research, the first set of questionnaires will be administered prior to the introduction of the mobile component as a baseline exercise. Focus group discussions and key informant interviews will also be conducted with key stakeholders as a preliminary investigation of existing workflows and relations between informal (traditional birth attendants, CHWs, community health coalitions), and the formal health system (PHU workers, district health management teams).

The second phase is marked by the introduction of the mobile phone and the assignment of CHWs and health care centres to the three intervention groups. We anticipate this will commence following the baseline exercise around January 2013. This second phase is primarily a data collection phase taking place over the course of 18 months. Three subsequent follow-up questionnaires and interviews will be administered in May 2013, November 2013, and May 2014, respectively. Follow-up questionnaires will follow a cohort design whereby the same CHWs will be interviewed a total of four times throughout the course of the entire research. Performance indicators such as the number of emergency referrals, pregnancy registrations, and missed or tardy household visits by a CHW will be gathered on a monthly basis from each of the 26 PHUs. Focus group discussions and key informant interviews with key stakeholders will also take place at the above 5-6 month intervals. Data gathered at each of these intervals will be entered and analysed on a rolling basis.

The third and final phase of this study will take place between June and December of 2014 and is marked by the completion of the data analysis phase. Interpretations of the data, major findings and recommendations will be collated in the form of policy briefs, executive summaries, final reports, and manuscripts for publication as part of the research dissemination process.

### **Limitations**

The most important threats to our research are; a lack of a no-intervention group allowing the comparability of all in the intervention

factors against the status quo of CHW-based MNCH interventions; inadequate measurement or analysis of confounding factors that can distort our understanding of key relationships in the data; and the spill-over of the intervention into comparison communities as word spreads of the mobile component to the intervention. In order to minimize contamination between the intervention groups, CHWs will be assigned according to their affiliated PHU. In other words, all CHWs attached to a particular PHU will belong to the same intervention group. Moreover, the repeated-measure design of our study introduces possible practice effects. All PHU workers, irrespective of which intervention group their CHWs belong to, will be trained in the use of the mobile application and each PHU will be given a phone with the ttC application. We recognise that there are inherent risks in undertaking research that involves a technological component. The challenge of charging mobile phones in areas with no national power grid for example, will be addressed with the use of solar chargers for CHWs and their affiliated PHU.

### **Ethical Considerations (250 words)**

Ethical approval for the first objective of this proposed research has been awarded by the Health Policy & Management Research Ethics Committee, Trinity College Dublin and the Sierra Leone Ethics and Scientific Review Committee, Connaught Hospital, Freetown. Ethical approval for the second objective of this study will be sought from the same. The informed consent process took place during November 2012. All eligible CHWs and in-charges for the 26 PHUs were by a 7-11/ttC development facilitator and asked if they would be interested in learning more information about participating in a study as part of 7-11/ttC.

### **Expected Outcomes & Dissemination**

The National Telecommunication Company (NATCOM), Sierra Leone's national telecommunications regulatory body has already given their full support of the programme and our partnership with the MOHS ensures that our results will be utilised to advance the delivery of health services in Sierra Leone. The findings from the proposed research not only have important implications for MNCH outcomes, services and policy in Sierra Leone, but also greatly contribute to the programming of ttC across the entire World Vision Partnership with the potential to scale-up this programme across 20 countries.

Expected outcomes include the improved quality and timely use of maternal and child health services through improved health worker performance, an increase in the uptake of MNCH services through more consistent communication between community structures and health centres and through creating a greater demand for service, and strengthened operational structures in support of 7-11/ttC programming. By gaining a greater understanding of the mechanisms through which 7-11/ttC supports community-based health care delivery, we can better address existing challenges, increase programme sustainability, and ensure the effective scale-up of the programme.

Internationally there is growing interest and enthusiasm for the potential of mobile health to improve access to and quality of health services in low-income countries. However, this is not matched by corresponding evidence or understanding of the potential contribution such technology might have. There are potentially many obstacles to

the rollout of mobile health interventions across the health services, just as there may be many positive consequences (as yet unknown). The findings from this in-depth exploratory study can yield important lessons that inform future developments in mobile health.

### **REFERENCES**

- Allen, N. J., and J. P. Meyer. "Affective, Continuance, and Normative Commitment to the Organization: An Examination of Construct Validity." *J Vocat Behav* 49, no. 3 (1996): 252-76.
- Bhutta, Z. A., Z.S. Lassi, G. Pariyo, and L. Huicho. "Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems." 391. Geneva: World Health Organization, 2010.
- Blaya, J.A., S.F. Fraser, and B. Holt. "Ehealth Technologies Show Promise in Developing Countries." *Health Affairs* 29, no. 2 (2010): 244-51.
- Chang, L. W., J. Kagaayi, H. Arem, G. Nakigozi, V. Ssempijja, D. Serwadda, T. C. Quinn, R. H. Gray, R. C. Bollinger, and S. J. Reynolds. "Impact of a Mhealth Intervention for Peer Health Workers on Aids Care in Rural Uganda: A Mixed Methods Evaluation of a Cluster-Randomized Trial." *AIDS Behav* (2011).
- Christopher, J. B., A. Le May, S. Lewin, and D. A. Ross. "Thirty Years after Alma-Ata: A Systematic Review of the Impact of Community Health Workers Delivering Curative Interventions against Malaria, Pneumonia and Diarrhoea on Child Mortality and Morbidity in Sub-Saharan Africa." *Hum Resour Health* 9, no. 1 (2011): 27.
- DeRenzi, B., T. Parikh, M. Mitchell, M. Chemba, D. Schellenberg, N. Lesh, C. Sims, W. Maokola, Y. Hamisi, and G. Borriello. "E-Imci: Improving Pediatric Health Care in Low-Income Countries." In *Proceeding of the Twenty-Sixth Annual SIGCHI Conference on Human Factors in Computing Systems*, 753-62. Florence, Italy: ACM, 2008.
- Donnelly, J. "How Did Sierra Leone Provide Free Health Care?" *Lancet* 377, no. 9775 (2011): 1393-6.
- Esmond, J., and P. Dunlop. "Developing the Volunteer Motivation Inventory to Assess the Underlying Motivational Drives of Volunteers in Western Australia." 2004.
- Fraser, H. S., and J. Blaya. "Implementing Medical Information Systems in Developing Countries, What Works and What Doesn't." *AMIA Annu Symp Proc* 2010 (2010): 232-6.
- Kash, B. A., M. L. May, and M. Tai-Seale. "Community Health Worker Training and Certification Programs in the United States: Findings from a National Survey." *Health Policy* 80, no. 1 (2007): 32-42.
- Lewin, S., S. Munabi-Babigumira, C. Glenton, K. Daniels, X. Bosch-Capblanch, B.E. van Wyk, J. Odgaard-Jensen, M. Johansen, G.N. Aja, M. Zwarenstein, and I.B. Scheel. "Lay Health Workers in Primary and Community Health Care for Maternal and Child Health and the Management of Infectious Diseases." *The Cochrane Library*, no. 3 (2010): 209.

- Mathauer, I., and I. Imhoff. "Health Worker Motivation in Africa: The Role of Non-Financial Incentives and Human Resource Management Tools." *Hum Resour Health* 4 (2006): 24.
- Mbuagbaw, L., L. Thabane, P. Ongolo-Zogo, R. T. Lester, E. Mills, J. Volmink, D. Yondo, M. J. Essi, R. C. Bonono-Momnougui, R. Mba, J. S. Ndongo, F. C. Nkoa, and H. A. Ondo. "The Cameroon Mobile Phone Sms (Camps) Trial: A Protocol for a Randomized Controlled Trial of Mobile Phone Text Messaging Versus Usual Care for Improving Adherence to Highly Active Anti-Retroviral Therapy." *Trials* 12 (2011): 5.
- Meankaew, P., J. Kaewkungwal, A. Khamsiriwatchara, P. Khunthong, P. Singhasivanon, and W. Satimai. "Application of Mobile-Technology for Disease and Treatment Monitoring of Malaria in the "Better Border Healthcare Programme"." *Malar J* 9 (2010): 237.
- mobiThinking. "Global Mobile Statistics 2011." <http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats>.
- MOHS. "Policy and Practice Guide for Community Health Workers in Sierra Leone." 37. Freetown: Ministry of Health and Sanitation, 2011.
- Moszynski, P. "Sierra Leone's Maternal Health Reforms Fail to Deliver Free Treatment, Says Amnesty International." *BMJ* 343 (2011): d5645.
- Mukherjee, A., S. Purkayastha, and S. Sahay. "Exploring the Potential and Challenges of Using Mobile Based Technology in Strengthening Health Information Systems: Experiences from a Pilot Study." In *Sixteenth Americas Conference on Information Systems (AMCIS)*. Lima, Peru: Association for Information Systems, 2010.
- Oyerinde, K., Y. Harding, P. Amara, R. Kanu, R. Shoo, and K. Daoh. "The Status of Maternal and Newborn Care Services in Sierra Leone 8 Years after Ceasefire." *Int J Gynaecol Obstet* 114, no. 2 (2011): 168-73.
- Pop-Eleches, C., H. Thirumurthy, J. P. Habyarimana, J. G. Zivin, M. P. Goldstein, D. de Walque, L. MacKeen, J. Haberer, S. Kimaiyo, J. Sidle, D. Ngare, and D. R. Bangsberg. "Mobile Phone Technologies Improve Adherence to Antiretroviral Treatment in a Resource-Limited Setting: A Randomized Controlled Trial of Text Message Reminders." *AIDS* 25, no. 6 (2011): 825-34.
- Rahman, S. M., N. A. Ali, L. Jennings, M. H. R. Seraji, I. Mannan, R. Shah, A. B. Al-Mahmud, S. Bari, D. Hossain, M. K. Das, A. H. Baqui, S. El Arifeen, and P. J. Winch. "Factors Affecting Recruitment and Retention of Community Health Workers in a Newborn Care Intervention in Bangladesh." *Human Resources for Health* 8 (2010).
- Rajaratnam, J. K., J. R. Marcus, A. D. Flaxman, H. Wang, A. Levin-Rector, L. Dwyer, M. Costa, A. D. Lopez, and C. J. Murray. "Neonatal, Postneonatal, Childhood, and under-5 Mortality for 187 Countries, 1970-2010: A Systematic Analysis of Progress Towards Millennium Development Goal 4." *Lancet* 375, no. 9730 (2010): 1988-2008.
- Schaufeli, W.B., A.B. Bakker, and M. Salanova. "The Measurement of Work Engagement with a Short Questionnaire: A Cross-National Study." *Educational and Psychological Measurement* 66, no. 4 (2006): 701-16.
- Seidenberg, P., S. Nicholson, M. Schaefer, K. Semrau, M. Bweupe, N. Masese, R. Bonawitz, L. Chitembo, C. Goggin, and D. M. Thea. "Early Infant Diagnosis of Hiv Infection in Zambia through Mobile Phone Texting of Blood Test Results." *Bull World Health Organ* 90, no. 5 (2012): 348-56.
- SSL. "Sierra Leone Demographic and Health Survey 2008." Calverton, Maryland: Ministry of Health and Sanitation, 2009.
- Thirumurthy, H., and R. T. Lester. "M-Health for Health Behaviour Change in Resource-Limited Settings: Applications to Hiv Care and Beyond." *Bull World Health Organ* 90, no. 5 (2012): 390-2.
- UNICEF. "The State of the World's Children Adolescence an Age of Opportunity." New York: United Nations Children's Fund, 2011.
- Walt, G., M. Perera, and K. Heggenhougen. "Are Large-Scale Volunteer Community Health Worker Programmes Feasible? The Case of Sri Lanka." *Soc Sci Med* 29, no. 5 (1989): 599-608.
- Weiss, D.J., R.V. Dawis, G.W. England, and L.H. Lofquist. "Manual for the Minnesota Satisfaction Questionnaire." In *Work Adjustment Project*, 119: University of Minnesota, 1967.
- WHO. "Mhealth: New Horizons for Health through Mobile Technologies: Second Global Survey on Ehealth." In *Global Observatory for eHealth Series*, 112. Geneva: World Health Organization, 2011.
- WHO. "Task Shifting: Rational Redistribution of Tasks among Health Workforce Teams: Global Recommendations and Guidelines." Geneva, 2008.
- Willis-Shattuck, Mischa, Posy Bidwell, Steve Thomas, Laura Wyness, Duane Blaauw, and Prudence Ditlopo. "Motivation and Retention of Health Workers in Developing Countries: A Systematic Review." *BMC Health Services Research* 8, no. 1 (2008): 247.
- WVI. "Global Health and Nutrition 7-11 Start-up Field Guide: Executive Summary." World Vision International 2010.
- Zurovac, D., R. K. Sudoi, W. S. Akhwale, M. Ndiritu, D. H. Hamer, A. K. Rowe, and R. W. Snow. "The Effect of Mobile Phone Text-Message Reminders on Kenyan Health Workers' Adherence to Malaria Treatment Guidelines: A Cluster Randomised Trial." *Lancet* (2011).

# Desertec: A Fata Morgana?

Scott Burger

In 2009, a group of academics, policy makers, and industry professionals came together and created the Desertec Industrial Initiative (DII) and the DESERTEC Foundation with the goal of meeting 15% of Europe's electricity needs and two thirds of the Middle East and North Africa's electricity needs with renewable power generated in the deserts of northern Africa by 2050. Needless to say, many, including some very prominent players in the renewable energy industry, believe that the Desertec vision is more of a pipe dream than a viable electrification solution for the region. Indeed, Dr. Hermann Scheer, member of the German parliament, EUROSOLAR president, and general chairman of the World Council for Renewable Energy, claimed that even the initiators of the Desertec vision know "there is no prospect of success." While the Desertec vision has merits and dreamers are needed in every industry, Desertec is currently more focused on the needs of its partner European technology providers than the needs of its partner developing nations.

The Desertec concept is relatively simple; generate renewable energy in sparsely populated deserts and export that energy to population centers. Within six hours deserts around the world receive more energy from sunlight than the human's consume in a year, and 90% of the world's population lives within roughly 1,850 miles of a desert. The Maghreb[1] contains some of the best solar and wind resources in the world. Therefore, clean, renewable electricity can be generated by large scale wind and solar[2] plants in EUMENA[3] and either consumed locally or exported to neighboring countries (primarily from North Africa to Europe). The proponents of the Desertec vision even go on to say that meeting 90% or EUMENA's electricity needs with renewables by 2050 is both economically and technically viable with an interconnected EUMENA grid.

Desertec is broken down into two main components: the DESERTEC Foundation and the DII. DESERTEC Foundation is a non-profit focused on developing the Desertec concept and vision. DII is a group of over 50 companies, nearly entirely European, working to make the Desertec vision a reality in EUMENA. DII is currently working with the governments of Tunisia, Algeria and Morocco, among others. For the purpose of this article, we will focus on the three aforementioned countries' solar power development initiatives. It is important to understand the various national solar programs and the state of the global solar industry in order to understand how the Desertec could better serve its partner nations.

Morocco is thus far the only Desertec nation that has begun to develop a significant amount of large scale renewable energy projects. Although no projects are officially recognized as Desertec projects, the DII has helped the Moroccan government develop the Moroccan Solar Plan. Morocco's goals are enviable; the government plans to install 2,000 MW of solar capacity and 4,000 MW of wind capacity by 2020. The Moroccan Agency for Solar Energy (MASEN) has been charged with the development of the nation's solar resources. MASEN is led by officials from a variety of different government agencies including the deputy managing director of the Office National de l'Electricité (ONE),

the state-owned utility in Morocco, and the Vice Chairman of the board of the Ministry of Energy and Mines (MEM). This type of broad government support is crucial for the success of a solar program. The nation's program is heavily dependent on STEG technologies. Morocco is currently developing a 160 MW STEG plant with thermal energy storage and has requested qualifications for two more large STEG plants. One of the main stated goals of the DII is to foster a knowledge industry and aid in the development of its partner nations. However, the qualifications in the two rounds of tenders thus far have practically designed Moroccan companies out of participation. Limited Moroccan capital will be deployed for the first plant, with the majority of funding coming from development banks like the AfDB, KfW, and the World Bank. In addition, it is unclear at this stage how or whether any project proceeds will go towards training Moroccan workers, etc. It should come as no surprise that a DII shareholder was the winner of the first MASEN project.

The Algerian and Tunisian solar plans are significantly less developed than Morocco's. Algeria has made very bold and ambitious statements under the guidance of Desertec. Algeria's stated goal is to develop 22 GW of renewable energy by 2030 with 10 GW earmarked for export to Europe. Thus far, no major projects have been developed and no major tenders have been issued for projects in Algeria. In addition, the Algerian state-owned holding company Sonelgaz Holdings has announced plans to develop a PV panel manufacturing facility, although little progress has been made on this project. This manufacturing project was, unsurprisingly, being supported by European manufacturing equipment providers. Tunisia's plan outlines 4.7 gigawatts of renewable energy by 2030. Currently, only very small scale distributed solar energy and some larger scale wind projects exist in Tunisia. The main solar project being developed in Tunisia presently is the TuNur STEG project, led by British NurEnergie.

These nation's solar plans exhibit a distinct trend; every nation's plan is designed heavily around utilizing European technologies or exporting power to Europe. Morocco's prevented the participation of Moroccan companies for all but labor jobs, and Algeria and Tunisia's plans are on track to do the same. Rather than focusing on rural electrification or developing local knowledge industries through public-private partnerships, the focus seems to be on creating captive sales channels for European technology providers. The plans present a framework for European companies to sell into a new market using funding from International Finance Institutions. While there are certainly arguments to be made for the use of STEG technologies over PV (energy storage, cost curve location), the market reality is that PV technologies are roughly 50% cheaper than STEG technologies at the moment. Nonetheless, the DII has continued to favor STEG technologies and has helped to structure its partner nation's solar plans around STEG. However, these developing nations will be the ones required to support the higher purchase price of STEG-generated electricity over PV-generated electricity.

Ultimately, the Desertec vision is undeniably merit-worthy. The world needs its developed and wealthy nations to aid in the sustainable

development of emerging nations such as those in the Maghreb. Solar PV is cost competitive with diesel fuels and biomass currently used for rural electrification and energy generation and with the right business model, PV could bring electricity and all of its associated benefits to millions of people. However, the DII takes a heavily European-centric view of developing these nation's power systems. Surely, these nations can and would benefit from large scale deployment of renewable energy. In Algeria, renewable energy deployment would free up gas for exports. In Tunisia and Morocco, renewable energy deployment would alleviate trade deficits from importing fossil fuels. The Maghreb nations could all benefit from increased electrification and increased trade with Europe. However, in order for the Desertec dream to become a reality, Desertec will need to start by reorganizing and taking a developing nation-centric view.

[1] The Maghreb is the area of north-eastern Africa. The Maghreb is typically defined as containing the nations of Libya, Tunisia, Algeria, Morocco, and Mauritania.

[2] Most solar programs we will discuss today focus on solar thermal electricity generation (STEG), also known as concentrating solar power (CSP). STEG plants use the sun to heat a heat transfer fluid which then heats water to generate steam and turn a turbine which generates electricity. We will also discuss solar photovoltaic (PV) technologies, which convert sunlight directly to electricity using advanced materials.

[3] Europe, Middle East, and North Africa

### **Brief Biography**

Scott Burger focuses on global downstream PV markets for GTM Research, a leading solar market research and consulting firm based in Boston, MA. Before joining GTM Research, Scott was the Director of Engineering for Circular Energy, a leading solar engineering, procurement and construction firm based out of Austin, TX. As the Director of Engineering for Circular Energy, Scott oversaw the creation of all PV system designs and proposals and aided in procurement, technology selection, and strategy. Before Circular Energy, Scott worked in a research lab studying particulate matter created during oxy-coal combustion, and worked in demand side energy management at Austin Energy. Scott graduated Cum Laude with a degree in Chemical Engineering from Washington University in St. Louis.

# The Red Dust of Africa: A Personal Journey

Diane Raleigh, PhD

In 1961, I received an invitation from Sargent Shriver to join the newly created Peace Corps. I was a 1959 alumna of the Experiment in International Living that had been directed by Shriver. My husband and I applied and on May 22nd of that year received a congratulatory letter signed by John F. Kennedy. By July 1962, we landed in Mogadishu, Somalia. After teaching in Mogadishu for a year, we were posted to Owerri in southeastern Nigeria.

The following recounts an experience in Nigeria that ultimately led to my return to Africa and the founding of a women and children's clinic in northern Tanzania 50 years later.

Initially, I had taught English and worked part-time with a clinic in Owerri, but that changed with an incident that sparked everything that has happened since and marked the trail for my subsequent life-long career. This is also, however, about the Peace Corps and its almost eerie power to transform the lives of its volunteers and those with whom they worked. Its cachet has faded some in the public mind these many decades later, but this agency launched by a youthful, inspirational president remains a transformative force that indelibly marked thousands of Americans, from TV political guru Chris Matthews to Netflix founder Reed Hastings, to lawmakers across the nation. I too am one of them.

## **Owerri and the Motherless Baby Home**

Owerri became the last stronghold of Christian Biafra in the civil war of 1966-1968, but was still a small, peaceful town in 1963 when we arrived. There was one tarmac road and a few cement block structures including an abandoned Shell compound where we lived. The road, lined with a couple of hundred tin shacks, was the center of commerce for the local jungle villages.

In addition to teaching English, I chose to work with a well-baby clinic sponsored initially by the Red Cross. It was run-down, if functional, but a new hospital had asked that it be shut down. The mothers needed the care the hospital could provide in contrast to the clinic's limited capability.

As the demise of the clinic approached, a father bearing a pitifully thin 3-month baby came in begging for help. The baby's mother had died in childbirth and Chickwem, the child, was severely underweight and malnourished from lack of milk. The father had no means of caring for her and asked us to take the baby to save her life. I took the baby from him promising to help.

Given the Clinic's minimal resources, I took Chickwem to the new hospital for care. They refused, pointing out sympathetically but firmly that too many mothers died in childbirth for the hospital to accommodate all the babies without becoming an orphanage instead.

It was my first encounter with the dismal arithmetic of the third world's pragmatism regarding the sanctity of human life. Needless to say, most

of the Peace Corps Volunteers, like me, were middle class Americans recently graduated from college. The notion that there might not be enough to go around, while theoretically understandable, had never been even remotely a part of our experience.

When I brought Chickwem home, my husband and I agreed that she needed to be returned to her father at the village. As I later drove there, however, the consequences of that decision sank in. She would surely die of starvation, given that the father had brought her to the clinic as the last resort. I turned around and simply brought her home to stay.

Chickwem's incidental good fortune wasn't, however, the fate of most of the multitude of babies deprived of milk by the deaths of their mothers. To get these babies off of death row, they needed a baby care facility, to be fed powdered milk until they were old enough to survive on solid food and returned to their fathers. Anyone could have seen the solution but I happened to be there armed with a twenty two year-old's sense of invincibility and a license from the Peace Corps to do something to help people. And thus, the Owerri Motherless Baby Home was born.

Whether inadvertent or intentional, the Peace Corps brilliantly left us without an instruction manual to undertake the construction and operation of a baby home or much of anything else, for that matter. No bureaucratic rulebook or oversight, just the mantra to make sure the community was with you-- and good luck!

As it happened, the community leaders were solidly behind the idea. The well-baby clinic, now empty, provided the housing for the Baby Home. From Port Harcourt's companies, I wangled powdered milk from generous Nestles, whitewash, soap, cribs and mattresses and supplies from others. The community and the Red Cross supplied funds to hire local staff. Local carpenters provided furniture. Within a year the Owerri Motherless Baby Home was filled to capacity and, with annual support from the Christian Children's Fund actually survives to this day!

During all this whirlwind of activity, Chickwem thrived. She returned to her father after a year, now christened at his insistence, Chickwem Diane.

## **Returning Home**

In 1964, after having crossed the chaotic Belgian Congo by car, we blithely spent all our saved funds traveling through Rwanda, Kenya, India and Asia, landing, finally, in New Jersey. My husband, a talented industrial designer, found work quickly. I had been enrolled as a future diplomat in the Maxwell School of Citizenship at Syracuse University prior to being a PCV but Owerri had changed all that. My first employment was as a social worker working for the legendary Dr. Leontine Young, a pioneer in child neglect and abuse, in Newark. The slums of Newark were notorious for poverty and crime, truly one of the forgotten inner cities of America.

The children of some single mothers who had succumbed to life of drugs, alcohol and prostitution were not entirely forgotten. The Child Services Association was privately funded to, as best it could, attend to their welfare. The State of New Jersey and the city of Newark did not. My days and many nights were spent tracking down these mothers and their children, supporting them with food, clothing, and occasionally finding foster homes for them. I met remarkable children whose resilience and optimism was nothing short of miraculous.

By the time Newark had exploded in the riots of 1967, we were in California. From a few years of social work in Silicon Valley, I raised two children to school age and returned to graduate school for a PhD in psychology and began private practice as a clinical psychologist in 1983. For those who love this profession, there is nothing more satisfying emotionally and intellectually. My practice and my second husband took us to New York, then Hawaii and finally, northern California again in 2007.

We had returned to East Africa on safaris several times prior to 2009, when I finally decided to go back to see if there was something I could do. This was not a new thought. Some of the red dust of Africa had stuck to me and, I expect, to many of my PCV colleagues. For decades, the notion had remained in my mind that I would return someday to these people whose lives were so tenuous. This self-nagging grew over the years, until at last I knew it was time to do something about it.

### **Tanzania and the Olmoti Clinic**

A friend, Gloria Upchurch, knew the owner of a group of game lodges in Tanzania. Willy Chambulo, who is one of the heroes of this story, also owns a tour guide company called Kibo Guides. Gloria and I arranged our trip with Kibo Guides and went to Tanzania in June of 2009 looking for the inspiration to launch our mission. On the western slopes of Mt. Kilimanjaro near a Kibo Guides lodge, Kambiya Tembo, we were introduced to an influential Maasai midwife, YaYa, and within an hour the mission was clear.

### **The Maasai of Olmoti**

The Maasai are a pastoral, semi-nomadic tribe whose goats and cattle provide their principal means of income and their sustenance, milk and meat. Sale of cattle still provides their principal source of income. Nilotic in origin, they have roamed over the grazing lands of Kenya and northern Tanzania for over 500 years. With the sequestration of major tracts of grazing land to wildlife protection areas and gradual privatization of their traditional lands, however, the Maasai's exclusion into lands granted in exchange has gradually led them into subsistence agriculture to supplement their diets. Their bomas, collections of huts surrounded by thorn fences to protect their herds, are now becoming semi-permanent dwellings, rather than seasonal accommodations.

The Elerai-Olmoti area where YaYa lives is remote and its people among the poorest in Tanzania, earning around \$1 per day. The bomas are distinct from large towns and without public or private transportation. Women of the villages must walk 20 km or more to a hospital for maternal care. Pre-natal care is, therefore, uncommon. Only rarely do trained medical personnel attend births. Sanitation is primitive and running water non-existent.

Maternal mortality in childbirth in Tanzania is one of the highest in the world. In one year for example, more than 13,000 women died in Tanzania whereas in Sweden, having a comparable population, one died. The Tanzanian maternal mortality rate is nearly 100 times that of the U.S.

The problem, common to most sub-Saharan Africa nations, is inadequate health service, both in terms of access to hospitals and the quality of care in rural dispensaries. If a woman has difficulty delivering, more than half will have no access to caesarian sections and death comes through loss of blood. Impending problems are not detected early enough, given the lack of pre-natal care.

Survival under circumstances attending unsanitary birth often brings lifelong suffering from obstetric fistulas. The condition is known as a disease of poverty, caused by lack of pre-natal care, inability to conduct caesarian section, childbirth by immature or undernourished women or even infected episiotomies.

YaYa and the women of the local community had tried to take matters into their own hands. The Tanzanian government, in an attempt to augment its own small budget for rural health, had offered to staff a local clinic, provided the community built the basic structure. When I met her, she showed me the partially built structure that she and the local women tried to build from homemade bricks. They had neither the money nor the skills, only the desire. YaYa asked us for help and Gloria and I said yes. The Olmoti Women and Children's Clinic was conceived and the gestation period began.

### **Consent of the Governed and National Policy**

The local chiefs designated a plot of land owned by the Maasai near a tiny kindergarten. It had been donated by a generous Swiss visitor who put off replacing her old car to pay for the school. The Longido District Medical officer supplied the basic government plans for rural clinics and agreed to staff and supply the clinic if we could build it.

The offer of staffing and money for medical supplies was consistent with the stated policy of the Tanzanian Health Ministry. Tanzania, a resource-poor country of 45 million people, struggles with the demands of a population growing at 3% per year. Rural Tanzania presents special challenges. Roads, transportation, education, food, health and sanitation, and most importantly water supplies are major issues. Moreover, the Maasai, the most rural of Tanzania's tribes, are also the least culturally integrated and their pastoral lifestyle has come into conflict with Tanzania's dependence on wildlife tourism for revenues.

Circumstances are, nevertheless, slowly driving the unwilling integration of the Maasai into the larger community. The loss of grazing land, especially as the Serengeti and other national parks are now set aside for wildlife, concentrates their herds into increasing smaller spaces. Even in June, just after the end of the wet season, Maasai grazing land from Olmoti to Longido in the north is barren, heralding desertification and its consequent certain loss of the pastoral Maasai life style and the sustenance of the tribe. Formerly, the Maasai's pastoral practices led them to migrate to other grazing lands while allowing the grass at home to regenerate.

The Tanzanian government has sought to attract Maasai families to rural centers where farming provides a more sustainable lifestyle. Services such as education and healthcare, eventually even trade, are magnets to the formation of these communities but the assurance of food supplies is paramount. Olmoti and Elerai Maasai already dry farm corn and beans and the needs of agriculture now surmount the drive to find alternative grazing for their herds.

The Longido District government's execution of the federal policies sealed the deal for the Clinic by taking on the responsibility of provision of staff, supplies and staff housing. Without the commitment of Executive Director Julius Chalya, this project would be just another failed, if well intentioned, charitable gesture.

### **How to Build a Medical Clinic from the Ground Up in Africa**

Neither Gloria nor I knew anything about construction or the needs of a medical clinic. We went back to California fired with enthusiasm and not much else. What we did have in Tanzania were people, in particular, Willy Chambulo, the owner of Kibo Guides, who offered to oversee the construction of the clinic. As it happened, we could not have found anyone more capable and committed to be our local representative.

The importance of these connections cannot be overemphasized. Willy is a sophisticated entrepreneur whose network of lodges and guides is Tanzania's most successful. He is very tall, an imposing mix of Maasai, German and Irish heritage. He grew up in a boma until he went away for his education at age 13. From being a game guide to his first lodge in Arusha took only a few years. Since then he has personally designed and overseen the construction of eight lodges that he now manages in addition to the highly skilled and educated Kibo Guides.

The Kambiya Tembo tented lodge near Olmoti is managed by another key figure, Sylvester John. Olmoti and Kambiya Tembo are two and one half hours drive from Arusha, the nearest city, over roads that, in heavy rains, are nearly impassable. Sylvester oversaw the construction of the clinic from October of 2010 to June of 2011 when it was officially opened. He kept communications with the District officials and the Olmoti Maasai alive and healthy all while expertly managing the lodge.

Extraordinarily, Willy took us at our word that we would raise the funds to build the clinic and, on his own initiative, hired the contractors and began construction. Neither Gloria nor I had the personal resources or even, for that matter, the experience in fund-raising to give Willy that kind of assurance. We simply promised and he said yes. Where else but Africa could this happen and where else but America would anyone have such a naïve certainty of the generosity of their friends?

### **Funding the Construction and Equipping of the Clinic**

Gloria was connected to a charitable fiscal sponsor who handled our donations and we began looking for funds. We held our first fund-raiser in San Francisco, auctioning donated art. At the end, we tallied the results and found, after all our work, that the net receipts were slightly negative.

Neither of us knew anyone with the personal commitment to African health to hand us the check needed to underwrite the costs.

Big foundations are concerned with the larger issues of health and education, hoping to have impacts on a scale commensurate with the millions they donate. Local, one-off projects such as a clinic in the backwoods of Tanzania, are usually not on their radar screens.

The key to fund-raising turned out not to be traditional charitable fund drives using professional staff. A friend suggested organizing safaris in Tanzania in which the participants made contributions equal to the cost of the 10-day safari. Kibo Guides agreed to charge only their cost, and the rest of the fee paid by the tourists went to the clinic. Our first safari was launched at the end of May 2010. Gloria is an experienced tour leader and managed a superior safari at Kibo's lodges. We've now done this for 3 years and, adding in the donations of friends, the entire bill for the clinic's construction has been paid.

We were aware that raising cash for the construction was only part of the equation. Who would pay for equipping a medical facility that needed to provide pre- and post natal care, and perform caesarian sections as well as sanitary conventional deliveries? How would we see to the salary of our local community medical aide, YaYa? We needed to establish connections with hospitals so that complications beyond the capabilities of a local clinic could be managed successfully. Power, water, solar hot water, all had to be installed. Help, fortunately, was on the way.

We were referred to a not-for-profit, IMEC, an organization that collects and distributes medical equipment to poor countries to see whether they could help equip the clinic. Not only did they agree to do so, IMEC sent Dr. Susan Crawford to see what was needed. As a yardstick of the importance of IMEC to this effort and dozens of other similar ones in developing nations, the value of the equipment and supplies exceeded the actual cost of the construction project! Over \$130,000 worth of supplies and equipment was donated.

We were fortunate to find other experienced donors. Vitamin Angels, a charitable non-profit annually donates vitamin A, an essential nutrient for childhood development, and plans this year to expand the donation to include multi-vitamins. One Million Lights, another not-for-profit, donated solar LED lights and a technician to install solar panels for the Clinic's electricity. The generosity of these organizations was essential and the outcome, in less than two years, is that the Olmoti Clinic is fully functioning. Two medical professionals—supported and housed by funding from Tanzania's Longido District Offices—work full-time at the Clinic. YaYa is a medical assistant and community coordinator.

More needs to be done, including upgrading the power and supplying continuous water rather than depending on runoff from the roof. Sanitation, health education, ophthalmologic treatment, and other medical procedures are sorely needed. It is to these areas that I have turned my focus. The Clinic has the makings of a Maasai center of activity. People come on foot from many miles away, even from Kenya across the border for help.

The Olmoti Clinic formally belongs to and is managed by the Tanzanian government but it has become the Maasai's own. YaYa and Olmoti have made it happen through their determination to save the lives of their women. They are fiercely proud of their Olmoti Clinic. It may become a model for more like it in Maasai country.



## **Conclusion**

What started as a blank slate for an idealistic young Peace Corps volunteer has come full circle. Since the '60s, Africa has been inundated with money and teams of experts from the developed world, all valiantly dealing with issues from water to education to agriculture to disease. The Peace Corps left the bare outline for this epochal public and private philanthropic effort. Such sweeping brush strokes on the vast canvas of Africa's poverty necessarily, however, leave innumerable opportunities for individuals like you and me to act on their instincts to help others. There are thousands of YaYas

## **Brief Biography**

Diane Raleigh, PhD. has been in private practice as a clinical psychologist for the past 30 years. She was among the first 500 members of the Peace Corps, serving in Somalia and Nigeria. In Nigeria she established an orphanage for babies whose mothers had died in childbirth. She has travelled extensively in eighteen countries in Africa. She remains actively involved in the growth of the Olmoti Clinic.

determined to save women from an entirely unnecessary death from childbearing, orphanages barely able to survive and millions of children eager for higher education. In the words of a Peace Corps slogan – "Life is calling. How far will you go?"

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