FRAGILE STABILITY: THE IMPACT OF GEOPOLITICAL INTERESTS AND ENVIRONMENTAL SECURITY ON BURKINA FASO'S POLITICAL LANDSCAPE

Amy RICHMOND[A*], Richard WOLFEL [B], Christiana FAIRFIELD[C], Rick GRANNIS[D], Peter GRAZAITIS[E]

Received: October 15, 2025 | Revised: November 22, 2025 | Accepted: December 3, 2025
Paper No. 26-68/1-782

A* United States Military Academy, 10996, West Point, NY, USA
https://orcid.org/0000-0002-9045-537X, amy.richmond@westpoint.edu (corresponding author)

B United States Military Academy, 10996, West Point, NY, USA
https://orcid.org/0009-0008-9263-0363, richard.wolfel@westpoint.edu

C United States Army, Command and General Staff College, Ft. Leavenworth, Kansas, USA
https://orcid.org/0000-0002-9708-5762, christiana.m.fairfield.mil@army.mil

D University of California, Irvine, 92697, Irvine, California, USA
https://orcid.org/0000-0001-5512-8915, rickgrannis@cox.net

E Transformation Decision Analysis Center, T2COM Futures and Concepts Command Human Systems Integration Division, Aberdeen Proving Grounds, MD 2100 USA
https://orcid.org/0009-0000-4259-9195, Peter.j.grazaitis.civ@army.mil

Citation: Richmond, A., Wolfel, R., Fairfield, Ch., Grannis, R., Grazaitis P. 2026. Fragile Stability: The Impact of Geopolitical Interests and Environmental Security on Burkina Faso's Political Landscape. *Folia Geographica*, 68(1), 5-36.

Abstract

This paper examines how environmental degradation, geopolitical competition, and governance failure intersect to shape political instability in Burkina Faso. Once considered a relatively stable democracy in West Africa, Burkina Faso has undergone two coups since 2022 amid mounting social and environmental crises. Using the Modelling Dense Urban Networks (MDUN) analytical tool, this study identifies the sociocultural, economic, and political dimensions of vulnerability that preceded these events. MDUN's multidimensional analysis demonstrates how public sentiment particularly declining confidence in government, growing xenophobia, and demands for national sovereignty crossed critical thresholds months before the second coup. These dynamics were shaped by worsening environmental stressors, including land degradation, resource competition, and declining agricultural productivity.

The analysis situates Burkina Faso's experience within a broader theoretical framework linking environmental security and political ecology. It underscores how global and local forces converge in multi-scalar ways foreign mining interests, regional insurgencies, and global rivalries between France, Russia, and China all of which influence domestic legitimacy and governance. Environmental scarcity and political marginalization reinforce one another, eroding state capacity and fuelling public discontent.

Findings suggest that societal vulnerability in Burkina Faso is best understood as a dialectical process: environmental stress undermines governance, weak governance deepens vulnerability, and both are shaped by internal and external actors seeking strategic advantage. Addressing instability in the Sahel requires more than counterterrorism or aid. It requires integrated approaches that strengthen environmental management, equitable access to resources, and political legitimacy at multiple scales. By combining environmental security theory with a structured vulnerability assessment, this study offers a framework for anticipating and interpreting sociopolitical instability in environmentally stressed regions.

Key words
Environmental Security, Political Instability, Burkina Faso, Societal Vulnerability, Geopolitical Competition.

INTRODUCTION

The Sahel region continues to experience political instability, compounded by growing geopolitical interest, intensifying conflicts, resource conflict, and the overuse and misuse of land. The intersection of geopolitics and environmental insecurity has significantly influenced the political development of the Sahel countries. This paper utilizes the Modeling Dense Urban Networks (MDUN) analytical model to examine the critical economic, geographical, and political factors influencing the local population's sentiment in Burkina Faso, as well as how these factors are impacted by resource conflict and environmental degradation. Burkina Faso faces significant societal vulnerability due to economic inequalities, regional instability from ongoing Sahel conflicts, substantial environmental challenges, and a deep-seated distrust in the government and the former colonial power, France. Declining access to resources acts as a threat multiplier, exacerbating these existing issues. Internal instability significantly contributed to the two military coups in Burkina Faso in 2022. Additionally, Burkina Faso is a focal point of intense competition between global powers, who manipulate societal opinion on local vulnerabilities to enhance their influence while undermining rivals. This multiscaler impact of vulnerability demonstrates that societal vulnerability is often an interaction of local conditions and global forces competing both within and between scales to gain access to dwindling environmental resources.

THEORETICAL FRAMEWORK

Societal Vulnerability and Change

Traditionally, most studies of societal vulnerability and resilience emphasize environmental stressors and episodic disasters due to their dramatic nature and the immediate strain they impose on societies. Understanding societal vulnerability is crucial for effective risk management, yet definitions and frameworks for assessment widely vary. Nuanced approaches are essential to grasp its dynamic

and context-specific nature. Urban specialists focus on people's livelihoods and coping capacity, while disaster specialists focus on the vulnerability of individuals and critical institutions to disasters. Increased susceptibility in vulnerable societies leads to severe impacts from natural disasters due to inadequate infrastructure and preparedness, resulting in higher damage and casualty rates.

While vulnerability analysis is widespread, scholars such as Adger (2006) and Turner et al. (2003) criticize its reliance on generic quantitative methods, which often fail to capture the complexity and specific experiences of diverse societal groups. Vulnerability is unequally distributed, with the social impacts of hazard exposure disproportionately affecting the most vulnerable. It is also a dynamic concept that evolves over time and space, influenced by social-ecological interactions such as the interplay between environmental stresses and socio-economic factors. For example, climate change can exacerbate existing economic inequalities, increasing vulnerability for marginalized groups. Weak governance can amplify these vulnerabilities by failing to provide adequate resources and support mechanisms.

Some scholars have applied concepts of resilience and vulnerability to explain dramatic societal changes. O'Lear (2005) observes that these studies tend to bifurcate societal vulnerability as either the result of global forces exerting influence on a state's political system (environmental security) or others that tend to focus on the struggles of individual agents and their inability to access local resources (political ecology). This parallels a critical debate in geography over the influence of globalization on local regions. A reaction to the globalization thesis is the glocalization approach, which explains contemporary societal change. Glocalization takes globalization to task for its "eco-centric view," "binary" world view, and "focus on overpowering homogenization" (Drori et al, 2014: 85). In other words, glocalization emphasizes that themes of globalization are filtered through local contexts to create unique local reactions. While the debate between top down and bottom-up approaches to vulnerability is essential for explaining processes of vulnerability and resilience, Roudometof (2016) views both as a reductionist exercise, looking to focus on one method at the expense of the other process. O'Lear (2005) emphasizes this as a critical deficiency in studies of environmental geopolitics and political vulnerability influenced by environmental stressors. Often, both the global and local interact to influence vulnerability within a region.

In addition to the directionality of vulnerability, there is also a dialectical aspect to understanding vulnerability as societies evolve in response to societal stressors. Aguirre views vulnerability and resilience as a "dialectical duality" in societal development, with societies continually evolving and developing new resiliency strategies as they experience shocks and recover. However, new influences on vulnerability often emerge that are not always visible or assessed by society.

Frerks et al. (2011) emphasize that resilience does not always return to a previous equilibrium state.

Explaining complex social systems involves developing frameworks to assess the impact of stressors on societal vulnerability or resilience. Various scholars have used different approaches to construct these frameworks. Wilches-Chaux (1989) identifies several factors that influence vulnerability, including environmental, political, cultural, and economic factors. Weichselgartner (2001) focuses on vulnerability characteristics, including preexisting conditions, differential impacts on social groups, and site-specific vulnerabilities. Christmann and Ibert (2012) build on this by identifying "structurally induced vulnerability," where socio-economic situations shape vulnerability levels. These scholars emphasize the importance of acknowledging and addressing vulnerabilities to develop resilience.

Recent studies have focused on social and economic aspects of vulnerability and resilience. Tanner and Williams (1981) identify five key aspects of society: economic production, technical adaptation, education, science, political relationships, and conflict management. Frerks et al. (2011) define vulnerability as poor governance, inadequate development schemes, and political or military destabilization, with a focus on political development. This economic approach contrasts with environmental explanations. While Jonas and Gibbs (2004) highlight the significance of environmental issues in societal development, such as river cleanups and the redevelopment of industrial sites for gentrification. Richmond et al. (2015) focus on household-level vulnerability, identifying key areas such as food, water, energy, environment, livelihood, and health. These interconnected factors significantly increase vulnerability, especially in poorly managed urban settings.

Studies emphasizing sustainability often integrate economic and environmental aspects. Shen, Ochoa, Shah, and Zhang (2011) studied sustainable development plans in nine cities, reducing the dimensions of sustainable development to four: environmental, economic, social, and governance. They apply these dimensions to identify commonalities and differences among cities, providing a method for implementing sustainable development programs at various stages of development.

However, research on development that emphasizes economic or environmental aspects often briefly mentions political, cultural, and social factors. These studies minimize the importance of identity, political legitimacy, social networks, and political penetration, which also strongly influence urban development. This gap is addressed through a model emphasizing sociocultural variables within a political development framework. Binder's approach to political development categorizes it into five key areas: production, identity, legitimacy, participation, and penetration. Scholars like LaPalombara (1971) and Fierman (1991) have added a sixth category, allocation. This model, situated within discussions of societal development, illustrates how vulnerability and resilience

emerge from the continuous interaction and evolution of regional networks and their interactions with the global political-economic system. Influenced by local populations and external forces, these networks shape societal resilience and vulnerability. Giddens' (1979) duality of structure emphasizes that people both change and are changed by societal networks through interaction with these networks, a duality central to any analysis of societal resilience and vulnerability.

Environmental Security

The relationship between armed conflicts and natural resources, particularly oil, diamonds, and narcotics, is increasingly scrutinized. Africa, with its vast mineral reserves and high-value exports like crude oil, cobalt, and natural gas, faces rampant violence and forced displacement due to military activities. Scholars must examine the intersection of natural resource governance and military policy in these regions. The association between natural resource availability and armed conflicts is complex. Some studies find positive effects of new natural resource discoveries on conflict, while others show negligible effects when controlling for other factors. Differences in datasets and empirical methodologies contribute to these contradictory results. However, the military's role in shaping governance decisions in the natural resources sector remains understudied.

Environmental security is a multifaceted concept intersecting various disciplines, including environmental science, political science, and security studies. It broadly concerns the interplay between environmental changes and the security of human societies. Socioeconomic variables influence vulnerability in relation to environmental stress. Environmental security emerged in the late 20th century, gaining prominence as the world's increasing awareness of global environmental challenges grew. Early works by Homer-Dixon (1994) and Mathews (1989) emphasized the potential for environmental degradation to trigger conflict and exacerbate existing vulnerabilities. Homer-Dixon introduced the concept of "environmental scarcity" as a driver of social instability and conflict, arguing that scarce renewable resources, such as water, arable land, and forests, could lead to violent conflicts, particularly in developing countries. Mathews proposed that environmental changes could undermine national security by contributing to political instability, economic decline, and social fragmentation. This perspective broadened the traditional understanding of security to encompass non-military threats, highlighting the interconnection between environmental health and human security.

Environmental security has multiple dimensions, reflecting its complex and interdisciplinary nature. These dimensions include ecological, social, economic, and political aspects:

1. Ecological Dimension: Focuses on ecosystem health and stability. Degradation of ecosystems can lead to the loss of crucial ecosystem services.
2. Social Dimension: Addresses the impact of environmental changes on human communities. Environmental changes can exacerbate social inequalities, displace populations, and increase vulnerability to natural disasters.
3. Economic Dimension: Examines the relationship between environmental resources and economic stability. Environmental degradation can undermine economic development by reducing resource availability.
4. Political Dimension: This involves the role of governance and political institutions in addressing environmental issues. Effective governance structures are essential for addressing environmental challenges and ensuring sustainable resource management.

Historical and contemporary events show that environmental stress often leads to conflict, frequently along ethnic lines. This trend persists as environmental changes stress marginal environments, particularly in regions with weak governance. Non-sustainable environmental practices, migration, and resource shortages in developing states further destabilize regions with weak governance. Environmental stress enables violence when combined with weak governance and social fragmentation, manifesting along latent ethnic and political divisions.

Homer-Dixon and Klare argue that environmental stressors, such as resource scarcity and environmental degradation, act as catalysts for conflict, particularly in areas with weak governance and high poverty levels. These stressors exacerbate existing tensions, leading to violence. Empirical studies support the link between environmental factors and conflict, highlighting how competition over scarce resources, such as water and arable land, can result in violent disputes, particularly in developing countries.

O'Lear (2005, p. 297) offers a critique of environmental security that highlights several key deficiencies in traditional studies of environmental security. First, she emphasizes the need to position resource conflict at a proper scale of analysis. She sees studies focusing either on local-scale resource scarcity and its impact on local dynamics or on global-scale resource demand and its implications for state development. The focus on a specific scale tends to limit the ability to see resource conflicts as multi-scale, with local, meso, and global scale influences on local vulnerability and state-level political legitimacy. In addition, global actors enter a dialectical relationship with the local scale, in which they attempt to manipulate local and state factors to gain control of resources. However, they are often influenced by local and state-level dynamics that support or limit the effectiveness of global actors in gaining influence at the local level.

In addition, O'Lear (2005, p. 298) identifies the focus on state-level analysis and the significance of state boundaries as sacrosanct in studies of resource conflict. She sees the studies from the environmental security perspective as a zero-sum

competition for control of resources bounded by state boundaries. Often, these conflicts ignore state boundaries as groups cross borders in search of resources and influences.

Environmental instability significantly enables conflicts, especially in sub-Saharan Africa, where non-sustainable practices and environmental changes combine with failing governments to ignite ethnic and religious conflicts. This paper presents a model illustrating the relationship between natural resources and political stability in Sub-Saharan Africa, demonstrating a significant link between arable land, access to fresh water, and political stability. The concept of human security, introduced by the United Nations Development Programme (2016) (UNDP) in 4, broadened the traditional understanding of security to include various dimensions of human well-being. Environmental security is a critical component of human security, as environmental changes directly impact individuals' health, livelihoods, and safety. Integrating environmental security into the broader human security framework emphasizes the protection of individuals and communities from environmental threats. This approach advocates for policies addressing environmental and social vulnerabilities to enhance human security.

A detailed and localized analysis is essential to address human security concerns effectively. Vulnerability research often focuses on global assessments, allowing for comparisons across countries, but does not identify specific vulnerable groups or locations. Regional analyses can result in generalizations that overlook localized concerns, potentially preventing aid from reaching the most vulnerable populations. Current research indicates that access to environmental resources, particularly clean water, is essential for maintaining state stability, fostering peace, upholding human rights, and promoting economic development. Pervasive political instability and environmental stress in West Africa create complex problems for relief agencies.

Political Ecology

Political ecology is closely linked to environmental security, as both fields examine how access to resources, power dynamics, and governance shape environmental vulnerabilities and conflicts. By analyzing how political and economic structures influence environmental degradation and resource scarcity, political ecology provides insight into the root causes of environmental crises that contribute to instability and insecurity. In regions like the Sahel, where climate change exacerbates food insecurity, displacement, and land conflicts, political ecology helps explain how environmental stressors interact with social and political factors to drive insecurity and conflict.

Political ecology extends cultural ecology by incorporating critical social science perspectives, emphasizing power dynamics and equity in environmental issues. Watts (2017) defines it as analyzing access and control over resources and their

effects on environmental health and sustainable livelihoods. This approach shifts from sustainability-focused studies to examining political-economic relationships and their environmental consequences. Walker (2005) critiques traditional resource constraint theories, highlighting poverty and resource access as primary drivers of environmental crises. Political ecology also explores broader political negotiations, incorporating dimensions like gender, race, and ethnicity (Sultana, 2020).

The "politics of scale" is central to political ecology, with crises manifesting at multiple levels (Watts, 2017). Loftus (2018) challenges the state's role, arguing global forces increasingly shape local conditions. Tzaninis et al. (2021) link urbanization to modern environmental crises like wildfires. While some theories critique state authority, O'Lear (2005) warns that resource scarcity and economic growth can erode state legitimacy, fostering corruption and instability. Political ecology offers a framework for understanding environmental issues, geopolitical interests, and local political dynamics. In the Sahel, climate change exacerbates poverty, food insecurity, and displacement, shaped by policies, market forces, and land tenure. Global powers exploit environmental vulnerabilities for strategic gain, deepening conflicts and governance challenges. Sustainable solutions require local engagement, leveraging indigenous knowledge within a multi-scale perspective.

Burkina Faso: A Case Study of Political Instability and Environmental Challenges

Burkina Faso, a landlocked country in West Africa, is characterized by significant societal vulnerability driven by a complex interplay of political instability and environmental challenges. Vulnerability is not equally distributed, and the social impacts of hazard exposure often fall disproportionately on the most vulnerable people in society. Vulnerability is not static but a dynamic concept that changes across time and space (Flanagan et al., 2011). This necessitates considering social-ecological interactions, such as how environmental stresses and socio-economic factors interact and exacerbate one another. This combination of factors has created a cycle of vulnerability that impedes development and exacerbates the difficulties faced by its population. In addition, these vulnerabilities are often exploited by global, regional, and state-level actors in an effort to gain influence in key regions in the north of Burkina Faso.

Political Instability

Power struggles, protests, and revolutions characterize Burkina Faso's history. In the late nineteenth century, the French colonized Burkina Faso, integrating it into French West Africa. The French colonial administration exploited the country's resources, relying heavily on Burkinabe labor in agriculture and mining. Calls for independence grew post-World War II, culminating in Burkina Faso's independence from France in 1960. However, Burkina Faso faced economic

underdevelopment, social inequality, and political instability like many of its regional counterparts (Engles, 2018, p. 363). The economy was primarily geared towards cotton production for export, with limited diversification (Bourdet & Persson, 2001). This economic structure, compounded by a lack of human capital and financial resources, hindered the country's ability to develop and manage its industries and infrastructure.

Since gaining independence, Burkina Faso has been plagued by political instability and violence. The country has experienced numerous coups and military regimes, with notable coups occurring in 1966, 1980, 1982, 1983, 1987, 2014, 2015, and 2022. Contemporary challenges include the rise of violent extremist groups (VEOs) and ethnic conflicts, particularly in the northern and eastern regions (Bado, 2015). Factors contributing to the threat of terrorism include poverty, political instability, weak governance, and the influence of extremist groups in the region. Key terrorist organizations operating in Burkina Faso include the Group for the Support of Islam and Muslims (GSIM), Jama'at Nasr al-Islam wal Muslimin (JNIM) affiliated with Al-Qaeda, and the Islamic State in the Greater Sahara (ISGS) (Bureau of Counterterrorism, 2021). These groups have carried out numerous attacks on civilians and security forces, leading to a humanitarian crisis and the displacement of thousands.

The internally displaced population increased from 50,000 in December 2018 to 270,000 by August 2019 (International Commission of the Red Cross [ICRC], 2019). Burkina Faso is experiencing one of the fastest-growing displacement crises in the world, driven by violence, poverty, food shortages, and the impacts of climate change (UN High Commissioner for Refugees [UNHCR], 2022, n.p.). Regional instability, particularly in neighboring Mali and Niger, has led to an influx of over 90,000 refugees into Burkina Faso. Attacks have significantly impacted the country's economy and development, targeting religious sites, businesses, and infrastructure, and discouraging foreign investment. The Burkinabe government has implemented measures to address terrorism, including increasing security forces and collaborating with international partners to strengthen border security and intelligence-sharing (Bado, 2015).

Violence and instability have continued to escalate, with GSIM blocking access to several cities in northern and eastern Burkina Faso by attacking and destroying infrastructure, affecting access to food, water, health, and education (Ochieng, 2022). In January 2022, a military coup led by Damiba occurred due to the ineffective handling of ISGS and GSIM militants. Continued dissatisfaction with the government's inability to manage militant attacks led to a second coup in September 2022, led by Captain Ibrahim Traoré, who became the new president after Damiba's resignation (Booty, 2022). Since November 2022, rising violence targeting civilians based on ethnic and religious identity, led by non-state armed groups, has driven over 60,000 Burkinabe people to neighboring countries

(Sy, 2023). Most of those fleeing are women and children, who have also been subjected to gender-based violence, stating, 'when the armed groups came, everything changed.' (Sy, 2023) These challenges have exacerbated the fragility of an already destabilized region struggling with security challenges and food insecurity.

The politics of independent Burkina Faso have been marked by frequent coups, political unrest, and violence. The most recent successful coup occurred in September 2022, disrupting governance and public order, followed by a thwarted coup attempt in January 2024. Constant unrest creates disorder in the government, weakens state institutions, leads to human rights violations, and fosters economic instability, thus contributing to widespread violence and insecurity. Violence stems from militant groups attacking military and civilian targets. The country's insecurity is aggravated by its location in a region with instability in neighboring countries, forcing many refugees to seek safety in Burkina Faso. The militant groups' threats to overthrow the government and terrorize villages, coupled with the spillover of conflict from neighboring countries, have further exacerbated the situation, leading to internal displacement and humanitarian crises.

Environmental Challenges

Environmental change acts as a "threat multiplier" in Burkina Faso, worsening existing vulnerabilities and driving instability across the region. The environmental issues faced by the country are multifaceted and deeply interconnected with the social, economic and political factors influencing vulnerability in the country. There are three main categories of environmental challenges influencing vulnerability in Burkina Faso: land degradation, conflicts over access to resources, and declining agricultural productivity.

Burkina Faso's arid and semi-arid landscapes are increasingly affected by land degradation and desertification. Overgrazing, deforestation, and unsustainable agricultural practices have led to soil erosion and reduced fertility. As arable land shrinks, rural communities face heightened competition for dwindling resources, escalating local conflicts over land ownership and usage. The United Nations' Food and Agriculture (FAO) (2024) estimates that around one-third of Burkina Faso, or over nine million hectares of productive land, is degraded. This number is increasing by 360,000 hectares per year. As the amount of productive land decreases, competition for land use increases, often resulting in conflict between different groups seeking to use the shrinking stock of useable land.

The FAO (2021) also reports that conflict over resources is increasing. This includes both mining conflict and conflicts over rural land, which could be used for agriculture and transhumance. Their project (FAO, 2021: 3) reports more conflict in the regions in the Sahel than in the other regions of Burkina Faso. They (FAO,

2021, p. 4) identify several different types of conflicts in the region to include land conflicts between local and migrant farmers looking for better conditions, conflicts between crop and livestock farmers, conflicts over access to cattle tracks and traditional pastoral areas. All of these could be seen as resulting from degrading agricultural conditions causing groups to search out suitable land for either crops or livestock.

Additionally, the FAO (2021) identifies mining conflicts as a significant category of resource conflict in the country. Most of the conflicts is related to the exploitation of gold which "does not take into account the needs of other users of the natural resources" (FAO, 2021, p. 5). Often mining permits are issued by the government without considering the concerns of the local population (FAO, 2021, p. 6). In addition, mining companies often fail to anticipate the results of mining on the local community. For example, the FAO (2021, p. 6) identifies the uncontrolled use of heavy metals in gold mining as a significant cause of livestock poisoning and the decline of plants used by livestock for forage. Again, as with land degradation, competition over declining resources leads to increased conflict throughout the region.

Finally, due to the increased degradation, agricultural productivity is declining in Burkina Faso. Since agriculture is the primary source of income for the citizens of Burkina Faso, (the United States Agency for International Development (USAID) states that 80% of the population is engaged in the agricultural sector (USAID N.D.)) most of the population remains food insecure due to low agricultural productivity. This low productivity is the result of variable rainfall, persistent drought, and low soil fertility. As the Sahel expands, agricultural productivity will remain a concern, as less land will be available for crops. As with the other environmental concerns, this will lead to increased conflict over dwindling resources.

In response to these challenges, Burkina Faso's government has implemented policies to promote economic growth and development through infrastructure investments, education, technical training, and economic diversification. These policies focus on achieving national self-sufficiency, reducing dependence on external forces, promoting internal development, alleviating poverty, and enhancing access to basic services.

Infrastructure development policies have included investments in roads, bridges, and other projects to enhance transportation and communication nationwide. One key economic policy was the establishment of state-owned enterprises in vital sectors, including agriculture, mining, and energy. These investments aimed to promote rural development, boost local production, and reduce imports. Additionally, the government promoted education and training by investing in the construction of schools and universities, expanding access to education, and developing technical skills to support economic growth and industrial development.

However, these policies have faced limitations due to limited financial resources and inadequate technical expertise. Social inequalities further exacerbate Burkina Faso's poor economic development. There is a wide gap between the rich and the poor, with unequal access to education, healthcare, and other essential services. Poverty remains a significant issue, with around 40 percent of the population living below the poverty line.

Women face numerous challenges in terms of social equality. Despite constitutional guarantees of gender equality, women in Burkina Faso face widespread discrimination and violence. They often have limited access to education, healthcare, and economic opportunities, and are frequently subjected to early marriage, female genital mutilation, and other harmful practices. According to the United Nations, the literacy rate for women aged 15 and older in Burkina Faso is only 32 percent, compared to 50 percent for men.

There is also a stark inequality between those who live in rural and urban areas. Rural communities face greater poverty, limited access to education and healthcare, and inadequate infrastructure compared to urban areas. The literacy rate in urban areas tends to be higher than in rural areas due to limited access to educational opportunities, lack of resources, poverty, and a shortage of qualified teachers.

The government has adopted policies aimed at promoting social development, including investments in education to address gender inequality, and has implemented programs in rural areas to increase enrollment, provide access to educational materials and resources, and train teachers. However, progress has been slow, and social inequality remains a significant challenge for Burkina Faso. This economic instability has fed into growing political instability. Research on societal vulnerability, environmental security, and political ecology focuses on the intersection of political, economic, social, and environmental stressors as influences on societal stability. In Burkina Faso, the intersection of political instability, failed economic development programs, social conflicts, and environmental degradation has significantly increased societal vulnerability and political instability. At this nexus, Burkinabe society has destabilized, making it susceptible to foreign influences looking to exploit these triggers of instability to gain influence at the expense of regional competitors.

The MDUN Sociological Situational Awareness Modeling Tool

Perceptronics Solutions developed the Modeling Dense Urban Networks (MDUN) tool to enhance situational awareness by visualizing and explaining societal vulnerability (Grannis, 2023). Unlike a mere incident tracker, MDUN goes beyond identifying events; it anticipates that inciting incidents will occur regularly and evaluates and forecasts their probable impact. Given MDUN's focus on sociological situational awareness, its inputs are geo-tagged and time-stamped sociocultural,

socioeconomic, and sociopolitical data about a population's perceptions, beliefs, values, and experiences. MDUN computes a social entropy index to measure societal resilience, extracting micro-information about emergent disorders. Social entropy refers to a measure of disorder within a society. As a society fragments and becomes more vulnerable, social entropy increases. Social entropy modeling has been previously used to predict and explain societal resilience and vulnerability (Liang, Hu, Chen, & Zhou, 2017; Liu, Stanley, & Gao, 2016). A low entropy value (near zero, or close to the center of the radar chart (figure 1-4)) suggests stability, while a high value (approaching 1, or towards the edge of the radar chart (figure 1-4)) indicates that the societal system is vulnerable to collapse and may require reconstitution (Liang, Hu, Chen, & Zhou, 2017; Liu, Stanley, & Gao, 2016). MDUN uses these multiple measures of vulnerability as inputs to an artificial intelligence/machine learning routine that learns optimal weightings for each input by training on over 320 known events worldwide, producing a social entropy score for 12 comprehensive measures of vulnerability. Each of these measures, or dimensions, represents a critical aspect of societal development and resilience. This enables MDUN to understand a population's sentiment and resulting behavior, gaining insight that surpasses any human analyst's understanding.

MDUN conveys this understanding of societal dynamics across 12 sociocultural, economic, and political dimensions, offering a nuanced understanding of societal vulnerability. These dimensions were derived from a factor analysis of data from dozens of countries across all geographic regions. Notably, MDUN's 12 dimensions complement the six dimensions identified by Verba et al. (2015), Fierman (1991), and Wolfel et al. (2017), providing quantitative metrics to the analytical framework of political development and triangulating the model both quantitatively and to the academic literature. MDUN displays the 12 dimensions in a radar chart, with each dimension originating from a central point and separated by equivalent angles. A circular terminal edge connects all axes, with the central point representing complete stability and the terminal edge indicating a critical phase transition, suggesting an event that triggers a social catastrophe. A polyline connects each dimension, indicating the current state of societal areas on that dimension.

The influence of environmental security on societal vulnerability

Beginning in May 2022, the research team used MDUN to analyze Burkina Faso and explore its sociocultural fabric, aiming to identify the major factors influencing societal vulnerability that contributed to the January coup four months earlier. MDUN utilized over twenty different data sets, ranging from local sentiment data collectors to large international organizations. (See Table 1 for the data sets used). These data were drawn from international agencies with a strong tradition of producing reliable data sets. The results each of the various survey questions for each data set were assigned to one of the 12 dimensions of the MDUN model by

the researcher, using a standard definition of the dimension. From May 2 to July 25, 2022, weekly assessments of Burkina Faso's sociological situational awareness were conducted using these observed data sets. These data sets were updated as new data became available in the time frame between May 2 and July 25, 2025. Figures 1, 2, and 3 display the assessments for May 2 (the beginning), June 13 (midway), and July 25 (the end).

Tab. 1: Data sources used in conjunction with the MDUN to analyse Burkinabe society

- ACLED conflict data project
- African Development Bank Group
- Afrobarometer
- Burkina Faso Displacement Center
- Burkina Open Data Initiative
- Catholic Agency for Overseas Development
- Global Health Advancement Organization
- Humanitarian Data Exchange
- Internal Displacement Monitoring Center
- OxFam
- Oxford Poverty & Human Development Initiative
- UN Development Program
- UN Economic Commission for Africa
- UN Office for Disaster Risk Reduction
- UN Office for the Coordination of Human Affairs
- UN Office for the Coordination of Humanitarian Aid
- UN Refugee Agency
- US Agency for International Development
- World Bank
- World Food Programme
- World Health Organization
- World Values Survey

All the figures (1-4) represent MDUN's evaluation of currently observed data taken from the sources listed in table 1. Beyond merely evaluating the current situational awareness, on June 13, 2022, we used MDUN to make month-by-month

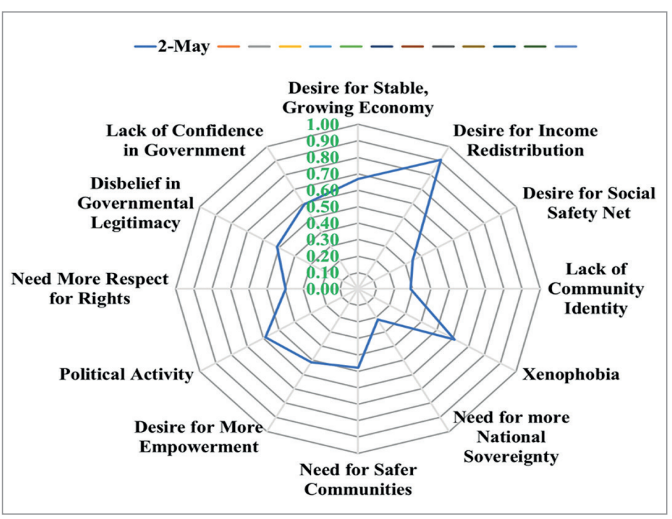

Fig. 1 Burkinabe society as measured on 2 May 2022

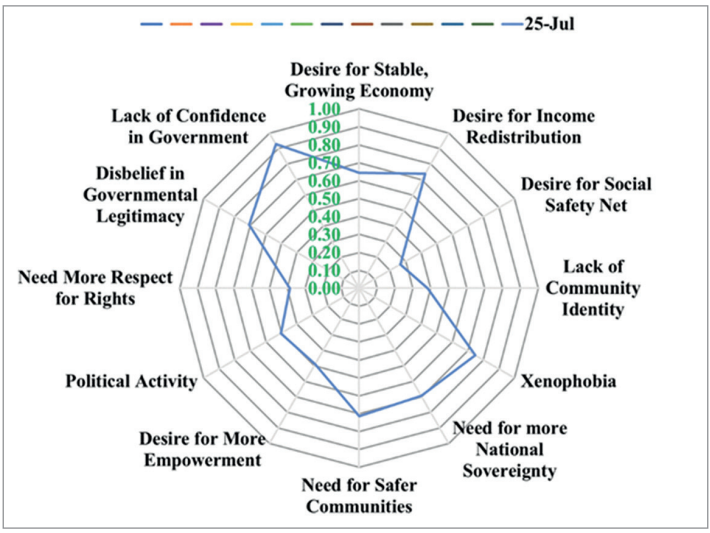

Fig. 2 Burkinabe society as measured on 13 June 2022

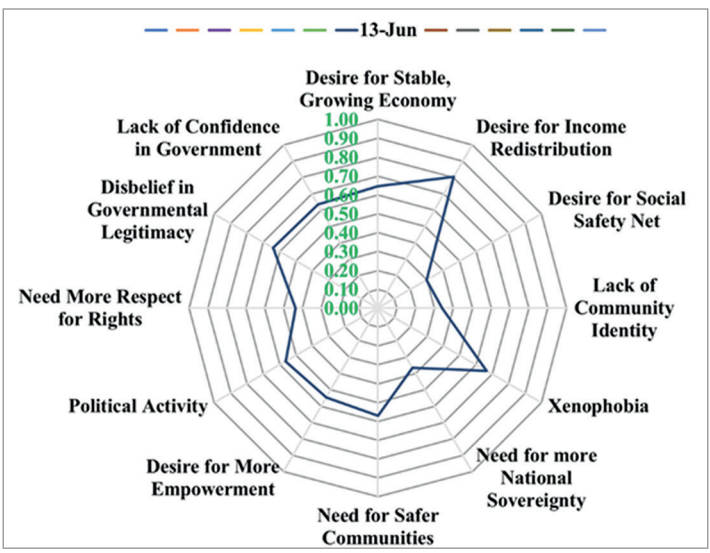

Fig. 3 Burkinabe society as measured on 25 July 2022

predictions (from July 2022 to January 2023) about the country's direction. These predictions were made by projecting current trends forward based on micro-level data analysis. MDUN projected the potential outcomes if individuals' perceptions, attitudes, and behaviors continued to evolve unchecked.

These patterns were evident in the perceptions, beliefs, and attitudes of the local population. MDUN did not assess inciting incidents or actions taken by leaders

but evaluated the evolving perceptions and attitudes of the general population, what they perceived and experienced, and how these perceptions and experiences would likely impact their decisions to act. MDUN identified micro-level signs of entropy and emergent disorder already present in the population and projected them forward, showing when they would become so great that the state could not survive. The specific incident that formally ignited the coup was less relevant than the fact that the population had reached a point where they would react to any inciting incident.

Interestingly, all predictions made on June 13, 2022, were based on the assumption that the situation for individuals on the ground would continue to evolve as it had. At a time when the situation appeared to be stabilizing, MDUN identified the underlying issues. If leaders had taken appropriate actions, they might have altered the course. Still, by only being aware of the macro-level and not the individual-level perceptions and attitudes, they failed to perceive the evolving crisis.

The September 30, 2022 projection (Figure 4) showed that the lack of confidence in the government had crossed the criticality threshold. Other concerning factors included disbelief in governmental legitimacy, the need for national sovereignty, the need for safer communities, and xenophobia. Together, these factors suggested that by September, the government would have lost popular support due to a palpable decline in confidence in its ability to protect its population from external threats, both nationally and locally. Five months earlier, all these factors had been no more than moderate, and the need for national sovereignty was very low.

MDUN's projection on June 13, 2022 (Figure 4), accurately foresaw the military coup on September 30, 2022, which ousted the established government. At the time of the prediction, the large-scale scenario looked stable. In three months, the lack of confidence in the government rose by about 40 percent, from moderate to destabilizing. The need for national sovereignty transitioned from stable to critical in the same period. Burkina Faso does not have a long history of robust political participation. The country has experienced at least ten coups since 1966, with at least six additional attempted coups. The government has also conducted eight elections since its independence in 1960, with most of these not being considered free or fair. In fact, only one election, 2015, was considered free, fair, and where the results of the election were in doubt (Africa Research Bulletin, 2016). The 2015 election was only the second time in the country's history that a civilian was elected president.

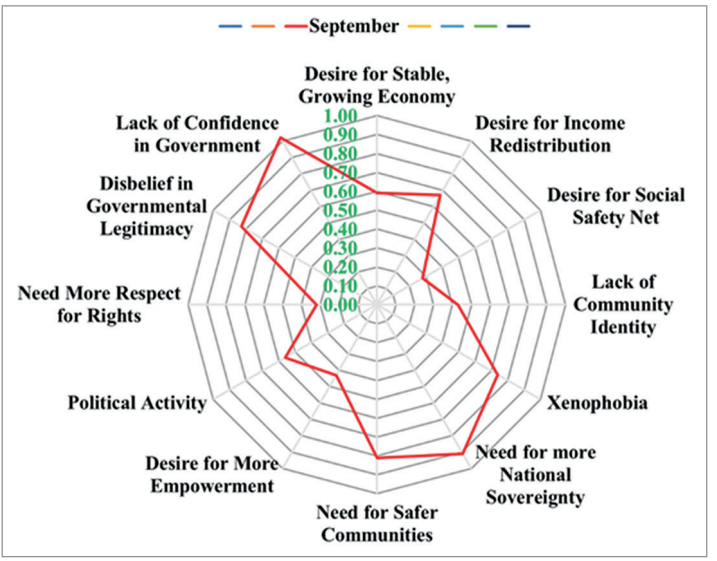

Fig. 4 Expected state of Burkinabe society on 30 September 2022 given evolving individual perceptions and attitudes (forecast on 13 June 2022)

Initial State after the first coup: The Crisis of Production

Political ecology highlights marginalization and restricted access to resources as key drivers of instability within a country (Walker, 2005, p. 74). The production crisis following the first coup underscores the widespread marginalization of Burkinabe society and its exclusion from valuable resources. In early May (Figure 1), four months before the second coup, MDUN assessed that those concerns over income redistribution had reached near-critical levels. Local citizens increasingly demanded a fairer distribution of wealth. At the same time, the xenophobia score was likely influenced by frustrations over foreign-controlled mining operations, which provided minimal economic benefits to the local population.

Official unemployment rates were reported at 5.1% in 2020, 5.4% in 2021, and 5.1% in 2022 (Trading Economics, 2023). While official data should always be cautiously approached, trends indicate that this three-year period marked the highest unemployment levels in the past eight years. Alongside rising unemployment, self-employment remains exceptionally high. Hanson (2004, p. 30) estimates that 85% of Burkinabe workers are self-employed, with approximately 70% of the labor force engaged in the informal sector (International Organisation of Employers, 2023, p. 2). While specific figures may vary, it is evident that a substantial portion of Burkina Faso's economy relies on informal or self-employed labor. These employment sources are often unreliable, exacerbating economic insecurity, fueling public discontent, and contributing to broader societal instability.

In addition to the employment structure, the mining industry is one of the largest contributors to economic development in Burkina Faso. Burkina Faso is one of the largest producers of gold, manganese, and zinc. Some sources list Burkina Faso as Africa's fifth-largest gold producer (Trade Commissioner Service, 2022). While this has the potential to be a positive influence on societal production and resiliency, the lack of government oversight, foreign influence, and corruption makes it less of an influence on resiliency and more of a source of negative sentiment and vulnerability. The seven largest mining companies in Burkina Faso are all foreign-owned (four Canadian, one British, one Australian, one Russian). This results in minimal local control over resources and very little wealth distribution throughout the country. The lack of local control could be a factor influencing the increased sense of xenophobia, as seen in public sentiment before the January coup (Figures 1, 2, 3). Additionally, most of the relationships and contracts between the Burkinabe government and mining companies are opaque and lack transparency and oversight. Those contracts are also being terminated as governments change, causing significant problems with political and economic development in Burkina Faso. Additionally, the mines often operate outside the jurisdiction of Burkinabe law. The US Department of Labor's Bureau of International Labor Affairs (2022) reported that up to 50 percent of the labor in the gold mines is under the age of 15, working as forced labor in hazardous conditions. Additionally, when the junta closed the country's borders after the coup, this order did not apply to the mining companies (Africa Intelligence, 2022).

Environmental Security and Economic Vulnerability

Environmental degradation also has a major impact on economic production and societal resiliency, in Burkina Faso, especially agricultural production. This could also influence the elevated Examples of human activities that lead to the deterioration of the environment include soil erosion and climate change. These processes reduce agricultural productivity and threaten food security. Environmental degradation is a multi-faceted issue in Burkina Faso, leading to increased social vulnerability throughout the country. Societal vulnerability often increases due to inequalities in access to resources. Burkina Faso's economy is primarily based on agriculture, with sorghum, millet, maize, and rice being the main crops produced for local consumption (Adger, 2006). Cotton alone accounts for around 73 per cent of Burkina Faso's export revenues, making it one of the top five cotton producers in Africa. Livestock is also a significant contributor to the country's exports (Simonsson, 2005). All forms of agriculture and livestock production are mostly dependent on rainfall and, therefore, extremely vulnerable to droughts.

Cotton production is a significant contributor to soil degradation, exacerbated by overgrazing and deforestation. Soil degradation ultimately leads to decreased agricultural productivity, which in turn jeopardizes food security and livelihoods for a predominantly agrarian population. Environmental factors, such as, climate change and environmental degradation, contribute to societal vulnerability by disrupting livelihoods. Vulnerable communities are often located in hazard-prone areas and lack the resources and infrastructure to cope with and adapt to environmental risks. However, wealthier farmers can often mitigate environmental degradation with the use of fertilizer (Cutter et al, 2008, p.601). Poorer farmers, on the other hand, may have less of a negative environmental impact on the land, but do so at the expense of their economic development and well-being.

As the amount of fertile land decreases, the competition for scarce resources in Burkina Faso intensifies. Furthermore, climate trends and variability are contributing to the rise in environmental degradation. This leads to increased social tensions and displacement as the migration of displaced farmers can lead to increased competition for formal and informal employment opportunities. In addition, in rural regions, climate change is leading to conflicts between farmers and herders for land use and access to water (Climate Diplomacy, n.d.). This conflict has been exacerbated due to drought and livestock encroachment onto cultivated lands.

Being in a semi-arid region, Burkina Faso is highly vulnerable to climatic stressors such as droughts. While there is an established wet and dry season in the North and South, there is an extreme variability in the amount and timing of the rainfall each year (Simonsson, 2005). Being prone to recurrent droughts, this poses challenges to agriculture, food security, and water resources. For agriculture, the droughts exacerbate the soil degradation of the overused land leading to reduced crop yields. For food security, the reduced crop yield affects food scarcity leading to an increase in food prices and a reduction of demand for labor creating a job shortage (Simonsson, 2005). It Is the most vulnerable population, the poor, who will face the greatest Impacts of climate change due to their already limited access to resources. By mid-June, the situation appeared to stabilize somewhat (Figure 2). While the desire for income redistribution remained high, it was moving away from criticality, indicating a potential shift towards stability in Burkinabe society.

As the Second Coup approaches: The Crisis of Allocation, Prescence, and Legitimacy

In 2022, the Burkinabe military conducted two coups. The MDUN analytical model visualized the societal factors that created societal acceptance of the September coup. To explain the context of rising societal vulnerability leading to the September coup, we use Binder's model of political development as an

explanatory framework. Several scholars have used Binder's 1964 model to explain societal political development, which includes six dimensions: political presence (political penetration in Verba et al. (2015) , identity, political legitimacy, political participation, production, and allocation.

As 2022 progressed, the July (Figure 3) and September radar plots showed the impact of a declining security situation and the beginnings of a crisis of allocation (security and food) and legitimacy. Due to this decline in personal security, local citizens began to lose trust in the government, resulting in higher vulnerability scores for lack of confidence in the government and a desire for more national sovereignty. As these scores approached critical levels, societal change became more likely. As the coups approached in 2022, the allocation of security became a more significant factor of societal vulnerability. Along with global supply chain issues, local terrorist activities increased global food insecurity (Hanson, 2024, p.27). The International Rescue Committee (IRC) (2023) reports that an estimated 3.3 million citizens in Burkina Faso are suffering from hunger. Security also deteriorated in multiple regions. Hanson (2024, p. 31-32) reported a doubling of organized political violence incidents in Burkina Faso between 2020 and 2021, with an 80% increase in related fatalities, reaching nearly 2,600 deaths in 2022. Additionally, up to 1.5 million people were internally displaced due to escalating violence. These trends illustrate how the government's inability to allocate security and resources contributed to rising instability.

The Collapse of Essential Services and the Rise of Local Defense Groups

The breakdown of governance extended beyond security concerns, with the education system facing collapse. Engles (2022, p. 316) reported that over 120 attacks on schools were reported, and 2 500 schools were closed due to the security situation. This number continues to rise post-coup, with a 44 per cent increase reported in 2023 (Africa Center for Strategic Studies, 2023). The Africa Center for Strategic Studies (2023) estimates that 25 per cent of the schools in the country are currently not operating. This led to a significant decline in the allocation of education for the youth, plus this shows the lack of security provided by the local government. All of this impacts a significant rise in the "want safer communities" dimension on MDUN, almost rising to a level of criticality.

The security situation continued to deteriorate even after the coups. According to the Africa Center for Strategic Studies (2023), the number of people killed by militant Islamic violence has tripled since the coups. In 2023, they estimated that 8 600 people were killed in violence linked to militant Islamic groups, representing a 137 per cent increase in violence compared to the previous year. Not only is the amount of violence increasing, but the spatial extent of the violence is also increasing. The Africa Center for Strategic Studies (2023) estimates that the violence

occurred on 6 975 square kilometers of land in Burkina Faso, an increase of 46 per cent from 2022 estimates.

To provide security at the local level, locally organized self-defense groups have taken security roles typically provided by the government. Several groups, including the Dozos, Ruggas and the Koglweogos (now known as Vountaires pour la défense de la patrie (VDP)) have transformed from local farmer and herder groups into self-defense organizations (Hagberg et al., 2023, p.110–111). The rise of local organizations demonstrates the vacuum of security created by the Burkinabe government and begins to explain the rising discontent within the Burkinabe population that led to the collapse of the government.

Political Legitimacy and the Role of Anti-French Sentiment

Political legitimacy refers to the local population's belief that the government legitimately represents their interests and deserves their loyalty. As the coup approached, political legitimacy became one of the most critical dimensions of vulnerability as measured by MDUN. By the time of the coup, the "Lack of Confidence in Government" reached criticality in terms of vulnerability. This follows the government's inability to control the insurgency in the north.

The coup makers took advantage of two major grievances within Burkinabe society. First, there is significant anti-French sentiment in the country. According to Hanson (2024), 'young people all over West Africa have animosity for France which the coup makers have taken advantage of in their quest for power. The population blames France for involvement in government deficits.' By ending French operations in 2023, the Burkinabe government hopes to gain support and increase legitimacy.

Second, the former president's inability to deal with the insurgency in the north and provide security for the population was a major influence on the success of the coups. According to Engles (2022, p. 316), the "putschists" used the government's inability to deal with the deteriorating security situation in the north as justification to overthrow the government. Similarly, Hanson (2024) noted that surveys of the local population showed that most Africans still support democratic institutions, but public trust has declined due to the government's inability to "live up to democratic expectations." Hanson goes on to note that the government's inability to combat poverty and insurgencies led to a "democratic crisis," or a crisis of legitimacy, in the country. Finally, Hagberg, et al. (2023, p. 108) contrasted the success of the 2022 coups to the resistance to the September 2015 coup. They attributed the differing levels of support and legitimacy to the exhaustion of the population suffering from insecurity and the hope that an "unconstitutional change" (i.e., coup) would help solve the security situation. This demonstrates the connection between allocation and legitimacy in

Burkina Faso. The lack of security led to a crisis of legitimacy in the government, creating an environment of support or ambivalence towards the coups.

Political Presence and the Fragmentation of Authority

Political presence refers to the government's ability to disseminate its messages and actions to the local population (Binder, 1964). Political presence has been low in Burkina Faso for several years. Haavik Bøås and Iocchi (2022, p. 318) characterized the Burkinabe government as weak since 2014. Additionally, Hanson (2004, p. 34) believed that local strongmen, religious organizations, and the state have used militias, rebel groups, jihadists, and the military as their private armies to settle disputes over resource access and to promote their influence, or political presence. Most of this power projection was for personal gain and provided the local population with little messaging of their goals as agents of influence in the country.

In addition to local groups stepping into the security vacuum, Russia and China have also provided support for security, and by extension, their own political presence, in Burkina Faso. In January 2024, Russia deployed 100 people to provide security to the president and the population (Lechner & Eledinov, 2024). These are likely members of the new paramilitary Africa Corps that will perform the functions of the disbanded Wagner Group (Bartosiewicz & Zochowski, 2024). China also provided 900 security cameras in the country (Agence France Press, 2021). In addition, China provided 400 000 doses of the Sinopharm COVID-19 vaccines to Burkina Faso (National Library of Medicine, 2021).

As the Second Coup Approaches Part 2: Foreign Influence on Burkina Faso (The Crisis of Identity)

Figure 3 highlights that by the end of July, new threats had emerged. While the desire for income redistribution continued to slowly recede, the population's lack of confidence in their government neared criticality, and several other factors became more concerning. The coup makers took advantage of two major grievances within Burkinabe society. First, there is a significant anti-French sentiment in the country. According to Hanson (2024, p.35), 'young people all over West Africa have animosity for France which the coup makers have taken advantage of in their quest for power. The population blames France for involvement in government deficits'. By ending French operations in 2023, the Burkinabe government hopes to gain support in the country and increase their legitimacy.

The presence of 400 French Special Operations Forces in Burkina Faso, even after Operation Barkhane officially ended, may have contributed to the 2022 xenophobia score. The Burkinabe government finally asked them to leave in January 2023. The three Sahelian countries involved in Barkhane (Mali, Niger, Burkina Faso)

used anti-French rhetoric during this period. If these concerns reached a critical threshold, it suggested that the population might act to destabilize Burkinabe society, potentially leading to civil unrest, riots, land occupations, insurgencies, or a wholesale revolution. However, most other factors were moderate, with none approaching the critical edge. Recently, the coup leaders have begun pushing an agenda for their government. Initially, Engles (2022, p. 315) noted that coup occurred to "put the country back on track" and "restore the territorial integrity and sovereignty." The focus of this message of restoring territorial integrity and sovereignty was directed at the insurgencies in the north of the country. This message would resonate with the local population who have expressed concerns with security for the past several years.

At the international scale, the government has reoriented its geopolitical orientation away from the French and towards China and Russia. In 2018, Burkina Faso switched its diplomatic recognition from Taiwan to the People's Republic of China (PRC). This was accompanied by a large investment by the PRC into Burkina Faso. Even after the coup, the Burkinabe government has maintained a close relationship with China. In recent years, the Traoré government has grown its relationship with Russia. This includes humanitarian aid, an agreement to build a nuclear power plant in the country, cultural exchanges, and most recently, security forces to support the government. On 16 January 2024 Africa Defense Forum (2024b) reported the creation of a paramilitary Africa Corps that would replace the now defunct Wagner Group as Russia's main armed presence on the Continent. Two weeks later, a report by Poland's Center for Eastern Studies (see Bartosiewicz & Zochowski, 2024) reported that 100 members of the Africa Corps landed in Burkina Faso in late January, with an additional 200 to arrive later. This roughly equals the number of French Special Operations forces that were present until asked to depart in January 2023.

The departure of the French, the removal of diplomatic relations with Taiwan, and the increased cooperation with China and Russia demonstrate a new geopolitical orientation for Burkina Faso. While these actions have garnered attention outside of the country, their influence in the country is not seen with the same interest. For several years, the country's governments have struggled to promote a coherent message and follow through with actions to improve security conditions in the north. The government seems to be out of touch with the population, especially in the north.

Political Ecology, Identify, and the Rise of Pan-Africanism

Political ecology research suggests that identity conflicts increase during environmental stress and resource conflict. As measured by Lack of Community Identity in MDUN, identity was not a significant factor in societal vulnerability

in Burkina Faso. However, while not significant, the impact of identity increased throughout 2022. Two main aspects of Burkinabe societal development help explain the impact of identity on societal vulnerability, both of which are impacted by growing xenophobia as seen in the MDUN measures from 2022.

First, there is a strong anti-French sentiment in West Africa, particularly in Burkina Faso. Historically, according to Hansson (2024: 25) the French government used culture, or *diplomatie culturelle*, as an instrument of foreign policy, benefiting long-term political and economic objectives by creating a shared identity between the French and their colonies through language and culture. In modern Burkina Faso, the local population is beginning to challenge the supremacy of French culture and chart their own course of development. While research focuses on culture, the French have also been historically interested in economic exchanges in the region.

The decline in French-African identity has led to a renaissance of Pan-Africanism. Pan-Africanism emerged in the early twentieth century to foster unity among all people of African descent worldwide and promote self-reliance and self-government, particularly in Africa. During the 1990s, the movement underwent a shift towards a more aggressive, anti-European version of Pan-Africanism, which sought to dislodge traditional European influences from the region. There is a strong tie between economics and culture, as seen in protests against the Central African Franc. In recent years, the movement has been co-opted by foreign powers to shift political influence away from traditional colonial powers to new suitors, particularly Russia. This shift confirms O'Lear et al's observation that local disasters must be "understood within the context of the global-political system of capitalism that underpins processes of environmental change" (O'Lear et al, 2002, p. 2). While their focus is on environmental crises, the application of this observation to political crises is not difficult to perceive. Foreign actors are manipulating political vulnerability in a region to gain influence and access to key strategic minerals.

The Russians have used their social media influence campaign to promote their regional interests and discredit other potential influencers they see as competitors. Pan-Africanism is one of the key narratives pushed by Russia to break traditional colonial linkages (Afrocentrism) and allow Russian companies to fill the void. Russia launched a large-scale social media influencing campaign in Africa through Yevgeny Prigozhin's Internet Research Agency (Stanford Cyber Policy Center, 2019; US Department of State, 2022). In Burkina Faso, Eckles (2024) chronicles how Russian social media exploited legitimate concerns of the Burkinabe population to build a campaign that blamed France and presented Russia as a savior. They also promoted the authoritarian coup leaders, like Traoré, who look to partner with Russia.

In addition to social media, Russia has funded and supported modern Pan-African leaders to promote Pan-African and Afrocentric identities to deteriorate European influence further. One example is Kemi Seba, a French-Beninese writer and political activist focused on anti-colonialism in West Africa and the reliance on the West African CFA Franc (LE Cam, 2023). Seba's connections to Russia are well-documented, including funding from Prigozhin and invitations to several Russian-African Summits in Russia (Coakley & Vetch, 2022; Roger, 2023). In the wake of Burkina Faso, Mali, and Niger's departure from the Community of West African States, there are hints that all three states are considering dropping the CFA. Jeune Afrique quoted Nigerien Transitional President Tiani, 'There is no longer any question of our states being France's milk cow. Money is a sign of sovereignty. We are in the process of recovering our complete sovereignty' (Jeune Afrique, 2024). As a form of political participation, Hanson (2024) stated that the Russian flag has become a symbol of France's declining influence in its former African colonies. Following the coup, Hanson (2024) observes that numerous Russian flags were raised in the capital.

Ethnic Conflict and the Fulani Crisis

In addition to the anti-colonial identity conflict, ethnic conflicts are also crucial to modern political development in the country. One of the most significant is the Fulani crisis. The Fulani are a group of Islamic pastoralists in the Sahel region. The increased desertification of the Sahel has reduced the rangelands available to pastoralists, leading to environmentally driven violence as farmers clash with pastoralists over land access. According to Cisse (2020), the Fulani have militarized and joined jihadist groups in the region, often for economic gain. While this growth of violent extremist organizations (VEOs) has not significantly influenced identity in Burkina Faso, the government's inability to control these VEOs has contributed to vulnerability in terms of security and trust in the government.

The decline of French cultural influence in the region creates an identity void and increased vulnerability. Various actors promote anti-French sentiment through modern interpretations of Pan-Africanism and Afrocentrism. Russia seized the opportunity to exert its influence by supporting leaders in the Pan-African movement and pushing disinformation through social media. This leads to increased vulnerability in Burkina Faso, as seen in growing xenophobia. The departure of the French, the removal of diplomatic relations with Taiwan, and the increased cooperation with China and Russia demonstrate a new geopolitical orientation for Burkina Faso. This new orientation enables new suitors to access resources and raw materials within the country. China and Russia's desire to access resources in Africa, along with their methods, is well-documented in the literature. While these actions have garnered attention outside the country, their influence

within the country is not seen with the same interest. For several years, Burkina Faso's governments have struggled to promote a coherent message and follow through with actions to improve security conditions in the north. The government seems to be out of touch with the population, especially in the north.

CONCLUSIONS

The analysis shows that Burkina Faso's instability cannot be understood without looking at how social, political, and environmental pressures built over time and intersected in 2022. The MDUN results highlight several dimensions that moved toward critical levels well before the September coup. Rising distrust in the government, stronger demands for national sovereignty, concerns about personal security, and growing xenophobia all intensified between May and July. These shifts in public sentiment aligned with worsening environmental pressure, declining agricultural productivity, and local conflicts over land and water. Taken together, these factors help explain why any major incident during this period could trigger large-scale political change.

The MDUN projections make this connection clearer. By mid-June, the model showed that confidence in the government and belief in its legitimacy were on track to cross a critical threshold by September. These same dimensions later became the core justifications presented by coup leaders. The model also showed rising concerns about community safety and national sovereignty, which matched the growing frustration with the state's inability to contain violence in the north and the widespread rejection of French involvement. The alignment between these sentiment trends and the political events that followed demonstrates how environmental stress and governance failures created conditions that foreign actors could exploit to gain influence.

These findings point to the broader pattern in Burkina Faso: environmental degradation, resource competition, political marginalization, and weak state presence reinforce one another and shape how people interpret both local crises and external actors. This is not a simple story of outside interference or internal decline. It is a multilevel process where global, regional, and local influences interact, feeding shifts in public attitudes that weaken state authority and open the door to political upheaval.

As environmental pressures deepen across the Sahel, countries will face similar cycles of declining state presence, rising security needs, and growing distrust in government institutions. These conditions create space for violent groups, local

militias, and global powers seeking strategic advantage. Understanding how these environmental and political pressures shape public sentiment is essential for anticipating instability and designing responses that strengthen both resilience and legitimacy.

REFERENCES

ADGER, W. NEIL. (2006). Vulnerability. *Global environmental change* 16.3 : 268-281.

Africa Center for Strategic Studies. (2023). *Burkina Faso crisis continues to spiral*. Retrieved from https://africacenter.org/spotlight/burkina-faso-crisis-continues-to-spiral [Accessed 24 February, 2025].

Africa Development Forum. (2024b). *With new name, same Russian mercenaries plague Africa*. Retrieved from https://adf-magazine.com/2024/01/with-new-name-same-russian-mercenaries-plague-africa/ [Accessed 24 February 2025].

Africa Intelligence. (2022). *Burkina Faso coup leader Damiba reassures endeavour's local head over gold mines*. Retrieved from https://www.africaintelligence.com/west-africa/2022/01/31/coup-leader-damiba-reassures-endeavour-s-local-head-over-gold-mines,109730265-bre [Accessed 24 February 2025].

Africa Research Bulletin. (2016) 'Burkina Faso: Presidential Election', *Africa Research Bulletin: Political, Social and Cultural Series*, 52, 12 20816B–20817C.

Agence France Presse. (2021). *Jihadist-hit Burkina to install 900 surveillance cameras*. Retrieved from https://www.barrons.com/news/jihadist-hit-burkina-to-install-900-surveillance-cameras-01625833807 [Accessed 24 February 2025].

BADO, A. (2015). *The paradox at the heart of Burkina Faso's failed coup*. Wilson Centre. Retrieved from https://www.wilsoncenter.org/blog-post/the-paradox-at-the-heart-of-burkinas-failed-coup [Accessed 20 February 2025].

BARTOSIEWICZ, M. & ZOCHOWSKI, P. (2024). *The Wagner forces under a new flag: Russia's Africa Corps in Burkina Faso*. OSW. Retrieved from https://www.osw.waw.pl/en/publikacje/analyses/2024-01-31/wagner-forces-under-a-new-flag-russias-africa-corps-burkina-faso [Accessed 24 February 2025].

BINDER, L. (1964). National integration and political development. *American Political Science Review*, 58(3):622–631.

BOOTY, N. (2022). Burkina Faso coup: Ousted military ruler Damiba in Togo. *BBC*, 3 October. Retrieved from https://www.bbc.com/news/world-africa-63111763 [Accessed 27 September 2024].

BOURDET, Y. & PERSSON, I. (2001). *Burkina Faso: Out of the poverty trap?* Lund: Swedish International Development Agency.

Bureau of Counterterrorism. (2021). *Country reports on terrorism 2021: Burkina Faso*. Retrieved from https://www.state.gov/reports/country-reports-on-terrorism-2021/burkina-faso/ [Accessed 20 February 2025].

Bureau of International Labor Affairs. (2022). *List of goods produced by child labor or forced labor*. Retrieved from https://www.dol.gov/agencies/ilab/reports/child-labor/list-of-goods [Accessed 24 February 2025].

CHRISTMANN, G.B. & IBERT, O. (2012). Vulnerability and resilience in a socio-spatial perspective. *Raumforschung und Raumordnung / Spatial Research and Planning*, 70(4):259–272.

CISSÉ, M. G. (2020). Understanding Fulani Perspectives on the Sahel Crisis. *Africa Center for Strategic Studies*. https://africacenter.org/spotlight/understanding-fulani-perspectives-sahel-crisis/. [Accessed 24 February, 2025].

Climate Diplomacy. (N.d). *Pastoralist and farmer-herder conflicts in the Sahel*. Retrieved from https://climate-diplomacy.org/case-studies/pastoralist-and-farmer-herder-conflicts-sahel [Accessed 24 February 2025].

COAKLEY, A. & VETCH, F. (2022). *Russia is using African influencers to spread its lies on Twitter. Coda Media*. Retrieved from https://www.codastory.com/disinformation/wagner-africa-disinformation-ukraine/ [Accessed 24 February 2025].

CUTTER, S.L., BARNES, L., BERRY, M., BURTON, C., EVANS, E., TATE, E. & WEBB, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, 18(4):598–606.

DRORI, GILI S., MARKUS A. HÖLLERER, & PETER WALGENBACH. (2014). Unpacking the glocalization of organization: From term, to theory, to analysis. *European Journal of Cultural and Political Sociology* 1.1: 85-99.

ECKLES, T. (2024). *The consequences of Russian disinformation: Examples in Burkina Faso*. Wilson Center. Retrieved from https://www.wilsoncenter.org/blog-post/consequences-russian-disinformation-examples-burkina-faso [Accessed 24 February 2025].

ENGELS, B. (2018). Burkina Faso: A history of power, protest and revolution. *Review of African Political Economy*, 45(156):363–364.

ENGELS, B. (2022). Transition now? Another coup d'état in Burkina Faso. *Review of African Political Economy*, 49(172):315–326.

FAO (2021). *Burkina Faso: Analysis of Conflicts Over the Exploitation of Natural Resources*. https://openknowledge.fao.org/server/api/core/bitstreams/632493e4-0fcb-4cf1-89e7-8a7c3dbdd00e/content. Rome. [Last Accessed 20 February, 2025].

FAO. (2024). *Action Against Desertification.* https://www.fao.org/in-action/action-against-desertification/countries/africa/burkina-faso/en/. [Accessed 20 February, 2025].

FIERMAN, W. (1991). *Language planning and national development: The Uzbek experience*. Berlin: Mouton de Gruyter.

FLANAGAN, B. E., GREGORY, E. W., HALLISEY, E. J., HEITGERD, J. L., & LEWIS, B. (2011). A social vulnerability index for disaster management. *Journal of Homeland Security and Emergency Management, 8*(1), Article 3.

FRERKS, GEORG, JEROEN WARNER, & BART WEIJS. (2011) "The politics of vulnerability and resilience." *Ambiente & Sociedade* 14: 105-122.

GIDDENS, A. (1979). *Central problems in social theory: Action, structure, and contradiction in social analysis* (Vol. 241). Berkley, CA: University of California Press.

GRANNIS, R. (2023). *Modeling of Dense Urban Networks (MDUN): Winning multi-domain warfare's competition phase while avoiding kinetic action.* Aberdeen, MD: US Army Development Capabilities Command White Paper.

HAAVIK, V., BØÅS, M. & IOCCHI, A. (2022). The end of stability: How Burkina Faso fell apart. *African Security*, 15(4):317–339.

HAGBERG, S., KIBORA, L.O., BARRY, S., CISSAO, Y., GNESSI, S., KABORÉ, A., KONÉ, B. & ZONGO, M. (2023). *Security from below in Burkina Faso: Citizen perceptions and perspectives*. Uppsala: Uppsala University.

HANSEN, J. (2024). *The West African coup trap: A qualitative case study of military coups d'état in Mali, Niger, Burkina Faso, and Guinea*. Bachelor thesis, Linnaeus University.

HOMER-DIXON, T.F. (1994). Environmental scarcities and violent conflict: evidence from cases. *International security* 19.1: 5-40.

ICRC (International Commission of the Red Cross). (2019). *Burkina Faso: Increased armed violence means loss of health care for half a million people.* Retrieved from https://www.icrc.org/en/document/burkina-faso-increased-armed-violence-means-loss-health-care-half-million-people [Accessed 20 February 2025].

International Organisation of Employers. (2023). *Analysis of the business environment in least developed countries: Burkina Faso.* Retrieved from https://www.ioe-emp.org/index.php?eID=dumpFile&t=f&f=157919&token=a19f7af8b325919b837afbf6b1ae784214238e65 [Accessed 27 September 2024].

IRC (International Rescue Committee). (2023). *Food security in Burkina Faso is worsening amid continued conflict, warns IRC*. Retrieved from https://www.rescue.org/press-release/food-security-burkina-faso-worsening-amid-continued-conflict-warns-irc [Accessed 24 February, 2025].

Jeune Afrique. (2024). *Sortir du franc CFA? Le pari risqué du Burkina Faso, du Niger et du Mali* [Getting out of the CFA franc? The risky bet of Burkina Faso, Niger and Mali]. Retrieved from https://www.jeuneafrique.com/1537263/economie-entreprises/sortir-du-franc-cfa-le-pari-risque-du-burkina-faso-du-niger-et-du-mali/ [Accessed 24 February 2024].

LAPALOMBARA, J. (1971). Distribution: A crisis of resource management. *Crises and sequences in political development*, p.236.

LE CAM, M. (2023). The faces of Russia's influence across the African continent. *LeMonde.* Retrieved from https://www.lemonde.fr/en/le-monde-africa/article/2023/08/06/the-faces-of-russia-s-influence-across-the-african-continent_6082513_124.html [Accessed 24 February 2025].

LECHNER, J.A. & ELEDINOV, S. (2024). Is Africa corps a rebranded Wagner Group? *Foreign Policy*. Retrieved from https://foreignpolicy.com/2024/02/07/africa-corps-wagner-group-russia-africa-burkina-faso/ [Accessed 24 February 2025].

LIANG, J., HU, Y., CHEN, G. & ZHOU, T. (2017). A universal indicator of critical state transitions in noisy complex networked systems." *Scientific Reports*, 7(1): art. 42857.

LIU, X., STANLEY, H.E. & GAO, J. (2016). Breakdown of interdependent directed networks. *Proceedings of the National Academy of Sciences*, 113(5):1138–1143.

LOFTUS, A. (2020). "Political ecology II: Whither the state?" *Progress in Human Geography* 44.1: 139-149.

MATTHEWS, J. T. (2011). Redefining Security (2). *Security Studies*. Routledge, 64-70.

National Library of Medicine. (2021). *International Covid-19 responses*. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8667643/ [Accessed 24 February 2025].

OCHIENG, B. (2022). Burkina Faso coup: Why soldiers have overthrown President Kaboré. *BBC*, 25 January. Retrieved from https://www.bbc.com/news/world-africa-60112043 [Accessed 20 February 2025].

O'LEAR, S. (2005). Resource concerns for territorial conflict. *GeoJournal* 64: 297-306.

O'LEAR, S. (2007). Azerbaijan's resource wealth: political legitimacy and public opinion. *Geographical journal* 173.3: 207-223.

RICHMOND, A.K., Malcomb, D. & Ringler, K. (2015). Household vulnerability mapping in Africa's Rift Valley. *Applied Geography*, 63:380–395.

ROGER, B. (2023). How Yevgeny Prigozhin funded Kemi Seba to serve his own African ambitions. *The Africa Report*, 11 April. Retrieved from https://www.theafricareport.com/296849/russia-how-yevgeny-prigozhin-funded-kemi-seba-to-serve-his-own-african-ambitions/ [Accessed 24 February 2025].

ROUDOMETOF, V. (2016). Theorizing glocalization: Three interpretations. *European Journal of Social Theory,* 19(3), 391-408. https://doi.org/10.1177/1368431015605443

SHEN, L.Y., OCHOA, J.J., SHAH, M.N. & ZHANG, X. (2011). "The application of urban sustainability indicators: A comparison between various practices." *Habitat International*, 35(1):17–29.

SIMONSSON, L. (2005). *Vulnerability profile of Burkina Faso*. Stockholm: Stockholm Environment Institute.

Stanford Cyber Policy Center. (2019). *Evidence of Russia-linked influence operations in Africa*. Retrieved from https://fsi.stanford.edu/publication/evidence-russia-linked-influence-operations-africa [Accessed 24 February 2025].

SULTANA, F. (2020). Embodied intersectionalities of urban citizenship: Water, infrastructure, and gender in the global south. *Annals of the American Association of Geographers* 110.5 : 1407-1424.

SY, L. (2023). *Rising violence drives refugees from Burkina Faso to neighbouring countries*. UNHCR. Retrieved from https://www.unhcr.org/us/news/stories/rising-violence-drives-refugees-burkina-faso-neighbouring-countries [Accessed 23 August 2024].

TANNER, C. & WILLIAMS, E. (1981). *Educational planning and decision-making: A view through the organizational process*. Lexington, MA: DC Heath.

Trade Commissioner Service. (2022). *Mining market in Burkina Faso.* Retrieved from https://www.tradecommissioner.gc.ca/burkina-faso/market-reports-etudes-de-marches/0006573.aspx?lang=eng [Accessed 24 February 2025].

Trading Economics. (2023). *Burkina Faso unemployment rate*. Retrieved from https://tradingeconomics.com/burkina-faso/unemployment-rate [Accessed 24 February 2025].

TURNER, B. L., KASPERSON, R. E., MATSON, P. A., MCCARTHY, J. J., CORELL, R. W., CHRISTENSEN, L., ECKLEY, N., KASPERSON, J. X., LUERS, A., MARTELLO, M. L., POLSKY, C., PULSIPHER, A., & SCHILLER, A. (2003). A framework for vulnerability analysis in sustainability science. *Proceedings of the National Academy of Sciences of the United States of America, 100*(14), 8074–8079. https://doi.org/10.1073/pnas.1231335100

TZANINIS, Y., MANDLER, T., KAIKA, M., & KEIL, R. (2021). Moving urban political ecology beyond the 'urbanization of nature'. *Progress in Human Geography, 45*(2), 229–252. https://doi.org/10.1177/0309132520903350

United Nations Development Programme (UNDP). (2016). *Gender and Climate Change: Overview of Linkages Between Gender and Climate Change. Global Gender Climate Alliance.* https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP%20Linkages%20Gender%20and%20CC%20Policy%20Brief%201-WEB.pdf. [Accessed 24 February 2025].

UNHCR (UN High Commissioner for Refugees). (2022). *UNHCR urges greater support as violence continues unabated in Burkina Faso*. Retrieved from https://www.unhcr.org/us/news/briefing-notes/unhcr-urges-greater-support-violence-continues-unabated-burkina-faso [Accessed 20 February 2025].

United States Agency for International Development. (Nd) Agriculture and Food Security: Burkina Faso. https://2017-2020.usaid.gov/burkina-faso/agriculture-and-food-security. [Accessed 24 February, 2025].

US Department of State. (2022). Wagner Group, Yevgeniy Prigozhin, and Russia's disinformation in Africa. Retrieved from https://www.state.gov/disarming-disinformation/wagner-group-yevgeniy-prigozhin-and-russias-disinformation-in-africa/ [Accessed 26 January 2024].

VERBA, S. (2015). Sequences and development. In L. Binder & J. la Palombara (eds.). *Crises and sequences in political development*. (SPD-7). Princeton, NJ: Princeton Legacy Library.

WALKER, P.A. (2005). Political ecology: where is the ecology? *Progress in human geography* 29.1: 73-82.

WATTS, M. (2017). Political ecology. *A companion to economic geography*: 257-274.

WEICHSELGARTNER, J. (2001). Disaster mitigation: The concept of vulnerability revisited. *Disaster Prevention and Management: An International Journal*, 10(2):85–95.

WHILE, A., JONAS, A.E. & GIBBS, D. (2004). The environment and the entrepreneurial city: Searching for the urban 'sustainability fix' in Manchester and Leeds. *International Journal of Urban and Regional Research*, 28(3):549–569.

WILCHES-CHAUX, G. (1989). *Desastres, ecologismo y formación profesional* [Disasters, environmentalism and vocational training]. Bogota: SENA.

WOLFEL, R.L., RICHMOND, A. & GRAZAITIS, P. (2017). Seeing the forest through the trees: Sociocultural factors of dense urban spaces. *Urban Science*, 1(4): art. 40.