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Review

Contrasting the impact of the Movimento dos Sem Terra – MST and the International Land Coalition - ILC on empowerment of local communities

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The influence of international donors of non-governmental organizations (NGOs) acting in developing countries has been the subject of a significant amount of academic literature. This article adds to such body of study by examining specifically the effect of international donors in the fight for land. Through contrasting how the International Land Coalition - ILC and the Movimento dos Sem Terra - MST work in Brazil the article substantiates the theory that international donors constrain the liberty of NGOs to act freely in determining what is best for local communities. The focus on self-help solutions to local problems and the need to avoid conflict with donors reduces empowerment and chances of eliminating the conditions that originally created poverty and unequal distribution of land.

Key words: NGOs, empowerment, international donors, international land coalition, movimento dos sem terra.

INTRODUCTION

Brazil is one of the most unequal countries in the world. The inequality also reflects on land distribution, where property is highly concentrated in the hands of few. By comparing the methods used by the International Land Coalition – ILC and the grassroots Landless Workers Movement (Movimento dos Sem Terra) – MST in the fight for land as the object of study, the present article has the purpose to demonstrate how accountability to international donors make non-governmental organizations - NGOs less capable of empowering local communities.

Although the debate regarding local empowerment is common to NGOs acting in all areas, the land issue is fertile field for study because it presents two highly opposing views for economic development, solving poverty and protecting the environment. It confronts the interest of big agroindustry against that of peasants and small farmers. There is no neglecting the importance that agribusiness has for Brazilian economy, since it corresponds to 23.5% of Gross Domestic Product – GDP (Boadle and Mano, 2017) and 40% of exports (Bernardes, 2018). However, pursuant to Fernandes et al. (2012: 11) small farms employ 74% of the workforce using only 24% of cultivated land and are responsible for
38% of gross agricultural product. Still, poverty among peasants is widespread. The inequality in the rural area leads to many related problems, such as exodus to big cities and environmental degradation through expansion of giant plantations to forest zones such as the Amazons. Education is a vital aspect of the discussion. According to Meek and Simonian (2017: 516) controlling education is part of the Brazilian elite land strategy to prioritize the current capitalist agroindustry structure, since by teaching that financial success is more accessible in cities they are able to attract workers to the urban areas, where they face poverty and reduce opposition in the fields. Therefore, NGOs that intend to resolve the land issue and empower locals in rural areas need to face the power of big business and foreign governments with impartiality, which may not be the case when they are funded by international donors, as shall argued in the following sections. The first section of the paper will address the greater discussion on donor dependency, not restricting it to the land matter. Subsequently, the paper will contrast the structure and methods of ILC and MST, before finalizing with concluding remarks.

THEORETICAL REVIEW: DONORS, NGOS AND EMPOWERMENT OF LOCAL COMMUNITIES

The notion of social capital put forward by Putnam et al. (1993) helps to contextualize the discussion on the impact of international NGOs on empowerment. Putnam argued that networking and participation in community associations would be essential for the development of economy. The concept fit perfectly into neoliberal thinking, since it ignored the influence of power, domination and governments. Social capital underpins the rationale that international donors and their chosen NGOs suffice for reducing poverty in developing countries if they are fruitful in bringing community together to fight the problem. Although at first glance the idea of local communion promotes empowerment, scholars such as Harris (2002) argued that social capital would be an ‘anti-politics machine’, preventing demands for relevant social-political transformation. Over time, it appears that the opinion that poverty-relief based on social capital and international donations diminish local empowerment has substance.

The supposition can be evidenced in various situations where NGOs backed by international donors work to mitigate poverty, but without actually changing status quo: (i) Manji and O’Coill (2002) conclude that reliance on international donors have made African countries lose control of social policy; (ii) according to Baruah (2010: 991), microfinance NGOs are always popular among donors, but do not question the balance of power and inequality that leads to poverty; Karim (2008) corroborates the critique and argues that the celebrated Grameen Bank uses women’s fear of dishonor and shame to make the system work, resulting in less female empowerment; Farmer (2008: 10) evidences how excluding governments from health services can lead to less social justice and citizen empowerment; Pfeiffer (2013) states that health NGOs have undermined self-determination with negative long-term consequences for local citizens and infrastructure; Ferguson (2010: 179) mentions that international donations of food supply may actually reduce power of local industry, because they lose market and become more dependent; when studying women’s rights, Alvarez (2009) concluded that feminist NGOs depoliticized local women by making them focus on gender causes that did not contradict the neoliberal agenda, neglecting women citizens’ rights.

Nevertheless, there is room to reason that not all international donors and NGOs are detrimental to local empowerment. Doherty and Doyle (2006: 698) make a distinction between international NGOs that are project focused, have centralized governance and act based on moral principles and those that face the social questions and focus on local causes. The second group would have a positive impact on empowerment. Ferguson (2010: 167, 168) ponders that the Gates Foundation in Mozambique has such an extensive role that it is a sort of 20th century welfare State and that politics may also be seen successful if the poor simply get what they want, moving away from the constant condemnation of the rich and neoliberal policies. With respect to labor rights, it could be claimed that the successful campaign by NGOs against low wages paid to workers producing Nike apparel (Spar and La Mure, 2003) would be an example of international donors empowering locals. Notwithstanding, although these are all noteworthy examples, an opposing view would argue that the Gates case is just another form of colonialism, while the absence of active and powerful unionized movements in Asian countries leaves unproven empowerment in the Nike case.

Therefore, not neglecting the continued controversy, this essay sides with the position that internationally backed NGOs lead to less local empowerment, primarily because of the difficulty for them to act contrarily to the institutions that provide their funding. As per Hulme and Edwards (1997), the proximity between NGOs and international donors lead to a series of negative consequences, such as: having to follow donor’s norms; restrictions on hiring locals; and, emphasis on actions that may generate donor promotion and public relations. Additionally, it should also be considered that many international NGOs are funded by organizations such as the World Bank, which reduced the size of developing countries and, consequently, space for empowerment, by prescribing budget cuts, privatizations and tax incentives for foreign investors. Dansereau (2005) uses the World Bank recommended privatization of the African mining industry to show how it created more poverty, even harder to fight when the State is smaller. Although there are international NGOs that defend policies such as
international debt relief to bring empowerment back to the locals (Manji and O’Coill, 2002: 582), the ILC analysis that follows validates the theory of empowerment limitation.

THE ILC: INTERNATIONAL DONORS GUIDING LOCAL ACTION

The ILC was formed in 2003¹ as a global alliance between civil society and intergovernmental associations aiming to work with the rural poor to increase access to land and natural resources. Its charter provides that it is non-partisan and independent. Accordingly, it does not take political positions, albeit supports members to dialogue with government. In 2018 ILC had over 202 members world-wide (ILC, 2018: 3) and its funding history mirrors the NGOs mentioned by Petras (1997), which are dependent on international donors, primarily European governments, World Bank and the United States.

The World Bank was a founder and initially one of the main donors. However, given that land disputes potentially have political repercussions, a few years after ILC’s creation the World Bank demonstrated concern with reputational risks deriving from the possibility of local members of the organization taking policy positions against the bank’s guidelines (World Bank, 2008: 35). The alert, included in a World Bank review of organizations in which it invests, shows how international institutions may provide constraints to local engagement. Currently, ILC’s main donors are Norway, Sweden and Switzerland, through their respective development agencies, the European Union and the United Nations through the Fund for Agricultural Development – IFAD (ILC, 2015). The list of donors is of utmost importance, since presumably it would be unlikely that Switzerland, headquarters of agribusiness giant Syngenta, accept that ILC funds be destined to projects that may ultimately hurt its own economy. The same can be said for Germany, the most powerful European Union member, and its leading multinational corporation Bayer. These facts and the need to secure funding appear to influence ILC’s stance on the land issue, in which it stays away from controversial positions.

The hypothesis is strengthened after analyzing how ILC conducts its groundwater and interacts with the local member NGOs. In Brazil, ILC has three member NGOs: Sabiá, Espaço Feminista and Centro de Estudos do Trabalho e de Assessoria ao Trabalhador – CETRA (ILC, 2019).² All have very similar characteristics and focus exclusively on projects in their respective regions (Sabiá and Espaço Feminista in the State of Pernambuco and CETRA in the State of Ceará). Using CETRA as an example, it is possible to illustrate ILC strategies with local communities.

CETRA’s objectives are to develop social and technical assistance to rural workers and their families, regardless of their political preferences, ideology and religion, aiming at sustainable and human development (CETRA, 2019).³ An analysis of CETRA’s projects shows that they have a self-help nature and are pointed at very small communities, with limited interaction with outside persons that suffer the same problem. Examples of projects are: (i) promotion of agroecology and sustainability in the Serra do Sertão region; (ii) building networks of local farmers; (iii) promotion of human rights for Tremembé indigenous population; and (iv) stimulation and support of family agriculture. Certainly, these are all very important initiatives that play an import part in ameliorating the lives of locals, but they have in common their limited range. There is no mention to changing government policy as a solution for poverty. The model, which begins with international donors, has the international NGOs (in this case, ILC) act as broker and finalizes with a local organization in contact with the people is exactly the one described by Petras (1997) that leads to anti-statist views and reduces local empowerment.

An opposing view would argue that the praiseworthy work performed by the ILC and CETRA partnership is backed by theory which sustains that it also empowers. Edwards (2008: 49) makes a distinction between NGOs that have an ‘international development’ vision, where international donors transfer resources with the sole purpose to uphold democratic ideals in non-developed countries, and an alternative ‘global society vision’, in which case international donors and NGOs would partner to alter global consumption patterns that generate poverty and therefore empower locals. When CETRA sponsors family agriculture it could be said that it acts against agroindustry, giving voice and empowerment to the local community. Notwithstanding, what seems to prevail is the characteristic of an NGO that mitigates poverty, without questioning its reasons.

Therefore, ILC’s pattern of action basically replicates the textbook example of NGOs that prioritize individual capacity and elimination of poverty through community projects. In this sense, it clearly builds on Putnam’s social capital concept. Furthermore, the way ILC fragments its investments in different local NGOs, which compete for investments and attention, also jeopardizes empowerment. These features, coupled with the lack of a national or global agenda, lead to depoliticization of local communities and their leaders. The strategy is the opposite of that adopted by the MST, which given its absence of dependency on international donors is not afraid of confrontation if there is chance for structural improvement.

¹ ILC is a successor of the Popular Coalition to Eradicate Hunger and Poverty, created in 1995.
² ILC, 2019, viewed 2nd June 2019, <https://www.landcoalition.org/en/countries/brazil>.
³ CETRA, 2019, Carta de Princípios, viewed 2nd June 2019, <http://cetra.org.br/index.php/pt-br/paradigm/carta-de-princpios>
THE MST: FIGHT FOR LAND AND EDUCATION, DEMANDING STATE ACTION

The MST was created in the eighties and acts by occupying and camping on unproductive land. Once land is occupied, MST activists pressure government and judiciary to legally transfer possession so that they can create settlements by using the Constitutional argument that land in Brazil must have a social function. Until the mid-2000s pressure to legalize land transfer was exerted through highly publicized occupations of government buildings, railroads and roads, a confrontational tactic that has been less used (Meek and Simonian, 2017: 517). Currently, approximately 350 thousand families live in MST settlements in 24 of the 27 Brazilian states, evidencing its National presence (MST, 2019). In such settlements, decisions are taken at general assemblies, building a collective form of society that approximates MST space to its socialist principles.

It is during the second period that MST reverts attention to education, pressuring governments to establish schools in the settlements. Since its inception it has influenced government to create two thousand public schools and provided education to over 250 thousand students, not restricted to those that are part of the movement, since people living close to settlements also benefit (MST, 2019). There are various examples of success in the demands made to government, such as the National Program for Education in Agrarian Reform – PRONERA, whereby MST members were provided with access to postsecondary education that is managed and organized by social movements. These courses include classes in history, politics and cooperative organization, important tools in empowering the local community. This is clearly distinct from educational investments in the poor that result in depoliticization, such as those focused exclusively in training workers to occupy lower paying jobs (Ciavatta and Ramos, 2012; Pahnke, 2017: 10). MST education has the purpose to make laborers question the structures that are responsible for their poverty and not merely integrate them into market-based solutions.

Accordingly, Meek and Simonian (2017) argue that MST occupies material and immaterial space, since it conquers land for peasants, but also transforms their knowledge, impacting social relations. The authors arrive at such conclusion by examining the Jornadas de Agroecologia, which are encounters bringing thousands of MST members together to participate in various theoretical and practical workshops. Vendramini et al. (2016) have also studied how an important aspect of political empowerment stems from the fact that MST provides education of all levels to its members. In his analysis of MST administered schools Pahnke (2017: 3) praises the emphasis on collective power instead of individuality. Students participate in a wide range of decisions, ranging from which course to take to how to clean the classrooms and what to offer for lunch.

However, the strategy of land occupation and education based on its principles also has a negative side. Acting politically makes MST face constant dispute, such as lawsuits filed by government prosecutors attempting to terminate partnerships with Brazilian public universities (Vendramini et al., 2016: 199, 200). MST’s ideological underpinning also restricts growth, with various forms of opposition, including bills of laws to criminalize the movement (Betim, 2018). Additionally, conflicts have not always produced the best results. In 2003 activists invaded a Monsanto laboratory and destroyed all its apparatus to publicize their fight against transgenics. The images of activists destroying private property was highly publicized by the concentrated Brazilian media which does not let pass opportunities to criticize the movement (Meek and Simonian, 2017: 523). Although MST was successful in closing Monsanto’s facilities, it lost mainstream support. Moreover, it cannot be ignored that land occupations expose their members to violent reaction from landowners and police.

Notwithstanding, the risks inherent to its form of action do not detour MST from its ultimate objectives, which are not limited to reducing poverty exclusively for its members. They defend being part of a national and global movement that can serve as a reaction to the negative outcomes of capitalism (Cazorla, 2018). In the national agenda, MST supports structural battles such as protesting budget cuts in the educational sector (MST, 2019). Their opinions on world issues such as European austerity programs, the conflict in Venezuela or poverty in Haiti are always disclosed (MST, 2019). Knowledge, education, agroecology cultivation and production, as well as constant demand from government and political parties are tools that they use to counterattack the hegemonic domination of multinational corporations and neoliberal thinking. These are all features that show empowerment and many positive outcomes have come from it to the poor, such as land and housing; access to good public education; and, limitation of eight hours a day for working on plantations (Cazorla, 2018: 173); achievements that provide long-term impact for society and not only temporary poverty-relief.

CONCLUDING REMARKS

In a study of land issues in the 21st century, Fernandes et

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4 MST, 2019, Minuto a Minuto | Brasileiros se mobilizam contra os cortes na educação pública, viewed 2nd June 2019, <http://www.mst.org.br/2019/05/15/minuto-a-minuto-brasileiros-se-mobilizam-contra-os-cortes-na-educacao-publica.html>

5 MST, 2019, Solidariedade Internacional, viewed 2nd June 2019 <http://www.mst.org.br/solidariedade-internacional>
al. (2012) examined for the ILC the agrarian problem in Brazil and concluded that it could be viewed under two completely different perspectives: (i) an ‘agrarian capital paradigm’, which accepts as natural the consequences of a capital society and believes that the form of reducing poverty would be to bring the underprivileged workers to take part in the capitalist structure through training and integration; (ii) an ‘agrarian question paradigm’, which takes in consideration territorial disputes and views unequal distribution of property and consequent poverty as a result of the capitalist system, in which case solution would depend on questioning the system. As an introduction to the work of Fernandes et al. (2012) ILC’s director questioned if authors had made justice to the ‘agrarian capital paradigm’, hinting a partiality for the first approach. MST, on the other hand, clearly faces the agricultural problem through the lenses of the second approach.

These diverse visions of how to solve inequality and poverty in land distribution have direct impact on the structures of assistance. They also appeal to different types of donors, which make choices and demand action based on their view of economic and political development. Through contrasting how ILC and MST work in Brazil this article substantiated the theory that international donors constrain the liberty of NGOs to act freely in determining what is best for local communities. By focusing assistance on self-help solutions to local problems and avoiding positions that conflict with donors’ interests, MST could reduce empowerment of the local community to demand structural change from government, lessening chances of eliminating the conditions that created poverty in the first place.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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The participatory structures of poverty in Africa

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Participatory structures of poverty in Africa are founded in ideology, foreign aid, guilt from colonialism, paternalism, democracy, and capitalism. The latter two are becoming more well known to the general public, forcing the subject matter to be acknowledged in diplomacy circles. Actively participating in a structure that maintains poverty, works against humanity. Dr. Martin Luther King Jr. (1963) is quoted “No one is free until we are all free,” suggesting that until we offer authentic economic freedom to the poor, we cannot reach our own peak of economic freedom. Other academic and experts have differing views of what poverty is and what structures maintain it. William Easterly's, "White Man's Burden 2006" directs the blame for poverty onto Europe and the West. Robert Bates points to heads of state in Africa as maintaining structures of poverty post-colonialism. Walter Rodney identifies the colonialists as fundamental to the “underdevelopment” of Africa. Irene Gendzier chastises the US government for pushing democracy onto third world countries cloaked as charitable support. And Thomas Carothers provides an in-depth analysis of democracy promotion at its worst. The nature and uses of political theory are wrought within this discussion, though the question at the forefront remains, ‘What are the underlying causes of participatory structures of poverty?’

Key words: Development, poverty, Africa, NGO, structures, democracy.

INTRODUCTION

Participatory Structure #1 - Leadership theory of rational choice

Robert Bates has provided much research on what is considered as one of the primary structures of participatory poverty in Africa; African leadership. In Markets and States, 1981, Bates unveils brute datum about the agriculture industry across nine African countries; Ghana, Nigeria, Uganda, Sudan, Tanzania, Senegal, Zambia, Liberia, and Kenya (Rodney, 1974). Modernization is often the route towards industrial enterprise and global trade. Bates reveals the mechanisms of management directed by African governments that are counterproductive for the growth and wellbeing of their citizens. In efforts to protect their nascent industry, government leaders form monopsonies (government-owned businesses) that become participatory structures of poverty. African leaders want global trade but are afraid to allow Adam Smith’s invisible hand to operate freely. Instead, they manipulate the market. As with governments elsewhere in the developing world, governments in Africa seek to industrialize. They

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do so in part by sheltering domestic industry from foreign competition. They also protect firms from local competition. Characteristically, industries in Africa are dominated by a few large firms, and often, the major firms are government-owned. Under such sheltered conditions, inefficient firms survive. And consumers, including farmers, pay higher prices" (Bates, 1981: 76). From production strategies (Steiner, 2019) to economic interests serving policymaking (World Bank, 2019a) at any cost, including violence, Bates explains the irrational as rational choice.

To increase output, governments finance production programs. But in doing so, they introduce characteristic distortions. Given the level of resources devoted to the programs, for example, they often create too many projects; the programs then fail because the resources have been spread too thin. Such behavior is nonsensical when analyzed solely in terms of stated objectives, but it becomes understandable once we consider the political calculations underlying the choices of governments (Bates, 1981: 5).

A different example is noted here:

In the face of shortages, governments can allow prices to rise, or they can maintain lower prices while imposing quotas. In a variety of markets that are of significance to agricultural producers, African governments choose to ration; and when they do so, they give no systematic preference to the poor. Their use of non-market mechanisms in the face of shortages reflects not their social values but their calculations of how their political interests can best be served (Bates, 1981: 5). These are but a few examples from an overabundance of data, both quantitative and qualitative, that Bates produces. He gathered information from interviews, country reports, World Bank and IBRD data, etc.

Suffice to say that African governments have led the way in supporting participatory structures that inevitably create and maintain poverty. The African bourgeois, who by definition, do not live in poverty either work in government, have family businesses, or have entered into the tourism business. It is noteworthy to point out that through the tourism business, local entrepreneurs are accessing the global market. Tourism has been the greatest anti-poverty structure and a proven economic driver in Kenya, Tanzania, and Uganda for their wildlife.

Bates concludes that African leaders make decisions based on self-serving options that bring them personal prosperity, a premise that supports his theory of Rational Choice. But who set up the structures of subsidies and market manipulations that Bates points out? Who structured the economies before African countries had independence? Colonialists. One must recognize the psychological oppression living under the laws of slavery and seeing white men prosper from your efforts. Slaves who worked inside the homes of their colonizers received a first-hand account of luxury at the expense of slaves; including themselves, local children, mothers, young men, grandfathers and grandmothers. Slave demographics matter none to the colonizer, just that he receives his profit to maintain his lifestyle. Sad stories of deaths due to overbearing workloads, lynching’s, or heat strokes don't matter either; the colonizer removes all emotion and demands his piece of you (Lamar, 2016). It is this cruel and selfish structure that Africans learned over 400 years as the only way to get ahead; take from others. The colonizers created the foundations of governance by greed and the Africans learned it well. In essence, colonizers created the recipe, and Africans drank the cool-aid that maintains the same participatory structure of poverty.

Participatory Structure #2 - Theory of paternalism and voluntarism

Limiting a child's autonomy for her protection is paternalistic. Rudolph Steiner's theory for children was opposite, allowing autonomous freedom to learn and explore with little direction, the Montessori Method (Steiner, 2019). According to Carol Lancaster, former deputy administrator of USAID, the paternalistic domination of Africa by the US government is directly related to power and control.

"Questioning the purposes of aid is not new among scholars of international relations. Those scholars who interpret relations between states through 'realist' lenses - that is, the states operate in an anarchic environment in which power, security, and survival are their predominant preoccupations - answer that aid is, indeed, primarily a tool of hard-headed diplomacy. (Aids' impact on the poor is incidental or instrumental - as a means of increasing the security of the donor nation, for example, through reducing the temptations of communism or terrorism.)" (Lancaster 2007: 3).

If paternalism is the driving force of US relations with Africa, then the voluntarism of African countries to accept paternalism is the explicandum for yet another participatory structure of poverty. Guiding a country towards what is meant to be a better path becomes a slippery slope between participants. Lancaster uses communism as an example and discusses foreign aid as the choice tool for paternalistic US relations.

"Foreign aid as we know it today began in the United States as a diplomatic tool to respond to the nascent Cold War in Europe.” "...the United States would need to provide economic assistance to stabilize and expand their economies if their populations and their governments were to resist the pressures of communism." (Lancaster 2007: 63).
In the case of the Cold War, America's paternalism was aimed at countries considered at risk to the fall of communism. US paternalism grew less altruistic and more self-serving, but the building blocks of the participatory structure were the same foundations used for Africa; poverty and the need for economic development. Some of the "countries at risk" managed to develop, though Africa's poverty persists. The need for economic development in Africa never seems to cease, and GDP growth, in Kenya for example, moves at a stubbornly slow rate (World Bank, 2019b). Why is Africa subscribing to its own poverty?

The participatory structure of development theory and foreign aid initiatives offer relief, however, when the relief is not asked to leave, it demonstrates voluntarism. The African states voluntarily continue to accept aid even though it is detrimental to its own economy. In the case of Kenya, the country received nearly $1.1 billion of assistance in 2018. Over $56 million was allocated from the World Food Program (World Bank, 2019). Receiving free food destroys the capability to produce food. In 2010 after the Haitian earthquake, Haitian farmers had this to say:

"After the quake of 2010, many farmers abandoned farming. We got stuck with our goods. The crops are not intended for our personal use. They are intended for the market. Once the market is flooded there is no more demand. As a result, you lose the work for an entire year.” (Poverty, Inc. Directed by Michael Matheson Miller. USA: Independent documentary filmmaker, 2014; Interview of Jacob Donatie, Haiti Rice Farmer).

Africa willingly participates in the structure of development aid; a form of voluntarism that maintains poverty. In this complexity, one can see the detriment of receiving continual aid in the statement:

"I never heard of a country that ‘developed’ on Aid. I’ve only heard of development through trade.” “I don’t know of a country that got so much aid, they became a 1st world country.” (Poverty, Inc. Directed by Michael Matheson Miller. USA: Independent documentary filmmaker, 2014; Interview of Herman Chinery-Hesse, Ghanaian Entrepreneur).

Walter Rodney does not see the perpetual poverty of Africa as a form of voluntarism, though he does identify a structural pattern that he refers to as underdevelopment (Rodney, 1974).

"The question as to who, and what, is responsible for African underdevelopment can be answered at two levels. Firstly, the answer is that the operation of the imperialist system bears major responsibility for African economic retardation by draining African wealth and by making it impossible to develop more rapidly the resources of the continent. Secondly, one has to deal with those who manipulated the system and those who are either agents or unwitting accomplices of the said system.” (Walter Rodney 1972: introduction pg.xii).

This leads to my next and final example of a participatory structure of poverty in Africa; the structure that involves the guilt of colonialism, and capitalism.

Participatory Structure #3 - Short-lived guilt and democracy

Rodney sets the stage for the discussion best:

"The capitalists of Western Europe were the ones who actively extended their exploitation from inside Europe to cover the whole of Africa. In recent times, they were joined, and to some extent replaced, by the capitalists from the United States; and for many years now even the workers of those metropolitan countries have benefited from the exploitation and underdevelopment of Africa.” (Walter Rodney, 1972: 27).

Colonialism is the most perplexing participatory structure of poverty of them all. Some in the diaspora wonder why a majority of one race would allow a minority of another race to rule over them; did blacks willingly participate? One must contemplate the crushing power of negative psychology on the psyche, and how it made you question yourself and the relevance of your race. When you are physically and mentally beat into submission, participation becomes a way to survive. For children born into slavery, they learn the participatory structure from the time they gained cognition of how things work in a slave camp. Therefore, colonialism demands participation in the structure of poverty.

To resolve the sins of colonialism and effectively relieve the burden of guilt from the West, the US government devised utopian programs that are the driving force of foreign aid.

"Why do ineffectual utopian plans dominate the debate on economic development? We have already seen that it is partly explained by the political appeal of utopian plans to rich-country politicians.” (Easterly 2006: 37).

Easterly refers to the myth of rectifying the colonial wrongs as "an old legend”:

"The legend dates back to the 1950s. Many things have changed since the 1950s - we now have air-conditioning, the Internet, new life-saving drugs, and sex in movies. Yet one thing is unchanged: the legend that inspired foreign aid in the 1950s is the same legend that inspires foreign aid today.” "The full version goes like this: The poorest countries are in a poverty trap (they are poor only
because they started poor) from which they cannot emerge without an aid-financed Big Push, involving investments and actions to address all constraints to development, after which they will have a takeoff-italics into self-sustained growth, and aid will no longer be needed." (Easterly 2006: 37).

The participatory structure of relieving guilt requires equal participation from the actor who holds the guilt as a token of power - Africa. As long as Africa remains in poverty, the relationship continues; both participants enable each other. This participatory structure may be partially subconscious but eventually becomes apparent. When extemporaneous aid budgets are looming before members of Congress for approval, a new dimension in the participatory structure of poverty gets inserted - democracy and capitalism.

Irene Gendzier writes of secrecy, waste and corruption (Gendzier, “Development Against Democracy,” xiii) embraced by the US government to promote democracy abroad. Gendzier believes both modernization and development theory are being used as a form of foreign policy. In essence, the participatory structure of poverty is no longer founded on a development relationship, but instead on democracy and the spread of capitalism in a top-down manner, a manner that is not beneficial to the poor.

“...The reassurance offered by such roots was that the stabilization of sociopolitical systems which was an inevitable feature of modernization, would not lead to increased popular participation. Instead, in accord with the 'formative modernization period' of the 1960s, there would be support for 'limited top-down forms of democratic change [that] did not risk upsetting the traditional structures of power with which the United States has long been allied” (Gendzier 1985: 8).

Moreover, the insertion of democracy and capitalism, act as measures to thwart the political and military security concerns of the West. This form of "soft diplomacy" provides the green light for congressmen to approve the extemporaneous aid budgets previously mentioned. Soft diplomacy adds top-down policies into foreign aid with a bi-product of keeping the poor in their place politically. Soft diplomacy turns the participatory structure of poverty into something more dangerous, a structure not to be challenged.

Thomas Carothers, an expert in democracy and the rule of law, participated in this structure of poverty from the 1970s to the 1990s. His role in the spread of capitalism and top- down politics was posited as charitable to the public, while the CIA and NSC secretly managed the parts of this participatory structure that required force. In “Essays on Democracy Promotion 2004,” Carothers confesses:

“The first essay in this section, "Promoting Democracy in a Postmodern World," which I wrote in 1995, is a personal reflection on the uncomfortable disjunction between the often idealized image of democracy that Western activists promote abroad and the less shiny reality of real-life politics at home.” (Carothers 2004: 146).

Although Carothers sheds light on democracy projects in Latin America and the Middle East, Africa is no different. The short-lived guilt of colonialism has transformed into a deeper participatory structure of poverty that now involves political and military long-term structures. African countries are baited with US altruism and discover that structures of democracy and top- down economics will drive their future. However, African leaders have freedom to resist leading by top-down methods, though they choose to follow the lead of the hand that feeds them and ultimately end up maintaining the participatory structure of poverty.

CONCLUSION

If we are all connected and there are no acts that relinquish anyone from the suffering of the whole, then it means we all suffer in some way. The US, in particular, is experiencing immense pain as the country bears its multi-dimensional domestic problems to the world. Manifested in the sitting president is every ill that has been texturally submerged within US citizens. Some take issue with race, others with trade, abortion, foreign aid, healthcare, climate change, immigration, jobs, equal pay, or sexual orientation just to name a few. These issues are a reflection of the same oppressive and restrictive system that led to poverty, universalist theory.

Universalism seeks to conform all into a euro-centric frame of being. The euro-centric frame is based on wealth that non-Europeans don’t necessarily have. For example, the healthcare that the Latina single mother pays, at the job where she does not receive equal pay, and must hide the fact that she is actually lesbian, is the healthcare that keeps her in poverty. Participatory structures of poverty in Africa are ultimately structures of Eurocentrism. The underlying causes will not cease until diversity in policy and thought prevail in the academy of the sciences.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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In response to the structural problems faced by some of the non-governmental organizations (NGOs) in Lebanon, evaluating the different structures’ performance is particularly important especially in developing countries that require NGOs to provide speedy, timely and effective response to beneficiary needs. The aim of this paper is to identify the optimal structure for managing NGOs’ projects, especially when integrating the structural factors with other critical factors that impacted the projects’ performance of these NGOs. The study viewed projects performance in terms of projects’ meeting their targets within the assigned budget and schedule. One hundred thirty-two questionnaires were self-administered to professional project managers, some of them working at mechanistic NGOs adopting either a functional, weak matrix or balanced matrix project structures while others are working at organic NGOs adopting either a project-based or strong matrix project structures. Correlation analysis was used to test the influence of each critical factor on projects’ performance while regression analysis was used to study the influence among critical factors. The study identified that the adopted structure in the mechanistic NGOs had a negative influence on the projects’ performance. On the other hand, the adopted structure emerged as positive significant factor to the projects’ performances of organic NGOs. However, when the critical factors are being integrated all together to test their influence on projects’ performance, the adopted structure appeared to be a highly significant positive factor to the projects’ performances of the organic NGOs adopting the project-based structure only.

Key words: NGOs, organizational structure, projects, mechanistic structure, organic structure, functional project structure, weak matrix structure, balanced matrix structure, strong matrix structure, project-based structure, Lebanon.

INTRODUCTION

In executing humanitarian projects, providing speedy, timely and effective interventions is the core objective of all NGOs operating in countries affected by crisis or poor economic conditions. In Lebanon, NGOs are considered major pillars for humanitarian, economic and sustainable development. They play a major role in enhancing democratic participation, improving living conditions of communities affected by different crisis, empowering women and youth, maintaining peace, safeguarding rights and enhancing proper governance whether within the framework of the NGOs or within the society. However, some NGOs suffer from major structural problems that hinder the pace of its humanitarian and Emergency response (MSAL, 2004) (Internal governance
of NGOs in Lebanon). It is widely recognized that the choice of organizational structure affects the projects' performance (Neu and Brown, 2008). Organizational structure as described by Mintzberg usually defines the method by which individuals and groups are organized and their tasks are coordinated (Mintzberg, 1989). Csaszar, the writer of the famous article, "Organizational structure as a determinant of performance," who developed and tested a model on the organizational structure and its effects on project's success or failure, referred to the organizational structure as a decision-making network among individuals, which influence the number of initiatives taken by the organization (Csaszar, 2012). In this regard, it is important to mention the work of Thomas Steward tackling the case of Signal company. This study defined the organizational structure as a systematic way of grouping tasks, reporting and organizing relationships and communication patterns within the organization. It depicts how the different parts of the organizations fit as shown in any organization organogram (Stewart, 1992). In addition to the structural factors, authors and researchers referred to many other factors that influence projects' performance. Belassi and Tukel developed a new comprehensive framework that grouped critical factors into four categories. The first factors group is related to the project including size and value; the second factors group is related to the project manager and team composition; the third factors group is related to the organization including structural factors; and the fourth and last factor group is related to the external environment (Belassi and Tukel, 1996).

Following his study on IT projects' success, Murray, J.P identified critical factors to be based on comprehensive project planning, top management commitment and support to the project, adequate funding, well done accurate set of project specification, proper project scheduling, risk assessment in addition to ensuring that organizations can stay the project course (Murray, 2001). Another study done on Chinese information systems companies by Dong et al. (2004) revealed that critical factors included effective communication, top management support, user involvement, project managers and team composition, project planning and definition, project control in addition to the technological support (Dong et al., 2004). In countries like Lebanon that host vast number of refugees fleeing the horror of war and armed conflicts, the NGOs effective response is of vital importance to refugees' wellbeing.

Utilizing the results of the literature, this research assessed the influence of four main factors on the projects' performance of NGOs in Lebanon. The four factors comprised of project planning factors, the team expertise factors, the structural factors in addition to the external factors. At first, the study looked into the influence of each single variable alone on projects' performance in attempt to identify and evaluate the impact of the adopted structure. Then, it was highly prominent to integrate all the factors together to assess and evaluate the influence of the structural factors among the other factors on projects' performance. The latter approach allowed the study to highlight the factors that can reduce the negative influence of the adopted structure in the organizations that suffer from a problem of inadequate structure. Most importantly, it enabled us to identify which structure had a significant positive influence on the projects' performance and thus can be specified as an optimal structure for managing NGOs projects. Questionnaires were designed based on the factors listed in this study and self-administered to professional project managers of NGOs in Lebanon. This research aim at identifying the structure that can optimize the performance of NGOs projects in Lebanon, therefore, it was limited to those large NGOs that have been operating for more than 10 years in Lebanon. Constraint by the desire of some project managers wishing to keep their projects' performance as confidential, this study was restricted to 20 Humanitarian NGOs. The target population comprised of 200 project managers desegregated among the 5 organizational types. Systematic sampling was applied to each cluster in order to pick up the appropriate number of project managers from each organizational type to come up with a sample size of 132 project managers, which is most representative of the population. Retrieved questionnaires were analyzed using Pearson Product Moment Correlation and Regression Analysis provided by SPSS v25. Significant recommendations are made.

**Models of organizational structure**

Two models of organizational structure occupy two opposite poles with respect to each other's, the opposite poles with respect to each other's, the mechanistic and the organic. Dickson, Resick and Hangs studied the case of enterprises in different business environments and focused on identifying the features of environments and focused on identifying the features of mechanistic structures. In such type of structure, jobs are highly differentiated and specialized, rules and procedures are clearly identified, and a military style of hierarchy systems is adopted. On the other hand, the organic structure is the opposite polar of the mechanistic structure characterized by less specialized tasks, overlapped responsibilities, more generalized positions where there is no specificity of works requirements for each position, behavior is managed by set of shared values and goals rather than rules and instructions. Communication from top management is a sort of counsel and support, and upward messages tend to take the form of reporting and updating on the decisions that have been made at the lower management (Dickson et al., 2006). Hatch and Cunliffe who did several studies on the application of
mechanistic structure, argued that this structure is that such rigid, complex and formal processes with high centralization of business activities that characterize this structure. It encompasses application of strong rules, specialization, narrow range of control and vertical communication where superiors give orders to subordinates. There are clear job description, responsibilities and prestige accompanied with each position. In such type of structure, initiatives towards improving work processes are not encouraged causing creativity and innovation to be limited. This suggests that in this type of structure, accountability and responsibility are forced to the top and the employee major role is to follow the already established rules and procedures (Hatch and Cunliffe, 2006). In a study of the relationship between the organization structural characteristics and conditions of economy and markets, Lawrence and Lorsch identified major characteristics of companies that apply the organic structure. Companies with characteristics of the organic structure present few rules and procedures, ambiguous responsibilities with subjective system and complex needs to motivate employees (Lawrence and Lorsch, 1967). According to Adestam and Gunmmo, these types of structures are characterized by being less complex, less formalized, offering higher level of decentralization and freedom. The number of managerial levels is few while the range of control is wider with a horizontal system of communication. Authority is based on expertise and knowledge rather than hierarchical level. In this structure, an effective interaction among the team members allows for problem solving and redefinition of roles and responsibilities according to the situation. Meanwhile, organizational management encourages devil advocate thinking and the use of creativity and expertise. Departments never work in Silo and employee seek consultation from each other’s rather than instructions. This structure supports innovative thinking and thus it is very effective in highly turbulent environment (Adestam and Gunmmo, 2008).

**Effectiveness of organizational structures**

Burns and Stalker conducted a comprehensive research on the effect of external environment on a pattern of the administrative and economic activity of 20 British and Scottish companies. The study showed that whenever the environment is stable, a mechanistic structure is highly recommended because it is easy to predict tasks and activities. However, by the time the environment becomes more uncertain, it becomes urgent to have a structure with no hierarchy, decisions to be made through people with more expertise or leadership skills in a decentralized manner. Meanwhile, effective structures are those that effectively respond to changing conditions (Burns and Stalker, 2005). Scheffel, Cunha and Lima in the study of a contingency plan to technology-based companies applying a mechanistic structure, clarified that the organic structure emerged as an optimal assumption to structural change that allows these companies to adopt to their environment, and follow the evolution of technology and pace of innovation (Scheffel et al., 2012). Morgan in his turn argued that organic structures are more effective in companies whose strategies require innovation and flexible arrangements (Morgan, 2002). Zanzi argued that the mechanistic structure can be effective when the firms seek efficiency and standardization of business tasks (Zanzi, 1987). In an article published by Sophie Johnson, reference was made to new businesses as typically having few rules and less defined roles providing a space for more flexible and adoptable situations. Such situations are called organic. As organizations grow in size, new rules and regulations are needed in order to govern the business increasing operations. The formation of such new rules and roles makes the structure more mechanistic. The most mechanistic structure is the functional structure characterized by such rigid hierarchy and it is the first formal structure adopted by small companies. In such stage of the organizational life cycle, there are many management layers exerting control, however when such bureaucracy becomes an impediment, businesses should switch to more organic form granting more control to employees. In this respect, the organizational life cycle plays a major role in depicting structural changes. During the introduction phase, the organizations tend to be more organic with few rules and formal procedures. As the organizations move towards the growth stage, the organizations start to adopt more formal rules and procedures rendering the structure more mechanistic. Changes in the business environment may make the existing structure inappropriate to respond competitively to market needs, for example in responding to a competitive new market entry, the mechanistic structures aren’t so light to avoid the threats as less bureaucratic companies can do. Furthermore, major strategic changes may render the adopted structure inappropriate, especially when the organizations seek cost leadership in a structure that does not support efficiency and the same applies for those that aim for innovation and creativity in such rigid mechanistic form (Johnson, 2019).

**Structures for projects performance**

According to Schwalbe, creating successful projects requires project managers to balance the performances within the triple constraints of time, cost and quality deliverables. Establishing an effective structure for managing projects is a core activity for accomplishing organizational goals (Schwalbe, 2007). In the perspective of Clifford and Erik, there exists three types of project management structure, the functional, matrix and project-
based structures (Clifford and Erik, 2008).

**Functional structure**

Griffin who studied the case of small companies applying the functional structure, argued that these companies tend to sort employees on their specific skills and job functions and best suited to these organizations with single product or service (Griffin, 2014). In the perspective of Clifford and Erik (2008) this structure provides a maximum flexibility in the use of staffing where individual experts can be used by various projects. Consequently, technical knowledge of the functional units is accessible to all project teams. Furthermore, this structure does not violate the unity of command principle where there is only one boss thus avoiding the conflict of interest. However, managing multiple projects through this structure is not easy task. Functional staff usually prioritize their daily tasks over the projects’ work causing projects to be sub optimized. Furthermore, project managers are given a very limited authority and have to strike through the numerous levels of management to get projects done (Clifford and Erik, 2008). Following the result of a study conducted by Aljaz Stare on the project performance of Slovenian enterprise adopting the functional structure, it was revealed that the 90% of the enterprise in the study executed projects with significant delays while only 2% ran projects over budgets (Stare, 2011).

**Project-based Structure**

Dusan Dobera, the writer of the famous article “Project Management Organizations”, described the pure project organizations as standing on the other extreme of the possibilities for project management. This approach provides self-contained divisions for managing projects separated from the home organization. The project divisions become an independent segment with its own specialized technical and administrative staff for managing the projects. This structure provides several advantages to projects including delegating full authority to project managers with full leadership over the project activities. The project staff reports directly to the project manager and the advice from top management and functional department is not always necessary. Communication lines are shortened because functional departments are bypassed, and the project manager communicates directly with top management. As the authority is centralized at the project manager level, decisions are taken rapidly with prompt response to customer requests thus improving the lead-time to market and quality of output. The structure itself is simple and easily applicable and understandable. Such types of structures have a tendency to support the holistic approach of the projects (Bobera, 2008). Kerzner and Kerzner (2017) authors of a book, project management “A system Approach to Planning, Scheduling and Control”, utilized the result of mail survey sent to 50 aerospace companies in the US adopting project-based structures. The survey included questions on how well the project-based organization met its desired objectives with the available structure. The results of the survey showed that the companies achieved significant improvement in profitability and customer relations (Kerzner and Kerzner, 2017). However, adopting this approach incurs high costs for the organizations and may result in duplication of both efforts and resources. There is a high possibility that project teams develop more loyalty to the project than the mother organization resulting in severe competition among the organizations’ projects themselves. Moreover, at the end of each projects, project teams worry about their destiny as well as the mother organization need to deal with the consequences of reducing its work portfolio (Jack et al., 2010).

**Matrix structures**

Kerzner argued that matrix structure is an attempt to combine the advantages of both the functional and the project-based structure (Kerzner, 2006). Therefore, the form that the matrix might take depends on whether it looks like more project-based or more functional. Larson and Gobeli referred to three types of matrix- the functional (weak), balanced and project (strong). Each type provides different level of authority to project managers (Erik and Gobeli, 1988). Functional weak form: Matrices in which the functional manager has more authority than the project manager. Balanced form: the matrices where the both the functional and project managers share the authority and accountability for managing projects. Normally the project manager sets the overall plan and the functional manager determines how work will be accomplished. The strong project form: the project manager has more authority than the functional manager. Functional departments act as a subcontractor for projects (Clifford and Erik, 2008). The strong matrix structure provides project managers with more control over projects enabling quick response to clients’ needs. However, shutting down projects can be as bad as in the case project-based structure. Furthermore, projects putting lot of emphasis on the consultation of the functions might delay the decision-making process. The weak functional matrix allows project manager to have access to the technology and skills of the functional departments, thus avoiding duplication associated with pure project structures. However, the very limited authority provided to the project managers cause lots of conflicts and internal confusion. The balanced matrix structure allows staff to develop
strong attachment to the project while remaining a part of the functions. Sharing resources and equipment across projects ensure efficient use of organizational resources. Furthermore, communication is improved both vertically and horizontally. However, this structure usually violates the unity of command principle where the project team members have at least two bosses, the functional and the project manager. This creates a lot frustration and confusion among the staff who get stuck between functional requirements and demanding projects (Baccarin, 1999).

Effectiveness of project management structures

According to Kerzner, twelve factors should be taken into account when selecting the appropriate structure. These factors are "uncertainty, technology, size, duration, complexity, importance, customers, interdependency within and interdependency between, criticality of time, criticality of resources and differentiation". Following a deep study on the 12 factors in different structural forms, Kerzner was able to identify the relative status of each factor in each of the organizational structure. Organization aiming at selecting the appropriate structure for managing project should take into account the compatibility of each factor status with project good performance. For example, if the organization is operating in a stable environment with little uncertainty, the functional or weak matrix might be a good choice. However, monitoring the level of uncertainty alone is not sufficient, as the relative effect of the other twelve factors should be taken into account when deciding on the best structure (Kerzner, 2006). Mishra and Soota (2005) claimed that the functional structure is only effective in a stable environment with routine and continuous tasks.

This structure allows the project to lose its bigger image and be in a narrow view. It brings many problems to projects due to the delayed decision-making that slows down the project pace. On the other extreme, multidisciplinary structures like the project-based structure provide clearer accountability and authority that speeds up the whole process. Such type of structures can be very demanding in terms of the human resources and that’s why it is recommended for big projects.

However, in case a compromise is needed, the matrix structure is the best fit where it minimizes the need for large a number of staff, while empowering project managers (Mishra and Soota, 2008). Other authors like Shikha introduced five principles for effective organizational design. These principles encompassed of division of labor, unity of command, authority and responsibility, the span of control and Contingency factors (Shikha, 2013).

In this respect, it is significant to highlight a very important research conducted by Larson and Gobeli on the use and effectiveness of project management structures in the construction and new product development field. This research was conducted in more than 14 countries in Europe and it aimed at studying the effectiveness of project management structures across different countries (Figure 1).

As depicted in Figure 1, in the construction projects, the strong matrix was ranked as most effective followed by the pure project-based. In the new product development projects, the pure project was ranked as most effective followed by strong matrix then balance matrix. The study that tackled the case of 540 development projects found that over 50% of projects applying the project based and Strong matrix met their schedule successfully, 42% of projects applying the balanced matrix met their schedule successfully, 36% of those applying the weak matrix and 25% of those applying the functional structures met their schedules successfully. On the cost index side, the results showed that over 50% of projects applying the balanced matrix were completed on budget, 47% of projects applying the project-based structure and 46% applying the Strong matrix were completed on budget while only 25% of projects applying the functional and weak matrix structure were successful in meeting the budget. On the quality performance index, over 70% of projects applying the Strong matrix, project based, and balanced matrix achieved successful results while 50% success rate was recorded for projects applying the weak matrix and the functional structure. The overall results of this important research showed that the functional structure and the weak matrix provide the least successful performance of the projects key indicators in terms of time, cost and quality deliverables. The Strong matrix, the project based and the balanced matrix tend to be successful with slight differences but the balanced matrix tends to be less successful in terms of the time index but it is still better than the functional structure and weak matrix structure (Erik and Gobeli, 1988). Based on the above theories, this research made the following assumptions to be tested throughout this study:

**Hypothesis 1:** A relationship exists between the NGOs’ project structure and its performance.

**Hypothesis 2:** The pure functional, weak and balanced matrix are the least effective structures for managing NGOs’ projects.

**Hypothesis 3:** The pure project and strong matrix are the most effective structures for managing NGOs’ projects.

**METHODODOLOGY**

This research used the surveying strategy, which was carried out through an anonymous, online filled questionnaire.

**Scope of the study**

The study was carried out in 20 humanitarian NGOs in Lebanon.
encompassing of 200 project managers working at the different five organizational form. The study was limited to this number of NGOs since the other NGOs were strictly confidential about their projects’ performance and thus they refrained from participating in this study.

Data collection

The questionnaire was used as a main data collection and it was designed to foster quantitative data to be analyzed statistically using SPSS v25.

Design of the data collection technique

The design of the questionnaire followed the objectives of the research. Accordingly, project managers were asked to rank their level of agreement with the below:

(i) Problems facing projects’ implementation (Project planning problems, Structural problems, lack of necessary expertise problems in addition to external problems)
Projects meeting their time, cost and technical performance.
(ii) The relative influence of the planning, structural, technical expertise in addition to external factors on the projects’ overall performance.

Sampling and sample size determination

The 200 project managers in this study were desegregated into clusters according to the five organizational types as depicted in Table 1. Systematic sampling was administered to the homogenous strata in an attempt to obtain the most representative sample. According to Bradley, systematic sampling allows the researcher to select sample at regular intervals, requiring calculating the sampling proportion to be able to obtain the sample from each cluster (Bradley, 1999). The actual sample size was determined through the table developed by Bartlett, Kotrlik and Higgins who provided sample size determination for both categorical and continuous data (Bartlett et al., 2001).

For a population size of 200 project managers considering a 5% margin of error, the minimum sample size is 132 project managers to be selected from the different organizational type using systematic sampling (Table 1).

Data analysis techniques

(1) Descriptive statistics used to determine the mean and standard deviations of the respondent’s agreements with the questionnaires components.
(2) Pearson Product Moment Correlation used to determine the influence of each factor listed in this study on the projects overall performance.
PROBLEMS FACING PROJECTS’ IMPLEMENTATION

Figure 2. Problems facing projects implementation.

(3) Multiple regression analysis used to delineate the influence among the factors in the study and their significance to projects overall performance when being integrated all together.

RESULTS AND DISCUSSION

Variables in this study

Dependent variable: Projects Overall Performance
Independent variables: Project planning factors- team expertise factor- structural factors-external factors.

Problems associated with projects’ implementation

The study ranked project managers level of agreement regarding the problems facing projects’ implementation according to the mean and standard deviations of their responses. Therefore, each of the five structures were identified as either most or least problematic structure with respect to four types of problems: project planning, structural, lack of expertise and external problems. The pie chart below shows the types of problems faced by each organizational type and provides a comprehensive representation of the least and most problematic structures. As such, the least and the most structures were classified as per the following:

Least problematic structures

(1) Project-based structure: first least problematic structure facing some challenges from external environment.

(2) Strong matrix structure: second least problematic structure facing some structural problems (bulk procurement delays and contracts’ procedures delays) in addition to some external problems.

Most problematic structures

(1) Weak matrix structure: first most problematic structure facing planning, structural and external problems
(2) Functional structure: second most problematic structure facing planning, structural and external problems
(3) Balanced matrix structure: third most problematic structure facing planning, structural and external problems.

The results revealed that none of the NGOs in this study face the problem of the lack of the necessary expertise to execute projects (Figure 2).

The influence of each of the project planning, structural, team expertise and external factors on projects’ overall performance

In order to test the assumptions in this study and identify the influence of each single variable on projects overall performance, correlation analysis was utilized and yielded the below results depicted in Table 2. The correlation analysis allowed testing the following null hypothesis:

Null hypothesis 1: A relationship does not exist between the NGOs structure and their projects overall
Table 2. Correlation analysis of the five organizational types.

| Structures Variables | Functional Structure | Weak Matrix Structure | Balanced Matrix Structure | Strong Matrix Structure | Project-based Structure |
|----------------------|----------------------|-----------------------|--------------------------|------------------------|------------------------|
| Planning Factors     | +++ (Sig)            | +                     | +++ (Sig)                | +                      | +                      |
| Team Expertise Factors | +++ (Sig)          | +++ (Sig)             | +++ (Sig)                | -                      | -                      |
| Structural Factors   | --- (Sig)           | -                     | --- (Sig)                | ++ (Sig)               | +++ (Sig)              |
| External Environmental Factors | +     | +                     |                          |                        |                        |

+++ Strong positive correlation; ++Moderate positive correlation; + Weak positive correlation
--- Strong negative correlation; --: Moderate negative correlation; - Weak negative correlation.

performance.

**Null hypothesis 2:** The functional structure, weak and balanced matrix structures are the most effective structures for managing NGOs projects.

**Null hypothesis 3:** The strong matrix and the project-based structures are the least effective structures for managing NGOs projects.

As shown in Table 2, the adopted structure at each of the functional, weak and balanced matrix NGOs had a negative impact over the projects overall performance. On the other hand, in each of the strong matrix and project-based NGOs, the adopted structure had a positive influence over the projects' overall performance. Therefore, these results allowed the successful rejection of the first null hypothesis about the absence of a relationship between the adopted structure and projects' overall performance in the five organizational type.

The correlation analysis referred to a strong significant negative influence of the adopted structure over the projects overall performance of the functional and balanced matrix NGOs. On the contrary and despite of the presence of a negative relationship between the adopted structure and the projects overall performance of weak matrix NGOs, this negative influence was ranked as weak and insignificant to projects' overall performance. Therefore, the results allowed for successful rejection of the second null hypothesis highlighting the functional and balanced matrix NGOs as the most effective structures for managing NGOs projects. However, in the case of weak matrix NGOs, the results didn't allow any possibility of rejecting the null hypothesis that this structure is the most effective structure for managing NGOs projects.

Regarding the strong matrix and project-based NGOs, the correlation analysis highlighted a positive significant relationship between the adopted structure and projects' overall performance. However, this significant positive relationship was marked as strong in the case of project-based NGOs and moderate in the case of strong matrix NGOs. Therefore, this allowed for successful rejection of the third null hypothesis stating that the strong matrix and project-based structures are the least effective structures for managing NGOs projects.

The influence among critical factors

Integrating the critical factors all together is prominent to determine the projects' overall performance of each of the five organizational type. Multiple regression analysis was utilized and contributed to understanding the below questions that came up after conducting correlation analysis:

1. What are the critical factors that could reduce the negative impact of the adopted structure at each of the functional and balanced matrix NGOs?
2. Why the adopted structure didn't have significant impact over the projects' performance of the weak matrix NGOs?
3. Why the adopted structure had a moderate and not strong positive impact over the performance of strong matrix NGOs?
4. Would the adopted structure at the project-based NGOs still have a positive significant impact over the projects' overall performance even when being integrated with the other factors?
5. What are the least and the most effective structures for managing NGOs project tackling the case of the 20 NGOs in the study?
6. What is the optimal structure for managing NGOs projects? could this structure be drawn as a model?

The results of multiple regression analysis are depicted in Tables 3 and 4.

**Functional and balanced matrix NGOs**

As shown in Table 2, a good percentage of the changes in projects overall performance can be attributed to the factors listed in the study (76% in the case of functional structure and 69% in the case of balanced matrix structure). Regarding the factors that appeared to be most significant to the projects overall performance, it is the team expertise factor that was manifested to have this significant positive influence on the projects' overall
Table 3. Model Summary of the five organizational types.

| Model Summary | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---------------|-------|---|----------|-------------------|---------------------------|
| Functional structure | 3 | 0.885<sup>c</sup> | 0.782 | 0.761 | 0.54927 |
| Weak matrix structure | 4 | 0.521<sup>d</sup> | 0.271 | 0.237 | 0.61132 |
| Balanced matrix structure | 4 | 0.843<sup>d</sup> | 0.711 | 0.695 | 0.55526 |
| Strong matrix structure | 4 | 0.580<sup>d</sup> | 0.336 | 0.315 | 0.36622 |
| Project-based structure | 4 | 0.810<sup>d</sup> | 0.656 | 0.645 | 0.34748 |

<sup>c</sup> Predictors: (Constant), External Environment, Team expertise
<sup>d</sup> Predictors: (Constant), Team expertise

Table 4. Coefficients of the five organizational types.

| Coefficients<sup>a</sup> | Model | Unstandardized Coefficients | Standardized Coefficients | t | Sig. |
|--------------------------|-------|----------------------------|---------------------------|---|------|
|                          |       | B | Std. Error | Beta |     |     |
| Functional structure     |       |   |            |      |     |     |
| (Constant)               |       | -1.029 | 0.494 | -2.085 | 0.050 |
| 3 Team expertise         |       | 0.883 | 0.107 | 0.857 | 8.219 | 0.000 |
| External Environment     |       | 0.242 | 0.107 | 0.236 | 2.267 | 0.035 |
| a. Dependent Variable: Projects’ Overall Performance |
| Weak Matrix Structure    |       |   |            |      |     |     |
| 4 (Constant)             |       | 1.006 | 0.373 | 2.700 | 0.013 |
| Team expertise           |       | 0.417 | 0.149 | 0.521 | 2.796 | 0.011 |
| a. Dependent Variable: Projects’ Overall Performance |
| Balanced Matrix Structure|       |   |            |      |     |     |
| 4 (Constant)             |       | 0.422 | 0.400 | 1.056 | 0.305 |
| Team expertise           |       | 0.794 | 0.119 | 0.843 | 6.656 | 0.000 |
| a. Dependent Variable: Projects Overall Performance |
| Strong Matrix Structure  |       |   |            |      |     |     |
| 4 (Constant)             |       | 5.091 | 0.159 | 32.110 | 0.000 |
| External Environment     |       | -0.289 | 0.073 | -0.580 | -3.965 | 0.000 |
| a. Dependent Variable: Projects’ Overall Performance |
| Project-based Structure  |       |   |            |      |     |     |
| 4 (Constant)             |       | 0.044 | 0.601 | 0.074 | 0.942 |
| Adopted Structure        |       | 0.963 | 0.125 | 0.810 | 7.692 | 0.000 |
| a. Dependent Variable: Projects’ Overall Performance |

<sup>a</sup> Dependent Variable: Projects’ Overall Performance
performance of each functional and balanced matrix NGOs as depicted in Table 3. Furthermore, the external factors appeared to have a positive significant impact over the performance of functional NGOs. Therefore, the team expertise factor could reduce the impact of the negative structure in each of the functional and balanced matrix NGOs in addition to the external factors in the case of functional NGOs. The regression equations for both functional and balanced matrix NGOs are as per the following:

Projects overall performance (Functional NGOs) = -1.029 +0.883 (Team expertise factors) +0.242 (External factors)
Projects overall performance (Balanced Matrix NGOs) = 0.442 +0.794 (Team expertise factors).

Weak and strong matrix NGOs

The results shown in Table 2 revealed that there are many factors, not listed in this study, affecting the projects overall performance of each of the weak and strong matrix NGOs (23% of the changes in projects overall performance can be attributed to the study factors in the case of weak matrix NGOs and 31% can be attributed to the study factors in case of strong matrix NGOs). However, it is worth mentioning the significant positive impact of the team expertise factor in case of weak matrix NGOs and significant negative impact of the external environment in the case of strong matrix NGOs. Therefore, when discovering the many other factors and study the influence among each others, it would be more obvious the influence of the adopted structures in both type of organizations. The regression equations for both the weak and strong matrix NGOs are as per the following:

Projects overall performance (weak matrix NGOs) = 1.006 +0.417 (Team expertise factors)
Projects overall performance (strong matrix NGOs) = 5.091 – 0.289 (External factors).

Project- based NGOs

Results on the factors affecting the projects’ overall performance of project-based NGOs showed that an acceptable percentage of the changes in the projects’ overall performance can be attributed to the factors listed in this study (64% of the changes in the projects’ overall performance can be attributed to study factors). Furthermore, the adopted structure also emerged as a significant positive factor to projects overall performance even when being integrated with the other factors. The regression equation of the project-based NGOs is as per the following:

Projects overall performance (project-based NGOs) = 0.963 (adopted structure).

The optimal structure for managing NGOs projects

The findings of the study showed the project-based structure as the least problematic structure and its projects are performing very well in terms of cost, time and quality deliverables. Driven by the main purpose of this study to identify the best structure that can ensure optimal performance of the NGOs projects in Lebanon especially when being integrated with other factors, the project-based structure emerged as a sole structure that appeared to be highly and positively connected to projects overall performance. However, drawing this structure as a model require increasing the scope of the research to include more humanitarian NGOs and more countries similar to Lebanon. Furthermore, repeating this study tackling other NGOs and yielding the same results allow for generalization that the project-based structure is the optimal structure for managing NGOs projects.

CONCLUSION AND RECOMMENDATIONS

The research made the following recommendation:

The adopted structure at the functional organizations in the study has a strong negative impact over its projects’ overall performance. However, there are many other factors like the planning, team expertise, external environmental factors and many other factors contributing to the positive performance of the projects. Project managers in such type of organizations should work hard to limit the negative effect of the adopted structure by enhancing the performance of the other factors contributing to the positive projects’ overall performance especially the team expert and external environmental factors.

Although the adopted structure does not have strong negative influence on the performance of projects at the weak matrix organizations, project managers in such type of organizations should be aware of the many challenges and problems that face projects implementation as this organization emerged as a highly problematic structure. Therefore, projects managers are advised to monitor the effect of the many factors that affect projects overall performance, take advantage of the factors that have positive influence especially the team expertise and limit the effect of the adopted structure and the other factors that influence negatively projects performance. Since there are many factors that influence projects overall performance other than the ones listed in the study, this structure requires further research to assess all the factors that works in conjunction with each other’s. This approach might enable top management to identify those factors that have good influence and works towards
enhancing them, and state the factors that has negative influence and discharge all the efforts towards mitigating their negative effects on projects overall performance.

The adopted structure at the balanced matrix NGOs has a strong negative effect over the projects overall performance, however similar to the case of the functional structure; top management should monitor the effects of the other factors that influence projects’ overall performance. The findings highlighted the neutral feedback of project managers regarding most of the problems facing projects’ implementation, this issue triggers researchers’ eagerness and curiosity to discover more in depth the effect of those problems. Therefore, the study recommends further research for such type of structure in the form of a case study to understand deeply how projects are treated within a climate of balancing the authority accountability between the functions and projects.

The case of strong matrix NGOs suggests the presence of many other factors as well that influence projects overall performance requiring further research to assess the influence of those factors. The findings showed that this structure suffer from problems related to procurement delays for bulk procurement and contracts procedures delay. Since a major characteristic of this structure is empowering projects by delegating the authority to project managers, the study recommends that NGOs adopting this structure can look further for delegating much more authority to projects to ensure optimal performance. Meanwhile, since such type of organizations are very close to project-based organizations, the research suggests that those NGOs can discuss further approaches related to restructuring their operations towards moving to full project authority instead of delegating a partial authority. Moreover, those NGOs should monitor effectively the external environmental factors and mitigate any potential challenges.

The project-based NGOs appeared as the least problematic organizations delegating full authority to projects. The adopted structure of such NGOs appeared to have a significant and positive influence on projects overall performance. Supporting many authors findings regarding the advantages of this structure, this study was able to bring insights that for the case of NGOs in the study, the project-based structure can best mitigate the challenges that face projects implementation and ensure that projects can perform well within the constraints of time, cost and quality deliverables.

**Mechanistic to organic**

Driven by the humanitarian and development approach of those NGOs in Lebanon, it is prominent that their projects stand effectively to their end objectives and no compromise should be tolerated at any of the projects key indicators. Therefore, the study recommends that NGOs in Lebanon consider the advantages of the project-based structure in expediting the pace of their operation while not compromising on the quality and budgetary performance of their projects, as a mean to serve their overall humanitarian objective of reaching a world free of violence, war, diseases, poverty and many other forms of crisis. Furthermore, the study highlighted that mechanistic organization that allows the introduction of functional, weak and balanced matrix structures for managing projects, causes the introduction of structures that have negative impact on managing projects. On the other extreme, the organic organizational structure that allows the introduction of strong matrix and projectized project structure, triggers the introduction of structures that have positive influence on managing projects. According to the literature, the mechanistic structure is characterized by such formalized and centralized approach with lots of bureaucracy while the organic structure is characterized by such decentralized and less formalized approach. The responses of project managers of NGOs in Lebanon reveal that those working in centralized mechanistic organizations suffer from many problems including the problem of adopted structure and those working at decentralized organic organizations face less problems in implementing their projects and don’t suffer from the problems of inadequacy of adopted structure.

Meanwhile, the study recommends that humanitarian organizations in this study adopting a mechanistic, highly formalized, centralized and bureaucratic structures to perform the necessary restructuring and move towards being organic, decentralized and less bureaucratic to enhance the overall performances of their projects. Since the impact of NGOs projects is measured in the number of lives saved and effective interventions in times of crisis, these NGOs should adopt a structure that offers a decentralized, less formalized and less bureaucratic approach to better serve their humanitarian missions in Lebanon.

**CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

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Full Length Research Paper

Understanding the importance of malaria control tools by pregnant and nursing mothers is key to ending malaria burden in Nigeria: A case study of eight communities in South-South Nigeria

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The current National Malaria Strategy Plan (NMSP) 2014 to 2020, aims to transit Nigeria from malaria control to malaria elimination status by 2020. However, the most recent WHO Malaria Report 2018 revealed that Nigeria accounted for 25% of 219 million of the global malaria cases and 19% of 435,000 malaria deaths in 2017. The strategies of NMSP among others are: To significantly scale up Indoor Residual Spray (IRS); universal coverage of Long Lasting Insecticide Net (LLIN) and emphasis on parasite confirmation before malaria treatment. This study was carried out to determine how these core strategies have impacted pregnant and nursing mothers in the proper use of these malaria control tools. We surveyed 183 nursing and pregnant mothers with a total of 560 children, most under five years, and employed quantitative questionnaire and interviewed the mothers on how their perceptions of the malaria strategies are limiting the effort of malaria elimination in Nigeria. Our findings revealed that LLIN is still low: 1 bed net to 4 persons instead of the recommended 1 to 2 persons by WHO. Over 90% believed that sleeping under LLINs produce heat and nightmares and therefore reluctant to use them. IRS is unpopular and rarely used with just 3% applying IRS for malaria bite prevention. All the women claimed to be familiar with malaria symptoms and by implication, 76% use the antimalarial drugs without parasite confirmation. The Nigerian government needs to support strategies with awareness campaign to educate on the proper use of vector control tools and the risk of drug resistance due to indiscriminate use of antimalarial drugs. It can be concluded that the war against malaria in Nigeria can only be won when the target beneficiaries are made to understand and take ownership of strategies to eliminate the malaria burden.

Key words: Malaria, parasite, vector control tools, malaria elimination, insecticide resistance, environmental pollution, malaria vaccines.

INTRODUCTION

Despite huge investments in vector control tools, drugs and several malaria control interventions, Nigeria remains at the top of a list of countries with the most significant malaria burden (WHO, 2018). Despite on-going effort by
the Nigerian government, with its “National Malaria Strategic Plan (NMSP) 2014-2020”, aimed at a transition in malaria status from “malaria control” to “malaria elimination” by 2020 (Nigeria, 2014), a recent WHO Malaria report for 2018 shows Nigeria accounts for 25% of all malaria cases and 19% of deaths from the disease (Figure 2). In that report, malaria cases worldwide was put at 219 million, with 435,000 deaths due to the disease in 2017 alone (WHO, 2018). About 190 million people in Nigeria are said to be at risk of malaria infection, with a significant 145 million people, including women and children considered to be at high risk (WHO, 2018).

Among others, key strategies of the elimination program are: to scale up significantly, Indoor Residual Spray (IRS); universal coverage of Long Lasting Insecticide Net (LLIN); strategic use of larval source management; use of Intermittent Preventive Therapy (IPT) for pregnant women; emphasis on parasite confirmation before malaria treatment, and the deployment of Seasonal Malaria Chemoprevention (SMC) (Nigeria, 2014; Tesfazghi et al., 2015). Implementation of vector control tools such as LLIN and IRS, in combination with malaria drugs, has significantly changed the malaria status of a number of malaria endemic regions from that of “malaria burden” to “malaria elimination” stages (Bhatt et al., 2015; WHO, 2018; Weedall et al., 2019). This desired outcome has remained unattained across Nigeria and this is thought to be largely due to the development of resistance by the malaria vectors against the main insecticides in use for vector control tools, thereby threatening the actual objectives of the NMSP (2014-2020) (Awolola et al., 2009; Djouaka et al., 2016; Ibrahim et al., 2019). Notwithstanding the development of insecticide resistance, LLINs still offer significant protection against malaria. A 5 year evaluation survey to investigate the impact of insecticide resistance on the LLINs malaria vector control tool, demonstrated a lower malaria incidence among people who slept under LLINs in the study area, compared to those who did not use the nets (Kleinschmidt et al., 2018). It is important to note that a sample of mosquitoes in the captured area showed resistance to pyrethroids, the only insecticide approved for use in bed nets (Strode et al., 2014). This study validates the WHO recommendation of universal LLIN coverage for all populations at risk of malaria (Kleinschmidt et al., 2018).

As an NGO (www.setinitiative.org) working closely with women and keen on improving their health, we carried out a study to determine the level of their knowledge of the proper use of bed nets and the dangers of indiscriminate use of malaria drugs, and worked out the overall effect this has on malaria control and elimination in Nigeria. This survey was specific for LLIN, its level of coverage, as well as the use of IRS and parasite confirmation before malaria treatment. 183 nursing mothers and pregnant women, and a total of 590 children from 8 communities in Rivers State were recruited for the survey. Our findings demonstrate that an effective campaign system directed at the end users of the “National Malaria Strategic Plans”, and aimed at educating them to take ownership of the program will be needed before malaria can be eradicated in Nigeria.

**METHODOLOGY**

**The study design**

This is a cross-sectional descriptive survey of the impacts of the National Malaria strategy plan on malaria knowledge and prevention practices using malaria control tools among pregnant and nursing mothers with children in Phalga, Etche and Obia-Akpor Local Government Areas (LGAs) of Rivers State.

**Area of study**

This research was conducted among pregnant women and nursing mothers with children under five years attending the clinic at the comprehensive health centres in Alakahia, Choba, Elelenwo, Mgbuoba, Ozuoba, Igbo Etche, Rumuibekwe and Rumuomasi, all in the LGAs stated above.

**Sample and sampling techniques**

A total of 183 respondents participated in the study by simple random sampling technique (Singh and Masuku, 2014). Questionnaire approach was used for data collection. Questionnaires were constructed to seek the opinions of the respondents on the research objectives (Phellas et al., 2011).

**Method of data collection**

Paper questionnaires were administered to the respondents during immunization and medical diagnostic clinics in Obia-Akpor LGA of Rivers state. The questionnaires were completed by the participants, with help rendered where necessary and the themes of the questionnaire discussed.

**Method of data analysis**

Data generated was analysed in percentages.

**Limitation of the study**

Due to challenges of insecurity, the cover area of our study was...
Table 1. Total persons and Insecticide treated bed net coverage.

| Nursing and pregnant mothers | Children including those under 5 | Total number of persons | Total number of bed nets | Bed net/persons | Expected bed net/persons | Bed net gap |
|-------------------------------|----------------------------------|-------------------------|-------------------------|----------------|--------------------------|-------------|
| 183                           | 590                              | 773                     | 219                     | 1 / 4          | 1 / 2                     | 167         |

Restricted to only 8 communities, slightly less than the initial plan entailed.

Ethical consideration

Consent was obtained from each respondent after verbal explanation of what the study entailed and a reassurance of confidentiality with data obtained from them.

RESULTS

Percentage of people at risk of malaria sleeping under Long Lasting Insecticide Net (LLIN)

Data was obtained from all enlisted 183 nursing mothers and pregnant women from the 8 communities of which, 73.9% are married, 23.6% divorced/separated and 2.3% widowed. Of the number, 46% were also pregnant at the time of the survey. The women had a total of 590 children, mostly under 5 years. 18% of the participants did not own this basic malaria control tool, and of the number that owned at least one, only 47% obtained theirs from official health centres at no cost, with only 60% of them sleeping under bed nets. Table 1 shows coverage to be 1/4 persons instead of the WHO standard of 1/2 persons (WHO, 2018).

As a result of air pollution from oil and gas activities in the region, coupled with soot deposits in the environment, it was necessary for the net users to have them washed on regular basis. Although the long lasting insecticide treated bed nets recommended by WHO Pesticide Evaluation Scheme (WHOPES) have been adapted to withstand up to 20 washings (with the biological activity remaining intact and lasting for 4 years), the constant washing have been shown to result to significant wears and tears (Okumu and Moore, 2011). It would be interesting to investigate the effect of the carbon soot on the efficacy of insecticide bed nets after several washes. 50% of the study participants have their occupation as small scale farming, 15% are full house wives, 20% are traders and 15% are either salary earners (primary school teachers or civil servants) or self-employed (Figure 1). This demography therefore implies that majority of the participants in this study are in a lower socioeconomic class and may be unable to afford regular replacement of the nets as at when due.

To compound the already discouraging bed net coverage of 1/4 persons, there is the well-known misconceptions among respondents about the heat effect, with over 90% of them indicating that sleeping under the LLINs does produce unwanted heat and even nightmares. They are therefore discouraged from sleeping under bed nets (Tobin-West and Kanu, 2016).

People at risk of malaria being protected by Indoor Residual Spraying (IRS)

Indoor Residual Spraying does not seem to be a popular measure in the communities surveyed. Only 3.8% use IRS while 7.1% prefer the mosquito coil. Mosquito coils are mosquito repellents usually made from dried flower heads of chrysanthemum, a natural pyrethrum insecticide (Ogoma et al., 2012). The choice of mosquito coil is thought to be due to cost and accessibility compared to the IRS (Hogarth et al., 2016). Indoor IRS sprayed on the walls in living rooms would normally kill or repel mosquitoes from the rooms (Yadav et al., 2003). A combination of insecticide treated bed nets with IRS has been demonstrated to be more effective than using only one method or approach (Ngufor et al., 2011; Okumu et al., 2013; Okumu and Moore, 2011).

Percentage of children with fever that received diagnostic test in the public health sector prior to treatment with antimalarial medication

The study showed that 90% of the women use antimalarial drugs, 4.9% use herbal medicine and the remaining combine antimalarial drugs and herbs to treat malaria. Interestingly, all the mothers claimed to know the symptoms of malaria fever. 76% of the women agreed to indulging in self-medication while treating malaria fever, with only 24% visiting clinics for diagnosis prior to treating malaria fever. Parasite confirmation before malaria treatment is a key strategy of the National Malaria Strategy (2014-2020).

DISCUSSION

Nigeria and other developing countries in Africa are required to do more in order to eradicate the malaria burden. Malaria elimination is possible with proper use of vector control tools which kill malaria vectors and the use of drugs to neutralise parasites deposited in affected persons (Atta and Zamani, 2008; Snow et al., 2013).
There have been several malaria control and elimination programs in Nigeria since 1948 (Maduka, 2018), involving a huge amount of funds every year. There has been significant improvement but not enough to give Nigeria a malaria elimination status (Nigeria, 2014; WHO, 2018). Proper education of the populace, especially mothers who are understandably the primary targets of the malaria program, with regards to the proper use of these tools will go a long way to augment the effort of the government. The use of antimalarial medication for treatment of everyday symptoms of fever, without confirming presence of malaria parasite, will further lead to resistance. Resistance by parasites develops through mutations and could pose difficulty for vaccine production which have been proven to be effective for eradication of many vaccine preventable diseases such as smallpox (Andre et al., 2008).

Over 20 different malaria vaccines are currently under different phases of clinical trials or advanced preclinical development (Moorthy et al., 2004). The general delay in the development of an effective malaria vaccine has been attributed to the complexity of malaria parasites (Birkett et al., 2013). Four major malaria causing parasites have been identified to include: *Plasmodium falciparum*, *Plasmodium ovale*, *Plasmodium vivax* and *Plasmodium malariae* (Greenwood et al., 2008). The deadliest and most endemic in Africa is *P. falciparum* (Greenwood et al., 2008). Co-infection of these parasites has been reported (Tchouakui et al., 2019). The unusual length of the genes of these plasmodia, unlike those of parasites in
other vaccine preventable diseases, further makes the development of malaria vaccine difficult (Birkett et al., 2013). There are hopes that, RTS.S/AS01, which is currently undergoing human trials in Ghana, Malawi and Kenya (van den Berg et al., 2019) will prove an effective malaria vaccine, bringing new life to global elimination efforts.

Pyrethroid-based insecticide treated bed nets are the conventional bed nets currently in use for vector control (Rowland, 2012). Although four classes of insecticides are approved by WHO for general vector control, only pyrethroids are approved for bed nets (Hougard et al., 2003). Due to reported wide spread pyrethroid resistance, new generation bed nets comprising of pyrethroids with adjuncts such as PBO which inhibits cytochrome P450s, have now been made available (Allossogbe et al., 2017). Many more of such are also being developed (Camara et al., 2018). Adopting these newer bed nets will require evidence-based research about the insecticide resistance profile of the malaria vectors in Nigeria. While a number of reports on this resistance profile are already available, there is the need to establish the more complex resistance mechanisms (Awolola et al., 2009; Djouaka et al., 2016; Ibrahim et al., 2019).

WHO malaria report 2018 emphasises the need for more funding in malaria research and vector control tools (WHO, 2018). Providing the vector control tools free or highly subsidised is very important in order to achieve the required bed net coverage of 1 net per two persons and thereby improve usage. This is particularly important among the poor rural dwellers where household income is far too less for the purchase of vector control tools or regular replacement of worn out nets.

Recommendation
1. Scale up and effective distribution of the vector control tools in order to meet up with the required bed net coverage
2. Effective campaign and educating pregnant and nursing mothers on the danger of using antimalarial drug without parasite confirmation.
3. Campaign for IRS among the caretakers in order to take full advantage of the complementary effect of malaria vector tools
4. Effective campaign that will transfer elimination desire and ownership to primary beneficiaries of malaria elimination programs.

Conclusion
Malaria eradication in Nigeria and African as a whole will need to go beyond setting of goals and strategies. Malaria disease would only be eradicated if the primary beneficiaries of the program take ownership of eradicating the menace of mosquitoes in the region.

CONFLICT OF INTERESTS
The authors have not declared any conflict of interests.

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Mainstreaming psychological first aid response during disaster events in Nepal

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Mental health and psychosocial intervention to disaster events is comparatively new and growing concept in Nepal, which often gets neglected during the emergencies. Though the government has acknowledged the importance of mental health components, psychosocial intervention still deserves the long journey to be mainstreamed in disaster response. In this context, Japan International Support Program (JISP) and IsraAID Nepal implemented a project aimed at providing psychosocial intervention skills to the community people and local organizations working in the core areas of Kathmandu city. The program provided series of comprehensive training on psychological first aid to different homogeneous and heterogeneous groups. Through the community follow up trainings and organizing joint workshops together, participants have acquired the PFA knowledge and skills, which is crucial while responding to the disaster events in country like Nepal where the challenges associated with the disaster emergency refuses to end.

Key words: Disaster, Nepal, psychological first aid, psychosocial intervention, trainings.

INTRODUCTION

Nepal is exposed to several types of natural and human induced hazards. A wide variety of physiographical, geological, ecological and hydro-meteorological factors contribute to this while demographic factors like rapid population growth, slow economic development and widespread unawareness on disaster issues make the country extremely prone to disasters (Ministry of Home Affairs, 2011).

Globally, Nepal ranks 4, 11 and 13th in terms of vulnerability to climate change, earthquake and flood risks, respectively. Within 45 years (1971-2015), more than 40,000 people were killed by disasters meaning at least two (2) people died a day in Nepal due to disasters (Ministry of Home Affairs (MoHA), 2018).

MAJOR DISASTER EVENTS

In 2009, a diarrhea outbreak in Western Nepal killed approximately 282 people. Nineteen districts (out of 75)
suffered from this public health crisis. In October 2014, avalanches in Manang and Mustang district killed 43 people. Earthquakes are also liable for thousands of human casualties and property damages. From the first ever-recorded earthquake in 1255 to the 2015 earthquake, Nepal faced 17 big earthquakes over 6.0 magnitudes in which 49,286 people lost their lives. On 25 April 2015, Nepal faced a devastating earthquake of 7.8 magnitudes that took lives of over 9,000 people. According to the National Planning Commission (2015), housing sector has remained one of the most affected sectors by this disaster. Accidents account for 3.18% of total mortality rate of the country whereas nearly 10,000 people have been killed by landslides and flooding in last 45 years. 134 people lost their lives in 2017 South Asian floods in Nepal, which affected 18 districts severely (National Planning Commission, 2017). A fire destroyed Patala, an ancient place in Western Nepal in December 2018 where eighty seven (87) houses were burnt (The Himalayan times, 2018). All such disaster events leave millions of people affected each year, many of whom are displaced.

**STEPS TAKEN TO STRENGTHEN DISASTER RESPONSE AND RESILIENCE**

Over the years, the Government of Nepal has made significant progress in disaster response and management in the country. Primarily, the “Disaster Relief Act” was promulgated in 1982 and Local Self-Governance Act in 1999. These were the legal provisions of disaster system in Nepal and all the disaster relief activities have been carried out under this act since then. By endorsing the Hyogo Framework for Action (HFA), The National Strategy for Disaster Risk Management was also formulated in 2009 by the Nepal government to develop Nepal as a disaster resilient country. The government also prepared the National Disaster Response Framework (NDRF) in 2013 with the purpose of implementing and coordinating a response plan of national level disaster by ensuring all the elements of disaster management cycle (Ministry of home affairs, 2013). It has allocated appropriate roles for governmental and humanitarian organizations. Recently, Nepal has prepared the “Disaster Risk Mitigation and Management Act” in October 2017, which has been considered as the biggest achievement to manage disaster issues in the country. In addition, the government has prepared the 12 years (2018 - 2030) strategic plan for disaster risk reduction in the country.

Nepal has also established the cluster system to foster effective and collaborative disaster response and management mechanism. The cluster comprised 11 sectors, which become effective during the major disasters. Previously, government had adopted the “reactive” policy to disaster, which means focusing on response and rescue. This has now shifted to the “proactive” policy focusing more on preparedness and mitigation. The government is preparing disaster first responders in every local unit of the country to prepare, manage and respond to disasters. Few local government units have already started to recruit such responders and training them.

**PSYCHOLOGICAL FIRST AID (PFA)**

According to the Sphere Project (2011) and Inter-Agency Standing Committee (IASC) (2007), Psychological First Aid (PFA) is described as “a humane, supportive response to a fellow human being who is suffering and who may need support”. PFA involves the following themes:

1. Providing practical care and support, which does not intrude
2. Assisting needs and concerns
3. Helping people to address basic needs (for example, food and water, information)
4. Listening to people, but not pressuring them to talk
5. Comforting people and helping them to feel calm
6. Helping people connect to information, services and social supports
7. Protecting people from further harm

Vernberg et al. (2008) define, “PFA as an evidence-informed modular approach for assisting children, adolescents, adults, and families in reducing the initial distress caused by catastrophic events and in fostering short and long-term adaptive functioning. During the major crisis events, the environment seems to be sporadic and scattered. The affected populations would be in confusion, chaos and frailty. There would be mourning, suffering, pain and numbness all over the surroundings. During such stages, PFA is the way of assessing needs and concern of a people and helping people to address basic needs. PFA provider listens to the issues of the affected population without pressuring them to talk and comforts them to feel calm by connecting them to information, services and social support systems. PFA also tries to protect the people from further harm during crisis events”.

World Health Organization (2011) describes PFA as not something like only professionals can do. It is neither a psychological counseling nor clinical or psychiatric intervention. It is also not a psychological debriefing. It requires no license to practice PFA and Para-professionals can provide PFA after some basic training on it.

**NEED FOR MAINSTREAMING PFA INTERVENTION DURING DISASTER IN NEPAL**

Psychosocial responses have received less priority during disasters in Nepal. Whenever a disaster strikes, a
major move relies on ‘search and rescue’ and ‘relief supplies’ initiated by the Nepal Army, Armed Police Force and security personnel. The practice of PFA has hardly been seen in a country during disaster. However, the community leader, senior family members, relatives and neighbors are upfront to provide support and care to the person nearby them during disasters. They offer such support based on their experience and best of their judgment than an actual PFA trained knowledge, focusing more on logistical management and shelter issues instead of psychological aspects. Despite several limitations, developmental organizations (NGOs/INGOs) provide PFA during major disasters in Nepal. The Nepalese population is comprised several heterogeneous groups with the representation of more than hundreds of ethnic/caste groups sharing unique features with each other along with different spoken languages. Open spaces, which can be converted as evacuation sites for disaster, are also very limited in the country. In the capital city (Kathmandu), there are just 83 identified open spaces for more than 5 million of the population (Ministry of home affairs (MoHA), 2015). Child trafficking, bribery and pedophilia are also likely to be encountered during the large scale disasters. Child and women protection, missing cases and management of evacuation site always becomes challenging during disasters. The vulnerable population is less accompanied for disaster relief services when they are in dire need to be assisted. The rapid level of foreign migration has shifted the family structures in Nepal, leaving single wife and senior citizens at home. During disasters, such families face many challenges in the emergency shelters and are found to be living in chaos, confusion and uncertainty.

As recommended on the NDRF (2013), psychosocial response is to be provided after one to two weeks of the disaster by the Government of Nepal though it is believed that dispatching psychosocial responses during initial hours of disasters is also important. As the government is preparing first responders as part of disaster preparedness in local units and ward offices of the country, the integration of psychological first aid is vital at this stage to reduce the challenges associated in emergency context. The discussion about the integration of PFA still remains despite the fact that the government has endorsed the significance of psychosocial support during disaster events.

PFA PROGRAMS AFTER 2015 NEPAL EARTHQUAKE

After the earthquake, there was certain rise in psychosocial programs in Nepal (some of them are in continuation as a part of the community mental health interventions). The emergency response program like PFA, setting up child friendly space, and female friendly space also took a sharp rise. However, after the few months, the government prioritized housing issues and reconstruction as its major agenda. It established the national reconstruction authority on August 2015 to govern all such recovery process. The majority of the organizations shifted their focus afterwards. The disaster program also took a dramatic rise but only few incorporated PFA into their programs. Most of such programs included the training on fire disaster management, flood resilience and Community Based Disaster Risk Reduction (CBDRR) programs. PFA is still a very new concept in Nepal among the majority of policy makers, disaster responders and community populations.

Program description

In collaboration with IsraAID Nepal, Japan International Support Program (JISP) implemented an Intensive ToT program on PFA as a part of ‘Building Sustainable Community Resilience’ project in Kathmandu, Nepal from March 2018 to March 2019. Different participants took part in these intensive sessions (that spanned in two different periods) from different PFA specialists - one from a Japanese specialist and another from the members of Good Practice Group, Sri Lanka. Two Nepalese co trainers who received ToT from international PFA trainers’ in 2015 as a part of “Nepal Disaster Specialist Education Program” (previous project) developed by JISP co facilitated the session with the expatriates. This PFA training reached over 600 populations including the community trainings conducted by the participants. JISP and IsraAID had signed an agreement with Transcultural Psychosocial Organization (TPO) Nepal as a local implementing partner of the project.

Objectives

The program was designed to train the multiple stakeholders and disaster first responders in Community Based Disaster Risk Management (CBDRM) and Psychosocial Support during disaster emergencies. The strategy included the intensive ToT on PFA and community management skills during disaster emergencies. The psychosocial component, especially the purpose of ToT on PFA was to integrate the PFA skills while responding to the upcoming disasters in Nepal. The overall aim of the program was to strengthen the community based disaster response mechanism in the core city area of Kathmandu with the comprehensive PFA skills and other relevant expertise necessary to deal with disaster emergencies.

Participating stakeholders

The participants for this program were recruited from heterogeneous entity. This included the Government of
Nepal units; representatives from the Department of Urban Health and Disaster Management Division of Kathmandu Metropolitan City and the Department of Psychology and Philosophy, Tribhuvan University, civil societies and non-governmental organizations. Raksha Nepal (a leading organization working to provide support for sexually exploited girls, women and their children) and Bihani Social Venture (Nepal’s first and only social enterprise working in the field of ageing) were also a part of the program. In addition, Psychiatric Nurses Group (an active group for nursing intervention during disaster and epidemics) and Special School for Disabled and Rehabilitation Centre (a leading institution for protection and socialization of children with autism) were the stakeholders/participants of the program.

The participating organizations selected and sent the relevant person for training as per the invitation letter sent from the organizer with details of the training. The nurses, government health and disaster workers, university postgraduate level students and NGO frontline workers during disasters were participants for the training. During the special trainings like ToT on PFA, the recommended participants were verified by looking at their resume and letter of interest for the training.

**Program team**

The program team included the representative director from Japan, chief coordinator, MHPSS Coordinator and Project Coordinator from Nepal. The collaborative organization IsraAID Nepal provided technical and supervisory support for the program while the implementing partner TPO Nepal helped with logistical and coordination essential for field level operations. The JISP headquarter representatives made several visits to Nepal for guidance and supervision. The training specialists comprised nationals from Japan, Sri Lanka and Nepal. A chief coordinator, national staff, was in charge of the program, team management and supervision.

**Project interventions**

*Training of trainers (ToT) session on PFA*

The ToT on PFA comprised a precise module that was conducted from 16 to 19 of August 2018. This training was designed for four continuous days and was facilitated from the trainer from The Good Practice Group, Sri Lanka. The content of the training was followed based on the model prescribed by the World Health Organization that was developed in 2011 and was endorsed by 24 UN/NGO international agencies. The first two days was focused on providing trainings from the specialists and the next two were focused on facilitation skills and session designs followed by the presentations done by participants. The specialist shared comments to each participant at the end of the session. The major contents of the sessions included were what is PFA, what is not PFA, why PFA, people’s reaction to crisis events, who can provide PFA, to whom can PFA be provided, how can PFA be provided, PFA action principles, communication skills, ethical guidelines for PFA, etc.

In order to understand the concept better, well-planned simulation exercises were practiced. The exercises were based on the context. The simulation on earthquake disaster was denied to avoid potential re-traumatization to the fellow participants.

**Community trainings on PFA**

After four days of training on PFA, participants were asked to deliver at least one full day training to their fellow participants or community members in order to be eligible for certification and practical implication. They were supposed to complete this within two months. The follow up/roll out sessions conducted by ToT candidates took place in different cities of Nepal which reached over 500 people, comprising mixed groups in different trainings. The organizer and the co-trainer of the training gave the technical support and supervision while observing each session. It was a mandatory provision for the participants to send the slides and session plan to the organizer for review before the confirmation of the training date. The organizer and Nepalese PFA co-trainer reviewed and provided feedback to all such documents beforehand. In addition, the program provided logistic support to such sessions. Some of the sessions were conducted separately for the university teachers, nursing staffs/students, women’s group, school guardians and so on. Some of the participants conducted the sessions separately on their own and some made a team of two to three for conducting the program. Altogether, 27 community sessions on PFA were conducted. All forty (40) participants successfully completed each session and certified as ToT.

**Co joint workshops on PFA**

Another component of the program was to strengthen the relationship between the participating stakeholders with other local community groups through the extension of PFA knowledge. Altogether eight trainers who were trained under this program were chosen. They were in charge of facilitating the four sessions. They were divided into four groups representing different organizations.

All eight trainers and the organizers spent several hours for the support and preparation of the workshop. The “trial and error” method was used several times for
the simulation of each trainer. After the preparation was completed, the stakeholder organizations coordinated with each other and conducted four different sessions on PFA to their fellow colleagues and beneficiary groups. One session was conducted with the senior citizens (60+ in Nepal) and their caregivers and the next with the guardians of autistic school going children and their teachers. The other session took place with the bachelors/masters level university students. The final session was performed with the beneficiary children and their caregivers (shelter staff).

The PFA expert from Sri Lanka was in charge of the supervision and evaluation of the session. The expert spent one full day before the session with all trainers for techniques and preparation and one full day after the session with feedbacks and reflections. The organizer provided logistic support and overall supervision required for the session.

**Network meeting**

The network meeting was organized to facilitate the discussion among the head of organizations (stakeholders), participants of the training and the organizer. All the program activities were reported and explained into the forum during such meetings and discussion was carried out for opinion, direction and potential suggestion to strengthen the program in a better way. The challenges and its potential solutions were discussed along with the upcoming responsibilities to the stakeholders and the organizer.

**Program evaluation**

The program was evaluated by using both subjective and objective measures. The “Monitoring and Evaluation” plan gave special attention to the three major indicators for evaluation, which are; i) increment of participants knowledge after the PFA training, ii) participant’s ability to conduct the PFA training sessions and iii) the reflection received from the participants/stakeholders regarding the effectiveness of such trainings.

In order to measure the increment of participants’ knowledge after the training, a set of standardized pre-post test was used for evaluation. This questionnaire provided the comparative evaluation of the participants against their pre training knowledge and post training knowledge. Such questions contained two sections having 24 questions in total. The first section contained information about the confidence level to provide PFA to the distressed population and the second section includes knowledge questions about PFA. On an average, the total participants’ pre training knowledge was 38% and post training knowledge was 91%. After each training, the knowledge received an increment among the participants.

The evaluation of the community trainings and the co-joint workshop confirmed that the participants are able to facilitate PFA trainings to the community. Three sets of evaluation tests were developed to measure this indicator. The first one is a set of standardized pre-post test; the next is an evaluation checklist for PFA community trainings and the last one is a session evaluation developed by the Sri Lankan expert. At the end, all such test showed the effectiveness of the intervention.

The reflection received from the participants and the head of participating organization values the effectiveness of the PFA trainings and its interventions. After each training, a round session was carried out for the reflection of that day and overall importance of the program. Majority of the participants recognized the importance of PFA training in a country like Nepal where the government’s response comes late. Because of geographical issues, it is very difficult to conduct disaster intervention in some places or it may take several days to reach there. Most of them expressed that since the community members are the first to respond to the disaster, it is inevitable that they need to be trained first on such important issues. According to the stakeholder organizations, PFA is a comparatively new training in Nepal and it carries tremendous importance and can play crucial role to strengthen the disaster response system of our nation. They further mentioned that PFA is essential not only for them but also to all staffs, beneficiary groups and family members. They felt fortunate to be a part of this program to get new things to their staffs and beneficiary groups.

For the ToT participants, getting a chance to enroll in this program has come with ample pros. It has enhanced their training skills while getting to know about the basic but very important concept of PFA. After the completion of all community trainings and co-joint workshops, during the reflection sessions they mentioned that they got to know important skills about the PFA as well as the facilitation skills to a variety of population/participants.

Since the program comprised different organizations working in different themes, the relevance, importance and scope of PFA to them were found to be different. For those who are university students, the ToT and community training facilitation stands as a milestone to enhance their confidence and foster their public speaking ability along with a new way of looking psychological response to disaster. For the Urban Health Department of Kathmandu city, PFA needs to be integrated into their health response plan during the disaster. They mentioned that it is essential to facilitate PFA trainings to all the female community health volunteers, which are 558 in number in Kathmandu Metropolitan City. For nursing professionals, PFA trainings have given them a new way to integrate medical first aid response with psychological first aid during disasters in Nepal. According to them, this
is the first time they got to receive knowledge on PFA though they are psychiatric nurses. They mentioned that it is relevant to all the nurses of Nepal who are likely to make initial response to disasters in the country with health interventions.

LIMITATIONS

Few limitations were noticed in the program. Initially, rigorous follow up and supervision of the community trainings on PFA was not planned as it was supposed to be conducted by the participants after the ToT training. Nominal budget was assumed and allocated for few sessions. It was also not assumed that more than 25 sessions would be conducted which in fact turned out to be 27 in total. As the sessions were conducted in different periods and some in different cities, time management and deployment of staff to monitor the session became a major issue. In addition, there were important Nepalese festivals (Dashain and Tihar) that came around the same time as the session rolls out. The participant group was heterogeneous which most of the times contributed to provide dynamism to the session but sometimes prevented potential interaction to the sessions as different people had different capacities that did not match with the other. Occasional power shortage was another problem in the training venue that lead the session to being stopped for a while or changing of the session plan to some extent in the middle.

CONCLUSION

During a short span of time, the program attempted to reach over larger implications. It strived to bring psychosocial response to disaster into the mainstream by providing intensive training on PFA to government units, university students and civil society organizations. By reaching over 600 people, it gave an insight about the importance of PFA response during disasters to the diversified populations as it included school guardian, community leaders, university lectures, etc., in the sessions. The program included variety of participants from the designated professionals to the local level community members.

It further helped on skills enhancement of the participants and provided substantive skills on PFA interventions during disasters along with hand-to-hand community training experience. The participants are now prepared for psychosocial intervention in disasters and can facilitate the sharing session to whomsoever necessary.

The leading organizations of Nepal who are supposed to be working jointly during the emergency periods have developed a certain level of understanding through the participation in this program. By attending network meetings and arranging the co-joint workshop together, they have gotten to know each other’s working areas in detail. Moreover, they have also identified potential areas of collaboration to work together in coming days ahead. The government units (Urban Health Division and Disaster Management Division) spoke about the necessary collaboration of these stakeholder organizations for psychosocial intervention during the crisis stage in the country and vowed to lead this consortium afterwards.

Hence, the program initiated the baby steps to assimilate the psychosocial response during disasters in Nepal. It supported and contributed the nation’s vision to be disaster resilient society as committed into the international forums by the government delegates.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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The international PFA trainers were Dr. Leslie Snider and Dr. Ryoko Ohtaki. The training was conducted from 7 to 9 December 2015 in Kathmandu, Nepal.
