Drivers of Chaos in the Eastern Democratic Republic of Congo Warfare[1]

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Abstract: Eastern DRC is seriously affected by a protracted warfare involving illicit exploitation of natural resources, corruption, humanitarian crisis and terrorism carried out by armed groups including the Allied Democratic Forces (ADF) and the Movement of 23 March (M23). According to DRC government, M23 is a terrorist group supported by Rwanda Defence Forces (RDF). Invasion and terrorism drive the war and the chaos. For Rwanda, fighting and chaos derive from ethnic conflicts over land, citizenship, local political power, and state failures. To many observers, ongoing violence and fighting are driven by rent seeking by Congolese military commanders, lack of State authority, distorted rule of law at both national and local levels, the abuse of public office for private gain (corruption), failed defence/security and justice sector reforms, undisciplined civilian armed and unarmed combatants, warlords and opportunist warmongers. Overall, state failures combined with globalized war diseconomy as conducted by multinational companies, failed multiparty system regarding democratic governance system drive ongoing chaos and armed violence, beyond government control and defence capabilities, despite peace agreements and the involvement of international and regional peace peacekeeping initiatives. Our analysis suggests that the war strategy being used resembles to what McKew refers to as the Gerasimov Doctrine, a chaos theory of political warfare which is used by Russia in Ukraine war.

With its size of 2,345,410 sq km, about that of Western Europe, the Democratic Republic of Congo (DRC) is the largest country in Sub-Saharan Africa (SSA). The land is 2,267,600 sq km and its inland water occupies 77,810 sq km.

DRC is endowed with exceptional natural resources, including minerals such as cobalt and copper, cobalt, copper, cadmium, petroleum, industrial and gem diamonds, gold, silver, zinc, manganese, tin, germanium, uranium, radium, bauxite, iron ore, coal, hydropower potential, significant arable land, timber, immense biodiversity, and the world's second-largest rainforest.

The DRC accounts for around 17 percent of global production of rough diamonds. The copper belt running from Katanga to Zambia contains 34 percent of the world's cobalt and 10 percent of the world's copper. About 80 percent of global reserves of coltan, used in the manufacture of mobile phones, computers and other electronic equipment are found in North-Kivu and South Kivu. Mineral traceability schemes are a big problem. Instead of being free from conflicts and wars, mines are causing insecurity and violence. They must be completely demilitarized. Unfortunately, war economy does not allow such a change.

Most people in DRC have not benefited from this wealth. A long history of conflict, political upheaval and instability, and authoritarian rule have led to a grave, ongoing humanitarian crisis. In addition, there has been displacement of populations. These features have not changed significantly since the end of the Congo Wars in 2003.

The DRC is among the five poorest nations in the world. In 2018, about 73% of Congolese, about 60 million people, lived on less than $1.90 a day. Despite its rich natural and mining resources, this country has one out of six people living in extreme poverty in Sub-Saharan Africa (SSA).

To defend the integrity of its immense territory, the government wants to keep a large army. The political objective is not compatible with the goals of the defence and security sector reform (DSR) and the disarmament, demobilization and reintegration program (DDR-P). Both DSR and DDR-P aim at reducing the size to facilitate management control, discipline, and professionalism. In addition, there is budgetary and monetary constraints. Keeping a larger army is not only costly but, above all, does not help in maintaining control, discipline, and decent conditions of service. Bad conditions of service have been responsible for desertion, looting, corruption and indiscipline among Congolese military and security people. Today, the size and scope of armed uncontrolled and undisciplined soldiers, policemen, intelligence agents, even senior officers, constitute a danger to civilian population. The phenomenon also plays a significant role in the disorganization of combat force and operations. This military disorganization fuels chaos, terrorism, corruption, and conflict escalation which are responsible for higher civilian deaths and casualties in mining zones as Joanna Davies (2021) demonstrates in the following graphs.

DRC conflict deaths and GDP
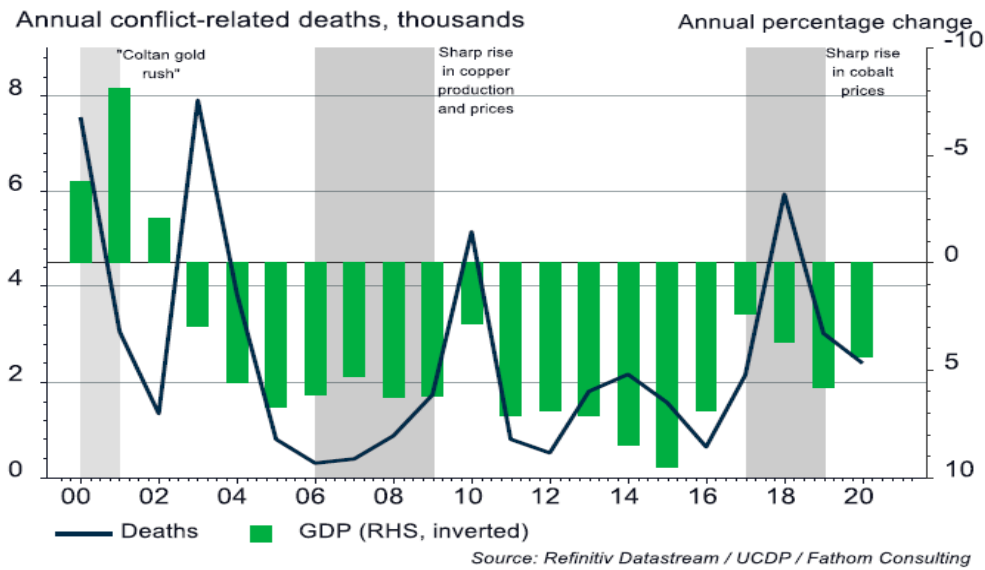
Annual conflict-related deaths, thousands

Table 1: Higher conflict deaths presented by Joanna Davis. Source: Joanna Davies, Senior Economist, Fathom Consulting, "The Resource Curse: Theory and evidence from the Democratic Republic of Congo (DRC), 13 May 2021

DRC control of corruption

Global percentile rank
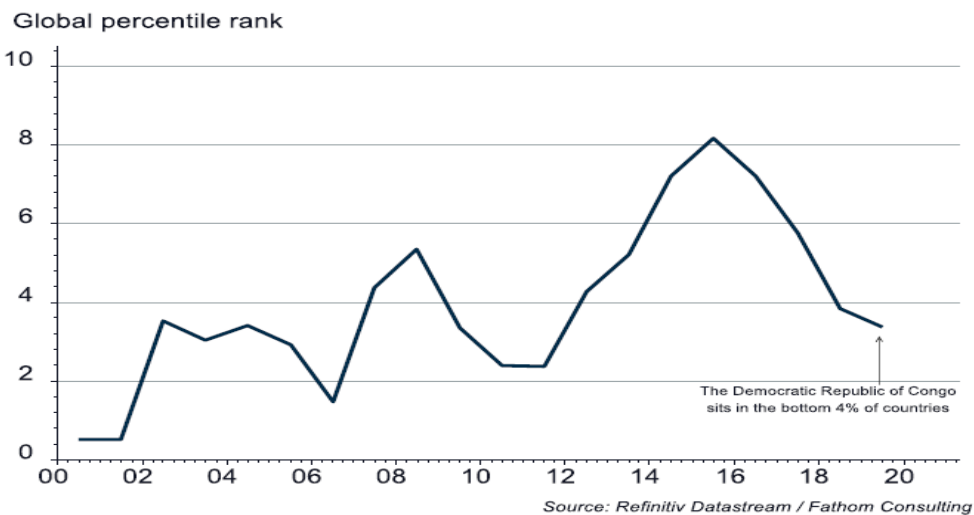

Table 2: DRC control of corruption as portrayed by Joanne Davis. Source: Joanna Davies, Senior Economist, Fathom Consulting, "The Resource Curse: Theory and evidence from the Democratic Republic of Congo (DRC), 13 May 2021.

The scope of death toll, massacres, war crimes and violation of human rights makes Government describes violence armed groups activities to acts of terrorism.

Terrorism

The ADF comes on top of terrorist groups operating on the Congolese territory. 2021 was the group's most operationally transformative year since joining the Islamic State around 2017. The ADF was both pushing and being pulled toward adopting the norms and practices of its adopted parent organization. In addition to newly implementing the tactic of suicide bombings, the group exports its violence inside and outside the country and recruits foreign fighters. It clashes frequently with other armed groups within the country and publicly emphasizes horrific proselytization within the DRC by filming and releasing beheading videos. It specializes in fabricating and using improvised explosive devices (IEDs) in order to spread fear by killing as many people as possible. Terror images and videos are broadcast through media to reach out to the Islamic State as propaganda strategy.

The Congolese branch of the Islamic State's Central Africa Province started as the Allied Democratic Forces (ADF) in Uganda in the mid-1990s competing for leadership of the state-recognized authority governing Uganda's Muslim community. It was defeated by Ugandan security forces and ran away into Congo. Like other armed groups, it survives through the illegal economic activity and exploitation of natural resources that fuels conflict and violence.

Strong cooperation is needed among national and provincial authorities as well as with neighbouring countries and the International Community to fight armed groups and stop resource conflicts. Because of the ADF's foreign origin and the use of mass killing and tortures as war strategy, the Movement of 23 march (M23) is referred to as a terrorist movement.

The Movement of 23 March: M23

The United Nations Human Rights Council (UNHRC) disagreed with the government about the report written by its team of international experts on the Democratic Republic of the Congo. The UNHRC A/HRC/51/60) (51 session, 12 September–7 October 2022) objects to the DRC government decision qualifying the M23 rebels as a terrorist group.

According to UN experts groups, there is no terrorism in the DR Congo since there is no evidence for any link to Islamic group. Yet DRC government calls the movement of 23 march (M23) a terrorist movement supported by the Rwandan government."

Yet government position can be justified considering a high-level definition of terrorism can be drawn from Resolution 1566 which points out 2 elements:

(a)   An objective element: which is a "crime" of definable size and scale (this is considered to be the most uncontroversial element of the definition)

(b)   A subjective element: which reflects a certain motivation or intention on the part of the perpetrators (this is an element that can be found in almost all definitions of terrorism used in national laws). Resolution 1566 singles out three major motivations namely: the will to create a state of terror; the will to intimidate a population; the will to compel a government or an international organization to do or to abstain from doing any act.

Why UNHR council DENIAL

There is fear that calling M23 terrorist will compromise efforts in favour of peace building policies in the Eastern Congo because:

• Linking M23 to the ADF and the Islamic State without factual evidences is likely to privilege a military solution at the expense of dialogue or more complex options such as Disarmament, Demobilization, Repatriation, and Reintegration program (DDRRR-P) deals with illegal foreign armed groups in the DR Congo, including the Democratic Forces for the Liberation of Rwanda (FDLR), Allied Democratic Forces (ADF), Lord's Resistance Army (LRA), and National Front for Liberation – Burundi (FNL). Because of higher conflict-related violence, the United Nations Security Council Resolution S/RES/2612 (2021) mandated the DDRRR program with the charge of reducing community or mass violence (CVR). The Program is now defined as "DDR/RR-CVR". The reality is that the comprehensive and voluntary Disarmament, Demobilization, and Reintegration (DDR) of Congolese armed groups as well as the Disarmament, Demobilization, Repatriation, Reintegration, and Resettlement (DDRRR) of foreign armed groups for the long-term stability and economic development of the DR Congo did not yield expected results in terms of peacebuilding and state building. The Rwandan armed group, the Democratic Forces for the Liberation of Rwanda (FDLR) is still active too. Currently Rwanda uses the pretext of FDLR to back up the M23 agenda despite the fact that Rwandan Defence forces (RDF) were allowed to enter the DRC in order to fight FDLR rebels according to the UN Security Council Resolution 1896 (2009).

• UNHR objection argues that calling M23 a terrorist group is likely to repeat the French mistakes in the Sahel or the American mistakes in Afghanistan and Iraq. It will be difficult to negotiate with terrorists. It also argues that the elimination of M23 does not guarantee that sustainable peace will be restored in the DRC since there are many other armed groups in the region (ADF-Nalu – to be distinguished from the ADF, Mai-Mai Simba, Mai-Mai Mazembe, Nduma Defence of Congo, Mai-Mai Kyandega), without excluding undisciplined elements of the Armed Forces of the Democratic Republic of the Congo (FARDC).

• UNHR concludes that militaristic response to the M23 is likely to close all doors to political and diplomatic dialogue and even further into extremism or radicalism which is wrong because only a small minority of radicals among M23 use strategic violence.

Therefore, there is need to explore alternative explanations to failed peacebuilding and state building solutions responsible for the chaos and security dilemma affecting peace and reconstruction in the DRC.

The Security dilemma: all alternative solutions failed

T Neethling (2014) and many other analysts point out failures of all peace initiative in these terms: "Despite a commendable effort of the United Nations (UN) since 1999 to bring peace

and stability to the Democratic Republic of the Congo, the country continues to face several challenges that pose a constant threat to the fragile transition and consequently, undermine its security. Although the DRC is no longer involved in large-scale armed conflict, it remains a country and society in perpetual turmoil. In the DRC, there was simply too little progress for a truly transformative peace, particularly in the violent eastern parts. In other words, the ideal of a positive, sustainable (let alone perpetual) peace in the country has largely been a vision encapsulated in paper peace agreements but had not filtered down too many Congolese citizens' everyday life. Despite laudable progress in some areas of peacebuilding, the threat or potential outbreak of low-intensity conflict in the eastern DRC remains a reality". (Neethling, 2014)

Let us be straight: there is war in the DRC. Now there is a higher to have fully fledged war between DRC and Rwanda. UN Experts just confirmed Rwandan Invasion/aggression which the DRC government and people have claiming since the 1990s.

Managing the risk is the key question.

• The risk can be managed by controlling conflict resources occasioned the competition between armed groups, greedy foreign States and the Congolese State failures. In fact, control of strategic minerals, especially gold and coltan has been a major factor in the conflict in the east of the DRC. The self-financing nature of war helps both local and foreign armed belligerents to survive and fund war activities. It is up to the Congolese government to assess such risk and devise relevant policies and strategies to control adverse risks affecting the legal exploitation of resources.

• Managing the risk goes beyond a simple struggle over natural resources because of the complexity of the root causes of the conflict. The root causes include other factors such as inter-ethnic conflict over land, citizenship and local political power undermining national cohesion, state building and peacebuilding initiatives.

• Risk management may require to effectively address rent seeking by regular soldiers and commanders which compromises the defence and security sector reform or the building of a unified and disciplined army and thwarts economic reconstruction.

• Restoring State authority and the rule of law at national and local levels. Administrative control over mines, forests and other natural and strategic resources must be re-established at the level of local and national authorities.

• Seriously reducing the abuse of public office for private gain and unjust illicit enrichment.

• Reforming governance of the Defence and Security sector (including the army, police and justice system) is crucial and a priority. Cost-effective and efficient management of Security and defence resources is crucial to reduce dependency of the military on the local economy in general and on mining areas in particular because ongoing violence, armed conflict and wars go hand in hand with ongoing military occupation of mines and illicit exploitation of natural resources and illicit taxation in which soldiers, rebels, police, foreign, local and even civilian armed and unarmed combatants are all involved.

- Distinguishing disciplined civilian armed and unarmed combatants involved into resistance movements fighting against invaders and aggressors from opportunist criminals and warlords. Such distinction is justified by what is called today alternative governance system.

- Establishing Alternative Governance Systems (AGS) is becoming an important alternative/palliative solution to government failures in many developed and developing countries. While government refers to formal rules, governance refers to good order and working relations. More and more governments are unable or unwilling to establish good order and working relationships with their own citizens. Many communities lost trust in government and consider the state is as predator (only concerned with tax maximization). Consequently, there are diverse governance arrangements and new governing systems around the world, including the resurgence of "traditional" or customary forms of governance. Considering the diversity of governance structures existing outside of the formal systems of government may be an option that enable people to realize their goals provided that mechanisms of leveraging their governance capacity are also considered. State failures combined with market failures and party politics failures are developing and promoting community-based political, economic and security governance. This is why some armed groups in the DRC build their grievances on ethnicity, territoriality and secessionist federalism.

> "If the state puts itself above the law out of an alleged need for self-preservation and inner peace, we have a serious problem. And the very existence or appearance of this state need constitutes a "state of emergency." Therefore, the dictatorship of the state is a reflection of the internal problems and contradictions of democracy itself. A dictatorship of this kind is then not the opposite of democracy, even if the government has a strong, authoritative leader or a government, the ruling policy, capable of maintaining the unity of the state and order. The reason for this is that (or if) the state claims it temporarily suspends the "false democracy" with the aim of establishing a "true democracy," i.e. with the aim of restoring constitutional order. Yet such a state, such a policy and such a government can in principle and theoretically be in good faith and have good intentions - with the people, with its people. But historical experience shows that this is usually not the case. Or rather, it never is […] I believe that communitarianism can be a good political alternative. Understood as social liberalism and as a social democracy based on the rule of law, morally founded on social solidarity as a fundamental value… A strong and interventionist state is needed to realize the constitutional possibilities of a high-quality welfare state, effectively protected social rights, the realized social function of property and a society based on solidarity." (Teršek, 2021, pp. 47-48)

Drivers of Chaos

Chaos in the Eastern DRC armed conflicts and warfare constitute a bigger challenge to defence and security management in the country. The Congolese government has been failing to adequately resource its security and defence sector despite various peace arrangements

including Security and Defence sector Reform, foreign military cooperation and assistance etc. Government provides the troops or funds necessary to the army (FARDC), the police (PNC), the intelligence (DEMIAP and ANR) to prevent or eradicate armed groups activities and invasion by the neighbouring countries but fighting and violence continue. It looks like troops are only deployed and operations are funded when war erupts. Even so available resources are not sufficient due to the fact that the success of the armed groups including the movement of the 23 March (M23) is essentially due to underfunding and mismanagement (corruption) in the defence and security sector governance. Brief funding is often mobilized when the country is already at or in war. Under such circumstances, defence and security failures are basically compounded by erratic programming and funding, and a total lack of effective control over spending and the contracting effort. This leads to massive waste, gross inflation of prices in conflict areas, a pervasive climate of corruption, and abuses by power brokers (public and private). This vastly increases the cost of the war, seriously hurts the regular Congolese economy, and damages the reputation of the Government in relation to defence budgeting and spending. Defence policy and budget are not cost-effective. Field operations do not yield expected results, do not produce peace, security and stability which are need for democratic governance and socioeconomic development.

Indeed, resource issues are a major problem. But the broader failures in war effort include MONUSCO failures, and unsuccessful political decisions to capitalize on peace agreements, peacebuilding and state building initiatives.

Today, the peace and democracy process did not stop warfare despite holding regular elections.

Serious efforts to resource defence and security sector arise when wars and violence erupt. War and violence in the DRC seem to be a wakeup call to the government. Yet, war is only one of several factors that are at work shaping the governance system and the lives of those who live at or in war. The other forces, economic power, political strength, social currents, religious belief, and the concern to ensure ethnic or cultural survival are all important. Arguably such results are only positive to peace efforts when power is widely distributed within national societies and the international community as a whole. Instead of waiting for war to start solving problems affecting peace and development of the country, policy makers need to understand that military success depends on preparation, quality of military force, political support at home, international legitimacy, avoidance of over-commitment to war economy, knowing the exit strategy when the war has started, and national economic capacity. Such expected peace and prosperity have only been a dream. Worse, cumulated failures to peace making and peace building especially failures to establishing credible defence and security system are resulted into driving chaos and despair among people, leaders and institutions.

For ECA, the recent war and armed conflicts in the DRC are driven by:

1. Past conflicts, not adequately addressed. The root causes should be analysed taking into account a historical perspective in the design of alternatives durable solutions and strategies.

2. Various interrelated factors including economic factors, institutional factors, regional factors and global geopolitical factors. The overall weak state of the economy is the main driver. Actually, the country was ripe for conflicts and political instability when the war against Mobutu's regime erupted. Key factors contributing to Mobutu regime collapse were the erosion of the overall macroeconomic environment, the mismanagement of the public sector, the deterioration of social conditions, severe youth unemployment, severely weaker capacity of the state to deliver basic needs (public services) including defence and security to the Congolese people. 32 years or Mobutu's rule created an environment favourable to the formation of grievance-induced and greed-driven violent contestation of state authority. The collapse of public service production, distribution and delivery is the main driver of ongoing armed conflicts and rebellion wars. Bad neighbours take advantage of deficits in the public service delivery and administration system. Restoring state and government authority implies fighting barriers to public service delivery and administration system performance. The defence and security sector reform is only part of that system.

3. Poor management of the natural resource sector and unequal distribution of the benefits from natural resource exploitation. Natural resources are not a direct cause of the conflicts which may be characterized as "distributional conflicts" occasioned by the failure to establish strong institutions and an effective regulatory framework to manage the natural resource sector.

4. Weaker institutions perpetuating conflicts through antagonisms around the control of the state and national resources. Most inter-regional and inter-ethnic conflicts are driven by these antagonisms. The political discourse and contention even in today's politics are still marked by political disputes around the configuration of the state: unitary versus federalist, centralized versus decentralized. Ideologically, liberal democracy is dominant yet most political parties including the ruling parties claim to promote social democracy. Antagonisms around the control of the state and national resources remain a fundamental constraint to the consolidation of the state in the DRC.

5. Politicization of ethnicity and Congolese identity and the political manipulation of citizenship and nationality laws. Ethnicity politics is a key factor not only in rebellion wars and armed conflicts but also in government failures.

6. Lack of transparency and equitable representation of all regions and segments of the population in political institutions.

7. Effects of chronic endless long-lived wars/conflicts since 1980s on the DRC's economy and the Great Lakes region. The conflicts increased macroeconomic instability and investment uncertainty, and they have deteriorated public finance in terms of both government fiscal balances and efficiency of public finance management. The effects of the conflicts have impacted the key drivers of economic growth notably industry,

manufacturing, agriculture, and human capital. They have reinforced the structural dependence of the economy on natural resources by undermining economic diversification. They have also increased the dependence on external financing by undermining domestic revenue mobilization, especially taxation in the natural resource sector. The overall macroeconomic environment is improving with a surge in growth and a reduction in inflation, but the aggregate picture masks structural problems at the sectoral level and deprivation at the individual and community levels.

8. The high death toll and population displacement, tremendous social and psychological trauma for women, young girls and boys who have been subject to physical and psychological atrocities including rape, torture, humiliation and alienation from their communities. Many individuals and communities marked by long-lasting scars of wars evoke physical and psychological atrocities as the main reason for joining and sustaining armed groups.

9. Erosion of cross-border trade, growth and regional integration. The wars have also corroded the environment for cooperation in the Great Lakes region, thus retarding the implementation of mutually beneficial regional integration programs.

10. Inability of the DRC to be a key role in the global fight against terrorism, regional integration and global economic growth because of the lack of the stability and the state's control over the territory. The DRC is also the epicentre of the global scramble for natural resources driven by the ever-rising demand for energy and industrial raw material.

All these failures at local, national, regional and international levels lead to a situation of chaos affecting the organization and the economy of the defence and security sector.

In our analysis, war strategy being used resembles to what Molly K McKew refers to as the Gerasimov Doctrine. Gerasimov doctrine is a new Russia's chaos theory of political warfare being used in Ukraine war. Rwanda seems to use the same strategy.

According to Molly K McKew, Gerasimov doctrine is a new theory of modern warfare that blends war tactics developed by the Soviets with strategic military thinking about total war. It consists of hacking an enemy's society and weakening the enemy rather than attacking or confronting it head-on. For Gerasimov, "The very 'rules of war' have changed. The role of nonmilitary means of achieving political and strategic goals has grown, and, in many cases, they have exceeded the power of force of weapons in their effectiveness … All this is supplemented by military means of a concealed character."

Russia's modern strategy is a vision of total warfare that places politics and war within the same spectrum of activities – philosophically, but also logistically. The approach is guerrilla and waged on all fronts with a range of actors and tools including hackers, media, businessmen, leaks, fake news, as well as conventional and asymmetric military means.

The Gerasimov Doctrine combines all these new tools within a framework to show that non-military tactics are not auxiliary to the use of force but the preferred way to win. Non-

military-tactics are the actual war based on chaos strategy that has not the objective of achieving an environment of permanent unrest and conflict within an enemy state. The objective is to weaken, tame, control, submit an enemy by influencing its domestic politics and security, sophisticating information warfare and creating a confusing environment in which nobody knows anybody's motives; nobody is hero. Russia weakens Ukraine by supporting extremists on both sides of the fight: pro-Russian forces and Ukrainian ultra-nationalists. The strategy helped Kremlin to fuel political and security conflicts within Ukraine. Such confusing environment enables Russia to seize Crimea and launch the war in eastern Ukraine through which it exerts control over Ukraine while defining the USA as his primary adversary.

Through the Gerasimov doctrine, Russia manages to create and use internal opposition to create a permanently operating front through the entire territory of Ukraine, the enemy state. The real power of the Gerasimov doctrine is the shadow war it wages.

Russian President Putin has outlined clear strategic and political objectives for his senior leadership in Ukraine as we can read through his "declaration of war" speech to the nation on February 24. Russian "special operation" aimed at striving for the "demilitarisation and denazification of Ukraine" entailing decapitation of the Ukrainian political leadership, defeat of the Ukrainian armed forces and the destruction of Ukraine as a functioning independent state. With reference to strategist Karl von Clausewitz, Russian special forces have been striving to "constantly seeking out the centre of Ukrainian power and defeat Ukrainian forces by daring all to win all using the immense power of Russian electronic intelligence to the defeat and destruction of his fighting force efforts and to penetrate the group of advisers closest to President Volodymyr Zelensky. These efforts did not succeed so far. The cause of this failure probably includes overconfidence, incompetence, and corruption. The other key strategic stand was the idea of employing impressive weapons systems to break the will of the people to resist and to accept total submission. Referendums results suggest that Russia has partly attain tis special operation objectives.

On the Congolese side, there is a need to devise adequate strategic responses to chaos games used by M23 rebels and bad neighbouring governments in order to make its own sustainable peace and security out this chaos system.

	Rwanda	DRC
Military branches	Rwanda defence Force (RDF): Army (land force), Air force, Reserve force (2021)	Armed of the Democratic Republic of Congo (FARDC): Land force, Navy, Airforce, Republic Guard Note: the Republic Guard is under the direct control of the President.
Military service age and obligation	18 years of age for voluntary military service, no conscription, Rwandan citizenship is required, enlistment is either as contract (5years renewable twice or career (2019)	18-45 years of age for voluntary and compulsory military service (2019)

Military expenditure % of GDP	1.2% of GDP (2019) 1.2% of GDP (2018) 1.2% of GDP (2017) 1.2% of GDP (2016) 1.2% of GDP (2015	0.7% of GDP (2019 est) 0.7% of GDP (2018) 0.7% of GDP (2017) 1.3% of GDP (2016) 1.4% of GDP (2015
Military and security service personnel strengths	The RDF has approximately 33,000 active personnel: 32,000 Army, 1,000 Airforce (2021)	Limited and widely varied information, approximately 100,000 active troops (mostly army but includes several thousand Navy and Airforce personnel as well as about 10,000 Republic Guard, note: Navy personnel include Naval infantry (2021)
Military equipment inventories acquisitions	The RDF's inventory includes mostly soviet-era and older Western – mostly French and South African – equipment; Rwanda has received a limited supply of imports since 2010 from a variety of countries including China, Israel, Russia, and Turkey (2020)	The DRC is equipped mostly with a mix of second-hand Russia and Soviet weapons acquired from former Warsaw Pact nation, most equipment was acquired from 1970 and 2000; since 2010, Ukraine is the largest supplier arms to the FARDC (2020).

SOURCE: Indexmundi (n.d.)

The above table raise three critical strategic concerns: comparative advantage due to lack of strategic defence initiative, the need for military industrial base and the strategic intelligence organization.

The DRC has not been reviewing his Strategic Defence plan regularly. The defence and security sector are one of the public sector components affected by political leaders immediately after Independence Day on 30 June 1960. Actually, the country just adopted its first strategic defence paper ("Loi de Programmation Militaire 2022-2025" adopted by the Parliament in June 2022).

This explains the parliamentarian enactment of "Loi de Programmation Militaire 2022-2025" in June 2022. The expectation is that this strategic defence paper will enable the Congolese military and security forces and the intelligence services to deter ongoing armed conflicts and aggression wars affecting peace, security and development mainly in the Eastern provinces.

The law includes six programs addressing the following strategic concerns: rationalization of human resources management, military training and exercises, military equipment, military infrastructures, military operations and military production. Enactment of this law enabled both the Parliament and the Government to review the defence policy and to identify the challenges facing the Ministry of Defence, to introduce solutions, and to set necessary resources, priority directions, and due dates, as well as structural units of the Defence Ministry, the FARDC, the PNC and the DEMIAP who are responsible for its implementation.

Given the DRC military ranking worldwide, the comparative advantage affecting the FARDC performance is about the chaos used as strategy to disorganize military operations an administration. Chaos is the only reason that may explain Rwandan superiority in the Bunagana battlefield for instance. It is also clear that Rwandan military expenditures have been higher than the DRC defence spending since 2017. Since Rwandan spending has been constant, we can assume that DRC stock cannot justify Rwandan superiority from 2017 up to 2022 even though UN embargo on DRC certainly impacted on the military procurement negatively. Chaos strategy used by RDF including its military support to M23 seems to be the only credible explanation. It is thus important to discover how chaos strategy works in the DRC warfare situation. It is crucial to resolve the procurement and intelligence problems/challenges.

Understanding the Chaos Strategy

Chaos theory lends important insights for systems that exhibit significant non-linear tendencies. Congolese warfare seems to be one of the most nonlinear of war enterprises carried out by armed groups and rebels of AFDL, RDC, CNDP and M23 since 1996. It is a chaos situation but not in a sense of randomness and disorder but in the scientific definition of chaos as non-linear systems with defined characteristics. The Congo case is a non-linear undertaking that exhibits chaotic behaviour considering the following facts.

First, strategic decisions made by government have been found to be chaotic as the President himself noticed during his field visit in Ituri. Second, chaotic decisions are not only nonlinear but produce chaotic behaviour which are appeared to be a natural result of Clausewitzian friction. Third, all events and historical data related to wars and armed conflicts since 1997 demonstrated that warfare has been chaotic at the grand strategic, and operational levels.

Outcomes of the warfare chaotic behaviour are aggravated by failed state effects affecting both peacebuilding efforts and election-based political stability in the DRC.

There are clear evidences of failed state syndromes which are characterized by:

• Loss of control of its territory, or loss of the monopoly over the legitimate use of physical force.
• Inability to provide public services.
• Erosion of legitimate authority to make collective decisions.
• Limited ability to interact with other states as a full member of the world governance and organization system, so called the International Community.

To many security analysts, failed state concept refers to the capacity and effectiveness of the government system as a whole, the democratic character of a state's institutions, the legitimacy of the state, the nature of the state, the growth of criminal violence in a state, the

economic extractive institutions, the states' capacity to have full control of its territory. Any "implosion of the state" is an indicator of failed state.

Meaningful analysis of state failures should include three groupings of the 12 indicators as follows:

Concerns or issues	Indicators	
Political and military	1)	Public services
	2)	State legitimacy
	3)	Human rights and rule of law
	4)	Security apparatus
	5)	Factionalized elites
	6)	External intervention
Economic	7)	Poverty and economic decline
	8)	Uneven economic development
Social	9)	Group grievance
	10)	Refugees or internally displaced persons
	11)	Demographic pressures
	12)	Human flight and brain drain

Source: adapted by the Fund for Peace, Indicators, fsi.fundforpeace.org, 2016

These indicators are useful for the following three reasons. First, the focus on institutions capacities to measure human aspects for development. Second, the fragility or vulnerability of states are measured according to the degree of economic underdevelopment of the states concerned. This is important because insecurity and violence are linked to poverty through vulnerability it creates.

Managing defence innovation/transformation

Since DRC has to absolutely engage with external sources of innovation in order to bring about any innovative change or transformation of its defence and security sector, it has to enhance the benefit and value of the higher education and research sector which is naturally involved with science and technology learning, research and development. It is therefore imperative that the DRC defence and security sector reform partner with universities and research institutions which also constitute important external sources of innovation. This option calls for a double challenge consisting of empowering and innovating the higher education and research sector in the first place, and transforming and innovating the defence and security sector by harnessing and absorbing innovation from actors of the academic and Research and Development sector in cooperation with their external partners involved in research investment in industrialized countries.

"Innovation can be understood broadly as the creation and application of new products, services and processes. It encompasses new technology as well as new ways of doing things.

While the term has become a widespread buzzword for the emergence of new ideas across diverse sectors, innovation is more than just the creation of novel concepts. Innovation includes the process of invention; however, it goes one step further to 'make good ideas stick' by ensuring that new ideas are applied to the benefit of end-users."

Any innovation process begins with drivers which constitute the motivations enabling new products, services and processes to occur. The key drivers for innovation depend on the incentives and perceived benefits of new change. In the defence and security sector, drivers serve to enhance military capability especially combat and stability achievements. Hence innovation proceed from input resources required for the defence sector to innovate.

Jon Freeman and his fellow researchers (2015) identify the following defence drivers: knowledge assets, talent and capital. Defence innovators need knowledge to "discover the new ideas that spur innovation as well as to refine, catalyse, apply, share and market these ideas in a usable form". They need "talent" to enhance "both the technical and managerial expertise necessary to support successful innovation processes". Capital is needed not only "to fund the creation of ideas but also to effectively package and deliver this knowledge as an innovation". (Freeman et al, 2015) For Freeman, defence infrastructure and networks and connections are also enabling resources. Defence infrastructure should enable the defence sector to bolster its knowledge assets, talent and capital through engagement with other actors. For Freeman, defence infrastructure includes facilities and research hubs that provide a physical space for innovation, such as universities, science parks and test facilities. And networks and connections facilitate "the exchange of knowledge, the mingling of talented individuals and the connection of suppliers to end users". Culture and structure are two other important interdependent factors that influence the drivers and resources in the innovation process. Innovative culture must be open, trusting, and conducive to risk-taking and learning from failure. It is linked to leadership which is orientated to the future and to creative solutions. Structure includes organizational, management and bureaucratic structures and formal regulatory rules. Innovative structure and regulations involve bureaucracy and formal rules that do not constrain innovation by restricting knowledge exchange or productive partnerships.

To harness external innovation, the defence culture and structure into the working system should recognize and absorb innovation primarily. Therefore, the first step in improving the defence and security sector is to change the internal organization system and context. This requirement is a sine qua non condition of all other engagement reforms. Any successful external engagement depends on the innovativeness of internal priorities and processes.

To get internal priorities and processes right, it is essential that the president and the parliamentarians understand the military culture, values and people. The way the Congolese military especially rank soldiers complain about the conditions of service calls for particular attention.

The President does not need to be a military but he needs to understand the importance of key internal priorities and processes which affect the military organization and performance. For instance, it important to know and control how the Congolese armed Forces are trained and prepared to respond to natural or human-made disasters, conflicts and wars in the country and the world. We earlier insisted on the need for the President to not forget that he is the commander in chief of the armed forces. The Constitution does not require that the President be a military in order to be the Commander in chief of the armed forces. But the reality is that a civilian President without sufficient exposure nor knowledge of the military institution, culture, values, and people is limited in understanding military priorities and processes. Like Angela Halvorson (2015) righty contends, "Few outside the military understand the culture, the values, or the people who make up the most powerful military force on earth… For civilians with little or no personal exposure to the military culture, the Armed Forces may seem overwhelming, incomprehensible, esoteric, or even anachronistic. However, to understand, work with, and help those who serve in the Armed Forces, it is necessary to have a general understanding of the institution". (Halvorson, 2010, p.1)

Of interest to this study is the grievances of the active component of the FARDC and PNC about their conditions of service. These are full-time service individuals who wear the military uniform every day and who live with their families on or near military posts, barracks or bases and are expected to be deployed to war or conflict zones any time. During peacetime, they are expected to spend their days training for combat and for peace.

Training takes place at their home station or at any number of training locations around the world. It is not unusual for an active component member to spend only one or two weeks at home out of every six to eight weeks. Training cycles are determined by their unit's deployment cycle and deployment schedule. A closer look of the military barracks, bases or stations suggest that such norms need to be improved. Soldiers and officers seriously complained about their living and working conditions in barracks or bases which are supported to be self-contained communities of uniformed people sharing common experiences and lifestyles. They are expected to have their own shops, food stores, restaurants, clinics, schools and other daily amenities. Military barracks should be the opportunity for soldiers and officers to develop "l'esprit de corps", the feelings of pride, loyalty, confidence and discipline comfort of being a member of a group whose purpose all believe in. the discipline of rules thus begets the discipline of knowledge and institutes an ideology of creation and production that promote an esprit de corps, the expression of a strong community. The esprit de corps can only be achieved by good leadership, good guidance and understanding from those at the head of the force. (Pöcher, 2013) Active military families tend to generally stick together, drawn to one another by shared experiences and lifestyles.

Military rank and chain of command constitute another malaise among the Congolese military. Military rank is about leadership and responsibility. Grievances concern mainly arbitrariness and corruption and lack of meritocracy. The chain of command is based solely on the rank of the individual. As an individual meets certain benchmarks, including time in

service, time at the current rank, and military education requirements, he or she is promoted up the chain of command. With each promotion up through the ranks comes additional responsibilities and greater pay. Additional responsibilities usually include oversight of a greater number of lower-ranking service members and more equipment.

Each unit is clearly structured and organized based on accepted doctrine that is ingrained from the instant an individual first puts on the uniform. Individuals are immediately trained to operate within the chain of command. Each service member has a specific individual he or she reports to and who is responsible for addressing that individual's concerns or problems. "Jumping the chain of command" in most situations is strictly forbidden and may result in formal or informal disciplinary action.

Going above an immediate supervisor's head is acceptable only in situations in which the lower-ranking member does not believe his or her concerns are being addressed, or in cases where the problem is with the immediate supervisor.

The legitimacy of the chain of command is one of the most important characteristics of the military culture. Maintaining the integrity of the chain of command is critical to the effective functioning and mission success of the military unit. It is also designed to identify clear lines of authority and responsibility and to eliminate any confusion in the decision-making process. Living and working within the constraints of the unit chain of command dictate how an individual functions within the organization as well as how the unit functions as a whole. Those service members who are unable to work within the chain of command, who have problems with authority, or are incapable of following orders from superiors do not last long in military service and often find their time in service to be miserable and fraught with disciplinary actions.

Military Values

Honor and integrity are the core values of military service. These values define how each service member lives his or her life, approaches every duty, and succeeds at every mission. The military value system guides how each decision is made and how every operation is executed. It also distinguishes the military from its civilian counterpart and from the enemies.

Military Culture

The military culture is ingrained in military personnel from the beginning especially at the initial training. Initial training is so vital for integrating and learning about the military lifestyle, culture, history of a specific service, military customs and courtesies, proper wear of the uniform, military behaviour, values and ethics, and other information that make an individual being accepted and respected as a professional disciplined soldier or officer. Besides, initial training teaches discipline, focus, and control. Because of higher risk of being constantly exposed to uncertain and dangerous situations, it is vital that soldiers and officers learn not only to fire a weapon that also learn to stay focused, in control, and disciplined in all situations.

Armed Forces People

To better understand the military people, we need to understand the concept of "Unit cohesion". Unit cohesion is "the bonding together of soldiers in such a way as to sustain their will and commitment to each other, the unit, and mission accomplishment, despite combat or mission stress" despite the fact they are geographically, demographically, and ethnically diverse. Sharing of a common set of values and beliefs is crucial to any military group or community. Unfortunately, chaos drivers are destroying the FARDC culture, people, and values. Ethnicity has been one of most destructive factors.

Consequently, the defence and security sector in the DRC has to reinvent itself. And innovation involves the creation and application of new products, services and processes. Since despite chaos effects, there is some degree of resilience. The DRC armed forces are still able to fight and defend the integrity of national territory and stabilize political and economic institutions. The country still enjoys some degree of relative peace and stability that evidence the level of resilience to warfare chaos. Reform should not involve the radical innovation or the 'breakthrough' of completely new products, services or processes. The transformation of the DRC army and security forces need an incremental innovation, involving the refinement over time of existing products, priorities and processes to provide gradual improvements in quality or value.

DRC defence planners and designers should learn from the existing chaos drivers to carry on required innovation process. These drivers should serve as an impetus, the motivations that will spur innovation to occur. The key driver for innovation is the need to respond to current defence and security issues as a key public challenge. This challenge should be understood by all stakeholders including internal stakeholders such as the President, the defence ministry, the ministry of interior and external stakeholders such MONUSCO etc. the President's Office needs a particular attention in the case of DRC because the person of the President and Head of State is by itself an fully fledged institution responsible for defence, security and intelligence policy making and implementation as the commander in chief of the army and security forces.

Executive Presidential Leadership: Commander in chief of the Armed Forces

The Democratic Republic of Congo is a semi-presidential republic with a dual executive republic. The President rules alongside a prime minister and a government who are both responsible to a bicameral parliament of the state. The President is a popularly elected head of state. He is not a mere ceremonial figurehead. As the commander in chief of the armed forces, he is expected to exert executive control over the leadership and governance system of the defence and security sector. Since the 1990s, all reforms failed to yield expected defence innovation because of the lack of focus on cultural and structural barriers affecting the executive leadership and management of the armed forces' organization and resources.

Presidents focused more on control over political institutions and the revenue system entrusted into the public administration management rather than control over the armed forces transformation and improvement. This is evidenced by the fact that political institutions consume over 80% of national budget and the administration of the revenue system (tax administration) constitutes the main driver of corruption and predation. Corruption and predation are due to the fact that public administration relies on the transfer of resources from private to public use. The production and the delivery of public services do not benefit from this transfer of revenues from the private sector to the public sector yet public administration agencies are actively involved into the processes of obtaining money from the revenue-raising activities. While the revenue sources including money creation, borrowing, sale of public services, intergovernmental aid and taxation have been multiplied, very little money has been used for increasing and improving public services to the people's basic needs including the need for housing, food, transport, communication, health, safety, security and protection from natural and non-natural disasters, armed conflicts, invasion etc. the irony is that political leaders want regime peace and stability in order to maintain themselves in power and control political institutions without investing into the defence and security sector. Defence economics is needed. DRC leaders should master the subject in order to address the security issues which impact negatively on socioeconomic development prospects.

Like Harald Pöcher (2013) contends "Conflicts and wars are like laws of nature an integral part of humankind. Since time immemorial there have been conflicts and wars in the world and thus military forces, their personnel and the demand for armament goods are an important object of national politics". (Sullivan&Karreth, 2019) As the Commander in Chief of the armed forces, the President should not lose focus on the executive leadership and management of the armed forces. The focus consists of acknowledging that: "Like civilian enterprises armed forces produce goods and services, but these goods and services differ from products and services of their civilian counterparts. The range of all goods and services produced by armed forces are wide and manifold, i.e. the output reaches from deterrence and dissuasion, military training and exercises, medical treatment, maintenance in a naval wharf, operations abroad, scientific research work and teaching at military universities to the paperwork of the Ministry of Defence. To produce all final and intermediate products armed forces use land, labour and capital as factors for production. In peace and in wartime the factors of production are scarce and therefore their supply and use in production is always a critical bottleneck for satisfying all the needs of military planners and leaders". Therefore, leadership and management of defence and security resources must observe the law of rational and efficient use of factors of production in order to be economically successful. This reality has been neglected yet the DRC needs a sound defence and security economics because of its immense natural wealth. Conflicts and wars are like laws of nature. Armed conflicts and violence in the Eastern provinces especially in the Kivu and Ituri provinces are economical. Given the cultural and structural dimensions of barriers to effective executive management of defence resources and the need for direct involvement of executive presidential leadership into this process, economical approach to managing chaos drivers of

the warfare in the Eastern DRC should include ethical dimensions too. This is important because the military culture and values have been seriously affected by the lack of focus on defence and security sector by top leaders especially the President as the Commander in chief of the armed forces. Ethical economy is also important to defence and security economics. Analysis of the impact of rules, virtues, and goods or values on economic action and management of drivers of warfare chaos will help us deal with the ethical preconditions of the war economy and the ethical foundations of resulting economic systems. Understanding of ethical preconditions and foundations will overcome cultural and structural barriers especially corruption, predation and discrimination, increase trust and reduce transaction costs in the management of defence and security resources. This is only possible if and only top leadership, this the President of the Republic in his capacity of the Commander in chief of armed forces, gets deeply involved.

Such demand is so vital in the Congolese case because the Congolese vision of government is still oriented towards reinforcing presidential executive powers. Both people and elite do not trouble themselves unduly with the concerns of excessive concentration of power. The current discussion over the role of the President on matters of national defence and security do not raise issues about the concentration of power. The President has well-nigh exclusive power in dealing with this defence and security issue. In general, the society believe that the Parliament (National Assembly and Senate) has no ability to restrict the President when it is a matter of defence and security. The belief is that the Constitution vests exclusive authority on defence, security and intelligence matters in the President as the head of the executive branch of government and as the commander in chief of the armed forces. The irony here is that the Constitution does not require the President to have any military skills and experiences because he is entitled on the strength of his "inherent power" to engage in these defence and security matters activities, with or without the authorization of Parliament when the Nation is in danger. When the Nation is in danger, it needs a strong executive with extra-legal powers such as commanding the military, carrying on foreign policy, making peace treaties, pardoning the convicted rebels, vetoing legislation. In a fragile country like the DRC, the need for the strong executive presidential power is justified by the fact that the President as the commander in chief must have the power to defend the country and manage wars efforts against a sudden attack and systematic armed conflicts and violence. People leaves to the Executive President the power to repel sudden attacks and fight rebellions. Logically, electoral criteria for presidential post should be reinforced in such a way that one has to have military skills and experiences to be a presidential candidate. Therefore, compulsory military service should be organized so that all citizens have equal opportunity. This will be one of the major innovations in defence and security sector. This innovation is driven by military demand as well as market context and relevant regulation of chronic warfare situation. This primary demand responds to the need of enhancing the Congolese operational military capability because most defence stakeholders emphasize the special influence and urgent operational implication of the Commander in chief of the armed forces when there is a pressing need to ensure superior operational effect, the speed of delivery and cost effectiveness in defence procurement.

The nature and scope of warfare in Eastern DRC requires presidential attention and inherent executive power *to take military action in response to the terrorist attacks, war powers resolution and protracted armed violence against civilian population. Presidential power is important not only to retaliate against any person, organization, or State suspected of involvement in destabilizing the country but also against foreign States suspected of harbouring or supporting such criminal and terrorist organizations such as the M23 movement. The President should be able to deploy military force pre-emptively against such enemy movements and unfriendly States that harbour or support them. The President should use the* broad constitutional power to use military force and to retaliate against any person, organization, or State suspected of involvement in destabilizing attacks, even when a person, an organization or a State harbours, supports destabilizing forces or occasions grave national emergencies created by sudden, unforeseen attacks on the people and territory of the DRC.

The country defence and security is likely to be enhanced when the President is conscious of his duty and responsibility to use his constitutional power to defend the country territory and the lives of its people since no governmental interest is more compelling than the security of the Nation. The authority to protect national security is consolidated with actions necessary for field victories over the enemy and the determination to guard against the immediate renewal of the conflict and violence.

For all these reasons the President of the Republic must have not only the Constitution's power to ratify treaties but also the power to initiate defensive hostilities/wars and to control the escalation of conflict. Current security situation requires that the President directs military operations and commit the armed forces to combat as the Commander in Chief of armed forces.

Besides Presidential role in influencing the drivers and resources of the current warfare chaos in Eastern DRC, culture and structure of the Defence organization are important shaping factors.

Current organizational Culture in the Congolese defence sector needs significant innovation that succeeds in organizations with open, trusting, and encouraging environments. Ongoing armed conflicts and wars have also created significant distrust and disengagement between top defence leadership and command structure and local populations and ethnic groups. The latter tend to organize and arm their own self-defence units which confront any forces (governmental or non-governmental, foreign or local) perceived as enemy to their local peace and development. Hence the need for defence planners and designers to also focus on exploring ways of better management of ethnicity as one of the key drivers of chaos.

As Patricia Lynne Sullivan and Johannes Karreth (2019) argue "ethnicity is the key driver of armed conflicts in Eastern DRC". The argument sustains that FARDC soldiers and officers are involved into war economy activities such as illicit exploitation and trafficking of mineral and natural resources because of dilemmas in engaging, professionally and militarily, local armed groups who are basically ethnic groups. Combatants and members of local ethnic groups

organized some kind of joint venture arrangements joining both party's resources to achieve a specific objective. Ongoing joint-venture activities involves two or more illicit businesses pooling their resources and expertise to achieve a particular goal: commodity funds, and share the risks and rewards linked to these joint-venture arrangements. Major rewards are more resources, greater capacity, increased technical expertise, access to established markets and distribution channels. In any case, the joint-venture practices in areas affected by armed conflicts between combatants and local groups in eastern DRC basically include the exchange of goods and services (trade and commerce) for monetary units. The value of the commodities (goods or services) has always been determined by the amount of money it is transacted for. These commodities have played a significant role in the continuous running of the trade and commerce cycle characterizing war economy in Eastern Congo and the Great Lakes region, thus generating finances and value for its participants. It is essential to understand what these commodities are and how do they function in helping to keep the trade cycle running, and most importantly, how do these commodities generate finances for the participants. They are traded in exchange for other products that may hold similar value for exchange. The participants are informed about the values of available commodities in the domestic and international markets. They are also aware that the commodities traded are subject to demand and the market prices that govern the trade of these commodities. Today they are aware of various commodities traded daily that are valued highly for their commercial value and consumer demand. These commodities traded in the domestic and international markets offer investors a chance to make investments in such commodities. Basic commodities involved are metals and physical assets like weapons and ammunitions, natural Resources such as minerals, precious stones, petroleum, oil, gold, silver, coltan, coffee, cocoa, cannabis etc. Investment in these commodities trade allow combatants and non-combatants an opportunity to earn returns based on the performance of these commodities in the market. The main question is how ethnicity is related to such illicit businesses and how such economy affects the defence management, sustainable peace and political stability.

Effects of ethnicity and territoriality

Territoriality plays a major role in linking ethnicity and environmental economy and politics. In fact, as economics is concerned with production, consumption, and the transfer of wealth, including allocation of scarce resources and market functions, politics deals with activities associated with governance, including the ability to create effective environmental policies and solutions. With regard to environmental leadership, both economics and politics are crucial for creating viable solutions to environmental problems including environmental injustice occasioned illegal extraction and trading of natural and mineral resources.

Territoriality is an important part of the way in which individuals and groups bring the environment under their control. (Gold, 2019) Territoriality involves the processes and mechanisms by which people establish, maintain, and exert control over bounded portions of

the territorial space or surface they occupy. The roots of territoriality stem from culture rather than instinct. Conflicts and inequality arise from the use of territoriality by dominant groups in society to exert control over others and surveys behavioural activities of inhabitants or residents in defence of their neighbourhoods. Once territoriality determines defendable space - borders and boundaries, territoriality becomes an intrinsically positive part of the reliable reference to everyday life and endows territorial space with symbolic meaning which enables inhabitants or residents to promote resilience, belonging and reinforcing identity. Territoriality is thus an important part of the social and spatial organization of human society which proceeds from the processes and the mechanisms by which people establish, maintain, and exert control over bounded portions of the territorial space or surface. It helps in considering that territories, boundaries and borders play a significant role in the organization of human life and society. In fact, many economic and political activities are organized territorially. Law enforcement and security and defence management work on the basis of the notion of territorial organization including a pattern of human behaviour characterized by aggressive defence or protection of an area, sphere of activity or influence etc.

Understanding factors leading to human territoriality, separate living, defensible space and resilience, identity and belonging may explain current ethnicity-driven economic armed conflicts in the eastern DRC.

a) Human territoriality

Human beings can simultaneously be members of several or many different groups that exercise control over bounded spaces of various sizes; territories to which they feel varying degrees of attachment, and which are governed by different jurisdictions and legislations. Conflicts in human society can arise over the material value of the land, or its emotional and symbolic value, or sometimes the conjunction of both. Human territoriality is often overlain by complex cultural constructions, such as property laws, which include the possibility of ownership by economic or political institutions and abstract rights of possession that need not even involve physical occupation. When unravelling this complexity, there are three ways of conceptualizing human territoriality. First, it is about power used as indispensable geographical strategy to control people and things by controlling area. Second, human territoriality serves to provide a secure, dependable and often unobtrusive platform that allows other forms of social behaviour to be enacted. Third, territoriality is a vital part of the dynamics of place-making, claiming ownership of space, promoting meaningful belonging and reinforcing identity. In the DRC case, Rwandaphone and anti-Rwandaphone groups are using the power of territoriality to either claim, own, defend or protect a portion of land or territory.

b) Living in isolation

Socio-spatial segregation has long been a feature of the residential geography of living habitat. Such partitioning is part of the abiding fluidity of housing or agglomerations, in which economic or ecological forces lead to distinct differentiation between areas

occupied by different groups in the social spectrum. Groups of a population are often segregated into their respective ecological niches. Fishers tend to live with fishers, breeders with breeders, farmers with farmers, warriors with warriors etc. Tutsi are breeders and Hutu are farmers. Each group want to constitute is village or agglomeration. Territorial division can also emanate from intergroup rivalries arising from the problems of population displacement and change associated with phenomenon like war or even innovation. Residents may turn to territorial tactics in order to ward off the advances of groups in adjacent areas by whom they feel threatened.

Territorial animosities shaping inter-group relations show the sharp cleavage between adjacent and mutually hostile ethnic groups conflicting over the historic and contemporary rivalries between Tutsi and Hutu, Bantu and Nilotic groups striving to avoid risks of living in hostile territory. It is clear that such territorial hostilities are perpetuated through socialization. Children of a particular ethnic group are taught to fear adjacent groups and to avoid entering their territory. Manifestations of aggressive defence of territoriality may well remain and people may still cluster together out of a sense of insecurity, but essentially do so to protect shared values or other cultural attributes. Both Tutsi and Hutu want an area to protect shared values and other cultural traits.

c) **Defensible space and resilience**

The concept of 'defensible space,' was born out of a response to the perceived failings of postwar public-sector social housing. 'Defensible space' concept was developed by the American architect Oscar Newman (1972) who argues that city criminality (hostilities) might be linked to the design of new housing estates. (Newman, 1972) Therefore, the design of new estates and the built environment should be done in a way that facilitates social cohesion amongst residents, thereby reducing opportunities for criminal activity.

Newman insisted on issues of territoriality. He argued that building design is associated with abnormally high crime rates especially when their layout and design denied residents the opportunity to exercise territorial control over the area around their dwellings in ways characteristic of traditional housing. For him, areas freely available to all, whether residents or outsiders, but not subject to control by any specific resident or group of residents constitute a security risks.

His findings would have identified denial of territoriality as an important contributory factor to urban crime and perhaps also other social pathologies.

The concept of defensible space linked ideas for territorial control, especially connected with 'target hardening' as developed by Newman (1972) and Coaffee, Murakami Wood and Rogers (2009) is used by the police and military for protection of areas felt under threat from terrorist attack. (Coaffee et al, 2009) This leads to some

kind of militarization of some territorial spaces, and creates defensive enclaves in areas felt particularly at risk. The strategy may help in aligning security planning with wider frameworks for village or city or agglomeration management and governance. As such, this trend might encourage policies that focus more clearly on the more positive features of territoriality, such as its cultural significance in terms of identity and belonging. It could work in the case of Bunagana. Protecting defensible space of Bunagana border town with combat and reconnaissance patrol on the basis of identity and belonging factors would be efficient for both peacebuilding and state building strategies.

d) **Belonging and identity**

The roots of the concept 'territoriality' are connoted with the feeling of fear and warning. Fear and warning call for territorial aspects of the dwelling. The dwelling supplies a retreat that meets our basic needs for shelter and security. It also engenders general feelings of well-being connected with ownership and possession, feeling of home. The dwelling-as-home occupies a central role in everyday life in the modern life. The dwelling serves as a physical framework for the spatial and temporal organization of domestic activities.

The dwelling clearly indicates the way that symbolism overlays physical delimitation and maintenance of territories. First, territoriality effectively served as a form of communication, with a distinct 'language of space' that was shared by the people living in their dwellings and townscape. Secondly, territoriality served as social memory. The community used the bounded places of home and neighbourhood in imaginative ways to recreate that which had been irrevocably lost. Finally, and related, territoriality was used to express difference and to celebrate their specific history and identity.

In the long run, the greater physical security enjoyed by the community, combined with recognition of the possible economic returns attainable from the marketability of ethnic or cultural diversity may create some security problems. For instance, processes of negotiation between neighbourhood, the city and commercial interests may lead to efforts to reinforce rather than eradicate the territorial distinctiveness of such neighbourhoods. We see in the case of Rwandaphones dwellers in DRC. The physical security of the Banyamulenge community has been linked to economic returns from the marketability of ethnic diversity (decent senior posts in government employment market, distributional and re-distributional policies in favour of ethnic minority etc). This policy has reinforced rather eradicated territorial distinctiveness to the extent that Rwandophones feel safer and home only in homogenous neighbourhood. One of the critical political demands of the Tutsi-dwellers is to obtain a specific territorial space-home. Minembwe is the case. Yet the constitution of such 'ethnoscapes' arouses considerable controversy, with heavy debates framed around the future of ethnic neighbourhoods to all 450 ethnic groups that people the DRC.

In fact, ethnicity-based territoriality creates small states within the State in areas of limited statehood. Tanja A. Börzel and Thomas Risse (2016) explain this phenomenon. According to Borzel and Risse, "Areas of limited statehood where the state is absent or dysfunctional are rarely ungoverned or ungovernable spaces". They are still governed by local people or local communities who establish an alternative governance system for their own survival. Consequently, Government provision of rules and regulations, as well as of public goods and services continue without having to necessarily depend on the existence of functioning state institutions. Alternatively, functional equivalents or substitutes to failed state institutions are replaced by informal institutions based on trust that are endogenous to areas of limited statehood. Local governance actors overcome collective action problems and enhance their legitimacy through organized through personalized trust among community members. Because social heterogeneity and deep social and cultural cleavages, the only major challenge in areas of limited statehood consists of striving to move to generalized trust beyond the local level and to "imagined communities among strangers". Therefore, Börzel and Risse (2016) argue "the more group-based identities are constructed in inclusive ways and the more group identities are cross-cutting and overlapping, the more they lead to and maintain generalized trust". In addition, they conclude, "Experiences with fair and impartial institutions and governance practices – irrespective of whether state or non-state – also lead to generalized trust beyond the local level and allow for the upscaling of governance".

Accommodation of autonomous small states within the State creates two other major challenges: engaging and integrating non-state armed actors and creating territorial armies alongside the regular armies.

Engaging non-state actors for peacebuilding and state building purpose

Chronic armed conflicts in the DRC resulted in the emergence of several non-state armed actors and uncontrolled functioning small states within the State. Peacebuilding and state building processes cannot ignore or neglect the existence and the activities of non-state armed actors who have developed alternative governance and economic systems. Claudia Hofmann and Ulrich Schneckener (2011), "non-state armed groups are defined as distinctive organizations that are (i) willing and capable to use violence for pursuing their objectives and (ii) not integrated into formalized state institutions such as regular armies, presidential guards, police, or Special Forces. They, therefore, (iii) possess a certain degree of autonomy with regard to politics, military operations, resources, and infrastructure". Even though they are autonomous, they are often supported or instrumentalized by state actors secretly or openly. They may serve as militias, paramilitaries, mercenaries, or private military organizations to state actors. On the other hand, state officials or state agencies may cooperate directly or indirectly with non-state armed actors. This may be for ideological reasons or for personal, family, political and economic interests. But, despite close relationships with state actors, non-state actors avoid full control by state actors.

Peacebuilding and state building processes are challenged because they are meant to strengthen and reconstruct functioning state structures and institutions, eradicate any kind of violence and not to accommodate non-state actors and their structures. Peacebuilding and state building processes cannot be successful unless the issue of non-state armed actors is effectively addressed. The tendency is to disarm and dismantle non-state armed actors and their organizations, or to transform them into political forces or to integrate them into official state structures because most of them are criminals, mercenaries, or marauders who are handicap the reestablishment of the State's monopoly on the use of force. In such a context, non-state armed actors with their already established para-state structures by militias, warlords, rebels are part of the problem. Accommodating non-state armed actors become a building block for reconstructing statehood, and may undermine the process of establishing the state's monopoly on the use of force. Another tougher challenge is that granting privileges to non-state armed actors who have already benefited from war and shadow economies may become an incentive or trigger for warmongering and conflict entrepreneurs, unethical transnationals or multinationals involved in cross-border trafficking and illicit exploitation of mineral and natural resources.

Creating territorial armies

As the question of integrating non-state armed actors challenges peacebuilding and state building processes, the DRC government may think of transforming non-state forces into territorial armies. These are forces with almost no peacetime presence, dedicated entirely to the defence of home territory. Such forces are often considered technologically backward and militarily irrelevant, some kind of reserve forces. There is need for the government to evaluate the development and maintenance of Mai-Mai resistant combatants who believe to be not only territorial forces but also Special Forces who have been fighting and defeating invasion forces for decades.

Horst Mendershausen (1980) describes the characteristics of a territorial defence posture as follows:

1) "A manifestly defensive system; unsuited to attack across the country's borders, and unlikely to be perceived as a threat by other states;
2) A military system relying principally on latent rather standing forces, involving a broad spectrum of citizens, if not all, in preparations for military and civil defence tasks, and usually projecting a comprehensive or total response of the people to war,
3) A military system that relies on weapons and technologies different in type and composition from those of outward-reaching intervention and bombardment systems;
4) A system that relates the military resources of a society so closely to the defence of its own territory and institutions that it precludes or at least severely constrains the country's participation in an international military alliance; especially one that calls for integration of alliance forces."

Related to the Mai-Mai resistance phenomenon, the challenge consists of transforming the rudimentary territorial defence posture of the Mai-Mai resistant combatants into a hybrid defence system in which territorial defence plays a significant and dominant role like modern special forces, suitable to attacking invading forces, to achieve the mission of what the French call "Défense Oprationnelle du Territoire" which includes latent and civil defence units, the gendarmerie, a police force. The Switzerland militia forces, the Norwegian Home Guard and the former Yugoslav Territorial Army play similar defence role.

This transformation may concern only what Robert Kogod Goldman (n.d.) calls "privileged or lawful combatants". A combatant is a person who directly engages in hostilities, participates in an attack intended to cause physical harm to enemy personnel or objects. Such persons are referred to as belligerents and have been classified as either "privileged", "lawful" or "unprivileged", "unlawful" combatants. "Privileged" or "lawful" combatants are persons authorized by a party to an armed conflict to engage in hostilities. Therefore, they are entitled to the protections encompassed in the "combatant's privilege" which is a licence to kill, wound or eliminate enemy combatants, destroy other enemy military objectives and cause incidental civilian casualties. Lawful combatants have the right or the privilege to be considered as prisoners of war and to have immunity from criminal prosecution. The argument is that their hostile acts that do not violate the laws and customs of war.

The theory of greed and grievance provides another argument in favour of privileged resistance combatants. (Mateos, 2010) Indeed, Mai-Mai combatants or groups are effectively involved into the illicit exploitation of natural resources and the diseconomy of war affecting peace and security in the eastern DRC just for the sake of acquiring rudimentary weapons to fight and defeat invading forces. Therefore, the theory of greed and grievance can hardly explain chaos drivers of the involvement of local armed groups. The violence in that part of the DRC is not a simple matter of scarce and strategic resources exploitation (coltan, gold, diamonds, timber, coffee, rubber, cacao, oil, gaz etc). While international actors' interests are geared towards extracting and exporting scarce and strategic resources to sustain the economy of industrialized countries, local armed groups are primarily concerned with sustainable peace and security in their villages, communities and towns. (Kaldor, 1999 and Duffield, 2001)

Referring to migration theory, the causes of migration may help explaining how local groups' interests differ from external actors' concerns. Despite war devastation impact on local population living conditions, only a minority of locals migrate or run away from their villages and communities. The majority have demonstrated strong resilience to negative war factors (push factors). Their grievances are characterized by positive war factors (pull factors) rather than push factors. Push factors are political, social, economic and environmental reasons why people would want to leave their home country while *pull factors* are reasons why people would want to move into a new environment or place instead of abandoning their home villages or home countries. The modal tendency in the eastern DRC is to stay home while simultaneously asking for improvement and reinforcement of peace, security and

development in their immediate environment and communities. The Bunagana case just demonstrated this modal tendency. Bunagana people prefer to cross border to live temporally in Uganda villages or towns closer to their home rather than migrating faraway or abroad. Alternative they move to Rutshuru and surrounding villages. They have declined all M23 incentives to change their migration decision.

Pull factors	Causes	Push factors
Stable population, positive demography, welfare state benefits, good schools and clinics, decent pensions	Demographic and social	Population and family pressures/charges, bad schools and healthcare, obsolete retirement schemes
Labour opportunities, decent wages, welfare, high consumption and living standard	Economic	Poverty, unemployment, low wages, scarcity of consumption and living goods and services
Peace, security, democracy, rule of law, political stability, pluralism, protection of civil and human rights, protection of minority interests	Political	Autocracy, pseudo democracy, bad governance, political revolts, civil war, terrorism, abuse of human rights, hegemony
Protection of natural and environmental resources, favorable environmental policy and spaces	Environmental	Natural disasters, drought, soil/land erosion, absence of environmental policy
Diaspora, media and information flows, ethnic community/solidarity	Migrant flows and stocks	Negative information flows, partisan media, dominant decisions of the family or ethnic community

NOTE: Ethnicity represents only 4.5% (1/22) variables of push and/or pull factors. Overall, all these variables have to do with the delivery of public services administration and management. Peace, security and defence by FARDC, PNC and DEMIAP are part of these public deliverables. Pull factors are the cause. Push factors are only the consequence, hence positive factors precede negative factor. First thing come first.

Peter Drucker's management principle of "First Things First" advises to always put the important things first and do only one thing at a time. To make a huge contribution to Defence and security sector reform and combat performance effectiveness, the DRC government needs a lot of time to improve positive factors first. It should concentrate on getting rid a past that is no longer valuable. Past successes and activities should be reviewed most of all in order to control the transformation and the development of the FARDC and other security organizations. What is needed for building a new innovative army, police and intelligence services and slowing down what can prevent the reform should be prioritized and any handicap, barriers or obstacles to such reform need to be ousted. Government should have the courage to focus on the future, not the past; to focus on opportunities, not just difficulties; to choose its own direction instead of following blindly past successes; to think highly and

innovatively of the best defence and security forces for the country rather than being guided by what is safer and convenient at the present. Yet the tendency has been to avoid offending former Mobutu's FAZ (Forces Armées Zairoises) and Kabila's FAC (Forces Armées Congolaises) senior officers (colonels and generals) for peace and reconciliation sake. The end-result of all Security Sector reforms since 2003 is dramatic, chaotic and highly counterproductive on the side of the actors involved in delivering defence and security services. There are many causes to this failure. First, reforms failed to capture the diversity of security actors. They focus on a narrow understanding of the conventional Western security actors (armed forces, police and intelligence services), while minimizing the need for transforming military organizations such as presidential guards and militia forces, 'private' security actors who emerged because of the collapse of state security structures which are also allowed to use force. There are several internal security forces linked to interior ministries, which compete with the military in terms of numbers, influence and resources and impact on the formulation and the management of security policy. National political, cultural and social circumstances have created significant informal norms and practices based on local, tribal and ethnic traditions, culture and beliefs which affect strategic thinking and planning of security and defence transformation. For instance, the DRC Government enacted the law of military programming (Loi de Programmation Militaire 2022-2025) in 2018. The law was recently published only in September 2022. The law does not take into account the dynamics of non-statutory security forces such liberation armies; guerrilla armies; private security companies; and political party militias. Yet, non-statutory security forces are still active and continue to influence the political, economic and security governance in the DRC and to play significant role because state capacity in the area of security and defence management is vulnerable and needs appropriate regulation. The activism of civil society and business sector actors in areas where Government established "the state of siege" plays a major role in security sector governance in terms of strategic intelligence and media, human rights violation, civil military relations (CMR). Their role is essential for change, political pressure and reform agendas setup. To be effective, the defence and security sector transformation needs to consider the role of non-statutory and non-state groups and actors. Since the administrative and legal framework of the defence and security sector is nascent and vulnerable to corruption, political and economic, Government needs to acknowledge the crucial role played by the security and defence sector to political power, regime stability, political control and revenue mobilization. Political institutions and administrative systems must learn to tie defence and security sector reform to domestic processes of political and social transformation. Such achievement is not easier when SSR is driven by external actors. In DRC external actors have their own objectives which mainly aimed at building a Congolese security sector by first managing the merging of the multiple armed factions into unified military and police structures. Overall SSR initiatives consisted of strengthening unit effectiveness through train-and-equip programs; implementing institutional reform, and building mechanisms for civilian accountability and oversight. All initiatives failed after fourteen years. Corruption, patronage, and impunity embedded in both the security sector and the political governance structures and practices

are the main reasons for failure. External actors avoid addressing the crucial issue of democratizing the political and security institutions to best protect the population. It is clear that external reformers focused on technical projects instead of bringing about political change.

These levels of pull factors and push factors are deeply rooted in the historical, social, economic and political context of the conflict and violence in the Great Lakes region. Indeed, Congolese armed conflicts are mainly internal or intrastate in the first place, localized violence affecting specific areas and specific local population, regionalized and internationalized impacting on the Great Lakes and global peace, security, development and politics. The dynamics of Congolese warfare involved several actors with different agendas and objectives including regional and international network of agents and organizations. Yet, sustainable solutions aimed at transforming the dynamics of war into the dynamics of peace and development should focus on primary actors who are directly engaged in armed violence. They should address the agenda and objectives of governments, armed groups or guerrillas, militias, paramilitary forces, warlords, organized criminal gangs, police forces, mercenaries, violent fundamentalist groups, regional armed groups, and regional troops, directly involved into the dynamics of war. In this perspective, it is not simply enough to equip and modernize the FARDC, PNC and DEMIAP. It is also vital to manage actors like MONUSCO and policy instruments like peace, defence and development accords and relations. Effective management of positive and direct factors, these are pull factors, are likely to impact on the control of negative and indirect factors which are push factors and culminate in the dynamics of peace. Indirect actors are needed when direct actors fail to achieve their agenda and goals. Indirect actors are widely interested in its continuation of war. Wars and violence attract criminal networks, regional governments, businessmen, local and regional traders, international governments, private security companies, business with interest in natural resources, arms industry. They also attract peace and development brokers such as the diaspora, civil society organizations, local and international mass media, regional and international governments, regional and international organizations, diplomatic organizations, international humanitarian organizations, multilateral organizations like MONUSCO and donor agencies. In this context, the globalized economy of war depends on external resources in a process that intends to incorporate the dynamics of war into the formal economy. Dependency on external resources is due to the fact that units of combat are basically mobilized and financed with the proceeds of looting, corruption in humanitarian aid governance, illegal arms deals, and natural resources exploitation are critical in the mobilization of resources. The dynamics of war is thus perpetuated through alliances or networks according to interests and agenda of indirect actors and factors.

With reference to Berdal and Malone (2000) and Francis (2006), a sound analysis of the drivers of chaos in the Eastern Congo should avoid some negative narrative stereotypes portraying Congolese armed conflicts as a matter of:

1) Chaotic and irrational confrontations driven by ethnicity and cultural differences exclusively.

2) Underdevelopment or poverty is the main cause of ongoing armed conflicts implying that armed conflicts would be prevented by increasing foreign donations and international cooperation as a priority in addressing conflict in the Eastern DRC.

3) The political economy of warfare is based on a crisis of accumulation and governance through which Congolese elites explore new sources of authority, legitimacy, wealth as the main cause of violence in the country, forgetting Clausewitz's argument stating that 'these civil wars could be better understood as the continuation of economics by other means'.

The need for self-defence and territorial defence against invading forces and for the emergence of autonomous small states due to State failures may explain some of the legitimate wars, armed conflicts, and sophisticated survival economies in eastern provinces of the DRC.

In any case, the Mai-Mai resistance combatants view themselves as a territorial self-defence force. Privileged Resistance armed groups asked Government to be given the opportunity to defeat invasion forces mainly the RDF in Bunagana. They argue that they have been carrying successful special military operations since the beginning of the war in 1995. They also argue that without their successful resistance operations, invading forces (Rwanda and Uganda) would have conquered Eastern DRC long time ago. Their argument tends to minimize the importance of military technology as the sole criterion to win or defeat enemy equipped with highly sophisticated modern weapons. They refer to recent Ukraine resistance and the embarrassing retreats of USA forces in Afghanistan etc.

Special Forces and special operations forces (SOF) are military units trained to conduct special operations. Special operations are "military activities conducted by specially designated, organized, selected, trained and equipped forces using unconventional techniques and modes of employment". (NATO, 2013) Since World War II, all armies create formations devoted to special operations behind enemy lines. The FARDC may not have resources to create sophisticated special forces may perform modern higher technology-supported functions in modern airborne operations, counter-insurgency, counter-terrorism, foreign internal defence, covert ops, direct action, hostage rescue, high-value targets/manhunt, intelligence operations, mobility operations, and unconventional warfare. But they resort to any kind of Special Forces using unconventional techniques and modes of employment to perform and attain the military objectives of a special operations unit. Mai Mai resistance combatants believe they have special operations force's capabilities which enabled them to stop Rwanda and Ugandan progress and agenda for overthrowing Kinshasa regime since President Laurent Kabila. Their fierce combats have demonstrated convincing degree of special forces capabilities such as Special reconnaissance and surveillance in hostile environments, involvement into training and development of other states' military and security forces, offensive action, support to counter-insurgency through population

engagement and support, Counter-terrorism operations, Sabotage and demolition, Hostage rescue, close personal protection etc. some groups compare themselves to Japanese "Ninja"; or Portuguese "Gerald the Fearless". In any case, Mai-Mai combatants have played an important role through the history of warfare in Eastern DRC. They managed to achieve disruption by hit and run and sabotage operations. Their role in laying and conducting successful reconnaissance operations have been providing to conventional FARDC and MONUSCO with essential intelligence from near or among the enemy. In many circumstances, they camouflage themselves among local populations, to gather intelligence and launch raids and capture and destroy enemy. Cases of resistance combatants' specialized role in reconnaissance, skirmishing and weakening conventional forces are many, without having the posture of modern conventional armed services using "the direct approach characterized by technologically enabled small-unit precision and digitally networked lethality, focused intelligence and indirect approach consisting of empowering host nation forces, providing appropriate assistance to humanitarian agencies, and engaging key populations."

Throughout the latter half of the 20th century and into the 21st century, special forces have come to higher prominence, as governments have found objectives can sometimes be better achieved by a small team of anonymous specialists than a larger and much more politically controversial conventional deployment. Congolese Defence planner and designers need to understand this reality.

In fact, typically, guerrilla fighters would engage enemy soldiers and tanks causing them to move. Intelligence strategy of guerilla fighters involve women, youth and even smart children. It is well gendered and capitalizes on social intelligence rather than highly sophisticated Artificial Intelligence (AI) and Information system (IS) technologies.

The necessity for focusing on social intelligence makes sense not only because of developing countries realities but also because of the nature of modern warfare in which AI and IST-based weapons do not guaranty military operations success (victory). Third-World realities reflect the fact that the existing information systems suffer from a range of problems which afflict all three main elements of information system. In fact, documentary services (libraries and information centres), statistical services, and management information systems (including records management and computerized systems) are weaker and inaccessible to all. As Paul Sturges (1999) contends, the need to rely on Grey literature is vital to each of these three systems, either as the partially processed product of the internal information-generating capacity of the country itself, or in the external scanning process. (Sturges, 1999)

If the DRC could afford equipping the FARDC with AI and IST-based weapons which the RDF-Backed M23 combatants are using, the technical problems of acquiring, listing, indexing, retrieving and alerting potential users to documents will create the need for training, mastering and managing such innovation effectively. This largely requires the capacity and propensity of the FARDC users to absorb information and apply it in the operations field. Certainly, they will face a range of structural and non-structural constraints on the absorption

of information, skills or competences/capabilities. So main challenge to the FARDC capabilities is more about a question of social intelligence and human force rather than an issue of acquiring AI and IST-based weaponry.

Social intelligence includes embraces a wide range of skills and personal characteristics. It refers to those interpersonal and intrapersonal skills that transcend specific areas of the previous knowledge such as intelligence and technical or professional skills. It embraces not only the cognitive aspect of performance but also the effect of emotional aspects. Social intelligence has been defined as the ability to establish relationship with others, intrapersonal knowledge, ability to judge about others' feelings, temperaments and incentives, effective social performance/function, ability to sympathize, and being skilled in decoding nonverbal signs. It reinforces human, force which is considered as the main source of every organization, the organizations should program to make optimal use of it. As a matter of fact, today those organizations are successful and can achieve their goals that have strong and committed human force, accentuate customer-guidance and profitability rise, and regularly improve their systems and processes (Hsien, 2008:525). Making optimal use of available human force is related to having aware, qualified and adroit/ skilled managers/commanders. The complicatedness of society process, increase of competition, advancement of science and technology and consequently the increase of demands and the development of organizations require that efficient and skilled manager/commander to be employed to manage/command military operations as organizations' affairs. After adequately combining and coordinating them, they achieve those goals via making optimal use of them. (Ebrahimpoor et al, 2013; Behestifar and Roasaei, 2012; Brown, 2005; Goleman, 1998a)

Based on Goleman's research findings on emotional intelligence of leaders (1998b), Paul Sturges (2013) defines social intelligence as "the ability to control emotions and feelings; therefore it can aid mental activities, decision making and communication…. those who have high social intelligence know how to control and channel their own and others' emotions and feelings… Social intelligence is one of the first choices in completing the traditional concepts of capability… Social intelligence indicates that to what extent managers possess capabilities like social skills, social information processing, social awareness, and social desirability. Hereupon, social intelligence contains four components: social skills, social information processing, social awareness, and social desirability. Implications to understanding Resistance fighters' intelligence strategy feature are as follows:

1) Social skills as key factors in recognition of points of strength and weakness. Resistance leaders, experts and commanders who use social intelligence and human force, have social skills which enable them to continuously looking for receiving feedback on their performance and learn from their failures.

2) Processing social information as the ability in regulating distressing emotions like anxiety or nervousness and managing such situations. Emotive reactions among resistance fighters are very rare.

3) Social awareness making an individual aware of others' feelings, tastes, and needs and enables him/her to identify the paradoxical situations, and to use this source of information to establish a good relationship with other team members and valuing them. Resistance commanders and fighters value and respect each other seriously and avoid any quarrels or divisions among them.

4) Social desirability as a self-control mechanism or ability of interacting with other individuals in the emotional situations in order to build interpersonal and intergroup relationships effectively needs to have the ability to distinguish, separate, and control their feelings. Social desirability provides superior social skills enabling the individuals to choose or select places or times to show one's emotions.

For the above reasons, the Artificial Intelligence (AI) and Information Technology-based weapon systems possessed by Rwandan army and the M23 do not impress nor discourage Resistance combatants and their leaders. Their determination to fight and defeat the Rwanda-backed M23 is built upon social intelligence and human force which prevent them from capitulating or fighting retreat.

Resistance combatants' may inspire the DRC government which needs to knowledge alternative ways of developing defence information technology. Information has always been an important ingredient of national security. It is also important for successful conduct of war.

For the DRC government and people, the M23 forces are supported by Rwandan Defence Force (RDF) which is backed up itself by Western powers politically and diplomatically and by the Multinational corporations financially. These financially rich and industrialized countries and business organizations provide Rwanda with a scarce military resource which is the sophisticated information technology. At this stage of Technology-based Information warfare paving the way to new weapon systems and military doctrines,

It is believed that Western States and multinationals more specifically American and British governments provide the RDF with a comparative/competitive advantage and information superiority in the battlefield. Information superiority is a critical success factor in peace and war time. Yet the DRC government needs to assure the security of its people. Both the President of the Republic and the Defence Ministry have the constitutional duty to also assure the victory of their armed forces in case of war and threat deterrence.

Resistance combatants' determination are not the only push factor in this area. In fact, government may refer resilience and victory of liberation struggle movements over colonial military forces in Africa to think of mechanism which may help boosting the capacity of armed forces to confront even defeat modern armies equipped with high-tech weapon systems. The technologies of information warfare offer such mechanisms. Certainly, defence forces with enhanced modern military technologies have the advantage of optimizing information-based operations, dominating battle in terms of speed, space and time, controlling battlefield with devastating lethality and superior survivability, winning decisive and quick victories with

minimum casualties, agility and speed of deployment, diverting tasks that inhibit the primary mission of the force etc.

Fortunately, Pathak A.K et al. (2014) rightly support that view according to even developing countries may acquire indigenous technologies in information warfare (IW) related systems. These weapons need to be low cost and must suit their requirement. He contends, "A useful strategic partnership with a selected country or selection of technology transfer/leapfrog/substitution model is of prime importance for the developing nations... There is a need to enhance R & D allocation in the field of IT in such a way that the means of generating wealth, preserving the environment and ensuring security of the people are similar or inter-changeable... Some very low cost and niche technologies such as the GPS need to be exploited. This is ideal equipment, which has tremendous 'dual use potential' at a marginal (if the cost of the satellite constellation is excluded). It is being used in artillery shells to make 'stupid' ordinance 'intelligent'". Pathak (2014) argumentation is supported by theories developed by Toffler and Toffler (1993), Sun Tzu (1996), and Handel (1986).

Economics suggests Offsetting as a useful tool that countries like DRC can apply to Pathak theory on indigenous technologies in information warfare in order to reduce its net position in defence investment to zero. For instance, risks exposed in defence procurement markets may be offset by opposite risks in establishing defence industrial base in order to remove or limit liabilities on imports. Government investments in the defence and security sector should learn to offset futures contracts and other investment positions in order to remove itself from any associated liabilities before the terms of the futures contract are accomplished or near the delivery term. The aim is optimizing the benefits of the futures contract. As futures related to stocks, defence investment department may use hedging to assume an opposing position to manage the risk associated with the defence futures contract. A defence futures contract can be defined as a legal agreement to buy or sell defence commodity assets at a predetermined price at a specified time in the future and for the same quality and quantity to facilitate. The DRC government needs to have an offset policy based on futures contract.

Conclusion

To defend the integrity of its immense territory, the DRC government wants to keep a large army. The political objective conflict with the goals of the defence and security sector reform (DSR) and the complex options such as Disarmament, Demobilization, Repatriation, and Reintegration program (DDRRR-P) which aims at reducing the size of the FARDC (DRC Armed Forces) in order to facilitate management control, discipline and professionalism. In addition, keeping a larger army is not only costly but, above all, does not help in maintaining control, discipline and decent conditions of service. Bad conditions of service have been responsible for desertion, looting, corruption and indiscipline among Congolese military and security people. Today, armed uncontrolled and undisciplined soldiers, policemen, intelligence agents, even senior officers, constitute a danger to civilian population. It also contributes to increasing

vulnerabilities which are used the invading forces from the neighbouring countries. The phenomenon coupled with bad conditions of service also plays a significant role in the disorganization of combat force and operations. This military disorganization fuels chaos, terrorism, corruption and conflict escalation which are responsible for higher civilian deaths and casualties in mining and conflict zones. Foreign forces and armed groups take advantage deficient pull factors (positive factors) to multiply push factors (negative factors) that drive chaos in the DRC warfare.

There has been resilience to warfare shocks and resistance to invading forces. These resilience and resistance constitute an opportunity for DRC government to learn from military operations and command failures to reorganize the defence and security sector. It is also an opportunity to capitalize on its war-driven procurement system to devise a sound offset policy. The offset policy and program may help setting up its defence industrial base for the production of information technology–based indigenous technologies in information warfare related systems/weapons at low cost. The challenge will consist of creating a useful strategic partnership with a selected friendly country and the selection of technology transfer/leapfrog/substitution model for implementing a defence offset policy and program. The DRC will have to also enhance R & D allocation in the field of IT in such a way that it acquires technological means of generating wealth, protecting its natural and mining resources and ensuring security of the people and controlling adverse risks of chaos drivers. The DRC has some research-based universities which may help the country develop very low cost and niche technologies such as the GPS need to be exploited by both the civilian and military organizations.

Conflict of Interest

The author hereby declares that no competing financial interest exists for this manuscript.

Notes on Contributor

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