Shifting Grounds: The Rise, Fall, and Resurgence of the Towns of Atikokan and Oloibiri

A dissertation submitted in partial fulfilment of the requirements of the degree of

Doctor of Philosophy in Forest Sciences

Temitope Moses Ojo

Faculty of Natural Resources Management

Lakehead University

August 2024

LIBRARY RIGHTS STATEMENT

In presenting this dissertation in partial fulfillment of the requirements for the PhD degree at Lakehead University in Thunder Bay, Ontario, Canada, I agree that the University will make it freely available for inspection. This dissertation is made available by my authority solely for the purpose of private study and research. In addition to this statement, Lakehead University, Faculty of Graduate Studies has forms bearing my signature: Licence to the University, and Non-Exclusive Licence to Reproduce Theses.

Signature:

Date:

A CAUTION TO THE READER

This PhD dissertation has been through a semi-formal process of review and comment by at least two faculty members. It is made available for loan by the Faculty of Natural Resources Management for the purpose of advancing practice and scholarship. The reader should be aware that opinions and conclusions expressed in this document are those of the student and do not necessarily reflect the opinions of the dissertation supervisor, the faculty, or Lakehead University.

ABSTRACT

This dissertation investigates the transformations of the towns of Atikokan in Canada and Oloibiri in Nigeria, both transitioning from reliance on extractive industries. Focusing mainly on their social and economic challenges and opportunities, it highlights the distinct paths each has taken toward resilience and adaptation in the wake of industrial decline. By employing a mixed-methods approach, including interviews with community leaders, residents, stakeholders, and politicians, the research offers an understanding of how these towns have navigated their post-industrial realities.

The towns of Atikokan and Oloibiri, each with a unique history linked to extractive practices, provide contrasting narratives. Atikokan's shift from iron mining to a diversified economy showcases the benefits of proactive planning and strong community engagement, while Oloibiri's experience with economic hardship and environmental challenges post-oil depletion underscores the dangers of over-reliance on a single resource. This contrast highlights the importance of strategic diversification and environmental stewardship.

The study not only reveals the dynamic interplay between past experiences, current resilience, and future aspirations but also provides lessons for towns at risk of over-reliance on single-resource economies. It illustrates how lived experiences, particularly in transitioning socio-economies, can affect recovery, posing both opportunities and barriers to innovation and change. Atikokan's success story, with its emphasis on timely diversification and sustainable practices, contrasts sharply with Oloibiri's narrative, serving as a cautionary tale about the consequences of neglecting diversified economic strategies and environmental considerations.

In conclusion, this dissertation underscores the importance of understanding the social dimensions of post-industrial communities and offers strategic recommendations for fostering resilience and adaptability. It emphasizes the need for historically and contextually informed strategies, advocating for proactive, inclusive, and environmentally conscious planning. This comparative analysis contributes significantly to our understanding of economic transitions and sustainable community reinvention in a post-industrial landscape, offering invaluable insights for policymakers and community leaders globally. It invites these leaders to integrate these lessons into their strategic planning, particularly in communities facing similar risks of dependency on single-resource economies.

DEDICATION

To the resilient towns of Oloibiri, Nigeria, and Atikokan, Canada. Your stories have been a source of inspiration and learning. I am deeply grateful for the opportunity to listen and learn from your experiences. Thank you for entrusting me with your narrative.

ACKNOWLEDGMENTS

I would like to express my deepest gratitude to all those who supported me throughout my PhD journey. This dissertation would not have been possible without the guidance, encouragement, and support of many individuals.

First and foremost, I would like to thank my supervisor, Dr. Michel S. Beaulieu, for his exceptional guidance, patience, and invaluable expertise. His insights and constructive feedback were crucial in shaping the direction and quality of my research. I am deeply grateful for his support and encouragement throughout the challenges of this journey.

I extend my gratitude to the members of my dissertation committee, Dr. Chris Southcott and Dr. Ronald Harpelle, for their insightful comments, constructive criticism, and suggestions that greatly enhanced the quality of my work.

I would also like to thank Dr. Qing-Lai Dang, Coordinator of Doctor of Philosophy, for his support and guidance throughout my studies. I am thankful to Jennifer (Bain) Manion for her administrative support and assistance. Special thanks to Dr. David Ratz, Jenna Kirker, and Paul Charrette for their kindness, encouragement, and support throughout my journey.

I am deeply indebted to my family for their unconditional love, support, and encouragement. To my spouse, Rebecca, your patience, understanding, and unwavering support have been my pillars of strength throughout this journey. To my children, Esther and Zara, your smiles and love kept me motivated.

To all those who have contributed to this journey in ways both large and small, I extend my deepest gratitude.

LIST OF FIGURES

LIST OF TABLES

TABLE OF CONTENTS

Chapter 1: Introduction

In the global landscape, post-industrial towns often emerge as poignant remnants of a former era dominated by resource extraction activities, including gold mining, iron mining, timber harvesting, and oil drilling (Lawrie et al., 2011; MacKinnon et al., 2022). These towns, such as the towns of Atikokan in Canada and Oloibiri in Nigeria, frequently encounter challenges akin to those faced by similar communities worldwide (Krzysztofik et al., 2019; Vaishar et al., 2023). Economic stagnation is a common plight, marked by poverty, out-migration, reduced social services, environmental degradation, pollution, scarce funding, and a decline in job opportunities following the closure of their primary industries (MacKinnon et al., 2022; Halseth, 2005).

The enduring legacy of these past industrial and extractive activities casts a significant shadow, presenting complex socio-economic and environmental challenges that hinder their redevelopment and ecological restoration efforts (Beckett et al., 2020). Conversely, some towns have embarked on a path of reinvention, capitalizing on their unique resources, historical narratives, and amenities to transform into centers of tourism, recreation, and new residential developments (Ulrich-Schad & Duncan, 2018). Fontaine et al. (2024) in their seminal work, "The Politics of Deindustrialization," provide a critical examination of the political dimensions underlying these transitions. They argue that the decline of such towns is not only a result of economic inevitabilities but is deeply influenced by political decisions, policy directions, and the broader geopolitical landscape. This perspective is essential for understanding the challenges and opportunities faced by post-industrial towns, framing the socio-economic stagnation and environmental degradation within a matrix of political choices and global economic policies.

Towns like Oloibiri, Nigeria, and Atikokan, Canada, exemplify the phenomenon of industrial impact and transformation. In the town of Oloibiri, the discovery and subsequent

exploitation of oil in the mid-twentieth century led to significant environmental and socioeconomic challenges (Itsueli, 2003). The extraction process, fraught with environmental risks, caused widespread pollution in the region. Key issues include oil spills and gas flaring, severely affecting both the natural ecosystem and the livelihoods of local communities (Akpomuvie & Orhioghene, 2011; Chijioke et al., 2018; Okwuosa, 2017). Oloibiri's experience serves as an illustration of the environmental toll associated with the fossil fuel industry (Okoh, 2020; Opukri & Ibaba, 2008; Okonta & Douglas, 2003). In contrast, Atikokan, once heralded as "The Iron Ore Capital of Canada" (now, Canoeing Capital of Canada), narrates a different story. Following the closure of its iron ore operations in the late 1970s, the town faced daunting socio-economic challenges (Michels, 1981). Unlike Oloibiri, Atikokan pursued a transformative journey, emphasizing forestry, renewable energy, and eco-tourism to revitalize its economy and overcome its industrial legacy (Ellis et al. 2003; Michel, 1981). This shift underscores the potential for post-industrial towns to reinvent themselves, blending their industrial heritage with sustainable development practices (Kahn & McComas, 2021).

The contrasting experiences of Oloibiri and Atikokan illustrate the varied impacts that industrial activities can impose on towns and communities, particularly in the aftermath of the decline or cessation of their primary industries. Addressing these multifaceted impacts and challenges necessitates an understanding of each town's unique identity, history, and context, which are pivotal in influencing decision-making and planning for their present and future development. As Lorber (2014), Kretschmann (2020), and Loxley (2010) have highlighted, the journey towards rehabilitation and sustainable development in these post-industrial settings requires a holistic approach. This approach should integrate environmental, economic, and social considerations, as exemplified by successful transformations in towns like Lusatia in Germany,

where community engagement and innovative economic strategies have played key roles (Stognief et al., 2019). Fontaine et al. (2024) underscore the importance of incorporating a political dimension into the holistic model of understanding post-industrial transformation. They argue that a comprehensive grasp of political decisions, policy directions, and broader geopolitical forces is crucial for addressing the multifaceted challenges faced by post-industrial towns comprehensively. Such comprehensive strategies underscore the importance of considering all facets of a community's fabric in the path to recovery and growth. While the political dimension undoubtedly plays a role in shaping the broader context of these transitions, the emphasis here remains on those aspects most directly observable and impactful on the ground level for the communities in question.

By concentrating on these socio-economic and environmental dimensions, my dissertation explores the distinct journeys of Atikokan and Oloibiri, towns emblematic of the broader narrative of post-industrial transformation. It seeks to understand how these towns, each with a unique history and set of challenges, are adapting and reinventing themselves in response to the aftermath of industrial decline. Central to this study are two key questions: How are Atikokan and Oloibiri planning for a sustainable future amidst their complex post-industrial landscapes, and how have their historical narratives influenced current strategic planning processes? To address these questions, the study sets out the following objectives: Firstly, it aims to explore the relationship between the towns' historical experiences and their present community resilience, investigating how past events inform current capabilities. Secondly, the study examines the influence of industrial legacies on community dynamics over time, revealing the lasting impact of these legacies on the fabric of community life. Lastly, it focuses on understanding the role of lived experiences in driving community engagement and shaping

responses to post-industrial challenges, underscoring the value of personal narratives in community development.

Methodologically, this investigation employs a qualitative approach, utilizing case studies and in-depth interviews to provide rich, detailed insights into these transformative processes (Schneider, 2007). By linking each objective to specific qualitative methods, the study ensures a comprehensive exploration of the intricate dynamics at play in these communities. Through this approach, the dissertation seeks to contribute nuanced perspectives to the understanding of post-industrial community evolution. It positions itself to shed light on the varied paths forward for towns like Atikokan and Oloibiri, with implications that extend to similar communities globally. This exploration is not just about documenting the struggles and triumphs encountered on the road to recovery; it also highlights the critical importance of strategic planning, adaptability, and proactive community engagement in building diversified and resilient post-industrial economies.

The comparative analysis employed in this dissertation, which utilizes a blend of qualitative methodologies, including thematic analysis and case study comparisons, contributes significantly to our understanding of socio-economic transformations and sustainable community reinvention in a post-industrial landscape. This research provides invaluable guidance for policymakers, community leaders, and other stakeholders in similar contexts, offering practical strategies and theoretical insights that can be applied to a wide range of post-industrial settings. The study also draws upon established theoretical frameworks in community development and urban planning, bridging theory and practice in a meaningful way (Kiernan, 1983; Samah, 2011; Powell & Geoghegan, 2004; Oliver & Stout, 2022). Through this approach, the dissertation seeks

to illuminate the complex dynamics at play in these towns and offer a roadmap for similar communities grappling with the challenges of post-industrial transformation.

Theoretical Framework

This research investigates the socio-economic transformations of the towns of Atikokan, Canada, and Oloibiri, Nigeria, focusing on their evolution from a heavy reliance on extractive industries to the pursuit of a diversified and sustainable economic model. To comprehensively understand these transformations, the theoretical framework integrates five pivotal theoretical perspectives: Economic Dependency Theory, Community Resilience Theory, Sustainable Development Theory, Transition Theory, and Social Capital Theory. Economic Dependency Theory provides an analysis of the vulnerabilities associated with dependence on a single industry. Community Resilience Theory assesses the communities' ability to adapt and thrive amidst economic and environmental changes. Sustainable Development Theory guides the exploration of balanced approaches to economic, social, and environmental well-being. Transition Theory adds depth by examining the structural shifts required for moving towards sustainability. Social Capital Theory highlights the significance of social networks, trust, and civic engagement in fostering community-led development and resilience. This multidimensional approach enables analysis of the challenges and opportunities faced by Atikokan and Oloibiri, setting a solid foundation for exploring their strides towards a resilient and sustainable future.

Economic Dependency Theory

Economic Dependency Theory, as elaborated by Dos Santos (1970), further analyzed by Frank (1967), and complemented by Wallerstein's (2011) world-systems analysis, provides a critical framework for examining the socio-economic challenges facing single-industry towns like

Atikokan and Oloibiri, pivotal to my dissertation's research questions and hypotheses. This theory underscores the inherent vulnerabilities—such as susceptibility to global market fluctuations, resource depletion, and economic downturns—experienced by communities dependent on extractive industries.

Within this context, High's (2022) analysis in "Towards a Transnational and Comparative History of Deindustrialization" offers a crucial expansion of this framework by illuminating the shared economic vulnerabilities across different regions and historical periods. High's work, exploring the multifaceted nature of deindustrialization in diverse contexts such as the North-West of Italy and the Ruhr Region in Germany, underscores the universal challenges faced by towns transitioning away from reliance on singular industrial sectors. This comparative perspective not only reinforces the critical vulnerabilities outlined by Economic Dependency Theory but also situates the experiences of Atikokan and Oloibiri within a broader narrative of global industrial decline.

These vulnerabilities, central to my investigation, lead to significant local challenges like unemployment and social instability, directly addressing my first research question: How do economic dependencies on extractive industries impact local socio-economic stability in single-industry towns? Utilizing Economic Dependency Theory, my study assesses the efficacy of diversification and sustainability strategies as countermeasures to these dependencies, aligning with my hypothesis that alternative economic sectors, enhanced local capacity through education, and sustainable practices can mitigate the adverse effects of such dependencies. By incorporating case studies from Atikokan and Oloibiri, this research not only demonstrates the tangible impacts of economic dependency but also explores sustainable transition pathways, providing evidence to support my hypotheses. Furthermore, this analysis contributes to

Economic Dependency Theory by applying it to the modern context of sustainability and deindustrialisation, enriching the discourse on overcoming economic vulnerabilities. A comparative analysis of Atikokan and Oloibiri elucidates the theory's application across different socio-economic and environmental contexts, setting the groundwork for examining Community Resilience Theory and Sustainable Development Theory in subsequent sections.

Community Resilience Theory

Community Resilience Theory plays a fundamental role in exploring the abilities of Atikokan, Canada, and Oloibiri, Nigeria, to endure, adapt, and rejuvenate in the aftermath of their extractive industry declines, aligning closely with the research questions and hypotheses of this dissertation. Drawing on the foundational work of Norris et al. (2008), who define community resilience as a set of capacities for disaster readiness, and Patel et al. (2017), who systematically review the varied definitions and models of community resilience, this theory highlights the indispensability of robust social networks, effective governance, and the strategic diversification of economies in cultivating resilience. These works directly address the second research question: How do communities build resilience in response to the socio-economic impacts of industrial decline?

Recent scholarly debates have highlighted a critical perspective on resilience theory, positing that its emphasis on adaptation and recovery could inadvertently contribute to the maintenance of the status quo, thereby overshadowing the need for systemic change and ignoring deeper societal inequities. Cretney (2014) and Welsh (2014) have been at the forefront of articulating these critiques, arguing that resilience, while valuable, may neglect the structural injustices that underpin social, economic, and environmental challenges. This discourse suggests

that an emphasis on adaptation and recovery might sidestep the necessity for systemic change, thus perpetuating existing vulnerabilities rather than addressing their root causes.

Through an in-depth examination of community solidarity, governance adaptability, and the exploration of alternative economic pathways, my study probes the extent to which these factors, as outlined by Norris et al. (2008) and Patel et al. (2017) have facilitated or impeded the resilience of these towns, thereby testing the hypothesis that diversified economic strategies, coupled with strong social and governance frameworks, significantly enhance community resilience against the backdrop of economic shifts. Findings from both towns illuminate the practical application of resilience mechanisms, such as community-led initiatives and policy reforms, showcasing their effectiveness in socio-economic recovery and resilience building. This comparative study sheds light on the varied influences of local conditions, cultural nuances, and historical legacies on the success of resilience strategies, offering profound insights into the intricate dynamics underpinning community resilience. Furthermore, by acknowledging the multifaceted challenges encountered in fostering resilience, this dissertation advocates for holistic strategies that address economic, environmental, political, and social barriers, thus contributing to the broader discourse on sustainable development, aligning with the perspectives of Fontaine et al. (2024), Norris et al. (2008), and Patel et al. (2017).

Sustainable Development Theory

Sustainable Development Theory is indispensable for understanding the equilibrium between environmental stewardship, economic sustainability, and social well-being, particularly in towns grappling with the aftermath of industrial decline, such as Atikokan, Canada, and Oloibiri, Nigeria. Drawing upon the foundational insights of Brundtland (1987), the expanded analysis by Sachs (2015), and the governance-focused approach by Meadowcroft (2011), this research

underscores the theory's vital contribution to steering these communities towards a path of recovery and enduring prosperity, directly responding to the research question: What strategies can post-industrial towns implement to achieve sustainable development?

By employing the principles of Sustainable Development, as articulated by Brundtland et al. (1987) and Sachs (2015) and considering Meadowcroft's (2011) emphasis on governance challenges and policy pathways for sustainable development, this study scrutinizes and identifies key strategies crucial for igniting economic revival and bolstering social cohesion. These strategies include the shift towards renewable energy, the adoption of sustainable land use practices, and the initiation of community-led environmental conservation efforts. They aim not solely at combating environmental degradation but also at ensuring economic stability and enhancing quality of life, thereby promoting the emergence of resilient and sustainable communities. The inclusion of case studies from Atikokan and Oloibiri serves to illustrate the tangible impacts of these sustainable development strategies, validating the hypothesis that integrated approaches to renewable energy, sustainable agriculture, and conservation are pivotal for community resilience and sustainability. This analysis further explores stakeholder engagement, highlighting the collaborative efforts among local governments, the private sector, NGOs, and community members in fostering sustainable development objectives, thus emphasizing the importance of inclusive and participatory approaches in achieving sustainability goals.

Transition Theory

Transition Theory offers a lens for examining the structural changes that societies undergo towards sustainability, making it an invaluable addition to the theoretical framework of this study. This theory elucidates the mechanisms through which Atikokan, Canada, and Oloibiri,

Nigeria, are navigating their shift from economies predominantly dependent on extractive industries to more diversified and sustainable models. By analyzing these transitions at the niche (local innovations and initiatives), regime (existing economic and social structures), and landscape (broader economic, environmental, and societal trends) levels, as detailed by Geels and Schot (2007), and applying Loorbach and Rotmans's (2006) insights on managing transitions for sustainable development, this theory provides insights into the complex, multi-dimensional processes of economic and social transformation. It highlights the importance of innovation, stakeholder engagement, and policy reform in catalyzing and sustaining shifts towards sustainability. Applying Transition Theory, this research explores the specific strategies and interventions that have facilitated or hindered the transition processes in Atikokan and Oloibiri, connecting these local dynamics to broader trends in sustainable development. This approach not only enhances our understanding of the pathways to sustainability but also aligns with the objectives of the dissertation to identify effective strategies for post-industrial towns seeking economic revival and sustainability.

Social Capital Theory

Social Capital Theory is a vital addition to the exploration of community resilience within this dissertation, providing a lens through which to examine the role of social networks, trust, and shared norms in enabling collective action and contributing to the socio-economic recovery and sustainability of Atikokan and Oloibiri. Drawing upon the foundational insights of Putnam (2000) on the role of social capital in facilitating cooperation and coordination within communities, and Woolcock and Narayan's (2000) exploration of the multifaceted nature of social capital—bridging, bonding, and linking—this theory underscores the value of social relationships and the fabric of community life in building resilience against socio-economic

challenges. By applying Social Capital Theory, this study delves into how the strength and quality of social ties, as conceptualized by Putnam (2000) and Woolcock and Narayan (2000), influence the capacity of these towns to navigate transitions, implement sustainable practices, and foster economic diversification. The study investigates the extent to which social capital, in its various forms—bridging (connections among diverse groups), bonding (tight-knit relationships within a group), and linking (relationships between different levels of power and authority)—has played a role in the resilience and sustainability efforts of these communities. This includes assessing how trust and cooperation among community members, local organizations, and governance structures have supported or impeded collective initiatives aimed at economic revival and environmental stewardship.

Contextual Framework

In my research, I adopt a multidisciplinary approach to dissect the intricate dynamics of post-industrial rural communities, specifically concentrating on the towns Oloibiri in Nigeria and Atikokan in Canada. My exploration integrates perspectives from various academic disciplines including history, social psychology, rural sociology, economic geography, community psychology, environmental studies, and development studies, each providing a unique lens to the study and tailored to the distinct contexts of these communities. A primary focus is laid on economic geography to analyze the over-dependence of these communities on singular industries, which is crucial in examining the structural constraints they face and the resultant economic impacts locally (Lobao, 1990). However, this economic lens often overlooks the resilience and adaptability inherent in these communities. To bridge this gap, my research incorporates historical contextualization, providing crucial insights into the deep-rooted ties between the towns and their industries. It is an approach vital to understanding the long-standing

relationships, significantly influenced by corporate strategies that aim to maintain control and power over these regions (Borges & Torres, 2012). The historical depth enriches the understanding of the economic geography perspective by highlighting the complex interplay of power and economic dependence (Mercier, 2001).

The focus then shifts to the realms of social and community psychology, examining how industrial ties influence community identities (Bell & York, 2010). Communities like Oloibiri and Atikokan are explored for how they reinvent themselves and mobilize collective action in response to industrial changes. The study of these areas is crucial in comprehending community resilience and adaptability, providing a more human-centric view of the impacts of industrial shifts (Pike et al., 2010; Martin-Breen & Anderies, 2011). Rural sociology contributes insights into the social dynamics within these communities, offering a framework to understand the broader social implications of economic changes and how these shifts influence social structures and relationships (Chapman et al, 2015; Parkins & Angell, 2011; Lawrie et al., 2011).

Environmental studies and development studies extend the research framework by addressing the ecological impacts of industrial activities and advocating for sustainable development pathways, essential for envisioning future strategies for community growth and sustainability (Huber, 2000; Campbell, 1996; Sneddon et al., 2006). Finally, the research integrates insights from geography, demography, and sociology, focusing on the effects of amenity migration and land development. These changes often lead to conflicts between environmental values and development priorities, impacting housing affordability, employment opportunities, and community cohesion (Chi & Marcouiller, 2013; Winkler et al., 2015). Through this integrated approach, my research seeks to elucidate the complexities faced by post-industrial rural communities like the towns of Oloibiri and Atikokan. It underscores their

navigation through economic, environmental, and social changes, not just highlighting the economic and industrial decline but also emphasizing the adaptive strategies, community resilience, and potential for sustainable development in these evolving rural landscapes.

The concept of community resilience is particularly pertinent in examining post-industrial towns like Oloibiri and Atikokan. These towns face numerous risks and changes following industrial decline. Community resilience here refers to their capacity to tackle challenges, adapt to change, and maintain a quality of life for both the present and future (Haggard et al, 2019; Berkes & Ross, 2013). Such resilience is crucial; it not only supports survival and promotes wellbeing but also aids in achieving shared objectives. Moreover, it plays a significant role in enhancing governance, especially during times of gradual and sudden transformations (Pike et al., 2010).

Transitioning to the specific factors that foster resilience, towns such as Oloibiri and Atikokan often adopt a normative stance that focuses on identifying strengths and building capacities. Key characteristics contributing to resilience include economic diversity, self-organization, and effective leadership. Robust social networks, access to resources, and active community participation are equally vital (Martin & Sunley, 2015). Trust, a deep connection to the land, accessible social services, and the ability to collaborate during challenges, coupled with effective local leadership, are fundamental (Matarrita-Cascante & Trejos, 2013). These factors, as they uniquely manifest in the towns of Oloibiri and Atikokan, will be further explored, highlighting their significance in the broader context of post-industrial resilience.

Moving beyond the direct factors of resilience, it is essential to consider the ongoing academic debate. Scholars often question what exactly makes some communities more resilient than others (McAreavey, 2022). In exploring this uncertainty within the context of the towns of

Atikokan and Oloibiri, the focus extends to both the subject of resilience and the types of changes or stressors involved (Carpenter et al., 2001). For these towns, resilience is about responding to challenges like the decline of extractive industries, compounded by new policies, environmental hazards, and socio-demographic shifts. Methodologies such as interviews, surveys, and participant observation are employed to understand community resilience (Shariffi, 2016). Despite existing research, a recognized need for further exploration persists, especially in understanding how communities perceive and assess their own resilience using mixed-methods empirical approaches (Ross & Berkes, 2014). Exploring how social dynamics and historical contexts influence community capacity for planning and adaptation is also crucial (Imperiale & Vanclay, 2016). By addressing these gaps, the study aims to provide insights into the resilience of the towns of Atikokan and Oloibiri amidst significant industrial and environmental changes.

Historical contextualization, a critical concept across many disciplines, plays an instrumental role in analyzing past events and their ongoing influence. By interpreting past events, cultures, and decisions within their specific temporal, societal, and environmental contexts, the approach deepens our understanding of historical dynamics and helps avoid linear narratives (Huigen et al., 2018). Understanding how past events have shaped current social structures, economic systems, environmental policies, and community behaviors becomes an integral part of this process (Mitrović, 2015; Van Drie & Van Boxtel, 2008). Bridging interdisciplinary gaps, historical contextualization serves as a framework for exploring the nuances of post-industrial rural communities. The practice involves situating historical phenomena within the context of their times, thereby aiding in unraveling the evolution of economic systems, social dynamics, geographical factors, and environmental policies and how they have influenced current circumstances (Van Drie & Van Boxtel, 2008). An examination of

primary and secondary sources through this lens provides crucial insights for comprehensively understanding historical events and their implications.

The practice of historical contextualization finds its application in diverse settings, notably in enhancing comprehension of economic shifts in post-industrial towns and the evolution of social identities in rural areas. By adopting this methodological approach, researchers can augment their understanding of historical events while preventing anachronistic judgments that interpret the past through contemporary values and knowledge. Although previous research in historical contextualization has often concentrated on broader, often national narratives, its recent application at the community level, particularly in post-industrial and rural contexts, is illuminating unique local histories and their impact on current and future challenges (Dolejš, 2019).

Methods such as oral histories, surveys, and interviews play a key role in this field, striving to create a good understanding of historical influences. Yet, the field is still evolving a universally accepted quantitative approach to measure these effects comprehensively. The development of such methodologies promises to enable comparisons and analyses across various contexts, offering invaluable insights for academic research. Gaining a deeper understanding of the historical roots behind contemporary issues in these communities is crucial for shaping their future planning and development strategies.

Research Purpose and Objectives

Despite the significant body of research on the socio-economic impacts of extractive industries worldwide, there remains a notable gap in comparative studies focused on the lived experiences of communities transitioning away from such industries, particularly in the contrasting contexts

of Atikokan, Canada, and Oloibiri, Nigeria. This gap, coupled with the transitions these communities are undergoing due to the decline of their primary economic drivers, presents a unique opportunity for this research. The purpose of this study is to generate new insights into the socio-economic transformations of communities heavily reliant on extractive industries, with a focus on the mechanisms of resilience and adaptation they employ.

This research is both timely and pertinent, given that it: 1) investigates the ongoing socio-economic challenges and opportunities faced by these communities in adapting to post-extractive realities, and 2) seeks to understand the perspectives and strategies of Atikokan and Oloibiri's residents as they navigate the complexities of economic diversification, environmental sustainability, and community mobilization in response to industrial decline. The objectives of this research are to:

1. Document the historical reliance of Atikokan and Oloibiri on extractive industries and the subsequent socio-economic impacts following the decline of these sectors.
2. Identify and analyze the strategies employed by Atikokan and Oloibiri to adapt to post-industrial socio-economic conditions, including efforts towards economic diversification, community mobilization, and environmental sustainability.
3. Compare and contrast the experiences of Atikokan and Oloibiri, highlighting lessons learned and potential pathways for fostering resilience and sustainable development in similar contexts globally.
4. Contribute to the theoretical and practical understanding of community resilience by integrating findings from this study into the broader discourse on sustainable development, particularly in regions facing the decline of dominant industries.

Dissertation Structure

This dissertation has been organized as per the guidelines and recent examples for the article-based dissertation in the Faculty of Natural Resource Development at Lakehead University. It has been organized into six chapters. The first chapter sets the stage for the entire dissertation,

outlining the research problem, objectives, theoretical framework, and methodology. It provides an overview of the socio-economic transformations of Atikokan in Canada and Oloibiri in Nigeria, both transitioning from reliance on extractive industries. The chapter also includes a discussion on the researcher's background, detailing the personal and professional journey that led to this study.

The second chapter provides a detailed historical context of Atikokan and Oloibiri. It explores the establishment and development of these towns, their dependence on extractive industries, and the socio-economic impacts following the decline of these sectors. It also highlights the resilience and adaptive efforts these communities have undertaken over the years. This chapter sets the foundation for understanding the subsequent analyses and comparisons.

The next three chapters are distinct but interrelated manuscripts. As per the program guidelines, these appear as submitted, consistent with the structure, format, and requirements of the respective journals. The methodologies employed in chapters three through five are described in detail in the first chapter as they are not contained in the manuscripts submitted due to the submission guidelines for each of the journals.

Chapter 3, “Oloibiri: Lessons from the Lifecycle of a Single-Industry Town in Nigeria,” has been accepted for publication in the *Journal of Rural and Community Development* at the time of this dissertation’s examination. It examines the socio-economic aftermath of the oil industry's closure in the town of Oloibiri between 1990 and 2021. The central research question is: What lessons can be learned from Oloibiri's experience with resource development and economic transformation? The findings reveal significant economic and social impacts, including job loss, environmental degradation, and forced migration. These challenges have led to a marked decline in living standards, population reduction, and the disruption of traditional

occupations and small businesses. The article discusses a complex interplay of factors, including government policies, mismanagement, and global market shifts, contributing to Oloibiri's current state of neglect and poverty. The town's struggles with inadequate infrastructure, pollution, and limited employment opportunities highlight the urgent need for systemic change. By documenting Oloibiri's journey, the research underscores key lessons for managing the socio-economic transitions of single-industry towns, emphasizing the importance of diversification and sustainable development. Further research is encouraged on peripheral RBCs in Nigeria to inform strategies for their resilience and growth.

Chapter 4, "Lesson from Atikokan: Adapting and Thriving Through Change," has been submitted to the *Journal of Rural Studies* and is at peer review at the time of this dissertation's examination. This chapter focuses on Atikokan's adaptability to shifts in socio-economic landscapes between 1990 and 2021, highlighting lessons applicable to similar resource-dependent communities. Through an analysis of Atikokan's historical reliance on natural resources and diversification strategies, this study underscores the critical roles of adaptability, community engagement, and proactive leadership in fostering resilience and sustainable development. The findings reveal how Atikokan is navigating economic fluctuations through strategic planning, offering insights into leveraging local assets for sustainable community planning. This case study serves as a roadmap for other towns navigating similar transitions, advocating for a forward-thinking approach to community development.

Chapter 5, "Two Tales of Transformation: A Comparative Study of the Towns of Atikokan and Oloibiri," has been submitted to the *Community, Work & Family Journal* and is at peer review at the time of this dissertation's examination. It presents a comparative study of two resource-dependent communities, focusing on their transformation in the post-extraction era

(1990 to 2021). Both towns experienced the decline of their primary industries, but their responses were markedly different. The Town of Atikokan has been transitioning into a sustainable community by harnessing clean energy and diversifying its industries. In contrast, Oloibiri faces systemic neglect, environmental degradation, and economic instability. Despite these challenges, a resilient spirit of activism has emerged in Oloibiri, driving the pursuit of justice, remediation, and sustainable development. This chapter explores the dynamics that led to such disparate outcomes and offers insights into the roles of local decisions, global forces, and individual agency in the towns' transformations. It concludes with lessons drawn from both towns' experiences, contributing to global discussions on sustainable resource management and community development. The chapter underscores its significance in guiding future research and policy interventions in similar contexts.

The final chapter synthesizes the findings from the preceding chapters, reflecting on the theoretical and practical contributions of the research. It emphasizes the importance of strategic planning, adaptability, and proactive community engagement in building diversified and resilient post-industrial economies. The chapter concludes with recommendations for policymakers and community leaders, drawing lessons from the experiences of Atikokan and Oloibiri to guide future strategies in similar contexts.

Researcher Background

In qualitative research, the researcher plays a crucial role that goes beyond just watching or gathering information. According to Marshall and Rossman (1999), researchers are fundamental parts of the research process itself. Their involvement with the research setting and the people in it significantly affects the results. This central role requires researchers to be reflexive, meaning

they need to recognize and consider their own backgrounds, biases, and viewpoints as part of the research context.

Building on this idea, Denzin (2017) challenges the traditional notion that researchers can remain objective and detached. He asserts that researchers are not detached or impartial observers but are instead deeply embedded in the very dynamics they investigate. As Denzin states:

> The qualitative researcher is not an objective, politically neutral observer who stands outside and above the study of the social world. Rather, the researcher is historically and locally situated within the very processes being studied. A gendered, historical self is brought to this process. This self, as a set of shifting identities, has its own history with the situated practices that define and shape the public issues and private troubles being studied. (p. 12)

In line with the view that researchers are deeply intertwined with their research, I aim to clearly position myself within my study's context. I do this by transparently sharing my personal and professional history to shed light on how my research interest developed and to recognize any biases that might influence my work.

My academic journey commenced at the Federal University of Agriculture, Abeokuta, Nigeria, where I was awarded a Bachelor's degree in Forestry and Wildlife Management and a Master’s degree in Forestry Economics and Management, both with distinction. The Bachelor’s program, in particular, sparked my interest in forest resource development and environmental science. I was especially drawn to courses like "Environmental Impact Assessment" and "Forest Resource Inventory and Mensuration." These courses laid the groundwork for my fascination with the delicate balance between natural resources development and human development. It was during this time that I engaged in projects examining the socio-economic effects of resource development and deforestation. Working closely with professors who were deeply committed to

environmental sustainability, I gained invaluable insights and guidance, significantly shaping my academic and career path.

Following my graduation, I participated in the National Youth Service Corps (NYSC) program in Imo State, situated in Southeastern Nigeria, an experience that broadened my perspective significantly. My time during the NYSC allowed me to travel across numerous Eastern states in Nigeria, such as Bayelsa, Edo, Port Harcourt, Abia, and Enugu. These travels were more than mere explorations; they were a quest to grasp the varied cultures and developmental phases of these regions. A notable highlight of this period was my environmental contribution, where I planted over 6,000 tree seedlings of Gmelina Arborea and Tectona Grandis. This initiative was aimed at aiding environmental restoration efforts in the regions I served.

My efforts and dedication during this period were acknowledged with the State Coordinator's Award, recognizing my substantial contributions to the community service aspect of the NYSC and underscoring my commitment to making a meaningful impact within the communities I served. This recognition has been a significant milestone in my journey, reinforcing my advocacy for sustainable resource utilization, development, and conservation. It exemplifies my dedication to incorporating environmental stewardship into all areas of my work and personal philosophy, highlighting my continuous efforts to foster practices that align with the well-being of our natural environment.

Advancing to postgraduate studies, I pursued a Master’s degree in Forestry Economics and Management, further honing my focus on sustainable resource management. Advanced courses like "Advanced Resource Management and Economics," "Forest Management and Valuation," "Planning and Control of Forest Operations," and "Control and Management of Ecological Disaster" were particularly transformative. These courses not only equipped me with

a deep understanding of the complexities involved in sustainable forestry management but also illuminated the intricate balance between, resource development, economic viability and environmental stewardship. Following my postgraduate studies, I engaged in various roles that bridged academic research with practical application. As a Research and Teaching Assistant at the Federal University of Agriculture, Abeokuta, I was involved in projects examining the socio-economic effects of forest resource policies, facilitating a deeper understanding of policy impacts on rural livelihoods and resource sustainability. This role afforded me the opportunity to mentor undergraduate students, guiding them through research projects that aligned with my growing interest in sustainable development. These initial years sparked a keen interest in the socio-economic and environmental ramifications of resource development, leading me to adopt an interdisciplinary approach in my research endeavors.

In 2019, seeking to expand my research horizons, I relocated to Thunder Bay, Ontario, to pursue a Doctor of Philosophy in Forest Sciences at Lakehead University. This move was not just a geographical transition but a leap into a broader academic exploration of the intricate dynamics between human societies and natural resources. My thesis, "Shifting Grounds: The Rise, Fall, and Resurgence of the Towns of Atikokan and Oloibiri," aims to dissect and understand the multifaceted challenges and opportunities facing resource-dependent communities in the wake of industrial decline. This chapter of my professional path expanded beyond the academic sphere into international collaborations. In my role as a Research Assistant with the "Deindustrialization and the Politics of Our Time" project at Concordia University, I engaged with researchers from western Europe and North America. This collaboration widened my view on the international aspects of resource development and its downturns, underscoring the necessity for interdisciplinary strategies in tackling environmental and socio-economic

issues. These experiences have not only augmented my understanding of the intricate dynamics of resource management and conservation but also emphasized the critical role of cross-cultural and cross-disciplinary collaborations in addressing the challenges of our time. My journey, marked by a blend of personal engagement with diverse communities and professional endeavors in global research projects, has equipped me with a unique perspective.

My time in Thunder Bay has been marked by an insatiable curiosity about the vast and varied landscapes of Northwestern Ontario. This curiosity drove me to explore more than 18 towns across the region, each journey enriching my understanding of the socio-economic fabric and environmental challenges unique to these communities. These explorations have not only provided a real-world context to my academic inquiries but have also deepened my appreciation for the resilience and adaptability of rural towns in the face of economic and environmental changes. As I continue to navigate the complexities of my research, these travels in Northwestern Ontario stand as a testament to my hands-on approach to learning and my commitment to fostering sustainable development practices. With a foundation built on diverse cultural experiences, academic excellence, and a dedication to environmental conservation, I am poised to contribute meaningful insights and solutions to the challenges facing our global community.

My academic motivations are deeply intertwined with personal experiences that have highlighted the urgency of my research interests. Growing up in Nigeria, a country endowed with abundant natural resources yet plagued by environmental degradation and economic instability, I witnessed firsthand the delicate balance between exploiting natural resources and preserving the environment for future generations. This personal connection to the land and its people has imbued me with a sense of responsibility to contribute towards sustainable solutions that can ensure environmental integrity while fostering economic growth. These experiences and

motivations have coalesced into my doctoral research, where I investigate "The Rise, Fall, and Resurgence of the Towns of Atikokan and Oloibiri." This topic reflects my deep-seated interest in understanding the lifecycle of resource-dependent communities and the factors that contribute to their resilience or vulnerability in the face of economic and environmental changes.

The choice of Atikokan and Oloibiri as case studies embodies the global relevance of this issue, highlighting the shared challenges and distinct paths toward sustainability and recovery that communities can undertake. The personal connection to my research topic is not just academic; it is rooted in a genuine desire to make a difference. The narratives of Atikokan and Oloibiri resonate with my own observations and experiences within various Nigerian communities, driving me to uncover insights that can inform policy, practice, and community initiatives aimed at fostering sustainable development. Through this research, I aim to contribute to a body of knowledge that not only advances academic understanding but also offers practical solutions for the sustainable management of natural resources and the well-being of communities globally.

Reflecting on biases and perspective is crucial for maintaining the integrity and objectivity of research. My background, experiences, and beliefs undeniably shape my view of the world and, by extension, my research perspective. Growing up in Nigeria and witnessing first-hand the impacts of resource extraction on communities has instilled in me a deep commitment to sustainable development and environmental stewardship. While these experiences enrich my research, they also pose the risk of introducing biases, particularly in favor of conservation and community development approaches that I find personally meaningful.

Recognizing the potential for such biases to color my research, I have taken several steps to ensure objectivity and maintain the rigorous standards of academic inquiry. First, I have

committed to a mixed-methods research approach, integrating quantitative data analysis with qualitative insights. This methodology allows me to balance my personal experiences and the lived experiences of the community members with empirical data, providing a comprehensive understanding of the issues at hand. Second, I have sought to diversify my sources of information and perspectives by engaging with a broad range of stakeholders, including those who might hold views that challenge my assumptions. This includes not only community members and environmental activists but also industry representatives and policymakers. By actively seeking out divergent viewpoints, I aim to construct a balanced analysis that considers the complex array of factors influencing resource-dependent communities.

Furthermore, I have incorporated peer review and feedback mechanisms at various stages of my research. Regular consultations with my academic advisors and submission of my manuscripts for peer-review provide opportunities for my methodology and findings to be critically evaluated by seasoned scholars. This external scrutiny helps identify any unconscious biases and ensures that my research adheres to the highest standards of academic rigor. Lastly, maintaining a posture of reflexivity throughout the research process is key. This involves continual self-examination of how my background and beliefs might be influencing my research process and outcomes. By keeping a reflexive journal and engaging in discussions with mentors and peers about my research approach, I actively reflect on and address potential biases. This practice of reflexivity is not only about identifying biases but also about understanding how they can inform and enrich the research process when appropriately acknowledged and managed.

Research Design and Methodology

In this study, I adopted a mixed-methods research design, integrating both qualitative and quantitative approaches to comprehensively understand the socio-economic transformations

occurring in Atikokan, Canada, and Oloibiri, Nigeria, as a result of their dependence on extractive industries. This methodological framework is pivotal for exploring complex social phenomena, as it combines the depth and context provided by qualitative data with the objectivity and generalizability of quantitative analysis (Creswell, 2007).

The qualitative component of the study aims to explore the lived experiences, perceptions, and adaptations of individuals and communities impacted by the industrial decline. This approach is informed by the principles of critical qualitative inquiry, as advocated by Denzin (2017), which emphasizes the role of research in addressing economic injustices and promoting social change. Through in-depth interviews, participant observation, and document analysis, this study captures the lived realities and coping mechanisms of affected populations, highlighting the importance of community empowerment in times of socio-economic transition.

Simultaneously, the quantitative aspect of the research employs statistical methods to analyze data on population dynamics and other relevant socio-economic indicators. This approach allows for the identification of trends, patterns, and correlations that underpin the broader impacts of extractive industry decline on community well-being. By quantitatively assessing the extent of socio-economic changes, the study provides a solid foundation to support the qualitative findings, thereby offering a more holistic understanding of the dynamics at play.

Case Study

Case studies represent an intensive and detailed examination of specific instances within their real-life, contextual frameworks and are extensively utilized in diverse fields like social sciences, business, education, and health sciences (George & Bennett, 2005). Renowned for their comprehensive exploration of complex phenomena, case studies excel in revealing the intricate

interplay of various factors critical to understanding the subject at hand (Rowley, 2002). Their inherent flexibility allows them to integrate both qualitative data, such as interviews and observations, and quantitative data, like surveys and statistics, offering a mixed-methods approach that enriches the analysis (Tsang, 2004). The longitudinal aspect of certain case studies sheds light on the evolution and dynamics of the subject over time, providing valuable insights (George & Bennett, 2005).

Despite their strengths, case studies face limitations, such as questions of generalizability. The deep focus on a particular case might restrict the applicability of the findings to broader contexts or populations, a challenge highlighted by George and Bennett (2005). Yielding rich, detailed data, case studies may limit how findings can be extrapolated to larger groups. The researcher's perspective could also influence both data collection and interpretation, introducing subjectivity into the study (George & Bennett, 2005). Case studies also tend to be resource-intensive and managing the volume and complexity of the data to distill clear conclusions poses significant challenges (Yin, 2009).

The value of case studies in research is undeniable, offering in-depth, contextualized understandings and insights that may elude other research methodologies (George & Bennett, 2005). My research employs case studies focusing on the towns of Oloibiri in Nigeria and Atikokan in Canada to explore the intricate dynamics of post-industrial transition and community resilience. The aim is to uncover the unique challenges and opportunities these towns face in the wake of industrial decline, socio-economic and environmental changes. By conducting an examination of their histories, economic landscapes, social structures, and environmental contexts, the study intends to provide an understanding of how these communities adapt and evolve in response to changing circumstances.

The selection of Oloibiri, Nigeria, and Atikokan, Canada, as case studies is enriched by their distinctive historical contexts, shaped significantly by colonization and their roles within global economic systems. Oloibiri, marked as the site of Nigeria's first commercial oil discovery, symbolizes the beginning of an era dominated by oil exploitation, significantly influenced by colonial legacies and post-colonial governance that prioritized resource extraction for global markets over local development. This situation is emblematic of broader patterns identified in the literature on the resource curse and post-colonial economic policies (Auty, 2002; Watts, 2001). Atikokan's mining history, emerging within Canada's colonial framework, reflects the broader narrative of resource-dependent towns whose development and decline were closely tied to the demands of a globalizing economy, a theme extensively explored in studies on the economic histories of natural resource-rich regions (Innis, 1999; Watkins, 1963). These histories underscore the complex interplay of local socio-economic dynamics with global forces, offering invaluable insights into the challenges and transformations faced by post-industrial rural communities navigating the legacies of colonization and economic shifts (Bunker and Ciccantell, 2005). This comparative analysis highlights the broader implications of industrial reliance and decline, delving into economic shifts, environmental challenges, and social transformations within a global-historical context.

The emphasis on Atikokan's socio-economic transformations during the 1990s, rather than immediately following the mine closure in the late 1970s, is rooted in a comprehensive understanding of community adaptation over an extended period. Mitchell and Kendra, (2016) underscore the importance of examining the long-term effects of industrial decline, suggesting that the true impact of such transitions unfolds over decades. The mine closures set the stage for

a prolonged period of economic and social adjustments, highlighted in studies by Furgal & Prowse (2007), who documented the delayed impacts on Northern Canadian communities.

The 1990s were marked by strategic initiatives and policy interventions aimed at economic diversification and resilience building. The establishment of the Atikokan Economic Development Corporation and efforts to promote tourism and outdoor recreation based on Atikokan's natural assets played pivotal roles in this transformation (Ellis et al, 2003; Atikokan Economic Development Corporation, 2003; O'Neil, 2015). Investments in infrastructure and community services were key to enhancing the town's attractiveness, as explored by Mitchell and O'Neill (2016). Hallegate (2014) argues that the true test of a community's resilience often comes decades after an economic shock, making the 1990s a critical period for Atikokan's post-industrial adaptation.

Similarly, the focus on Oloibiri's transformations from the 1990s onwards sheds light on the prolonged impact of oil extraction, illuminating the dynamics of resilience, challenges, and advocacy within the community (Okonta & Douglas, 2003). The narrative of Nigeria's first commercial oil production site reveals the extended repercussions on community welfare and environmental integrity (Aaron, 2005). The 1990s brought national and international attention to the Niger Delta's environmental justice movement, with increased activism and advocacy for environmental remediation and sustainable development (Ikelegbe, 2005; Ebeku, 2002). This period marked a critical phase in Oloibiri's journey towards resilience and justice, emphasizing the delayed governmental and international response despite growing awareness (Ukeje, 2001). The community's persistent advocacy highlights the ongoing struggle for environmental justice and sustainable development in oil-impacted regions (Ako, 2013).

Focusing on the post-1990s developments in both Atikokan and Oloibiri reveals the complex legacies of industrial decline and oil extraction. These periods illustrate the resilience of both communities amidst environmental, economic, and socio-economic challenges, contributing to a broader discourse on sustainable development, community resilience, and environmental justice in extractive regions (Watts, 2007; Idemudia, 2009). This analysis underscores the need for understanding long-term impacts and the evolution of community advocacy, marking the 1990s as formative periods for both towns' adaptation and transformation.

Data Collection and analysis

My study was undertaken during the global COVID-19 pandemic, a period marked by unprecedented disruptions to daily life and work routines. This situation significantly impacted the methods of data collection. In particular, access to documents and archives were limited as many institutions closed or limited their operations, necessitating a greater reliance on available digital archives and resources. In addition, the need for social distancing policy and practices prompted a shift in the interview methodologies, moving from traditional face-to-face interactions to more of virtual platforms, such as telephone calls and video conferencing tools like Zoom. These adjustments and changes were necessary to maintain the continuity of my research while ensuring the safety of all participants.

Building on John Loxley's insights into the intricate balance between local realities and international dynamics, and guided by the methodological principles outlined by Creswell (2007) and Yin (2009), my research journey began with a pivotal question: How do communities like Oloibiri in Nigeria and Atikokan in Canada navigate and adapt to their unique post-industrial challenges? Creswell (2007) emphasizes that qualitative data collection involves a series of interconnected activities aimed at gathering comprehensive information to respond to the

research questions, necessitating the use of multiple sources of data for the categorization and synthesis of information into overarching themes. Similarly, Yin (2009) advocates for the employment of multiple data sources in case study research to enhance construct validity and reliability, suggesting that triangulation can provide a valid representation of the phenomenon under study. Building on these foundations, the study adopted a mixed-methods approach, combining quantitative and qualitative techniques as recommended by Schneider (2007).

The quantitative data, gathered from various sources, provides a broad overview of these communities, illustrating macroeconomic and demographic trends. The qualitative insights, particularly from interviews following Berg's (2004) methodology, brought the vibrant colors of these communities to life, capturing the experiences and responses of residents to resource dependency fluctuations. Employing this approach facilitated triangulation of findings, ensuring a comprehensive and accurate representation of the realities in Oloibiri and Atikokan. By marrying large-scale quantitative data with rich qualitative narratives, I validated statistical trends against the lived experiences of the residents. Not only did this process illuminate the quantitative trends, but it also offered depth and context, revealing the human stories behind the numbers.

Interviews

Building on this foundation of documentary and archival research, my methodological approach in both Canada and Nigeria was further enriched through semi-structured interviews with residents of Oloibiri and Atikokan as recommended by Berg (2004). Yin (2009) considers interviews to be one of the most important sources of information that can be obtained for case studies. Semi-structured interviews allow opportunities for probing when interesting and emergent issues arise. It is important in qualitative inquiry to use open-ended questions that give

full voice to the participants and to modify the questions as needed to reflect an increased understanding of the problem as the research progresses (Creswell 2007). The participants for the study were carefully selected using purposive and snowball sampling methods, ensuring a diverse representation of community perspectives (Neuman & Robson, 2014).

In the context of this study, a detailed demographic breakdown of interview participants was designed to ensure that the research captured a representative and diverse set of perspectives, crucial for understanding the impacts of economic transitions. The participant pool spanned various age groups, including young adults (18-35 years old) to capture the adaptation of newer entrants into the workforce, middle-aged adults (36-55 years old) to understand mid-career adjustments and family dynamics during economic shifts, and seniors (56 years and older) for their long-term historical understandings into the community's economic cycles. Gender representation was also carefully balanced to explore how economic changes differently impacted men and women, particularly in relation to job availability, career progression, and social roles.

The occupational background of participants varied significantly; it included former industry workers directly affected by closures in mining and oil sectors, professionals from the service sector such as educators and healthcare workers to gauge secondary economic impacts, and community leaders and planners who offered insights into strategic responses to economic challenges. In addition, the duration of residency was considered a crucial demographic factor. Long-term residents provided a historical perspective on the community's economic evolution, while recent migrants offered fresh views on the current socio-economic climate. Ethnic and cultural backgrounds of participants were also noted, reflecting the community's diversity, and allowing for an analysis of culturally specific responses to economic upheavals.

To ensure this demographic diversity, the recruitment combined purposive and snowball sampling techniques. Purposive sampling was employed to intentionally select individuals who met specific demographic criteria essential to the study's objectives, ensuring a diverse and relevant initial participant base. Snowball sampling was then used to expand this base, enabling access to additional participants from often underrepresented or hard-to-access groups, thereby enhancing the study's overall demographic coverage as discussed by Neuman & Robson (2014). However, this method introduces potential biases: purposive sampling may not completely represent the broader population due to the subjective selection of participants, while snowball sampling can perpetuate these biases by potentially limiting the pool to similar or interconnected individuals. Acknowledging this limitation, efforts were made to reach a varied sample by initiating contacts from multiple and diverse nodes within the community, thereby reducing the potential for homogeneity and bias in the responses gathered.

The interviews were conducted in each country in-person and via telephone calls or zoom video conferencing using existing contacts when face-to-face meetings could not be arranged as well as for several follow-up interviews conducted with participants. The interviews lasted between 35 to 60 minutes, with some extending up to 85 minutes when participants had more extensive information to share. To facilitate deeper and more authentic responses, English and local languages were used interchangeably where necessary and appropriate. This linguistic flexibility ensured that participants felt comfortable and were able to express themselves fully, thereby enriching the data collected. The oral interview schedule was designed not only to gather new information but also to compare and validate the data already acquired, enhancing the reliability and validity of the findings. All interviews were recorded and subsequently transcribed by me. Shank (2006) discusses the differing perspectives about researchers transcribing their

own data versus having someone else do it. An advantage of researchers doing their own transcriptions is that they can obtain new insights into the data during the transcription process. The interviews I transcribed myself provided me with this opportunity to reacquaint myself with their nuances. A total of 40 participants were interviewed, 20 participants in each town. The interview guide is provided in Appendix I.

The conversations, meticulously recorded and analyzed with the aid of ATLAS.ti software, offered invaluable insights into how local communities perceive and adapt to post-industrial changes. These personal narratives provided a human dimension to the statistical and documentary data, revealing how the shifts in economic and social landscapes are experienced at an individual and community level. The interviews allowed me to capture firsthand accounts of the impact of industrial decline and the subsequent efforts at revitalization, thereby complementing and enriching the broader historical and economic data collected from governmental and academic sources. This blend of qualitative insights with quantitative data painted a picture of the post-industrial realities faced by the residents of Atikokan and Oloibiri.

Ethical considerations were meticulously observed throughout the data collection process, particularly for methods involving direct participant engagement, such as interviews and participant observation. Approval was obtained from Lakehead University's Research Ethics Board, and adherence to Canada's Tri-Council Policy Statement (TCPS) on ethical conduct was ensured.[1] All participants provided written or verbal informed consent, and stringent measures were implemented to safeguard their confidentiality throughout the study. This included a clear understanding that participants could experience emotional distress when recollecting their

[1] Ethical approval for this research was granted by Research Ethics Board of Lakehead University, with approval number, Romeo #1468961.

dependency on the company and the impact on their standard of living. To mitigate this, a list of counselors was made available in the town, and provisions were made for access to counseling services where no local services were available. The consent form detailed the nature of the research and the voluntary basis of participation, offering participants the option to remain anonymous, with assurances that names would not be published without explicit consent (see appendix II). Participants were informed they could withdraw from the study at any point up until the project's submission. All data will be securely stored in my personal laptop for the duration of the project and for five years thereafter, ensuring no conflicts of interest.

Participant Observation

Within the scope of this dissertation, the participant observation methodology was strategically employed using the participant-as-observer approach. This method, foundational to anthropological research, allowed for an immersive engagement within the communities under study, enabling a rich, firsthand understanding of the realities faced by these communities as they navigate through the socio-economic aftermath of industrial decline. The participant observation was conducted utilizing a diverse set of techniques including direct observation, engaging in natural conversations, conducting informal interviews, and applying checklists and other unobtrusive methods to gather comprehensive data (Bernard, 1994). This approach was instrumental in collecting qualitative insights into the adaptive strategies, challenges, and opportunities encountered by the communities.

Adopting the participant-as-observer stance, as delineated by Gold (1958), I actively engaged in various community activities within the communities. This posture ensured a deep level of engagement with the community while maintaining an overt research focus, thus striking an essential balance between participation and observation. It facilitated the building of trust and

rapport with community members, providing access to authentic, in-depth insights into their lived experiences and perspectives on the socio-economic transitions prompted by the decline of extractive industries.

This methodological choice was critical for the comprehensive exploration of the complex dynamics at play in resource-dependent communities undergoing significant socio-economic shifts. It allowed for a detailed examination of the interplay between local initiatives, global economic pressures, and the socio-economic resilience of the communities. The insights gained through participant observation have significantly enriched the dissertation, offering a grounded understanding of community adaptation processes and the multifaceted impacts of industrial decline.

Document Review

The foundational layer of my research was established through a review of a diverse array of documents, enabling a deep dive into the historical and contemporary socio-economic landscapes of Atikokan, Canada, and Oloibiri, Nigeria. This process was instrumental in uncovering the dynamics of each location's reliance on and transition from extractive industries.

In Canada, the examination of governmental publications, media outputs, and comprehensive datasets from Statistics Canada laid the groundwork for understanding Atikokan's economic and social evolution. Valuable resources accessed through the Library of Atikokan, the Lakehead University Library Archive, and the Archives of Ontario enriched this analysis, offering a detailed portrayal of the town's mining legacy and labor dynamics. This multifaceted document review strategy situated Atikokan's story within the wider narrative of

resource-based development in Northern Ontario, providing critical insights into the regional implications of economic shifts.

In Nigeria, the complex narrative of the Niger Delta's resource-rich yet conflict-ridden history was meticulously compiled from academic publications, newspapers (primarily THISDAY), and official documents issued from Shell and Amnesty International. These sources are particularly relevant for their in-depth coverage of the socio-economic impacts of industrial changes, community resilience, and both governmental and non-governmental efforts over the years. The emphasis on Shell is significant due to the company owning and operating fifty percent of the oil wells in the Niger Delta, as noted by the Nigerian National Petroleum Corporation (2014). Shell was the first corporation to discover oil in the region, has been in operation for over five decades, and, according to Akpan (2005), owned the best oil fields in the country and enjoyed a monopoly of the upstream petroleum sector until Nigeria's independence. Amnesty International is a globally recognized NGO and has produced numerous reports on the Niger Delta, some of which have been instrumental in litigation. THISDAY Newspaper, a leading national publication, has extensively covered the Niger Delta issues. The types of documents reviewed and analyzed are as follows:

- Shell Sustainability Reports (1990 - 2021): https://www.shell.com/news-and-insights/annual-reports-and-publications/annual-reports-download-centre.html
- Amnesty International Reports (2013-2021): https://www.amnestyusa.org/about-us/financial-and-legal-documents/
- THISDAY National Newspaper (1990-2021): https://www.thisdaylive.com/

Reports and newspapers were filtered to remove duplicates and offtopic reports and the ones that aligned with the research scope were used. This selection process ensures a focused examination of the region's socio-economic landscape over the years.

Following Yin's (2009) guidance, the document review served not only as a means to construct a detailed background context but also as a crucial method for corroborating evidence gathered through interviews and participant observation. This triangulation of data sources enhanced the robustness of the study's findings. Where documentary evidence presented contradictions or gaps, further inquiries were pursued through additional research and stakeholder interviews, ensuring a comprehensive understanding of the complex socio-economic dynamics at play in these communities.

Reliability and Validity

In my study, addressing reliability and validity was paramount to ensure the integrity and credibility of the findings. Given the qualitative nature of this research, special attention was paid to mitigating potential biases and enhancing the study's methodological robustness.

Reliability, or the consistency of findings under similar circumstances, was pursued through meticulous research design and execution (Lincoln & Guba, 1985). This involved clear documentation of the research process, from data collection to analysis, ensuring that the steps could be understood and, if necessary, replicated by other researchers under similar conditions.

Validity, or the accuracy of the study in measuring the intended concepts, was addressed through the application of multiple and well-established data collection methods and sources (Marshall & Rossman, 1999). The use of interviews, participant observation, and document review allowed for a rich, multi-dimensional exploration of the communities' experiences. Data triangulation, a technique that enhances both validity and reliability, played a critical role in corroborating findings across different data sources and methods (Creswell, 2007; Yin, 2009). By integrating insights from diverse perspectives and data forms, the research aimed to present a

holistic and accurate portrayal of the socio-economic shifts in Atikokan and Oloibiri. Construct validity issues were addressed through this triangulation, providing multiple lenses through which to view the phenomena under study, thereby strengthening the study's conceptual framework (Yin, 2009).

Generalizability, or the extent to which findings from this study can be applied to broader populations (analogous to external validity in quantitative research), was approached with caution. Recognizing the inherent challenges in generalizing qualitative findings, I utilized the theoretical framework suggested by Marshall and Rossman (1999) as a reference point. This approach allowed for the contextualization of findings within broader socio-economic development and community resilience theories, thereby contributing to the field's understanding and offering insights that, while rooted in specific case studies, resonate with global challenges and strategies in similar resource-dependent communities.

Chapter 2: Why Atikokan and Oloibiri?

The towns of Atikokan, Canada, and Oloibiri, Nigeria, might not seem like obvious candidates for a comparative analysis at first glance. One is located in the boreal forests of Northwestern Ontario, Canada, while the other lies in the mangrove forest of the Niger Delta region in Nigeria. Despite their geographical and cultural differences, both towns share strikingly similar historical trajectories shaped by the exploitation of natural resources and subsequent socio-economic transformations.

In Atikokan, the discovery of iron ore in the early twentieth century spurred the town's development, positioning it as a significant player in Canada's mining industry. Similarly, the discovery of crude oil in Oloibiri in 1956 marked the beginning of Nigeria's oil industry, transforming the region into a critical component of the national economy. Both towns also experienced rapid economic growth followed by decline due to resource depletion. The Steep Rock Iron Mines in Atikokan operated from 1944 until 1979, when the depletion of economically viable ore led to the mine's closure (Michels, 1981). This shift necessitated economic diversification and adaptation by the local community (Wightman and Wightman,1997). Likewise, Oloibiri, once the heart of Nigeria's burgeoning oil industry, saw its fortunes wane as oil production shifted to other parts of the Niger Delta, leading to social, economic and environmental challenges for the local population (Watts, 2004; Osusu & Larry, 2020; Enyia, 1999).

The intertwined histories of Atikokan and Oloibiri with colonialism and hinterland-metropolis dynamics significantly shaped their development and socio-economic landscapes. Atikokan’s growth, spurred by the expansion of the Canadian Northern Railway in the early twentieth century, exemplifies this influence (Berton, 2011; Zaslow, 2016). This railway

connected Atikokan to larger urban markets, transforming it from a modest settlement into a bustling mining town (Bothwell, Drummond, & English, 1990; Brown & Cook, 2016). The facilitation of iron ore transport to industrial centers in Southern Ontario and beyond, including global markets, triggered rapid industrialization and population growth in Atikokan (Green, 2000; Piper, 2010). However, the economic prosperity generated by these developments predominantly benefited metropolitan centers in Southern Ontario, which emerged as a manufacturing and economic hub during this period. Industries in Southern Ontario flourished by utilizing resources extracted from northern towns like Atikokan, fueling significant economic and urban expansion supported by jobs and activities from the manufacturing sector (Hodge & Wong, 1972; Freshwater, 2017).

The growth of Southern Ontario was significantly bolstered by the flow of resources from Northern Ontario. Key resources such as minerals and timber were essential for the industrialization and urbanization of cities like Toronto, Hamilton, and Windsor (Brown, 2013; Beaulieu & Southcott, 2010). These resources supported various industries, including steel production and automobile manufacturing, which were pivotal to the region's economic development (Di Matteo, 2022; Fraser, 1907). The industrial boom in Southern Ontario created a substantial demand for raw materials, which were abundantly supplied by the northern regions (Ortiz-Guerrero, 2010; Tronrud, 1990). Moreover, many of these raw materials, particularly minerals, were exported to international markets, contributing to Canada's position in the global economy (Bradford, 2002; Gertler, 2001). Despite the crucial role towns like Atikokan played in supporting Southern Ontario’s industrial boom and National economy, they remained heavily dependent on mining operations. This economic dependence made the town susceptible to fluctuations in global commodity markets, impacting its economic stability. The closure of the

Steep Rock Iron Mines in 1979 underscored these vulnerabilities, plunging Atikokan into significant economic difficulties (Bartsch, 1983; Sancton, 2005).

Similarly, Oloibiri's trajectory under British colonial rule reflects the impact of these dynamics. The Nigerian colonial economy focused on extracting resources for export, particularly oil, neglecting the sustainable development of local communities. The discovery of oil in Oloibiri in 1956 attracted considerable foreign investment and technological advances. Yet, the generated wealth primarily benefited the federal government and multinational corporations, exacerbating economic disparities and environmental degradation in the Niger Delta. Local communities suffered from pollution, loss of livelihoods, and social dislocation, with minimal investment in local infrastructure or services.

These case studies illuminate the broader effects of colonial and hinterland-metropolis dynamics on resource-dependent communities, as explored in the works of Wallerstein (1974) and Cronon (1991) and Green (2019). In these frameworks, local resources were used to boost metropolitan economies at the expense of local stability, leaving the source communities vulnerable to economic fluctuations. Both Atikokan and Oloibiri saw local environments and economies heavily influenced by external forces and investments aimed at resource extraction and export. This situation left local communities to face the brunt of environmental damage and economic instability, while the economic advantages were enjoyed by more developed urban centers and foreign stakeholders. Moreover, this dynamic has significantly influenced the socio-political landscapes of both regions, deepening economic inequalities and fueling ongoing social and environmental challenges.

The economic collapse of single-industry towns has been a recurrent theme in the histories of both Canada and Nigeria, where the remnants of once-thriving communities can be

found. Some towns have disappeared, while others have diminished or deteriorated (Brown, 1984). However, a select few have managed to overcome these challenges and have flourished anew (Lorch et al, 2004). The town of Atikokan in Canada provides a particularly unique case; it had the advantage of an early warning about the impending closure of the Caland Ore Company mines and demonstrated resilience in adapting to this change. This lack of a predefined model for handling the economic decline of single-industry towns makes Atikokan's response an intriguing case study. Similarly, Oloibiri in Nigeria, despite facing significant challenges, offers critical insights into managing the economic and environmental shifts in resource-dependent communities.

The experiences of Atikokan and Oloibiri are highly relevant today as we witness similar patterns of economic collapse and environmental challenges in other resource-dependent areas in Canada and Nigeria (High 2018; Himelfarb, 1982). By examining how these towns responded to their crises, other communities in comparable situations can glean valuable lessons. These insights are crucial for developing better planning processes for resource utilization and ensuring futures that are more sustainable and equitable for the communities affected. These strategies highlight the need for resilience and adaptability and stress the importance of understanding the impact of these transitions on the social and economic fabric of the communities. The next discussion will explore the brief history of both the Town of Atikokan and Oloibiri, with a particular focus on their economic development, industry closures, and the subsequent responses and strategies employed by each town. This exploration aims to understand the dynamics of their economic transformations and how they have navigated the challenges and opportunities presented by these significant changes.

The town of Oloibiri

The town of Oloibiri was founded by Olei in the fifteenth century and has long been a melting pot, inhabited by people of diverse origins. Olei, originally from Benin, first established Nembe, a small town known for its involvement in the slave trade. He later founded the town of Oloibiri within present-day Bayelsa State, Niger Delta, Nigeria, and his followers set up settlements in what is now known as Ogbia (Nwajiaku, 2005). The town of Oloibiri occupied a small area, typical of the many scattered, rural settlements throughout the Niger delta (see figure 1).

The area is characterized by its mangrove forest and an intricate network of rivers and creeks (coastal ecosystem) essential for local transportation and livelihoods (Awelewa, 2016; Obi, 2023). The population of Oloibiri before the oil boom was relatively small, likely numbering in the hundreds and below a thousand. The residents primarily belonged to local ethnic groups such as the Ijaw (Adeleke, 2020). The community was largely self-sufficient, with its economy deeply rooted in subsistence agriculture and fishing (Chijioke, 2022). The fertile land and abundant waterways of the Niger Delta made these activities viable. Farming was largely focused on crops suited to the wet, tropical climate, including yams, cassava, and plantains (Adeleke, 2020; Chijioke, 2022). Fishing was particularly important due to the proximity to numerous rivers and creeks, providing a vital source of food and a modest income from local trade.

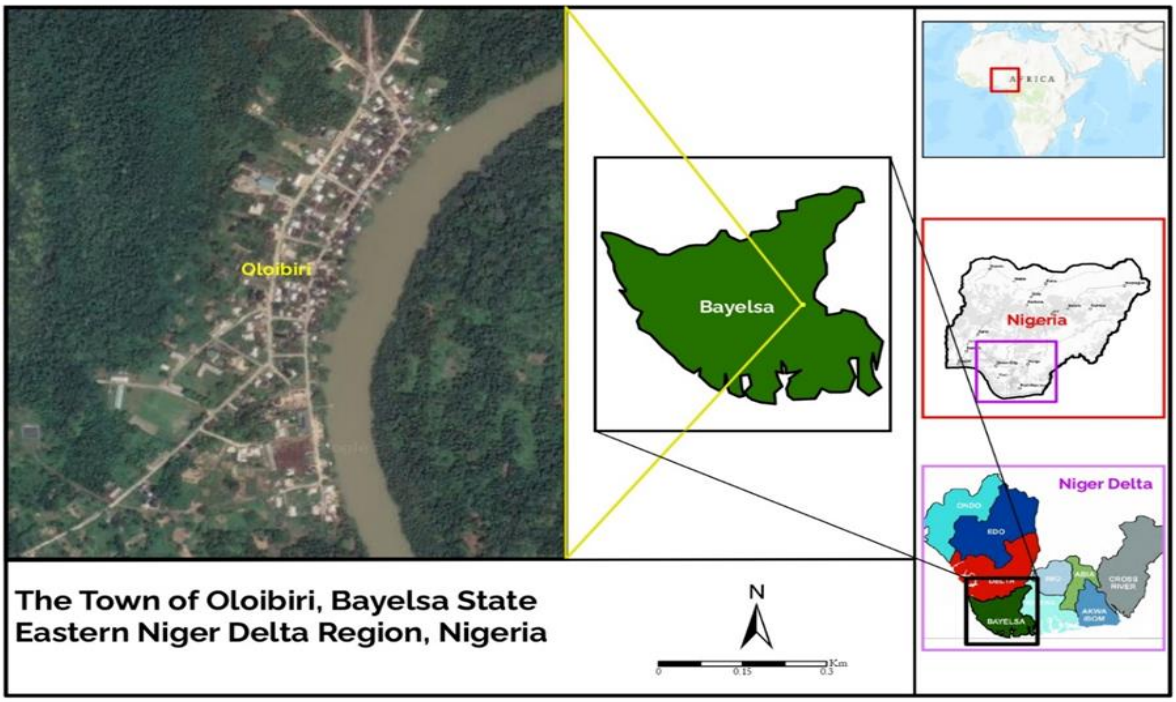


Figure 1: Location map of the Town of Oloibiri. (Source: Author, 2024)

Socially and culturally, Oloibiri exhibited the characteristics of a close-knit rural community. The social structure was tightly woven with strong familial ties and communal practices that governed land use, resource management, and everyday interactions. Cultural and social life was rich with festivals and events linked to the agricultural and fishing cycles, reflecting the community's deep connection to their natural surroundings. Back then, this place was called *Bioforoama*, nicknamed "*Eastern Congo,*" due to its booming social life (LequteMan, 2016; Oyadongha & Idio, 2016). Infrastructure in Oloibiri before the oil era was minimal, reflecting the general state of rural Nigerian communities at the time (Adeleke, 2020). There was little to no modern amenities such as electricity, paved roads, or medical facilities. Life in Oloibiri was predominantly governed by natural and seasonal cycles, with whatever infrastructure present being primarily aimed at supporting the agricultural and fishing needs of

the community (Edeh, 2017). Interaction with external commercial interests or the colonial government was also minimal until the mid-twentieth century (Willie, 2019; Adeleke, 2020).

Like the gold rush of California in nineteenth century America, the town of Oloibiri came into limelight in the second half of the twentieth century when workers of Shell D'arcy converged on the town in search of the "black gold" (Agbu, 2004; Shotonwa et al, 2018). The discovery of oil in Oloibiri in June 1956 was a pivotal moment that brought about significant economic benefits to the local economy (Watts, 2004; Osusu & Larry, 2020; Enyia, 1991).

Figure 2: Oloibiri Oil Well 1 Sign and Well (Source: Willi, 2023; Chidolue & Iqbal, 2023)

This landmark event also marked the beginning of Nigeria's oil industry, providing a new source of wealth and economic activity. The immediate positive impacts included infrastructure development and increased employment opportunities, as Shell, the oil company that made the discovery, set up operations in the area (Anifowose, 2008; Onuoha, 2008; Kadafa, 2012; Steyn,

2009; Ipingbemi, 2009). Subsequently, more foreign oil companies, including Mobil, Tenneco Inc., and Azienda Generale Italiana Petrol (AGIP), intensified their exploration efforts (Achunike, 2020). By late 1957, oil production was in full swing, leading to the first shipment to Europe in 1958 (Okonmah, 1997). This influx of activity led to improvements in local income levels and stimulated other service-oriented businesses to cater to the growing population and its needs. The oil operations necessitated the development of local infrastructure such as roads and transport systems, which not only served the oil industry but also benefited the residents.

Additionally, the increased economic activity led to the rise of local markets and businesses that provided goods and services needed by the oil workers and the broader community. The direct and indirect employment generated by the oil industry helped raise the standard of living for many residents during this initial phase. The presence of the oil industries in Oloibiri attracted more attention to the region, potentially leading to further investments and development projects aimed at supporting the booming oil sector. This period of economic optimism, fueled by the newfound oil wealth, was marked by a bustling economy and a vibrant community, significantly transforming Oloibiri from a quiet fishing village into a bustling hub of oil production activity (Oyadongha & Idio, 2016).

While the discovery of oil in Oloibiri catalyzed an economic transformation, turning a once quiet fishing village into a bustling hub of industry and prosperity. It is also important to recall the era preceding this shift in Nigeria, when the nation’s economy was predominantly agricultural. Prior to the discovery of oil in 1956 by Shell D'Arcy at Oloibiri in the Niger Delta, Nigeria's economy was heavily reliant on agriculture (Okotie, 2018). This sector was the mainstay, renowned globally for producing and exporting cash crops such as rubber from Delta State, groundnuts, hides, and skins from the northern region, cocoa and coffee from the western

region, and palm oil and kernels from the eastern region (Okotie, 2018). In the 1960s, agriculture not only provided employment for about 30% of the populace but also accounted for more than 80% of Nigerian export earnings, 65% of GDP output, and about 50% of government revenue (Central Bank of Nigeria, 2010; National Bureau of Statistics, 2010).

Nigeria underwent transformative economic changes that significantly reshaped its economic landscape in the period immediately following the discovery. By the end of the Biafra War in the late 1960s, Nigeria had emerged as a major oil producer in Africa (Mohammed and Osinbajo, 2016). This development marked the beginning of a shift in the country's economic structure, especially during the oil boom era of the 1970s (Asekunowo & Olaiya, 2012). During this period, Nigeria enjoyed vast revenues from oil due to rising global oil prices, establishing itself as the wealthiest African nation (Ogbonna et al, 2020; Okotie, 2018). By the 1970s, oil revenue had become a major component of the national GDP, accounting for a substantial portion of the government's budget (see figure 3).

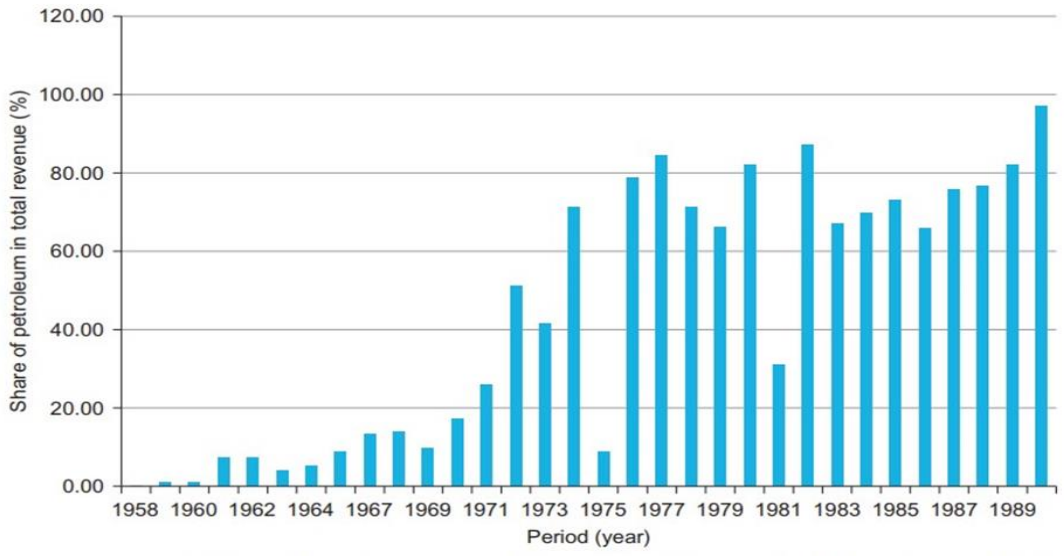


Figure 3: Contribution of Petroleum to Nigeria's Total Revenue (1958-1989) (Source: NNPC, 1992)

This economic boon facilitated increased public sector spending on infrastructure and development projects across the country, and the oil industry itself created numerous jobs, boosting employment and stimulating growth in related sectors such as construction and services (Sanusi, 2010; Asekunowo & Olaiya, 2012; Akinlo, 2012; Games, 2021). These developments laid the foundation for future economic expansions as well as challenges related to economic diversification. The oil wealth also enabled Nigeria to increase its geopolitical influence, becoming the 11th member of the Organization of the Petroleum Exporting Countries (OPEC) on 12 July 1971 (Barkindo, 2021). This membership helped Nigeria to play a significant role in global oil pricing and production discussions, further enhancing its international profile (Arinze, 2011).

As Nigeria's economy grew increasingly dependent on oil, this sector became central to its fiscal strategy, influencing policy decisions and economic planning (World Trade Organization, 2017; BTI Project, 2024; Olayungbo, 2019; Okotie, 2018). The focus on oil led to vast investments in the sector, aiming to maximize returns from this lucrative resource. The oil boom of the 1970s, fueled by high global oil prices, further entrenched the role of petroleum in Nigeria's economic landscape, leading to significant increases in government revenue (International Monetary Fund. African Dept., 2022; African Development Bank, 2014; UNCTAD, 2019). However, this era also marked the beginning of challenges related to economic diversification, as the reliance on oil made the economy vulnerable to global oil price fluctuations (Yao & Yang, 2021). Efforts to manage and leverage this oil wealth have shaped Nigeria's economic policies and development initiatives to this day. The economy's dependence on oil has only intensified, with government revenues from oil increasing from 10% of GDP in the 1960s to 30% in the 1980s, bolstered by higher production and oil prices (see table 1)

(NNPC. 1992). Today, more than 90% of Nigeria's GDP comes from crude oil revenues, which contribute over 90% of aggregate foreign exchange earnings and 80% of federal government revenue (Odularu, 2008).

Fiscal year	Fed. Govt. total revenue (US$)	Revenue from petroleum (US$)	Share of petroleum in total revenue (%)	Fiscal year	Fed. Govt. total revenue (US$)	Revenue from petroleum (US$)	Share of petroleum in total revenue (%)
1958	154,632	122	0.08	1975	5,177,370	463,816	8.96
1959	177,648	1776	1.00	1976	5,861,600	4,611,700	78.68
1960	223,700	2452	1.10	1977	7,070,400	5,965,500	84.37
1961	228,962	17,070	7.46	1978	8358400	5,965,500	71.37
1962	231,638	16936	7.31	1979	7252400	4,809,200	66.31
1963	249,152	10,060	4.04	1980	12,273,400	10,100,400	82.30
1964	299,132	16,084	5.38	1981	15,813,100	4,936,900	31.22
1966	321,870	29,175	9.06	1982	10,143,900	8,847,800	87.22
1967	339,196	44,976	13.26	1983	10,811,400	7,253,000	67.09
1968	300,176	41,884	13.95	1984	11,738,500	8,209,700	69.94
1969	299,986	29,582	9.86	1985	15,041,800	10,975,100	72.96
1970	435,908	75,444	17.31	1986	12,302,000	8,107,300	65.90
1971	755,605	196,390	25.99	1987	25,099,800	19,027,000	75.81
1972	1,410,811	720,185	51.05	1988	27,310,800	20,933,800	76.65
1973	1,389,911	576,151	41.45	1989	50,272,100	41,334,400	82.22
1974	2,171,370	1,549,383	71.36	1990	4,765,700	4,624,400	97.04

Table 1: Contribution of the Petroleum Sector to the Nigerian Economy (1958-1990) (Source: Okotie, 2018)

The economic boom did not translate into long-term prosperity for the residents of Oloibiri. When the oil industry in Oloibiri shut down in the late 1970s, the economic impact on the town and its residents was profound and largely negative (Willie, 2019; Adeleke, 2020). The closure of the oil fields led to a significant reduction in economic activity that had been buoyed by the operations of the oil industry. One of the most immediate effects was the loss of jobs. With the cessation of oil production, many residents who had found employment directly or indirectly through the oil industry were left unemployed (Adeleke, 2020). The decline in

employment was not just limited to those working directly in oil extraction; it also affected local businesses and services that had grown around the oil economy (Aadhityan, 2021). These businesses, ranging from local suppliers to hospitality services, saw a drastic reduction in clientele and income as the economic ecosystem deflated.

With the departure of the oil companies, the infrastructure that had been developed to support the oil industry began to deteriorate. Roads, transport systems, and maintenance services that were primarily geared towards supporting oil operations received less attention and funding, leading to gradual decay. This lack of infrastructure maintenance further hampered the potential for other economic activities to take root or expand in the post-oil era (Stakeholder Democracy Network, 2021). This once-promising town, renowned for its forest resources, fishing, and snail farming, and celebrated as the birthplace of Nigeria's oil industry, now stands as a forgotten symbol of national economic growth. As depicted in Figure 1, a signpost bearing the words, "*This is Oloibiri, the Goose that lays the Golden Egg. You are welcome*," the entrance of the town serves as a poignant reminder of the town's historical and economic significance in Nigeria's oil industry (Staff reporter, 1995; Gandu, 2014). This sign is a symbolic representation of Oloibiri's historical and economic significance in Nigeria's oil industry (figure 4).

Figure 4: Entrance sign to Oloibiri Town, Bayelsa State (Source: Author, 2017)

The town also experienced profound social changes as the effects of the oil boom faded. As jobs disappeared with the closure of the oil fields, many residents of Oloibiri were forced to leave in search of employment elsewhere. This migration led to a breakdown of traditional community structures and a loss of cultural cohesion. Families were often split, with some members moving to urban centers or other areas with better job prospects, altering the demographic makeup of the town (Adeleke, 2020). The oil production had left behind environmental degradation, which significantly impacted the health of the population. Pollution from oil spills and inadequate waste management led to contaminated water sources and agricultural land, resulting in increased health problems within the community (figure 5) (Craig, 2022). Diseases related to water pollution and a lack of proper sanitation became more prevalent, burdening an already strained healthcare system.

The initial influx of the oil industry had brought some improvements in education and skills training in Oloibiri, as the industry required a certain level of technical expertise (Adeleke, 2020). However, with the industry's decline, educational and training opportunities diminished

(Abraham, 2011). The younger generation faced limited access to education and vocational training, which would have been crucial in diversifying their employment opportunities beyond the oil sector (Deebom & Zite, 2020). The rapid economic changes led to increased social stratification and tensions within the community (Odoemene, 2011).

Those who had benefited economically from the oil boom were contrasted sharply against a growing number of impoverished residents, leading to social divides and increased instances of crime and social unrest (Ukeje, 2001; Inyang, 2018; Watts, 2007; Afinotan & Ojakorotu, 2009). The loss of a stable income for many families also led to increased stress and strains on family dynamics, contributing to social fragmentation. As illustrated in Figure 5, the community has taken steps to address some of these challenges through initiatives aimed at discouraging drug use and cultism, reflecting a commitment to rebuilding and stabilizing the social fabric of Oloibiri.

Figure 5*:* Community sign in Oloibiri emphasizing anti-drug and anti-cultism messages (Source: Author, 2017)

Despite these profound challenges within Oloibiri itself, the focus of the oil industry shifted to other regions, notably the Niger Delta and offshore fields, which began to play more significant roles in national oil production (Stakeholder Democracy Network, 2021; Adeleke, 2020). This transition helped mitigate the immediate economic impact on the national economy but also emphasized the volatility associated with heavy reliance on a single resource.

Following the oil field shutdown in the late 1970s, there were no significant efforts by the Nigerian government to revitalize the economy of Oloibiri. The town experienced considerable abandonment in terms of economic development, which has continued over the decades. The region faced considerable challenges, including environmental degradation and lack of basic infrastructure, which further complicated any potential economic recovery. The residents, faced with the collapse of their primary economic driver, had to adapt and diversify their sources of income. Many turned to small-scale farming and fishing, traditional livelihoods that predated the oil boom (Oyadongha & Idio, 2016; Adeleke, 2020; Enyia, 1991). Another significant shift was towards informal or "shadow" economies, including the artisanal refining of oil, known locally as "kpo-fire." This practice became a way for many in the region to eke out a living by illegally refining oil stolen from pipelines (Oduma, 2024). These activities, while providing some immediate financial relief, did not offer the same economic stability or potential for growth as the previous oil industry operations.

Amid these challenges, the local infrastructure in Oloibiri remained underdeveloped. The community has a government school founded in 1973 and a state-funded maternity health center, both suffering from long-term neglect. The area is not connected to the national electricity grid, leaving residents dependent on large diesel generators for power—a situation slightly alleviated by donations, including a generator plant gifted in 1970 by Melford Okilo, then governor of

River State, and a 350-KVA generator from a former local government chairman. To address these power issues, the federal government inaugurated solar hybrid mini-grids in Oloibiri in June 2020 under the World Bank-funded Nigeria Electrification Project (NEP). This project aimed to provide clean, reliable electricity and included solar panels, battery storage, and backup diesel generators (Adeleke, 2020; Willie, 2019). Despite these efforts, the transition to solar energy has been challenging for some residents who found the costs of meters and energy subscriptions unaffordable, leading them to opt out of the new system. This has dampened the initial optimism about finally overcoming the community's long standing electricity issues. Thus, while the installation of the solar hybrid mini-grid was a significant step towards improving living standards, the actual benefit to all community members remains constrained by economic factors (Oduma, 2024; Onuoha, 2016; Adeleke, 2020; Willie, 2019).

Support for Oloibiri has also come from non-governmental organizations (NGOs) and development agencies that have been active in the region, focusing on community health and social issues rather than large-scale economic development (Edeh, 2017; Samuel, 2022). Médecins Sans Frontières (MSF), for example, has been involved in providing essential healthcare services, reflecting a focus on primary health needs rather than economic revitalization (Edeh, 2017). Additionally, the Oloibiri Health Programme, initiated by Shell in partnership with local and international stakeholders, aimed to address health care deficiencies but also did not directly tackle the broader economic challenges faced by the community (Samuel, 2022). While there are no specific records of direct involvement from UNESCO, WHO, or UNICEF in Oloibiri, such international organizations typically engage in broader national or regional initiatives that might indirectly benefit areas like Oloibiri. Their efforts are

generally geared towards improving education, health, and child welfare, complementing the work of NGOs and local initiatives in addressing community-specific needs.

The broader economic recovery efforts for Oloibiri, post-oil industry decline, have been minimal and overshadowed by national policies prioritizing larger scale economic recovery and diversification. Although Nigeria has initiated policies aimed at reducing dependency on oil by diversifying the economy into agriculture, solid minerals, and manufacturing, these strategies have largely bypassed Oloibiri (Oyadongha & Idio, 2016). The focus remains on stabilizing the national economy against the volatility of oil prices, with less attention to the specific needs of communities historically dependent on oil (Asdegboyo, Keji & Fasina, 2021; Chinery & George-Ikoli, 2022; Osinbajo, 2019; Akintunde, 2020).

Since the 1970s, successive Nigerian governments have launched various agricultural initiatives to reduce the country's dependency on the oil and gas sector. Notable programs include "Operation Feed the Nation," initiated by General Olusegun Obasanjo in the late 1970s, Alhaji Shehu Shagari's "Green Revolution" in the early 1980s, and President Goodluck Jonathan's "Agriculture Transformation Agenda" in the early 2000s. More recently, President Muhammadu Buhari has continued these efforts with several programs aimed at enhancing the agricultural sector. Although these national initiatives have not been specifically designed to address the unique post-oil economic conditions of Oloibiri or the particular challenges faced by its residents, they offer indirect potential benefits. Given Oloibiri's traditional dependence on fishing and agriculture, these programs could help revitalize these critical sectors and, by extension, support the local economy.

Local political leaders in Oloibiri have mainly concentrated on addressing the immediate aftermath of the oil industry's decline. While there have been efforts to manage environmental damage and establish secure legal frameworks for compensation following oil spills, broader economic revitalization has not been as prominent. Additionally, regional political leaders have often been caught up in broader national issues, limiting their ability to focus solely on Oloibiri's redevelopment (Mbachu, 2023). In recent years, the Nigerian government has made efforts to address some longstanding issues in Oloibiri, notably through heritage projects such as the Oloibiri Oil and Gas Research Centre and Museum (Oyadongha & Idio, 2016). This project, which was first discussed in 1995 and saw renewed commitment in March 2001 when the foundation stone was laid by former President Olusegun Obasanjo, aims to preserve the history of oil in Nigeria and potentially attract tourism, which could help the local economy. However, the project has seen numerous delays and is still under development, as reported by Ekiye (2023).

As this discussion progresses into the next chapter, it will delve into the lived experiences of Oloibiri's residents as they navigate their post-oil reality. This examination will not only recount personal stories but also derive crucial lessons from these narratives that can guide community engagement and socio-economic recovery. By scrutinizing how individuals and the community collectively navigate their challenges, this analysis aims to distill insights into resilience and adaptive strategies that other communities in similar transitions might employ. The focus will be on elucidating the lessons learned from the residents' responses to economic downturns and social changes, underscoring the role of lived experiences in crafting effective and sustainable community development strategies. These narratives will highlight the

transformative power of lived experiences in shaping approaches that address the needs and aspirations of communities grappling with the similar issues of resource dependency.

The Town of Atikokan

The Town of Atikokan, established in 1900 by railway entrepreneurs Sir William Mackenzie and Sir Donald Mann, served as a Divisional Point on the Canadian Northern Railway, which later became the Canadian National Railway (CNR), between Thunder Bay and Winnipeg (Bartsch, 1983; Ontario Museum Association, 2024). During this era, rail divisional points were essential for resupplying locomotives with water and coal (Dampier et al, 2014). These points played a significant role in establishing small communities across Canada by providing local railway jobs (Lucas, 1971; Dampier et al, 2014). The name 'Atikokan' originates from the Ojibwe language, meaning 'caribou bones' or ‘caribou crossing’, reflecting the local indigenous heritage and the region's reliance on natural resources (Visit Atikokan, 2024; Ontario Museum Association, 2024; Michels, 1981). The town of Atikokan is situated approximately 225 kilometers west of Thunder Bay, 150 kilometers east of Fort Frances and 200 kilometers north of Dryden. Adding to the sense of isolation, the community is not serviced by passenger flights or passenger rail and only has bus service run by Ontario Northland. It is surrounded by the Canadian Shield and features a landscape of boreal forests and freshwater lakes (AEDC, 1996) (figure 6).

The geographical area of Atikokan was historically inhabited by the Anishinaabe people, primarily the Ojibwe tribe. This region is part of the traditional Anishinaabe territory, governed by Treaty #3, established in 1873, with an adhesion to the treaty by the Métis in 1875 (Daugherty, 1986). Now, 117 years old, the town of Atikokan exemplifies the resilience and

adaptability of communities reliant on natural resources as it continues to diversify its economy beyond traditional industries (figure 7).

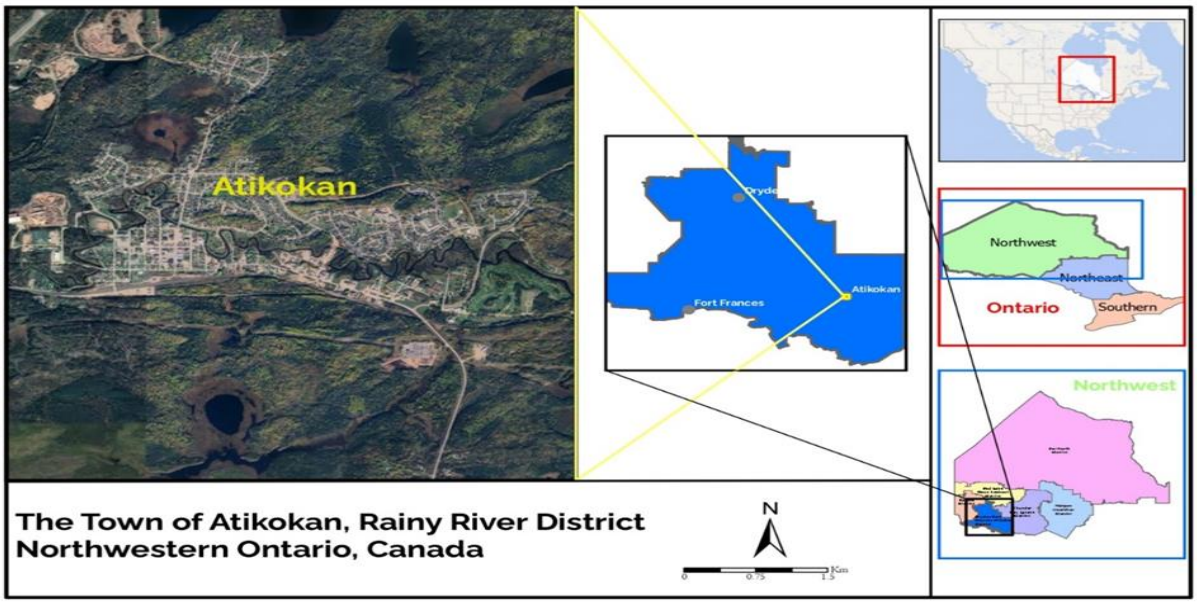


Figure 6: Location Map of the Town of Atikokan (Source: Author, 2024)

Figure 7: Aerial Photo of the Town of Atikokan (Source: Sivakumaran, 2024)

Atikokan's early growth stemmed directly from the natural resources that drew railway workers, lumbermen, fur traders, and their families to the area (Madau, 1982; Michel, 1981). These pioneers established a resilient community skilled in overcoming the difficulties of their remote environment (Nault & Girard, 1999). During the early twentieth century, Atikokan's population was approximately 250 to 300 people (O Boland, unpublished document), and train transportation was the sole means of accessing the community. The construction of the road to Port Arthur (now Thunder Bay) in 1954 and the road to Fort Frances in 1967 further highlights the community's isolation for nearly half of its existence (O Boland, unpublished document). Prior to the discovery of iron ore, the local economy was primarily based on subsistence activities such as hunting, fishing, and gathering, similar to other pre-industrial Indigenous communities and frontier settlements. Historically, Atikokan has maintained a strong tradition of self-sufficiency (Michels, 1981).

The discovery of a substantial iron ore deposit under Steep Rock Lake in 1938 represented a pivotal moment for the region (Brown, 1984) (figure 8). Situated about 70 km north of the Canadian-American border, this deposit was the largest and richest undeveloped iron ore body in North America at the time (Cowan & Duncan, 1957). The urgency of the Second World War, which created a critical shortage of iron ore for North American steel mills, accelerated the development of this deposit (Montagnes, 1940). Julian Cross was credited with the discovery of Steep Rock and this presented significant challenges during extraction due to the deposits being located at the bottom of the lake (Michel, 1981).

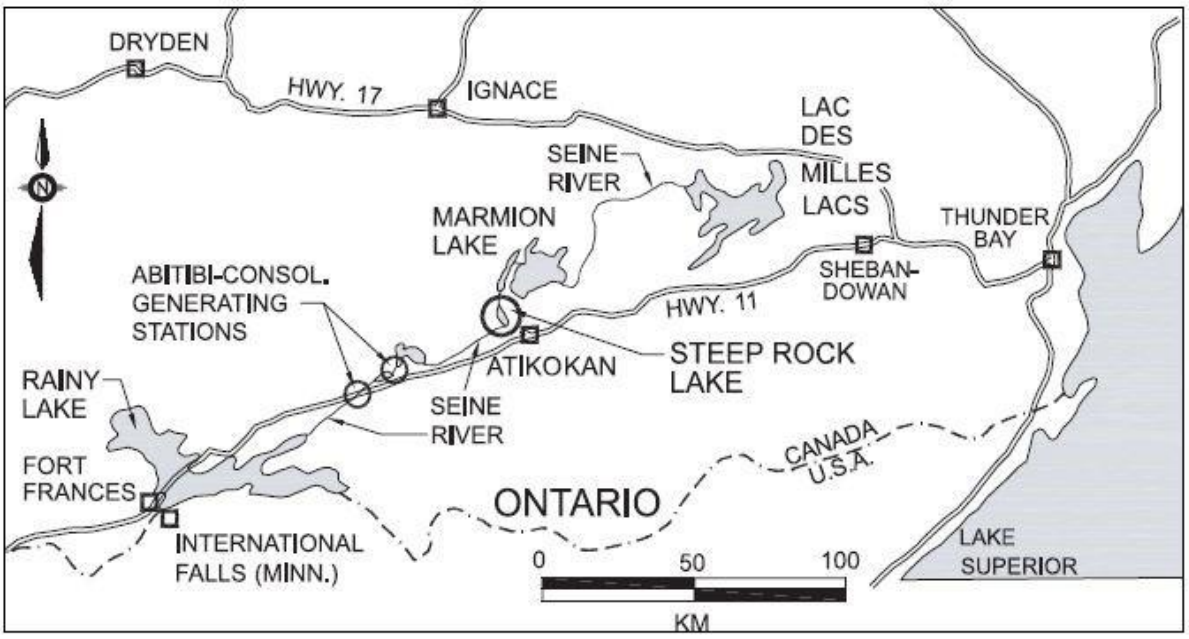


Figure 8: Map showing the location of Steep Rock Lake (Sowa, 2003)

To extract the ore, it was necessary to drain Steep Rock Lake, a task that required intricate and extensive engineering. The process included diverting the Seine River, constructing dams and tunnels, creating additional water diversion structures, and large quantities of lake bottom sediments were dredged to expose the ore deposits (figure 9). This engineering achievement, executed between 1943 and 1945, opened new mining pits that exposed high-grade iron ore (Taylor, 1978; Godwin, 1976; Mikkelsen, 2012; Michel, 1981). At the time, it was the largest project of its kind in Canada (Sowa, 2003). The total cost was approximately $18 million, funded through a combination of sources: contributions from the federal and provincial governments, a $5,000,000 loan at 4% interest from the United States Reconstruction Finance Corporation to support the allied war effort, public stock sales, and financial backing from Cleveland financier Cyrus Eaton after initial hesitance from Canadian investors (*Time Magazine*, 1944; Michel, 1981; Andra-Warner, 2021).

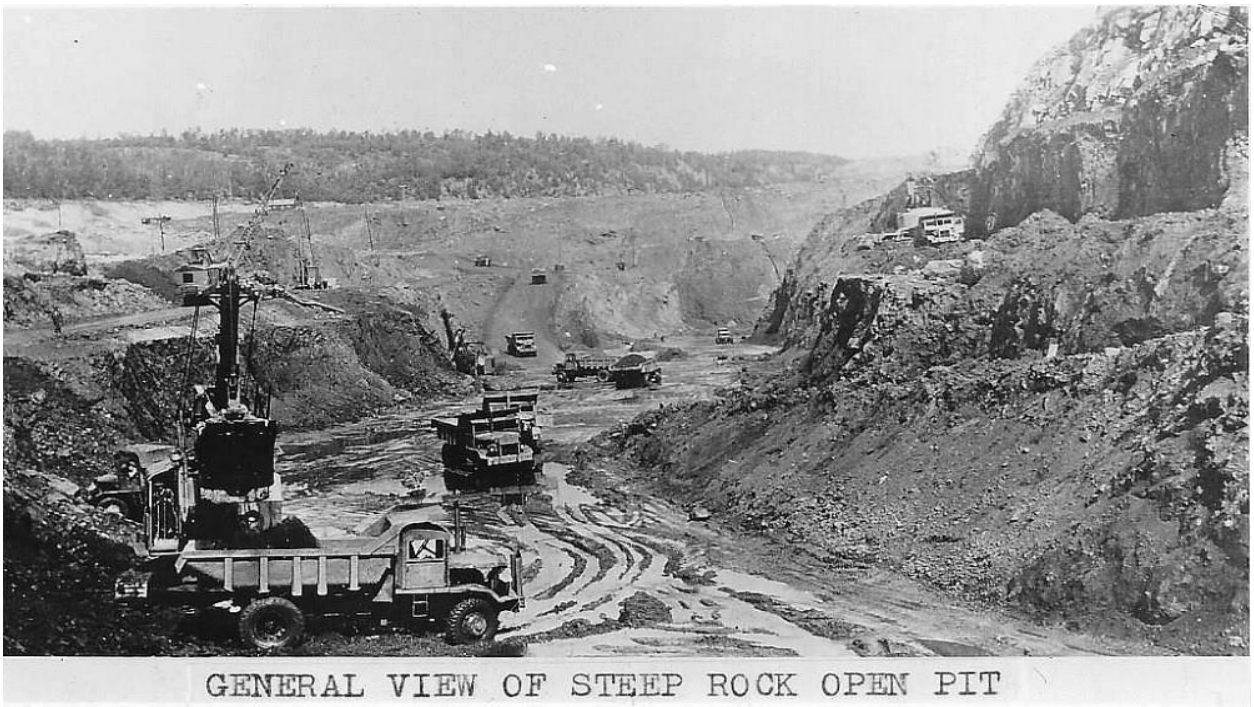


Figure 9: General view of Steep Rock Open Pit (Source: Atikokan History, 2002)

The Steep Rock Iron Mines commenced production in 1944, with Caland Mines following in 1960, continuing until the late 1970s (Figure 10 & 11). Together, these mines extracted a total of 79 million tons of iron ore over their operational lifespan (Sowa, 2003; Michels, 1981; History of Steep Rock Iron Mines, 1960). At its peak, Steep Rock Iron Mines employed over 1,800 workers, and along with Caland Mines, positioned Atikokan as one of Canada's leading mining centers (Michels, 1981). The iron ore from these mines was vital to Canada's wartime and postwar economies.

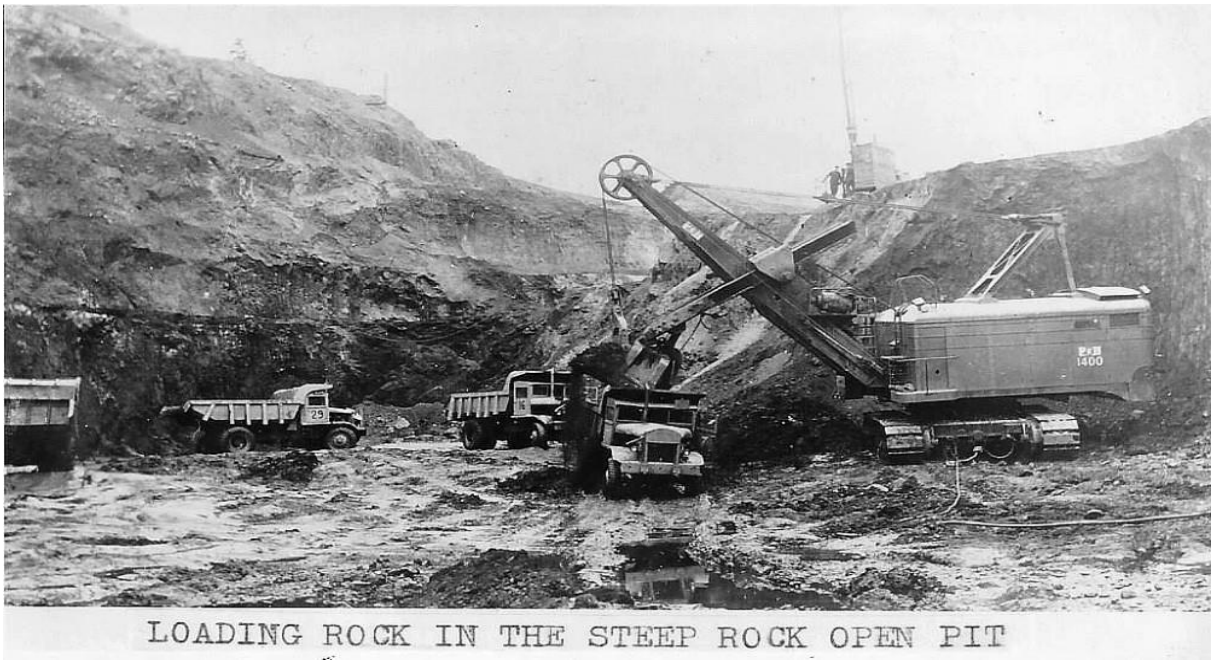


Figure 10: Steep Rock Open-pit (Source: Atikokan History, 2002)

Figure 11: One of the first cars of iron ore being loaded at Steep Rock Iron Mines, 1945 (Source: Atikokan History, 2002)

As the mining industry flourished, Atikokan experienced significant development and rapid population growth (Cowan & Duncan, 1957; Deller & Schreiber, 2012; Cranstone, 2002). The promise of employment and economic opportunities drew many newcomers, transforming

the town from a small, close-knit community to a bustling, diverse population (Wightman and Wightman, 1997; Michels, 1981; Bartsch, 1983). Most residents were transient, reflecting the ephemeral nature typical of mining towns with a constant cycle of workers arriving, staying briefly, and then moving on. Miners, often seen as modern nomads, usually had minimal engagement with the communities they briefly inhabited (Michels, 1981). By the 1970s, Atikokan boasted the highest per capita income and birth rate in Canada (Sivakumaran, 2024). The population peaked at about 7,600, leading to expanded local infrastructure, including new housing, schools, and other essential services (Michel, 1981; Bartsch, 1983). These changes significantly altered Atikokan's physical, cultural, and social landscape (figure 12).

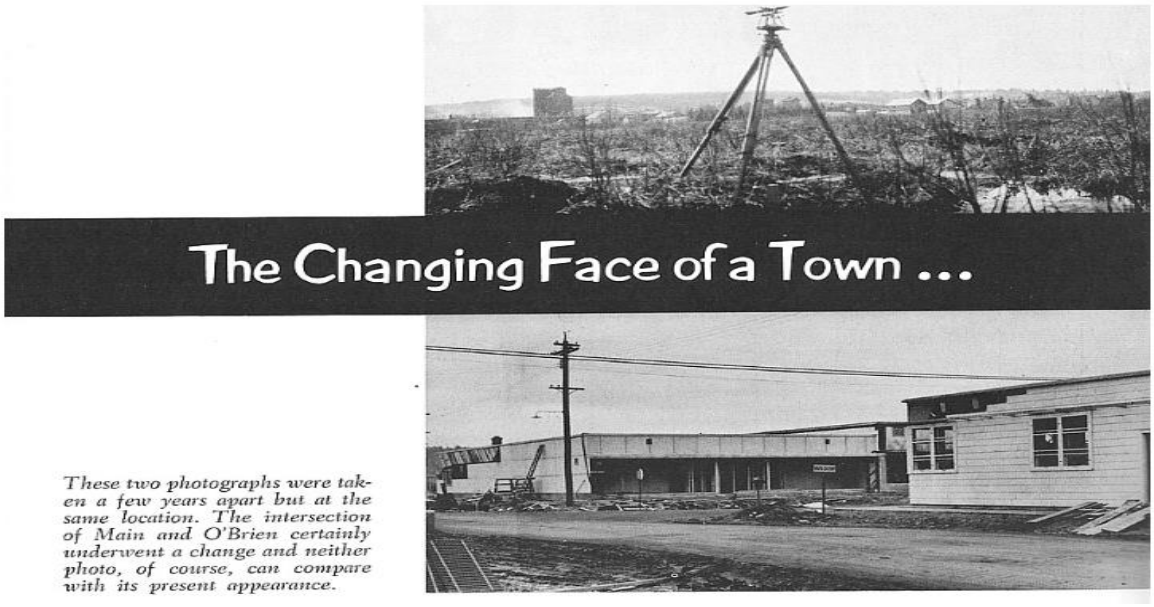


Figure 12: Steep Rock Echo, "Before & After" Photos, September 1959 (Source: Atikokan History, 2002)

The town of Atikokan embraced a new identity as a thriving mining hub, enriched by a diverse mix of cultural backgrounds. The economic upsurge brought both challenges and opportunities, necessitating strong leadership to guide the town's growth (Knowles, 1996). Key

figures included M.S. 'Pop' Fotheringham, president of Steep Rock Iron Mines (SRIM), his successor Neil Edmonstone, and S.G. (Syd) Hancock, who served 21 years on the Atikokan council and 12 as Reeve (Michels, 1981). These leaders believed deeply in the potential of the mines and the town's future (Paulson, 1993). Cliff McIntosh, President of Quetico Centre, echoed Fotheringham's vision, stating, 'He believed that for Atikokan to thrive, its residents must lead community development, with the mine in a supporting role, not controlling the town' (Michels, 1981). Fotheringham championed the 'seed money approach,' where SRIM would provide initial funding for community projects without bearing the full cost, encouraging self-responsibility and the continuation of local traditions. He envisioned a future where, post-mining, the town's leadership would successfully pivot to a new economic base (Hancock, 1982). While no alternative economic strategies were initially evident, discussions about future possibilities had already begun.

SRIM (Steep Rock Iron Mines) leadership strongly emphasized community involvement, expecting its senior staff to actively engage in town life and contribute to its improvement (Paulson, 1993). This commitment allowed the mine's activities and personnel to become integrated into Atikokan's social fabric without overwhelming the existing community. A key initiative by SRIM was advocating for the inclusion of the Steep Rock range and their mining operations within the municipal boundaries (Michels, 1981). This move was crucial in transitioning Atikokan from an improvement district to an established town government, ensuring that subsequent developments, like those by Caland, were also incorporated within these boundaries. This approach cultivated a culture of self-sufficiency and autonomy within Atikokan, evidencing the community's long-standing commitment to managing its own affairs,

confronting its challenges, and upholding accountability in its decisions. This self-reliance has significantly influenced Atikokan's identity and resilience, as documented by Paulson (1993).

During its peak mining years, Atikokan showcased exceptional financial management. Instead of relying solely on taxes, the town received special grants from the provincial government, which were funded by taxes collected from productive mines across Ontario (Michels, 1981). This arrangement allowed Atikokan to enjoy consistent and substantial provincial funding without being dependent on the financial contributions from the mines. The Town Council adopted a prudent, pay-as-you-go financial policy, minimizing the need for long-term loans, which were swiftly repaid when necessary. In the early 1970s, as Atikokan transitioned from these provincial grants to direct municipal taxation, the town doubled its revenue in one year, strategically reserving the excess for future needs (Michels, 1981). The foresight and financial strategies of the 1960s not only ensured stability during prosperous times but also bolstered Atikokan's resilience, preparing it to effectively manage future economic challenges.

While mining significantly boosted employment and the local economy in Atikokan, it also created a high dependency on the volatile mining sector. This reliance made the town vulnerable to fluctuations in global commodity prices and shifts in mining technologies. The rapid development driven by mining activities raised concerns about the sustainability and the long-term health of the local ecosystem. Despite these challenges, Atikokan adapted, striving to balance economic gains with environmental stewardship and community well-being. Though both mining companies initially planned for long-term development of up to 100 years, the emergence of taconite—a new ore processing technology—made the extraction of local red hematite ore less economical (Ross, 2012; Michels, 1981; Sunset Country, n.d).

Pre-Closure Efforts

> Atikokan is a town that wants to stay alive and thrive. The residents of Atikokan like living there and they want to continue to live there. They are willing to work hard to keep the town going (Atikokan & Quetico Centre, 1974).

In 1972, Caland announced its plans to cease operations by 1976, although the local economy in Atikokan was robust at that time. Despite this closure announcement, Caland extended its operations beyond the intended date to maximize ore extraction, which included expanding stripping operations to access more ore reserves (Thunder Bay Museum Archives, n.d.). This advance notice and subsequent four-year extension allowed the company to continue contributing to the local economy and gave Atikokan time to seek alternative economic paths and mobilize resources for survival. However, Steep Rock Iron Mines shut down in 1979, followed by Caland Mines in 1980, due to depleted resources and economic shifts, resulting in a loss of 1,800 jobs and marking the start of Atikokan's shift away from a mining-dependent economy (figure 15, 16 & 17) (Michels, 1981; Bartsch, 1983). Workers who had believed promises from the 1940s of 'ore for 100 years!' felt betrayed by the abrupt closures. Following these events, the town's population plummeted to about 5,000 within 18 months (figure 14). This decline continued, leading to a 50% reduction in population, and by 2021, Atikokan's population had dwindled to 1,929 residents (Statistics Canada, 2021; Sivakumaran, 2024).

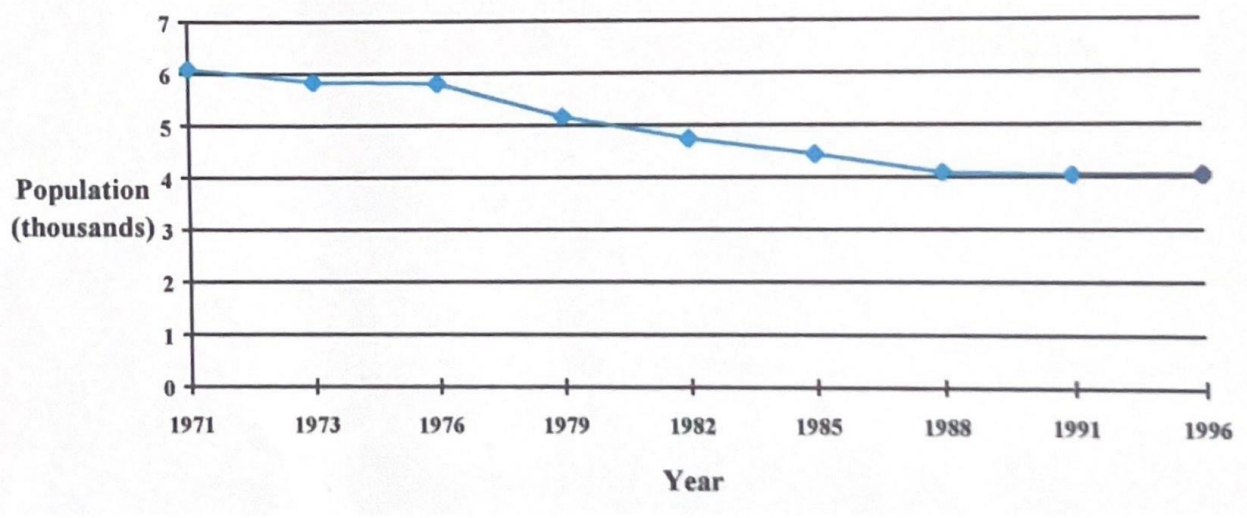
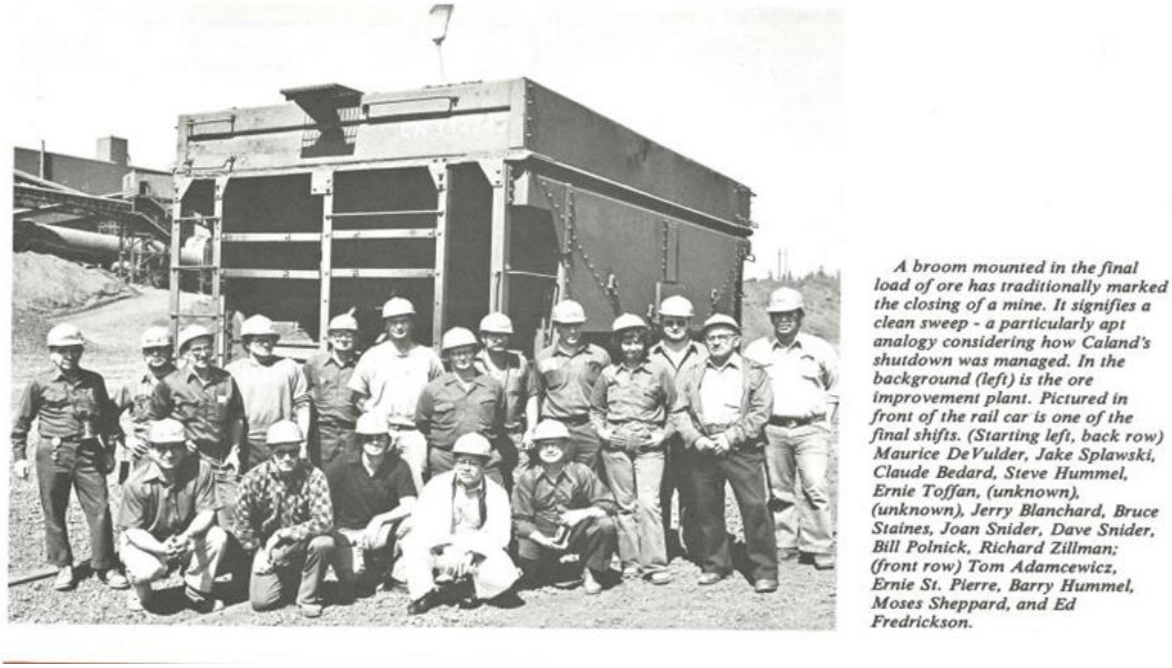


Figure 13: Population of Atikokan (1971 - 1996) (Source: AEDC, 1999)



A broom mounted in the final load of ore has traditionally marked the closing of a mine. It signifies a clean sweep - a particularly apt analogy considering how Caland's shutdown was managed. In the background (left) is the ore improvement plant. Pictured in front of the rail car is one of the final shifts. (Starting left, back row) Maurice DeVulder, Jake Splawski, Claude Bedard, Steve Hummel, Ernie Toffan, (unknown), (unknown), Jerry Blanchard, Bruce Staines, Joan Snider, Dave Snider, Bill Polnick, Richard Zillman; (front row) Tom Adamcewicz, Ernie St. Pierre, Barry Hummel, Moses Sheppard, and Ed Fredrickson.

Figure 14: Final load of ore with a broom mounted (Source: Bartsch, 1983)

Ed Fredrickson (right) and Ernie St. Pierre (left) make a clean sweep as the last load of ore is dumped into a rail car for transport to Inland Steel smelters near Chicago. Co-operation marked the final days of Caland's open pit iron ore mine. Staff and hourly employees worked toward an excellent shutdown in interdepartmental workteams designed to ensure that no closure details slipped between the cracks of responsibility.

Figure 15: Workers dumping last load for transport (Source: Bartsch, 1983)

Figure 16: Abandoned shovels at the site, 1978 (Source: Atikokan History, 2002)

In 1973, following the announced closure of Caland Ore, Councillor Murray Goodwin and Reeve Hancock led initiatives that resulted in the Atikokan Town Council establishing the Atikokan Industrial Development Committee (AID). Tasked with advising on industrial development policies, AID aimed to encourage the growth of secondary industries, revitalize the community's economic base, and shield it from the vulnerabilities of being a single-industry town. Simultaneously, the Council launched several development projects, including a sewage treatment plant, a new hospital, senior citizen housing, a road link to Ignace, and various recreational facilities.

The AID Committee became a focal point for community efforts, pooling knowledge and strategizing on industrial development. They actively consulted with government officials about the mine closures and quickly engaged with Ontario Hydro to discuss relocating a new electric generating station to Atikokan. This engagement led to a favorable Kates, Peats, Marwick and Company (KPM) cost/benefit study in October 1973, the establishment of the Ministry of Northern Affairs in February 1977, and garnered strong community support through well-attended public meetings (AIDC, 1978). AID's efforts notably attracted significant projects such as the Pluswood particleboard plant, the new hospital, and the Ministry of Natural Resources Building, and influenced the decision to locate the Hydro Plant in Atikokan (AEDC, 1999; AIDC, 1978). Despite the initial industrial focus, AID continued exploring various opportunities to secure a diverse and stable economic future for Atikokan (McKay, 1982; Michels, 1981).

The collapse of the mining industry made forestry the only remaining major employer in the post-mining era (Anonymous, 2009). The Pluswood manufacturing plant, later renamed Proboard and then Fibratech, began operations in 1975, producing particle board and significantly diversifying the local economy, leading to a minor economic boom (figure 18)

(Michels, 1981; Visit Atikokan, 2024). Between 1975 and 1978, as the mining operations wound down, some workers moved to pursue opportunities in new or expanding operations outside Atikokan, while others sought to adapt locally, particularly at the Pluswood plant, exploring part-time roles that could evolve into full-time positions (AEDC, 1999). This shift marked a broader trend of workforce diversification in anticipation of the mine closures (Michels, 1981). On February 1, 1976, a new hospital was officially opened, further bolstering local infrastructure. By the early 2010s, the then-shuttered plant was repurposed by American owned Rentech Fuels to manufacture wood pellets, indicating ongoing attempts to rejuvenate the industrial base (Visit Atikokan, 2024).

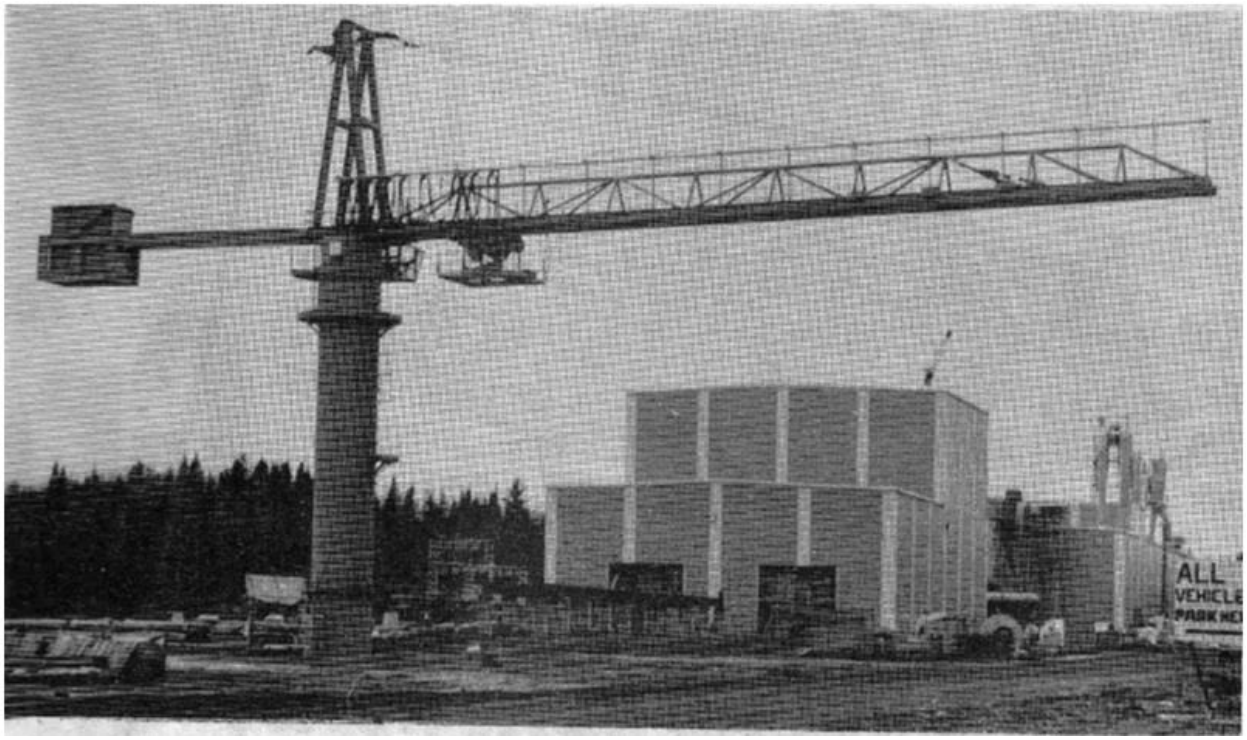


Figure 17: Stationary crane at Pluswood of Canada in Industrial Park in the west end of Atikokan, 1975 (Source: Atikokan History, 2002)

However, the closure of the Fibratech plant in 2007, resulting in the loss of about 140 jobs, underscored the vulnerabilities of secondary industries in small, remote communities to

market fluctuations, resource accessibility, and transportation costs (Dunick, 2011; CKDR 2007). The experience highlighted the necessity for supportive policies, adequate infrastructure, and stable markets to ensure the sustainability of new industries. In response, the "Atikokan retail and service sector community gap analysis" report by Edward Hoshizaki Development Consulting (2010) identified key local market gaps and opportunities, offering crucial insights and recommendations that significantly influenced the town's economic policies and strategies during that period.

The opening of Resolute Forest Products' mill in 2014, now managed by Paper Excellence, initially created 112 direct jobs, while Rentech's wood pellet mill, operational until its closure in 2017, added another 40 jobs (Clutchey, 2022). Additionally, the town's hospital is a significant employer, providing over 100 jobs. Despite the ongoing challenges of economic diversification and industrial closures, Atikokan has maintained a resilient job market. Local government efforts and the support of political representatives have played crucial roles in driving Atikokan's economic development. The re-election of Bill Mauro in 2014 underscored a continued commitment to policy approaches focused on economic diversification and community support (Global News, 2014).

After receiving approval in 1977, Ontario Hydro began site preparation for a coal-fired generating station at Atikokan, designed to utilize low sulfur lignite coal from Saskatchewan. The Atikokan Generating Station, a 230 MW facility, was built in the early 1980s and commenced operations in November 1985 (figure 19).

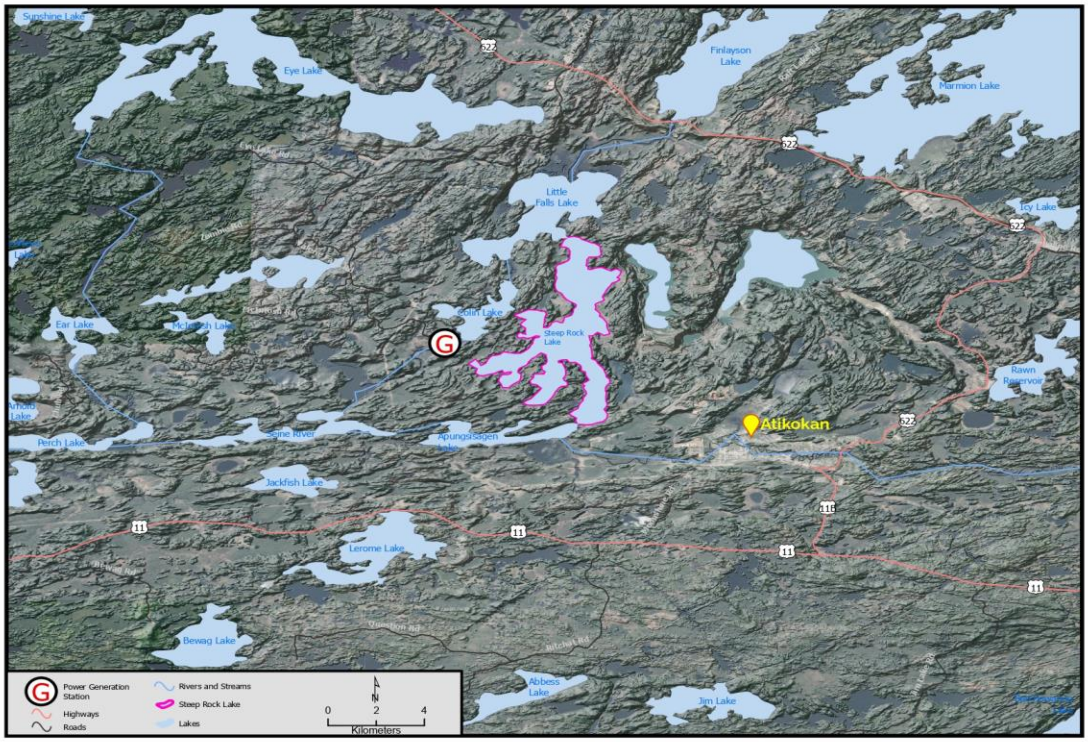


Figure 18: Location map of the Atikokan Generating Station (Source: Author, 2024)

The station primarily used lignite coal, transported by rail from Saskatchewan, with natural gas as the ignition fuel, contributing to the electricity needs of Northwestern Ontario. In line with environmental and health concerns, Ontario committed in 2003 to eliminate coal-fired electricity by 2014 and successfully achieved this goal, making it a significant climate initiative in North America. By 2014, all coal-fired power plants in the province, including the Thunder Bay Generating Station, had ceased using coal. This transition was celebrated as one of the largest single climate change initiatives in North America, drastically reducing greenhouse gas emissions (AEDC, 2024).

Atikokan, heavily reliant on the Atikokan Generating Station (AGS) and isolated geographically, faced significant vulnerability due to the coal phase-out. AGS, a critical economic pillar, employed about 90 people and indirectly supported approximately 200 local

businesses through household spending (Rinne, 2021). Local leaders considered the potential shutdown of AGS as potentially catastrophic, with projections indicating a CAD 5.3 million ($3.2 million) annual decline in local spending and broad economic repercussions. In response, the provincial government allocated CAD 4 million ($3.5 million) in 2006 to explore cleaner electricity generation options in northern Ontario. This funding helped establish the Atikokan Bio-Energy Research Centre, which operated from 2007 to 2010 and sparked interest in alternative fuels. By 2008, trials to convert AGS to use 100% biomass began, leveraging pellets from local vendors, including one from Atikokan. This transition supported the local forest products sector and increased community backing due to the town's forestry ties. After a two-year conversion process, AGS reopened in 2014 as North America's largest 100% biomass-burning power plant, significantly reducing its environmental impact and positioning Atikokan as a leader in renewable energy (World Resources Institute, 2021).

In parallel to shifting towards a forest-industry-based economy following the closure of the Steep-Rock Mine, Atikokan also embraced tourism as a key strategy for economic diversification. Declared the ‘Canoeing Capital of Canada’ in 1982, the town has long attracted visitors, a trend documented since the early 19th century (Jasen, 1995). Located near Quetico Provincial Park, this picturesque town leverages its environmental assets and rich historical ties to canoeing. The town's history includes its role in the original fur trade routes linking Montreal to Western Canada and its early gold mining industry, where canoes were indispensable from 1890 to 1920. Today, Atikokan continues to honor this heritage and the natural beauty of Northwestern Ontario. It has developed a thriving tourism sector, hosting events like the Atikokan Bass Classic fishing tournament, which draws visitors from far and wide, enhancing local businesses through increased bookings in accommodations, dining, and retail (Simpson,

2009). These events bolster Atikokan's reputation as a prime destination for outdoor sports and nature activities. Besides fishing, the town promotes various outdoor activities, including hiking and wildlife viewing. Further cementing its connection to canoeing, Souris River Canoes, one of Canada's leading canoe manufacturers, relocated here in the early 1990s, producing hundreds of canoes each year. The town's proximity to Quetico Provincial Park provides exceptional opportunities for eco-tourism (Madau, 1982). The best way to experience the park's expansive landscape is by canoe, aligning with Atikokan's identity as the 'Canoeing Capital of Canada.' This focus on ecotourism not only helps diversify the local economy but also emphasizes the importance of environmental conservation and sustainable tourism (North Shore Bureau, 2020).

Embracing these practices has rejuvenated Atikokan's economic base and community spirit (Ubriaco, 2002). The steady influx of tourists sustains local businesses, supports the economy, and strengthens the town's connection to the wilderness. As Mayor Brown articulated in a 2024 interview with Sivakumaran, published in Business Elite Canada, 'Atikokan is a safe, healthy community with a diverse economy, strong wilderness ties, and a creative spirit.' Leveraging its natural and cultural resources, Atikokan excels as a leading destination for outdoor enthusiasts and serves as a benchmark for sustainable tourism in Northwestern Ontario (Ubriaco, 2002).

In recent years, Atikokan has actively pursued strategies to increase its population and alleviate labor shortages. A significant initiative is its participation in the Rural and Northern Immigration Pilot (RNIP), a community-driven program aimed at attracting skilled foreign workers to smaller communities, offering them a pathway to permanent residence (Go to Thunder, n.d.). As part of the Thunder Bay and Area RNIP, Atikokan benefits by addressing local labor shortages through the integration of skilled workers. This program enables eligible

Atikokan employers to extend full-time, permanent job offers to skilled foreign workers, effectively filling essential roles and contributing to the community's growth. According to Garry McKinnon, Executive Director of the Atikokan Economic Development Corporation, the town has seen a noticeable population increase over the last three to four years.

Atikokan is revitalizing its historical ties to mining with an innovative energy storage project, transforming abandoned iron ore mines into a massive 1,200 to 1,300-megawatt battery system. This energy project, in collaboration with First Nations partners, engineering firms, and financial institutions, is estimated to cost up to $2 billion. Additionally, Canadian Malartic has discovered 14 million ounces of gold at the Hammond Reef site and has invested approximately $250 million in the venture, with expectations of profitability when gold prices rebound. Beyond new industries, Atikokan's story is one of resilience and community loyalty. Mayor Brown and Garry McKinnon, Executive Director of the Atikokan Economic Development Corporation, highlight the town's creative and risk-taking spirit. Before being converted to burn wood pellets, a local facility, previously a particleboard mill, was saved from demolition by municipal efforts and later repurposed by Rentech, creating up to 70 jobs. On the infrastructure front, Mayor Brown's current priorities include significant upgrades to the local arena and swimming pool, built in the early 1970s. The town has raised $5.5 million for these projects, awaiting an additional $1 million from FedNor. Remarkably, Atikokan residents themselves have contributed nearly $600,000, a testament to the community's exceptional commitment and spirit, as emphasized by McKinnon: 'Raising $600,000 from a community of 2,800 people is unimaginable! (Sivakumaran, 2024).

The town's response to the mine closures was strategically shaped by Reeve Jack Pierce and his councilors, who effectively communicated Atikokan's potential to key provincial

government figures. They conveyed two critical points: Atikokan could not only recover from the mine closures but could also serve as a blueprint for other single-industry towns facing similar economic challenges. Rather than seeking direct handouts, the council aimed to secure recognition, respect, and support for Atikokan's future potential. This approach cultivated goodwill and readiness among influential individuals to assist when necessary—whether in overcoming barriers, providing support, or facilitating financial aid. The council promoted Atikokan's potential with relentless hope and optimism, maintaining diplomatic engagement with government processes and avoiding confrontational politics. They understood that government officials were ready to help, provided they were given clear, promising, and likely successful solutions. This diplomatic and proactive approach played a crucial role in securing the establishment of the Pluswood Plant, preserving the Hydro Plant project in Atikokan, and mine clean-up (Stimpson, 2023).

In their quest for government support, Atikokan leaders argued that the decline of single-resource-based communities was a recurring issue that would persist without innovative changes. Reeve Pierce emphasized the success in building mutual respect with provincial politicians, which ensured Atikokan easy access and favorable hearings. The council consistently presented the town not just as another case but as an opportunity to test new strategies. They proposed that Atikokan be used as a model for experimentation in economic recovery. The rationale was straightforward: if the experimental approaches failed, the result would be no worse than past failures or continued inaction. However, if successful, these strategies could serve as valuable lessons for similar communities facing economic challenges. This proactive and innovative approach prompted the adoption of various unprecedented strategies by government officials and other stakeholders in response to Atikokan's unique situation.

Atikokan continues to evolve, with significant developments including the expansion of its modern hospital (Thunder Bay *Chronicle Journal*, 2017). This upgrade responds to the needs of its aging population, prioritizing healthcare to ensure community well-being and make the town more attractive to residents and potential newcomers. These enhancements in healthcare facilities contribute to Atikokan's long-term demographic stability and its appeal as a place to live and work. Additionally, building on its reputation as a hub for outdoor recreation, Atikokan is expanding its tourism offerings. The town has invested in upgrading its infrastructure to improve the experience and safety of outdoor activities, such as enhancing hiking trails, adding informative signage, and improving accessibility to natural areas.

These improvements not only enhance visitor enjoyment and safety but also help preserve the natural environments they highlight. Atikokan has enriched its event calendar to include cultural and historical celebrations that showcase the town's rich heritage and the diversity of its community. These events, including art exhibitions, historical tours, and cultural festivals, cater to tourists seeking cultural experiences, thereby broadening the scope of tourism beyond just outdoor sports and recreation. Furthermore, Atikokan has intensified its marketing efforts to reach a wider audience. Collaborations with travel bloggers, targeted social media campaigns, and partnerships with regional tourism boards are key strategies employed to enhance its visibility on national and international tourism platforms. These initiatives ensure that information about Atikokan's varied attractions reaches potential visitors globally, fostering a sustained increase in tourism.

Chapter 4 explores in more detail the lived experiences of Atikokan residents to better understand their perspectives on the town's path toward sustainability. This investigation will assess whether the community is successfully advancing towards economic sustainability or

continues to face socio-economic challenges. This chapter aims to provide valuable insights for other communities undergoing similar transitions, highlighting key lessons from Atikokan's experiences and offering practical approaches that can be adopted elsewhere.

Chapter 3: Oloibiri: Lessons from the Lifecycle of a Single-Industry Town in Nigeria[2]

Introduction

The town of Oloibiri, located in Nigeria, serves as a case study of the socio-economic consequences that can arise in a Resource-Based Community (RBC) following the decline of a single industry, specifically oil. The situation in Oloibiri highlights the interplay of economic dependency, environmental concerns, and the challenges that emerge following an industry's decline. This pattern is not unique to Oloibiri but is also evident in RBCs globally, highlighting the importance of understanding and managing such transitions. The primary aim of this study is to explore and answer a pivotal question: What lessons can other resource towns learn from Oloibiri's experience with resource development and economic transformation?

This research investigates the aftermath of the oil industry's closure, examining its broad impact on Oloibiri's economic stability, demographic trends, environmental integrity, and social fabric. It also considers the lived experiences and shared history of the community members. These insights are vital for academic discourse, policy formulation, and community development strategies, particularly in the global south. The study employs a combination of primary and secondary sources, incorporating historical contextualization, structured interviews that capture personal narratives, and case studies that reflect the communal journey. This multifaceted approach, framed within contemporary theories of economic development and environmental sustainability, provides a comprehensive understanding of the complexities in Oloibiri's transition. It offers a lens to analyze and comprehend the community's shared experiences and adaptive strategies.

[2] Accepted for publication in the *Journal of Rural and Community Development.* This chapter is in keeping with the journal's formatting and style guide.

The structure of the paper is outlined as follows: Following this introduction, the subsequent section delineates the research questions and methodology. This section sets the stage for the exploration of Oloibiri, detailing its historical engagement with the oil industry and the origins of its current challenges. Following this, a literature review places the study within the broader context of global South scholarship, paving the way for a discussion that engages with and assesses existing academic contributions. The findings are then presented, shedding light on the socio-economic impacts in Oloibiri, intertwined with lessons that can be extrapolated to similar communities in the global South. The paper concludes with a discussion on policy implications and development strategies, ultimately summarizing the study's key insights.

Research Questions and Methodology

This study aims to enrich the literature on RBCs, with a specific focus on the town of Oloibiri, Nigeria. The central research question, "What lessons can other resource towns learn from Oloibiri's resource development and subsequent economic shift?", seeks to uncover insights in areas such as economic resilience, environmental stewardship, policy formulation, and community development. These aspects are significant for understanding the broader implications of resource dependency and economic transitions in RBCs. The research question is framed within the context of changing global trends in resource management, which include shifts in government policies, resource depletion, and technological advancements, as highlighted by Kadafa (2012), Jike (2004), and Armitage (2005), and further examined by Chapin III (2009), Southcott (2006), and High (2018). The research addresses a notable gap in literature specific to Nigerian RBCs and contributes to the global discourse on sustainable development and adaptive strategies for communities facing similar challenges, building on the

foundations laid by Beaulieu (2013), High (2018), Kadafa (2012), Jike (2004), Teitelbaum et al. (2019), and Smith (2001).

The research was conducted using a combination of primary and secondary data sources to have a better understanding of the situation in the Niger Delta, specifically focusing on the town of Oloibiri in the Ogbia local government area of Bayelsa State. Primary data were collected through surveys, interviews, and direct observations, providing firsthand insights into the current condition of the community and its residents. For secondary data, an extensive review and analysis were conducted on a range of materials to provide historical context and depth. This included government reports, books, articles, documentaries, academic journals, newspapers (primarily THISDAY), and official documents issued from Shell and Amnesty International. The focus on Shell is essential due to its role as the first company to discover oil in Oloibiri and the Niger Delta. Shell owns and operates fifty percent of the oil wells in the Niger Delta region and has been operational for over five decades **(**Shell Sustainability Report, 2009; Nigerian National Petroleum Corporation, 2014). Amnesty International is an internationally recognized NGO that has produced several reports on Niger Delta issues over the past two decades. THISDAY Newspaper is a widely distributed national newspaper in Nigeria and provides a local perspective with its extensive coverage of issues in the Niger Delta region.

The choice of Oloibiri as the focal point for this study is strategic, considering its historical significance in oil exploration and its central role in the socio-economic and environmental narrative of the Niger Delta. This historical perspective is crucial for understanding the community's evolution and is supported by the scholarly works of Beaulieu (2013), Elena (2010), Timothy (2012), Zald (1993), and Ventresca & Mohr (2017).

A demographic breakdown of interview participants was designed to ensure that the research captured a representative and diverse set of perspectives. The participant pool spanned various age groups, including young adults (18-35 years old) to capture the adaptation of newer entrants into the workforce, middle-aged adults (36-55 years old) to understand mid-career adjustments and family dynamics, and seniors (56 years and older) for their long-term historical understandings into the community's economic cycles. The occupational background of participants varied significantly; it included former industry workers directly affected by the closures, professionals from the service sector such as educators and healthcare workers to gauge secondary economic impacts, and community leaders who offered insights into strategic responses to economic challenges (see Table 1).

Table 1: Demographic and Occupational Distribution of Interview Participants

Age group (years)	Number	Specific roles	Details
18-35	6	Student, entrepreneurs, unemployed	Engaged in current economic activities, adapting to new economic realities
36-55	7	Business owners, unemployed, community leader, entrepreneur, healthcare worker	Experienced the transition period of the oil industry, mid-career adjustments
≥ 56	7	Former oil industry workers, entrepreneur, community leaders, unemployed	Hold historical insights and personal experiences from the oil industry's active years

To ensure demographic diversity within the study's sample, the recruitment strategy combined purposive and snowball sampling techniques. Purposive sampling was employed to intentionally select individuals who met specific demographic criteria essential to the study's objectives, ensuring a diverse and relevant initial participant base. Snowball sampling was then

used to expand this base, enabling access to additional participants from often underrepresented or hard-to-access groups, thereby enhancing the study's overall demographic coverage as discussed by Neuman & Robson (2014). However, this method introduces potential biases: purposive sampling may not completely represent the broader population due to the subjective selection of participants, while snowball sampling can perpetuate these biases by potentially limiting the pool to similar or interconnected individuals. Acknowledging this limitation, efforts were made to reach a varied sample by initiating contacts from multiple and diverse nodes within the community, thereby reducing the potential for homogeneity and bias in the responses gathered.

The interviews were conducted using a semi-structured format as recommended by Berg (2004). The interviews lasted between 35 to 60 minutes. Data from interviews are coded and transcribed using ATLAS.ti software, facilitating a systematic analysis to identify themes and patterns in the qualitative data. For the quantitative aspect, particularly regarding demographic changes in Oloibiri, census data from both Nigeria's colonial and post-colonial periods were examined. However, specific census data for the town of Oloibiri was not available. To compensate for this lack of comprehensive census information, descriptions and estimated figures provided by interview participants were utilized to depict Oloibiri's population. Interviews were conducted in English and pidgin, ensuring inclusivity and depth in participant responses, thereby enhancing the richness of the data.

Ethical considerations were carefully observed throughout the research process. Participants were provided with information about the purpose of the study, their rights, and the confidentiality of their responses. Informed consent was obtained from all participants, and their

personal identifiers were removed during data analysis and reporting. All data collected were securely stored on the researcher's computer.

Oloibiri and the genesis of an Industry

The town of Oloibiri was founded by Olei in the fifteenth century and has long been a melting pot, inhabited by people of diverse origins. Olei, originally from Benin, first established Nembe, a small town known for its involvement in the slave trade. He later founded the town of Oloibiri within present-day Bayelsa State, Niger Delta, Nigeria, and his vassals set up settlements in what is now known as Ogbia (Nwajiaku, 2005). Reflecting on this history, Participant 007, an elder from Oloibiri, shared, 'The stories of Olei and his journeys have been passed down through generations. They remind us of our diverse roots and the rich tapestry of cultures that shaped the town of Oloibiri' (March 2022). The town of Oloibiri occupied a small area, typical of the many scattered, rural settlements throughout the Niger delta. The area is characterized by its mangrove forest and an intricate network of rivers and creeks essential for local transportation and livelihoods (see figure 1). Participant 018, an elderly resident, recalls, 'Oloibiri was once a tapestry of green and blue, a testament to nature's gifts,' reflecting on the town's natural beauty (March 2022).

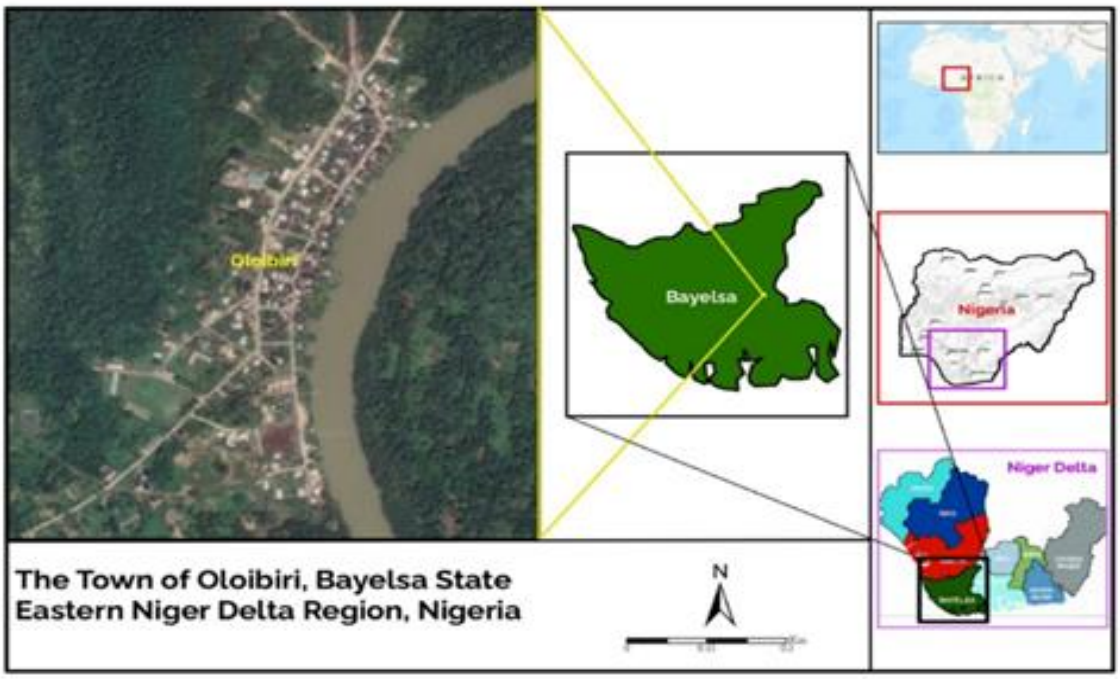


Figure 1: Location map of the Town of Oloibiri (Author, 2024)

In its pre-oil era, the population was relatively small, likely numbering in the hundreds and below a thousand. The residents primarily belonged to local ethnic groups such as the Ijaw. The economy heavily relied on agriculture, fishing, and forestry, leveraging the area's rich natural resources to create a sustainable system (Emah & Adebayo, 2022; Okotie, 2018). Participant 015, a historian from the local community, noted, 'Our ancestors understood the land. For them, agriculture was more than a job; it was part of our culture and identity' (March 2022). Residents of Ogbia, including those in the town of Oloibiri, developed important trade relationships with European traders in the Niger Delta, especially through the trans-Atlantic slave trade and the palm oil trade (Doust & Omatsola, 1989). Participant 004, a descendant of a trading family, shares, 'There are stories in my family about the bartering days when we exchanged yams and plantains for fish with Nembe' (March 2022). During this period, the expansion of palm products beyond domestic consumption was encouraged by the slave trade,

colonial administration, and missionary culture (Okotie, 2018). Participant 018 adds, 'Being geographically and culturally close to Nembe, the town of Oloibiri was like a sibling, learning and growing alongside it' (March 2022). Fishing and agriculture, particularly the production of oil palm, was a cornerstone of their subsistence and export economy.

Socially and culturally, Oloibiri exhibited the characteristics of a close-knit rural community. The social structure was tightly woven with strong familial ties and communal practices that governed land use, resource management, and everyday interactions. Cultural and social life was rich with festivals and events linked to the agricultural and fishing cycles, reflecting the community's deep connection to their natural surroundings. Participant 003, a long-time resident, reflects, 'We grew up knowing everyone in our community, sharing in each other's joys and sorrows. Our traditions were the soul of Oloibiri' (March 2022). Infrastructure in Oloibiri before the oil era was minimal, reflecting the general state of rural Nigerian communities at the time. There was little to no modern amenities such as electricity, paved roads, or medical facilities. Life in Oloibiri was predominantly governed by natural and seasonal cycles, with whatever infrastructure present being primarily aimed at supporting the agricultural and fishing needs of the community. Interaction with external commercial interests or the colonial government was also minimal until the mid-20th century.

While the community of Oloibiri had thrived on its traditional and communal practices, largely undisturbed by external influences for most of its history, a significant shift was on the horizon. This change was linked to the nation's pursuit of economic growth and set in motion by broader geopolitical events. After the First World War, the Nigerian Bitumen Corporation, a German entity, initiated oil exploration after discovering seepages in Araromi, now part of Ondo State (Ipingbemi, 2009). The British colonial administration supported these efforts through the

Mineral Oils Ordinance of 1914, aiming to regulate and capitalize on the region's oil potential (Steyn, 2009; Ipingbemi, 2009). However, progress was delayed by the Second World War, stalling significant exploration activities until the late 1930s (Genova & Falola, 2003; Ipingbemi, 2009). Post-Second World War, Shell D'Arcy was granted an Oil Exploration License, marking a renewed push for oil exploration along Nigeria's coast. Despite earlier interruptions, Shell D'Arcy's efforts culminated in the discovery of commercial oil reserves in Oloibiri in 1956 (figure 2), a pivotal moment that brought economic benefits to the locals and marked a significant chapter in Nigeria's history (Anifowose, 2008; Onuoha, 2008; Kadafa, 2012).

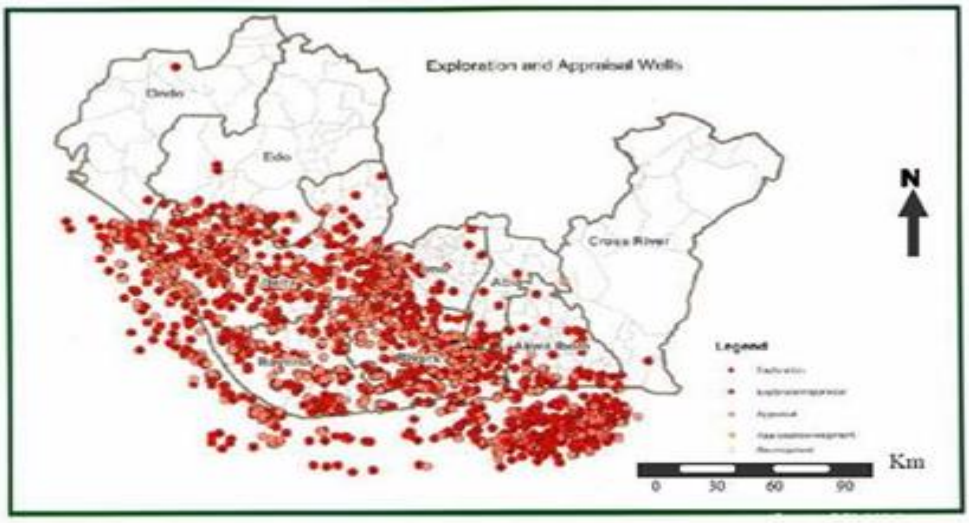
As recounted by Oyadongha & Idio (2016), the early days of oil exploration were fraught with challenges that transcended technical hurdles. When Shell officials initially attempted to sink their equipment into the *terra firma* of Oloibiri Oil Well 1, the earth resisted their efforts, posing an unexpected conundrum that halted their progress. This conflict between human ingenuity and the natural resistance of the terrain led to an innovative solution that was deeply influenced by the cultural ethos of Oloibiri. The oracle, a venerated figure in local tradition, was consulted, and it was divulged that the displeasure of the gods was the source of the impediment. In an act that harmonized modern enterprise with ancestral customs, Shell officials extended modest offerings to appease these deities. This gesture of respect for the local customs marked a turning point, as the once unyielding ground now permitted the successful operation of the drilling equipment. With the resolution of this cultural impasse, the activity at the creek that connected Oloibiri to the vast Atlantic increased, transforming into a major hub of commerce and industry. Residents of Oloibiri at the time expressed a blend of hope and anticipation for the changes. Participant 007 recalled, 'We welcomed them, believing it would bring growth and jobs'

(March 2022). Participant 018 echoed this sentiment, 'There was hope in the air, a sense of impending prosperity' (March 2022).

Figure 2: The informational sign at Oloibiri Oil Well 1 in Ogbia LGA, and the actual Oloibiri Oil Well 1 equipment, now abandoned and overgrown with vegetation (Willi, 2023; Chidolue & Iqbal, 2023)

The discovery of oil in Oloibiri marked the beginning of Nigeria's oil industry and ushered in a new era of wealth and economic activity. The immediate benefits included infrastructure development, road construction, and increased employment opportunities, as Shell established operations in the area (Okonkwo & Madueke 2016; Chete et al. 2014; Anifowose, 2008; Onuoha, 2008; Kadafa, 2012; Steyn, 2009; Ipingbemi, 2009). Participant 003 reflected on the immediate changes in the landscape: 'The arrival of Shell changed everything around here. We saw roads being built where there were none' (March 2022). By late 1957, oil production was in full swing, leading to the first European shipment in 1958 (Graham & Ovadia, 2019; Okonmah, 1997). The licensing of The Nigerian Gulf Oil Company, a subsidiary of Gulf Oil Corporation of America in 1961 alongside other international oil companies, such as Mobile Oil, Tenneco Inc., Texaco, Occidental, Azienda Generale Italiana Petrol (AGIP), and Safrap (which

later became Elf) further expanded the industry (Atsegbua 2002; Achunike, 2020) (figure 3). To further illustrate the scale of this transformation, Participant 019 reminisced, 'Back then, this place was called “Bioforoama”, nicknamed “Eastern Congo”, due to its active social environment. At that time, all the ships of Shell workers used to anchor in Oloibiri. People from far and near always converged here,' depicting the social dynamism and high activity level that defined the era (April, 2022). This influx of activity improved local income levels and stimulated growth in service-oriented businesses catering to the increasing population and their needs (Uzonwanne, 2015).



Source: NDRDMP, 2006

Figure 3: Niger Delta Showing the Distribution onshore and Offshore Fields

Building on the immediate economic surge, the community's lifestyle and expectations underwent significant changes. Participant 010 shared, 'I remember how our community became lively, with new faces and businesses emerging,' capturing the economic activity that characterized this era (April 2022). The development of local infrastructure catered for the needs of the oil industry and improved the living standards of the residents. Participant 013 noted, 'My

father works long hours with the company, and we get good money when the company pays him. So, we do not complain about him not spending time with us' (April 2022), highlighting the economic benefits alongside the personal sacrifices made by families. Participant 16 echoed this sentiment, 'It felt like a new era of prosperity was beginning for all of us' (March 2022). Adding to this sense of optimism, Participant 007, an elder who experienced the boom recounted, 'The town was alive, day and night; we believed we were on the brink of something great' (March 2022). These testimonies reflect the residents' high hopes for enhanced healthcare, education, and further infrastructure developments, underscoring the transformative impact of the newfound oil wealth on Oloibiri's transition from a quiet fishing village to a dynamic economic hub.

Before the discovery of oil transformed its economy, Nigeria was primarily an agricultural nation and was globally recognized for its exportation of cash crops like rubber from Delta State, groundnuts, hides, and skins from the north, cocoa and coffee from the west, and palm oil and kernels from the east (Okotie, 2018). In the 1960s, agriculture employed about 30% of the population and contributed over 80% to export earnings, 65% to the GDP, and about 50% to government revenue (Central Bank of Nigeria, 2010; National Bureau of Statistics, 2010). However, the discovery of oil marked a significant shift. By the end of the Biafra War in the late 1960s, Nigeria had emerged as a major oil producer (Uwakonye et al., 2006). The oil boom of the 1970s, driven by rising global oil prices solidified Nigeria as the wealthiest nation in Africa and also increased the contribution of oil to the national GDP and government budget (figure 3) (Okotie, 2018; Enyia, 1991).

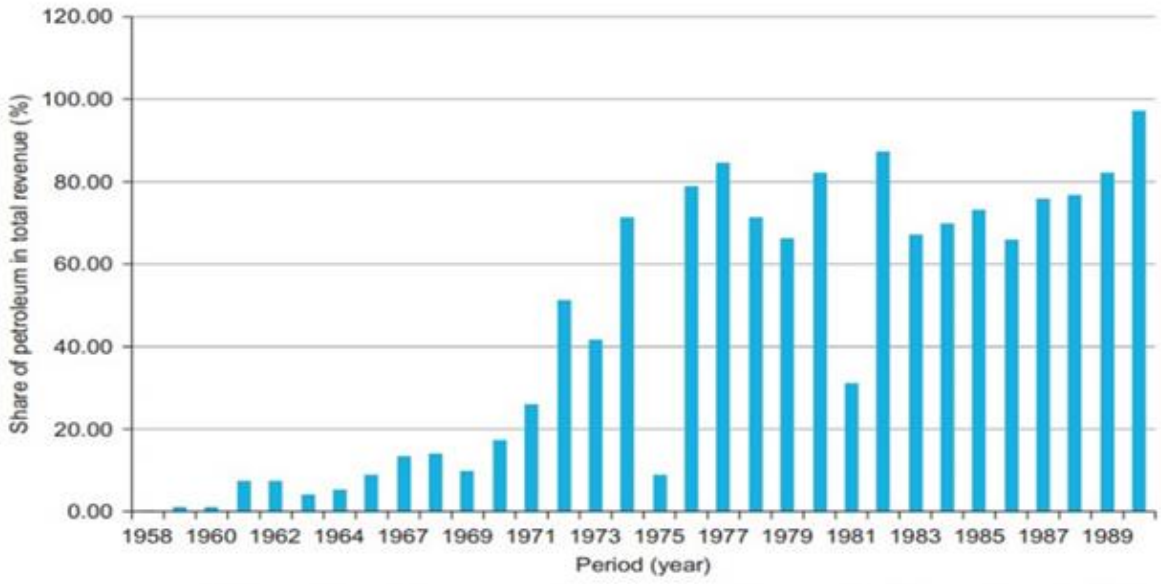


Figure 4: Contribution of Petroleum to Nigeria's Total Revenue (1958-1989) (Source: NNPC, 1992)

This economic transformation deepened Nigeria's dependence on oil, with revenues from oil increasing from 10% of GDP in the 1960s to 30% in the 1980s (figure 4) (NNPC, 1992). Currently, oil significantly dominates Nigeria's economy, accounting for more than 90% of its GDP, over 90% of foreign exchange earnings, and 80% of federal government revenue (Anaeto et al. 2023; Odularu, 2008). Additionally, Nigeria's considerable oil wealth expanded its geopolitical influence, leading to its membership in the Organization of the Petroleum Exporting Countries (OPEC) as the 11th member on July 12, 1971 (NAN, 2021).

Table 2: Contribution of the Petroleum Sector to the Nigerian Economy (1958-1990) (Source: Okotie, 2018)

Fiscal year	Fed. Govt. total revenue (US$)	Revenue from petroleum (US$)	Share of petroleum in total revenue (%)	Fiscal year	Fed. Govt. total revenue (US$)	Revenue from petroleum (US$)	Share of petroleum in total revenue (%)
1958	154,632	122	0.08	1975	5,177,370	463,816	8.96
1959	177,648	1776	1.00	1976	5,861,600	4,611,700	78.68
1960	223,700	2452	1.10	1977	7,070,400	5,965,500	84.37
1961	228,962	17,070	7.46	1978	8358400	5,965,500	71.37
1962	231,638	16936	7.31	1979	7252400	4,809,200	66.31
1963	249,152	10,060	4.04	1980	12,273,400	10,100,400	82.30
1964	299,132	16,084	5.38	1981	15,813,100	4,936,900	31.22
1966	321,870	29,175	9.06	1982	10,143,900	8,847,800	87.22
1967	339,196	44,976	13.26	1983	10,811,400	7,253,000	67.09
1968	300,176	41,884	13.95	1984	11,738,500	8,209,700	69.94
1969	299,986	29,582	9.86	1985	15,041,800	10,975,100	72.96
1970	435,908	75,444	17.31	1986	12,302,000	8,107,300	65.90
1971	755,605	196,390	25.99	1987	25,099,800	19,027,000	75.81
1972	1,410,811	720,185	51.05	1988	27,310,800	20,933,800	76.65
1973	1,389,911	576,151	41.45	1989	50,272,100	41,334,400	82.22
1974	2,171,370	1,549,383	71.36	1990	4,765,700	4,624,400	97.04

The methods of oil extraction in the Niger Delta prior to and during the late 1960s contributed significantly to the Nigerian Civil War (6 July 1967 – 15 January 1970). This conflict impacted the oil industry in the region. In the wake of the war, the government enacted several significant legislative acts, reshaping the control over oil resources. Notably, these included the Oil in Navigable Waters Act of 1968, the Petroleum Act/Decree of 1969, the Exclusive Economic Zone (EEZ) Decree of 1979, and the Land Use Act of 1978. These decrees centralized the control of oil resources with the federal government, as detailed in the works of Ipingbemi (2009) and Obi (2010). The Land Use Act of 1978 was particularly impactful, as it transferred all land ownership to the federal government (Achunike, 2020). Similarly, the

Petroleum Act granted the federal government complete ownership and control over all petroleum resources. This legislative framework left the communities in the Niger Delta without any legal rights to the oil and gas extracted from their land (Achunike, 2020). Consequently, these communities could not claim compensation for the environmental damages caused by the activities of multinational oil companies, as highlighted by Obi (2010). The situation has been especially burdensome for towns, where oil exploitation and production are prevalent (Achunike, 2020).

The discovery of oil initially brought economic prosperity to Oloibiri and Nigeria, yet the benefits were transient and unevenly distributed. Despite the significant wealth generated by the oil industry, the closure of the Oloibiri oilfield in 1978, after producing over 20 million barrels of oil during its 20-year lifecycle, led to economic decline (Okonta & Douglas, 2003; Phia, 2009). This unexpected shutdown significantly disrupted the local economy and marked a permanent shift for Oloibiri. Once celebrated as the birthplace of Nigeria's oil industry and known for its rich forest resources, fishing, and snail farming, the town has become a neglected emblem of national economic aspirations, epitomized by a poignant signpost stating, 'This is Oloibiri, the Goose that lays the Golden Egg. You are welcome.' (Staff reporter, 1995; Gandu, 2014).

Figure 5: Entrance sign to Oloibiri Town, Bayelsa State (Source: Author, 2017)

This sign stands as a symbolic representation of Oloibiri's historical and economic significance, underscoring how years of oil extraction have transformed it into a mere shadow of its former self, crippling its traditional occupations (Enyia, 1991). Though these observations were made decades ago, they continue to resonate as Oloibiri struggles with recovery. Participant 018 lamented: 'The closure hit us hard; it was like losing a part of our soul' (April 2022). The town's plight was compounded by inadequate compensation for the environmental and social damages caused by decades of oil extraction (Achunike, 2020; Eghosa, 2015). Furthermore, the legal frameworks established by the Nigerian government, which monopolized resource ownership, deprived Niger Delta communities of any potential benefits from these resources, leaving them without legal rights to compensation for the resources extracted from their land (Ejobowah, 2000; Ipingbemi, 2009; Obi, 2010; Achunike, 2020). These measures contributed to a deteriorating environmental and political climate that has affected the residents' lives.

Socio-Economic Impacts of Industrial Closure

The cessation of a dominant industry, as documented by Fashoyin (1990) and Lewis (1996), often results in increased unemployment, reduced household income, and a decline in public services due to dwindling fiscal resources. This effect is acutely felt in areas heavily reliant on a single industrial sector, where closures can precipitate significant economic and social challenges. In the case of Nigeria, a major economic boom was experienced in the 1960s and 1970s, driven by the burgeoning oil sector. However, this period of prosperity eventually gave way to economic and social challenges in the 1980s. This shift was characterized by economic mismanagement, an overreliance on oil revenues, and a neglect of the agricultural sector, which had previously been a cornerstone of the economy (Guseh & Oritsejafor, 2007). Concurrently, Nigeria faced a growing external debt crisis and internal issues of mismanagement and corruption, contributing to economic instability.

In the Niger Delta, the impact of these national economic trends has been pronounced. Post-Nigerian Civil War, the Federal Government significantly reduced petroleum revenue allocation to the Niger Delta States from 50% in 1969 to 3% in 1999 (Ejobowah, 2000), exacerbating the region's economic and infrastructural challenges and escalating poverty rates. Recent reports from Oyadongha & Idio (2016) and Willie (2019) reveal challenges of abject poverty and lack of basic amenities in the town of Oloibiri. The Niger Delta Human Development Report indicates a Human Development Index (HDI) score of 0.564 for the region, notably lower than countries with similar oil and gas reserves, such as Venezuela (0.772) and Indonesia (0.697) (UNDP, 2006a). Despite its vast oil reserves, the region's Gross National Product (GNP) per capita is below the national average of USD 280, prompting increased

militancy among the populace, especially the youth, in their quest for resource control (Shell Sustainability Report, 2011, 2012 & 2013; Eghosa, 2015).

The Nigerian economy's shift from agriculture to oil resulted in shifts in employment from the agricultural sector, significantly reducing its contribution to employment from the 1960s to the 1980s (Siyongwana & Shabalala 2019; Lawrie et al. 2011; Hilson 2002; Burfitt and Ferrari 2013). This transition has had a considerable social and economic impact on towns like Oloibiri (Stanley, 1990). The cessation of oil operations in such towns often results in community migration, loss of identity, and changes in family structures, issues that have been observed across various communities in both the global south and north. However, unlike some communities that have managed to diversify economically and build resilience after initial difficulties, Oloibiri's response and adaptation strategies have been shaped by its historical significance in Nigeria's oil narrative and the socio-political context of the Niger Delta region as noted by Akpan (2005), Orogun (2010), and Tonwe et al. (2012).

Frynas (2001), Ifeka (2005), and Watts (2011) document the negative effects on the environment, economy, politics, and social life in the region. Okoji (2002) notes that these impacts extend to changes in the indigenous people's way of life, culture, economy, family, and psychology. Cultural influences are substantial. Akhionbare and Osuji (2013) report that oil company activities have led to the destruction of historical worship places and erosion of traditional values. The influx of oil workers has altered community norms, increasing instances of sexual pervasiveness and promiscuity (Okpako, 2014). Ochogba et al. (2017) observe that traditional cultural elements like dress, food, festivals, and music are fading away in some communities.

The oil activities in the Niger Delta have also fueled local conflicts, as noted by Akhionbare et al. (2013) and Fryan (2001). These conflicts often stem from the government and oil companies' unresponsiveness to local demands, leading to peaceful protests turning violent confrontations (Amnesty International, 2009, 2017). Watts (2011, 2004) highlights the abandonment of Oloibiri and details how legislation like the Land Use Act of 1978 removed land rights and royalty claims from communities, exacerbating tensions. The youth are also impacted. Oluwaniyi (2010) describes them as key agents of social transformation, either peacefully or violently, to counter exclusion and exploitation. Movements like the Supreme Egbesu Assembly, the Movement for the Emancipation of the Niger Delta (MEND), Niger Delta Volunteer Force (NDVF), Movement for the Survival of the Ogoni People (MOSOP) and the Kaiama Declaration reflect youth-led resistance for resource control (Obumneme, 1998; Wiwa, 2014). These actions stem from demands for improved living conditions, education, and employment opportunities, which often escalate into militancy due to prolonged neglect and marginalization by oil companies and the government (Obumneme, 1998). Militancy in these regions involves hostage-taking, oil facility attacks, and an increase in weaponization, serving both as a form of protest and a survival strategy (Shell Sustainability Report, 2018; Obumneme, 1998). Watts (2007) reveals the role of politicians in fueling militancy and acknowledges oil thefts controlled by militants as part of their struggle.

The government's response, primarily through the Joint Military Task Force (JTF), has often only intensified the violence, leading to further insecurity and fear among the local populations (Amnesty International, 2009). Participant 001, a young woman from Oloibiri, described this environment: ‘We live in constant fear. The sound of boots and guns has become our daily melody. Our sons, our fathers, are caught between the militants and the military’

(March 2022). Adding to this, Participant 015 shared his perspective on the community's resilience and the ongoing struggles: "Each day we strive to teach our children hope and resilience in the face of adversity. It's disheartening to see the cycle of poverty and violence perpetuated by a lack of meaningful support and opportunities" (April 2022). This sentiment illustrates the community's determination to overcome its challenges while also highlighting the need for external support. The mental health impacts are significant. Okonofua (2013) discusses the 'triangulation' conflict strategy, which places youth at the center of political struggles and affecting their mental health. Onyechi et al. (2016) highlight the prevalence of significant PTSD issues among youth in oil-impacted communities, underscoring the psychological scars left by these conflicts.

Environmental Degradation in Resource-rich Communities

The Niger Delta region, including Oloibiri, has experienced environmental damage due to industrial activities, primarily from oil drilling. Studies by Uyigue and Agho (2007), and Edet (2017) has documented significant impacts such as soil contamination, water pollution, and biodiversity loss, which have long-term implications for community health and local ecosystem sustainability. Reports by THISDAYLIVE (2020) and Adeleke (2020) emphasize the extensive impact of pollution and the compounding effect of inadequate infrastructure, exacerbating the area’s environmental challenges. While similar patterns of degradation are identified in other regions by Kessey and Arko (2013), Kazindu et al. (2020), and Fayiga et al. (2018), the situation in Oloibiri is distinguished by its scale and complexity. Fayiga et al. (2018), Dore (2000), and McNeill & Vrtis (2017) note that communities across Africa, South America, and North America have encountered comparable environmental challenges; however, Oloibiri’s situation is

uniquely severe due to its intense industrial activity and the historical context of its environmental degradation.

The persistent environmental impacts in the Niger Delta, including Oloibiri, have been extensively documented by researchers such as Eweje (2006) and Kadafa (2012). Their findings indicate that the degradation from oil spills and the disposal of industrial waste can persist for decades, leading to significant socio-economic and ecological consequences. Amnesty International (2011) corroborates these impacts, noting their long-term nature. The region, heavily impacted by multinational oil companies, has been characterized as an ecological disaster. Okeagu et al. (2006) specifically refer to it as an "environmental disaster zone," highlighting that between 1986 and 1996, approximately 2.5 million barrels of crude oil were spilled, and around eight million cubic feet of natural gas were burnt daily. Additionally, the transportation of oil via pipelines to refineries and export points often results in corrosion and the bursting of pipes, further exacerbating the frequency and severity of oil spills on land and in waterways (Amnesty International, 2015; Obumneme, 1998).

The environmental damage in the Niger Delta is also impactful, affecting various facets of the ecosystem and community life. Oil contamination has damaged mangrove swamps, wetlands, and land areas, with the contamination reaching several meters deep into the soil and affecting groundwater across large regions. This widespread contamination has serious human health implications, particularly concerning drinking water contamination. Studies by Kadafa (2012), Obumneme (1998), and the United Nations Environment Programme (UNEP, 2011) document these impacts extensively. The resultant spills have forced some residents and communities to relocate entirely, leading to the loss of ancestral homes, and have caused freshwater pollution, destruction of forests and agricultural land, depletion of fishing grounds,

and a reduction in fish production, which is a source of income in the region (Elum et al., 2016). Participant 004 expressed his despair: ‘The waters are no longer blue but black with oil. Our nets come up with more sludge than fish. It's devastating to see our way of life dissolve in front of our eyes’ (March 2022). The network of creeks and rivers in the Niger Delta, which flow into the Atlantic Ocean, increases the spread of oil spills to neighboring communities, turning the water brackish and unsuitable for drinking and laundry purposes. Participant 009, living near the Delta, shared her frustrations: ‘Every day is a battle for clean water. What used to be clear streams are now toxic flows that endanger our health daily’ (March 2022). Amnesty International (2013a, b) and the UNDP (2006) report similar findings across the region. Residents have had to source drinking water from a river contaminated by oils. Participant 008, a mother of three, shared her distress, saying, ‘Every day, we fetch water from the river that's been poisoned by oil. It's a risk we are forced to take. Clean water, which should be our right, feels like a luxury’ (March 2022). Despite prolonged protests, Shell, which has been operating in the region for over 40 years, provided a borehole in 2004, although the company had access to basic and social facilities within its camp, unlike the local inhabitants (Oluwaniyi, 2010). Okeagu et al. (2006) also highlight the serious health issues stemming from land and groundwater pollution, including continuous outbreaks of diarrhea, birth deformities, and soft tissue cancers. Despite these alarming conditions, the Niger Delta remains one of the most polluted regions globally (Obumneme, 1998). Amnesty International (2018) emphasized this, noting that significant cleanup efforts are still required despite the United Nations Environmental Program's (UNEP 2006) recommendations. In response to these challenges, the community has not remained passive.

Community Development and Adaptation Strategies

The adaptation of communities in the global south to industrial changes has been a focal point in development studies. Researchers such as Markusen (1988), Hlatshwayo (2017), and Cutler (1999) have explored strategies employed by communities facing industrial decline or transformation. These include economic diversification and the development of alternative industries like tourism or agriculture to mitigate the impact of industrial closures.

Studies by Boschma (2017), Cutler (1999), Nedeljković et al. (2019), and Sofield (2003) highlight examples where communities successfully shifted to sustainable tourism or technology-based industries after traditional industries waned. Success often depends on community leadership, access to resources, and external support. However, studies by Osbahr et al. (2010), Brown (2012), Bradbury & St-Martin (1983), and Tonts et al. (2012) reveal cases where adaptation strategies failed due to a lack of alternative employment, insufficient skill development, and limited government support, resulting in persistent unemployment and socio-economic decline.

For Oloibiri, learning from global examples offers important insights. The town's historical reliance on the oil industry presents unique challenges and opportunities for adaptation. Alakwe & Okpara (2022) and Sen (2010) suggest that leveraging Oloibiri's cultural and historical background could enhance tourism development, while investment in education and skills could foster economic diversification.

Lesson Learned

The socio-economic and environmental experiences of Oloibiri provide lessons for other RBCs and inform broader resource management policies. This section synthesizes insights from Oloibiri's post-industrial decline, focusing on sustainable development and economic diversification.

A key lesson from Oloibiri's experience is the necessity of prioritizing citizen welfare. Despite substantial oil revenues, Oloibiri's residents have seen little benefit. Essential infrastructure such as reliable electricity, clean water, healthcare, and educational facilities remain inadequate. This disparity is highlighted in Adeleke's (2020) study, which details the ongoing deprivation. Achunike (2020) critiques the misallocation of resources and governmental failure to reinvest in community needs. The local infrastructure challenges include a government school founded in 1973 and a state-funded maternity health center, both suffering from underinvestment. The area is not connected to the national electricity grid, leaving residents dependent on diesel generators for power. This situation was slightly alleviated by donations, including a generator plant gifted in 1970 by Melford Okilo, then governor of River State, and a 350-KVA generator from a former local government chairman (Adeleke, 2020; Skar, 2023; Ige, 2023). In 2020, the federal government initiated the Nigeria Electrification Project (NEP) to address these issues with solar hybrid mini-grids (Adeleke, 2020). Despite this, the transition to solar energy has been difficult for some residents who found the costs of meters and energy subscriptions unaffordable, leading them to opt out of the new system. Participant 018 expressed the community's frustration: 'Our wealth has been extracted, but look around, our homes remain in darkness, our children learn in dilapidated schools. It's as if the oil was a curse rather than a blessing' (March 2022). This situation illustrates significant mismanagement of resource wealth.

Rather than catalyzing development, the extracted resources failed to improve the local quality of life. Achunike (2020) emphasizes the need for transparent and accountable governance that leverages natural wealth to enhance community infrastructure and living standards. Governance in resource-rich regions must ensure that natural resource exploitation directly benefits local socio-economic conditions.

The environmental damage has precipitated serious health challenges, including increased respiratory issues and skin diseases. Participant 011, a local health worker, highlights the struggle: 'Managing these health issues is challenging due to our inadequate healthcare facilities. Every day, we see patients suffering from conditions directly linked to environmental contaminants, and our ability to help them is limited' (April, 2022). This situation stresses the need for multinational corporations to adhere strictly to ethical practices and environmental regulations. The situation observed in Oloibiri serves as a reminder of the responsibilities that corporations have to the communities in which they operate. Corporate responsibility extends beyond profit-making; it involves ensuring the prosperity and health of the community, safeguarding the environment, and contributing to the economic stability of the regions affected by their operations. This lesson calls for robust enforcement of corporate accountability to prevent exploitation and ensure a balance between resource utilization and community development.

The environmental legacy of industrial activities in Oloibiri, characterized by severe pollution and ecosystem disruption, highlights the urgent need for robust environmental policies. Decades of oil extraction have resulted in significant contamination of land and water, degraded air quality, and substantial biodiversity loss, as detailed in studies by Alike (2009), Opukri & Ibaba (2008), and Elum et al. (2016). These environmental challenges have reshaped the natural

landscape and undermined traditional livelihoods, particularly in agriculture and fishing, which were once Oloibiri's economic backbone. Participant 017, a local fisherman, described the impact: 'The waters we once fished are now slick with oil, and the fish have either died or moved to cleaner waters. Our fishing heritage is fading away' (March, 2022). The pollution has also had profound public health implications, including increased respiratory problems, skin diseases, and other health issues directly attributed to environmental degradation (Yahaya, 2020). Participant 011 adds, 'We're seeing more and more respiratory issues and skin conditions each year. It's clear that the environment we live in is greatly affecting our health' (April, 2022). This situation underscores the link between environmental health and public welfare, demonstrating how poor environmental management can trigger broad socio-economic and health crises. Oloibiri's experience provides a critical lesson for global policymakers: sustainable industrial practices that balance ecological preservation with economic interests are essential. This calls for immediate, stringent environmental regulations at both national and international levels to compel industries to mitigate their impacts and help restore damaged ecosystems (Eregha & Irughe, 2009). Oloibiri's history mandates that policymakers integrate environmental stewardship into industrial planning, ensuring a sustainable future. The lesson is clear: effective environmental policies are indispensable and require immediate, sustained action to prevent the kind of irreparable damage experienced by this community.

Oloibiri's economic history illustrates the risks of dependence on a single industry. Initially, the oil boom fostered substantial development and a deceptive sense of security. However, as the sector declined, so did the economic stability of the community, exemplifying the pitfalls of economic monoculture. Participant 003 metaphorically depicted this risk as putting 'all eggs in one basket,' emphasizing the precarious nature of such reliance (March, 2022).

Economic resilience theory advocates for diversification during times of prosperity to buffer against downturns, a strategy supported by Oloibiri's experience. Communities that have successfully diversified into sectors like technology, tourism, and agriculture illustrate this approach's efficacy. These sectors not only stabilize economies but also enable sustained growth, even as primary industries experience fluctuations. Boschma's (2017) research on regional resilience provides empirical support for the benefits of diversification.

In addition to economic dependency, Oloibiri faces substantial educational and vocational training gaps, hindering the community's capacity to diversify economically beyond the oil sector. The lack of adequate educational facilities and vocational programs limits personal and professional development of residents, perpetuating unemployment and ongoing poverty. This situation underscores the need for investment in capacity building, which is fundamental to sustainable development (Ako, Okonmah, & Ogunleye, 2009). Efforts to establish educational institutions and training centers are crucial to addressing these gaps. Participant 020, a local youth, shared, 'We have few opportunities for advanced training here. Most of us are ready to work, but there are no jobs that match our basic skills, and no opportunities to learn more' (March, 2022). This sentiment highlights the necessity of initiatives that include partnerships with existing educational institutions and industries to better align training with job market needs (Afinotan & Ojakorotu, 2009). Enhancing educational opportunities and creating targeted employment prospects are essential for enabling Oloibiri to develop a skilled workforce capable of supporting a diversified economy. Focused investment in education and vocational training is key for navigating the fluctuations of the oil industry and achieving a dynamic and sustainable economic environment (Adomokai & Sheate, 2004). Such strategic initiatives are essential for breaking the cycle of dependency and establishing a foundation for long-term community

resilience and prosperity. This approach will help convert temporary economic booms into sustained growth (Akpomuvie & Orhioghene, 2011).

Activism, Community Response, and the Way Forward

The activism in Oloibiri, as documented by Usang & Ikpeme (2015) and Ako et al. (2009), highlights the power of community mobilization. Residents have demonstrated remarkable resilience through grassroots efforts and persistent advocacy, seeking justice and accountability from multinational corporations and the government. Their fight for environmental remediation, fair compensation, and ethical corporate practices serves as a model for communities facing similar challenges (Mmadu, 2013).

Empowering local communities to actively participate in their development is crucial for building resilience and shaping their long-term future. Oloibiri's activism has reshaped the narrative surrounding their community, transforming Oloibiri's identity from a victim of industrial exploitation to a symbol of resistance and empowerment (Nwakunor, 2021). Local voices are essential in decision-making and policy formulation, with their impact extended through national and international alliances that amplify their message (Enyia, 1991).

The path to recovery for Oloibiri involves addressing environmental damages and promoting economic diversification. Restoring polluted areas and expanding into sectors like agriculture, technology, and tourism are vital for sustainable development. Collaborative efforts among government, oil companies, civil society, and the local community are crucial for implementing effective solutions that meet the community's needs (Kadafa, 2012). In addition, education and awareness programs focusing on environmental preservation, sustainable practices, and legal rights are crucial for empowering the community. An informed and engaged

community is better equipped to participate in its development and hold responsible parties accountable. This approach addresses the immediate needs and lays the groundwork for long-term prosperity and environmental health.

Conclusion

The tale of Oloibiri is a call to action and a reminder of the resilience inherent in human communities. Oloibiri, initially buoyed by the prospects of prosperity through oil, has experienced a trajectory marked by shattered promises, environmental ruin, and socio-economic hardship. Yet, within this narrative lies an essential lesson about the necessity for transformative change. The oversight Oloibiri has faced illustrates the consequences that can arise when communities are marginalized in the rush for economic gain, underscoring the need for sustainable development approaches that prioritize community well-being alongside environmental stewardship.

Healing the scars left by decades of exploitation in Oloibiri requires a multifaceted approach: addressing the environmental damage, fostering sustainable economic development, and, crucially, empowering the local populace. The path forward for Oloibiri must be paved through collaboration and a commitment to accountability and justice. This involves the Nigerian government, oil corporations, broader international community and, importantly, the residents. By working collectively, there is an opportunity to transform Oloibiri from a symbol of exploitation to one of resilience and sustainable development.

The story of Oloibiri should serve as a catalyst for positive change, a clarion call that resonates beyond its borders, inspiring other resource-rich communities to navigate the challenges of exploitation thoughtfully and effectively. Learning from Oloibiri's past opens the

potential to forge a future where resource extraction is not only an economic transaction but a process that benefits and uplifts communities, conserves the environment, and lays the foundation for sustainable, equitable development. In essence, the legacy of Oloibiri should not be viewed solely as a tragic chapter in history but as a compelling motivator for change and progress. It stands as a testament to the strength and determination of its people and serves as a beacon for similar communities worldwide, illuminating a path toward a more just, sustainable, and prosperous future.

Chapter 4: Lessons from Atikokan: Adapting and Thriving Through Change[3]

Introduction

The Town of Atikokan, established in 1900 by railway entrepreneurs Sir William Mackenzie and Sir Donald Mann, served as a Divisional Point on the Canadian Northern Railway, which later became the Canadian National Railway (CNR), between Thunder Bay and Winnipeg (Bartsch, 1983; Ontario Museum Association, 2024). During this era, rail divisional points were essential for resupplying locomotives with water and coal (Dampier et al, 2014). These points played a significant role in establishing small communities across Canada by providing local railway jobs (Lucas, 1971; Dampier et al, 2014).

The name 'Atikokan' originates from the Ojibwe language, meaning 'caribou bones' or ‘caribou crossing’, reflecting the local indigenous heritage and the region's reliance on natural resources (Visit Atikokan, 2024; Ontario Museum Association, 2024; Michels, 1981). The town of Atikokan is situated approximately 225 kilometers west of Thunder Bay, 150 kilometers east of Fort Frances and 200 kilometers north of Dryden. Adding to the sense of isolation, the community is not serviced by passenger flights or passenger rail and only has bus service run by Ontario Northland. It is surrounded by the Canadian Shield and features a landscape of boreal forests and freshwater lakes (AEDC, 1996) (figure 1). This region is part of the traditional Anishinaabe territory, governed by Treaty #3, established in 1873, with an adhesion to the treaty by the Métis in 1875 (Daugherty, 1986).

More than a century since its founding, Atikokan has exemplified resilience and adaptability and continuously diversifying its economy beyond its traditional industries (figure

[3] Submitted to *Journal of Rural Studies*. This chapter is in keeping with the journal’s formatting and style guide.

2). This study explores Atikokan's transition over the past century, particularly focusing on its strategic navigation through economic reliance on natural resources towards a sustainable community framework from 1990 to 2021. Through this exploration, the research aims to provide insights into the processes and strategies that have enabled Atikokan not only to survive but to thrive, offering lessons and practical approaches that may benefit other similar communities grappling with challenges of economic transitions. It also contributes to a broader understanding of how resilience and adaptability can drive community sustainability.

The structure of this paper is organized as follows: Following this introduction, the paper begins with a review of literature, framing the study within the broader discourse on economic resilience, transition, and sustainability in single-industry towns. Subsequent sections detail the research questions and methodology employed. The "Findings and Discussion" section provides a historical overview of Atikokan, tracing its evolution from a railroad hub to a mining town, and eventually into a community grappling with the challenges of industry closure and economic transition. This section also explores the socio-economic impacts on Atikokan, emphasizing the community's adaptive strategies to overcome these challenges. The paper concludes by reflecting on the lessons gleaned from Atikokan's experience, discussing their broader implications for similar communities worldwide, and proposing recommendations for future research aimed at fostering economic resilience and sustainable development in analogous situations.

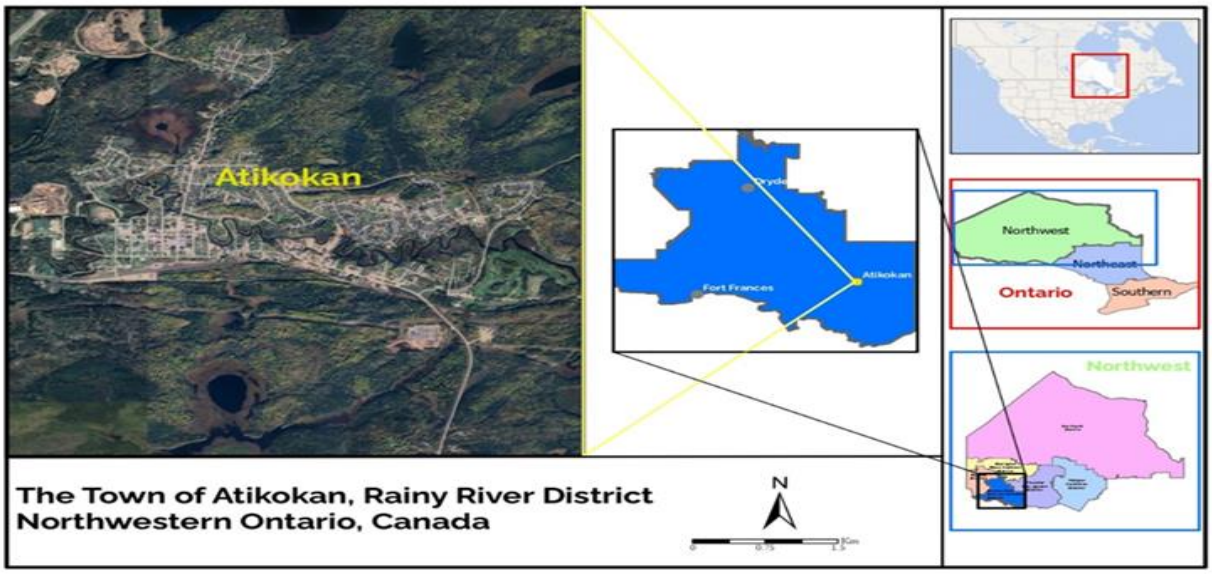


Figure 1: Location Map of the Town of Atikokan (Author, 2024)

Figure 2: Aerial Photo of the Town of Atikokan (Sivakumaran, 2024)

Literature Review

The effects of industry closures on towns, especially those heavily reliant on a single industry, have been a significant academic research focus due to the socio-economic and environmental impacts that such closures bring (High and Lewis, 2007; High, 2018; Lucas, 1971; Siemens, 1976; Gill, 1989; Bowles, 1992; Randall and Ironside, 1996). Kryukova et al. (2015) explored

how the closure of primary industries escalated unemployment rates in mono-industry towns. Their research illustrated that these towns experienced immediate and secondary job losses resulting from decreased local spending, known as the multiplier effect. This effect on local economies can trigger increases in unemployment and underemployment rates. Moreover, industry closure often results in a significant drop in income levels, as documented by Ellis et al. (2003) and Clemenson (1992). Their studies showed that median income levels could drop considerably following closure, and recovery to pre-closure levels can take years or even decades, highlighting prolonged financial distress for individuals and families.

Industry closures can significantly alter the demographic and economic landscapes of affected communities. According to Southcott (2006), younger workers often relocate in search of better education and employment opportunities following these closures, leaving a disproportionate number of older individuals, typically retirees. This demographic change reduces the active workforce, further straining local economies. Compounding these economic and demographic shifts are severe impacts on the physical and mental health of remaining residents. Studies by Shandro et al. (2011), Browning & Heinesen (2012), and Eliason & Storrie (2009) have documented increases in depression and stress-related disorders in these populations, emphasizing the urgent need for enhanced social and mental health services to mitigate the health impacts of such economic disruptions. Despite these substantial challenges, some communities have successfully leveraged industry closures as catalysts for transformation. Research by Veiga et al. (2001), Andrews-Speed et al. (2005), Nel et al. (2003), and Haggerty et al. (2018) demonstrates that these closures have spurred some towns to innovate and diversify economically. This proactive shift has sometimes resulted in the creation of new industries and employment opportunities, suggesting a potential pathway for community resilience and

economic revitalization post-closure. By turning adversity into opportunity, these communities exemplify how strategic planning and adaptability can lead to sustainable development.

Building on the discussion of community transformations following industry closures, the concepts of resilience and vulnerability are pivotal in understanding how communities respond to significant socio-economic changes. These terms have become central to community studies, offering insight into a community's capacity to adapt and recover from shocks, as well as its susceptibility to harm. Haggard et al. (2019) contributed a robust socio-ecological model that defines resilience as the ability of a community to absorb shocks while maintaining functionality, self-organize, and adapt to new conditions. Conversely, vulnerability refers to the extent to which a community is susceptible to, and unable to cope with, adverse changes. This model emphasizes that social, economic, and environmental factors collectively influence both resilience and vulnerability.

Martin-Breen and Anderies (2011) expand on this by describing resilience in socio-economic systems as manifesting in three distinct forms: the resilience of people (their capacity to withstand shocks), the resilience of place (the sustainability of key characteristics that make a location viable), and the resilience of community (the collective ability to respond to changes). It is crucial to recognize, as Wilson (2012) notes, that resilience is not uniformly experienced within a community. Certain groups may face a disproportionate share of challenges and possess less capacity to adapt, which indicates differentiated resilience. Understanding these disparities is essential for assessing a community’s overall resilience and for planning effective interventions.

In contrast, vulnerability, as defined by Cutter et al. (2003), encompasses exposure to stresses, perturbations, or shocks; the sensitivity of the system to these impacts; and the capacity to anticipate, cope with, resist, and recover from the impact of a hazard. In the context of

industry closures, a community's vulnerability might be heightened by its reliance on a single industry, a workforce lacking diversified skills, or inadequate social support systems. Nelson et al. (2010) suggest that vulnerability can be mitigated by factors such as robust social networks, government support, and economic diversification, which are essential for building a resilient community. Building on this understanding, Linkov et al. (2018) provides a more nuanced view of resilience and vulnerability. They argue that resilience is not merely about "bouncing back" to a former state but also about "bouncing forward," which involves adapting and transforming in response to challenges. This perspective is particularly relevant in the wake of industry closures, where the ability to adapt and innovate can define a community's future trajectory. Furthermore, Linkov et al. emphasize that vulnerability is a dynamic process, evolving over time and varying across different contexts, highlighting the need for tailored approaches in community planning and development.

Transition and adaptation are critical processes in understanding how communities respond to the closure of dominant industries. Joseph & Krishnaswamy (2010) examined several communities that experienced industry closures and found that successful transitions often hinged on the ability to diversify economies and pursue alternative employment sectors. Their study highlighted the significant role of community engagement in facilitating these transitions, demonstrating that collective efforts often yield more sustainable solutions than individual initiatives. Johnson et al. (2020) delved deeper into these transition processes, identifying specific adaptation elements such as seeking new industries, upskilling or reskilling workers, and reconfiguring local infrastructure. These efforts typically require substantial investment and strategic planning, underscoring the critical role of local government and external funding sources in supporting community adaptation. Despite these proactive measures, the adaptation

process often faces significant hurdles. As Ellis et al. (2003) noted, communities transitioning from a single industry may struggle with limited resources, insufficient knowledge or skills, and resistance from certain population segments, necessitating careful management and robust stakeholder engagement. Yu et al. (2016) and Gwosdz (2020) emphasized the importance of local context in the success of these strategies, pointing out that factors like geographical location, pre-existing community skills, local leadership, and community spirit can significantly influence outcomes.

A historical parallel can be seen in the transition from traditional factories to mass production in the United States, as described by Geels (2006). This transition involved a series of both small and large component changes, leading to architectural reconfigurations that culminated in mass production. Influenced by external landscape developments such as the emergence of a national market, population growth, economic expansion, and increasing purchasing power, the shift to mass production was propelled not by a single innovation but through a sequence of multiple component innovations. Despite the insights provided by this body of literature, there remains a clear need for further research to explore how these processes unfold in specific contexts, especially considering the contemporary challenges and opportunities faced by transitioning communities.

Research Question and Methodology

This study aims to enrich the literature on single-industry towns by focusing on the economic transition and resilience of Atikokan, Ontario. The central research question is, "What lessons can other resource-dependent towns learn from Atikokan’s economic transition and resilience?" This question explores critical areas such as economic adaptation, local leadership, policy formulation, and community development, against a backdrop of global shifts in resource

management, government policies, and technological advancements, as discussed by High and Lewis (2007), Beaulieu (2013), Sowa (2003), Bartsch (1983), and Michels (1981). The research contributes to the global discourse on sustainable development and adaptive strategies for communities facing similar challenges. By building on the foundations laid by previous scholars and integrating new information from Atikokan, this study expands on our understanding of how single-industry towns can navigate and thrive post-industry closure, drawing lessons that are applicable globally.

Data Collection

To achieve these objectives, a mixed-method research design combining quantitative and qualitative methodologies was employed (Schneider, 2007). This approach allows for an understanding of the town's transition progress. Primary data were collected through surveys, interviews, and direct observations, providing firsthand insights into the current state of the community and its residents. In addition, archival materials and secondary data, including government reports, books, newspapers, articles, Statistics Canada data, the Lakehead University Library Archive, Archives of Ontario, Atikokan Library and Museum resources, documentaries, and journals, were reviewed and analyzed to establish a solid foundation and theoretical framework for the study.

Case Study: Atikokan

The town of Atikokan experienced rapid economic growth in the early twentieth century following the discovery of iron ore. The Steep Rock Iron Mines commenced production in 1944, with Caland Mines following in 1960, continuing until the late 1970s (Bartsch, 1983). Together, these mines extracted a total of 79 million tons of iron ore over their operational lifespan (Sowa, 2003; Michels, 1981). At its peak, Steep Rock Iron Mines employed over 1,800 workers, and

along with Caland Mines, positioned Atikokan as one of Canada's leading mining centers (Michels, 1981). The iron ore from these mines was vital to Canada's wartime and postwar economies. In 1972, Caland announced its plans to cease operations by 1976. Steep Rock Iron Mines shut down in 1979, followed by Caland Mines in 1980. These shifts necessitated economic diversification and adaptation by the local community (Wightman and Wightman, 1997).

Atikokan represents a unique case in this study. It benefited from an early warning about the impending closure of the Steep Rock Iron Mines and Caland Ore Company mines, which facilitated pre-emptive strategic planning. This early alert enabled Atikokan to demonstrate remarkable resilience and adapt to the significant economic shift brought about by the mine closures. Unlike many single-industry towns that follow a predefined model for managing economic decline, Atikokan's response offers an instructive example of adaptability without such a model. The community's proactive approaches provide valuable insights into economic resilience and diversification, offering lessons that can be applied to similar communities facing analogous challenges.

Sampling and Interview

To capture a representative and diverse set of perspectives on the resilience and adaptability of Atikokan, a demographic breakdown of interview participants was designed. The sample included various age groups: 18-35 years old, 36-55 years old, and 56 years and older. Participants also varied in their occupational backgrounds, ranging from former industry workers affected by closures to professionals in service industries and community leaders who offered insights into strategic responses to economic challenges.

The study employed purposive and snowball sampling techniques to ensure demographic diversity. Purposive sampling targeted individuals fitting specific demographic criteria aligned with the study's objectives. To broaden the participant base, snowball sampling was then used to access hard-to-reach groups, as discussed by Neuman & Robson (2014). While these methods enhanced the demographic coverage, they introduced potential biases in the sense that purposive sampling might not fully represent the wider population, and snowball sampling could limit diversity. Efforts were made to initiate contacts from multiple diverse nodes within the community to mitigate these biases.

Interviews were conducted using a semi-structured format recommended by Berg (2004) and lasted between 35 to 60 minutes. The data were coded and transcribed using ATLAS.ti software. Throughout the research process, ethical guidelines were strictly followed. Approval was obtained from Lakehead University's Research Ethics Board (approval number, Romeo #1468961), and adherence to Canada's Tri-Council Policy Statement (TPCS) on ethical conduct was ensured. Participants were informed about the study's purpose, their rights, and the confidentiality of their responses. Informed consent was obtained from all individuals, and personal identifiers were removed during data analysis and reporting. All collected data were securely stored on the researcher's computer.

This research focused on the experiences of residents in the Town of Atikokan and may not fully represent the diversity of challenges faced by other single-industry towns. In addition, the reliance on self-reported data through interviews and surveys may have introduced response bias. The research was conducted during the COVID-19 pandemic, which may have also influenced the availability of participants and the nature of responses due to the unprecedented challenges and stressors associated with the pandemic. Despite these limitations, this research

provides valuable insights into the closure and transition experience of Atikokan, contributing to the broader understanding of community resilience and vulnerability.

Findings and Discussion: From Frontier to Forefront: The Rise of Industry in Atikokan

Atikokan's early growth was catalyzed by the natural resources that drew railway workers, lumbermen, fur traders, and their families to the area in the late 19th and early 20th century (Madau, 1982; Visit Atikokan, 2024; Michel, 1981). These early settlers established a resilient community skilled in overcoming the difficulties of their remote environment (Nault & Girard, 1999). Prior to the discovery of iron ore, the local economy was primarily based on subsistence activities such as hunting, fishing, and gathering, similar to other pre-industrial indigenous communities and frontier settlements (Beaulieu, 2013). As described by one interviewee, “Our forefathers relied on the land for survival, engaging in hunting, fishing, and gathering to meet their needs” (Participant 040, April 2023).

The discovery of a substantial iron ore deposit under Steep Rock Lake in 1938 by Julian Cross brought the region to limelight and represented a pivotal moment for the town of Atikokan, transitioning it from a subsistence-based community to a burgeoning industrial hub (Michel, 1981; Brown, 1984) (figure 3). Situated about 70 km north of the Canadian-American border, this deposit was noted as the largest and richest undeveloped iron ore body in North America at the time (Cowan & Duncan, 1957). As another participant noted, “The discovery of iron ore was a game-changer for Atikokan, transforming it from a subsistence-based community to an industrial hub” (Participant 026, April 2023). Reflecting on this period, a long-time resident shared, “The iron ore discovery brought jobs and prosperity, drawing more families and businesses to our town” (Participant 027, April 2023).

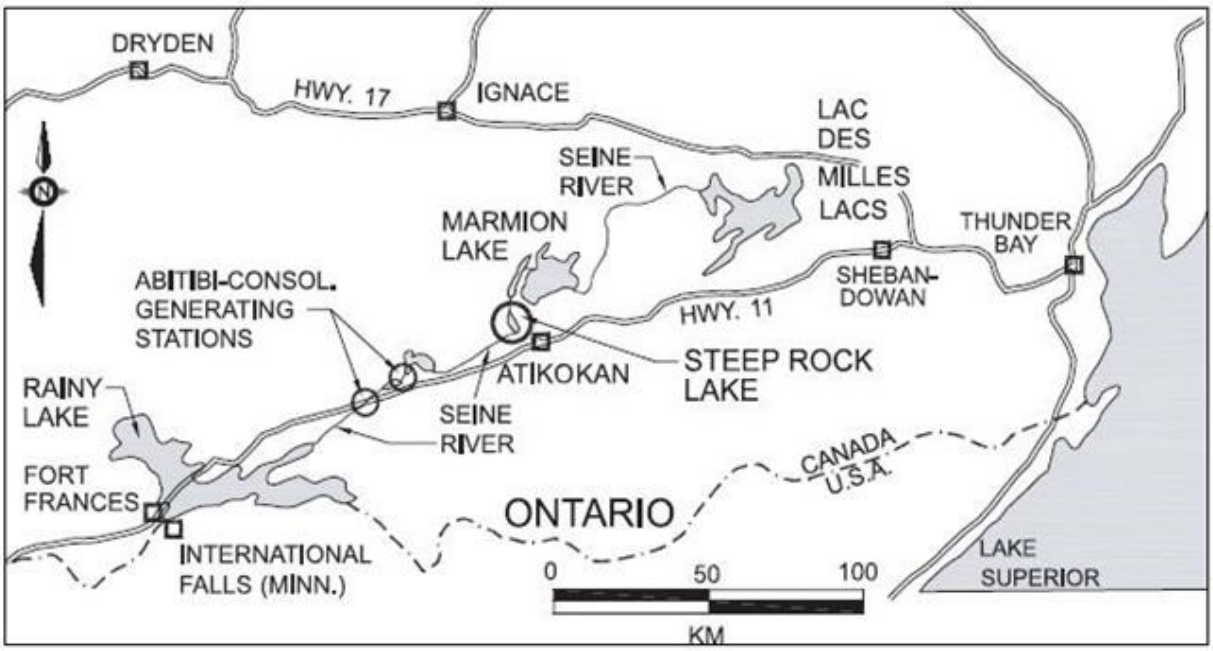


Figure 3: Map showing the location of Steep Rock lake (Sowa, 2003)

The urgency of the Second World War, which led to a shortage of iron ore needed by North American steel mills, accelerated the development of the ore deposit at Steep Rock Lake (Montagnes, 1940). As described by one interviewee, "The war created a massive demand for iron ore, pushing the project forward at a pace no one had anticipated" (Participant 028, April 2023). Addressing this demand necessitated draining Steep Rock Lake, a complex engineering feat that involved several major undertakings. The project, conducted between 1943 and 1945, included diverting the Seine River, constructing dams and tunnels, building additional water diversion structures, and dredging large quantities of sediment from the lake bottom to expose the ore deposits, as shown in figure 4. This engineering effort resulted in the opening of new mining pits that provided access to high-grade iron ore (Taylor, 1978; Godwin, 1976; Mikkelsen, 2012; Michel, 1981). At the time, this project was the largest of its kind in Canada with a total cost of approximately $18 million (Sowa, 2003). Funding for this project came from a mix of sources, including contributions from the Dominion and Ontario Governments (now Government

of Canada and Government of Ontario), a $5,000,000 loan at 4% interest from the U.S. Reconstruction Finance Corporation aimed at supporting the allied war effort, public stock sales, and financial backing from Cleveland financier Cyrus Eaton, who stepped in after initial reluctance from Canadian investors (Time Magazine, 1944). Reflecting on the engineering challenges, another participant noted, "Draining Steep Rock Lake was an incredible achievement, involving coordination and resources on a scale not seen before in the region" (Participant 30, April 2023).

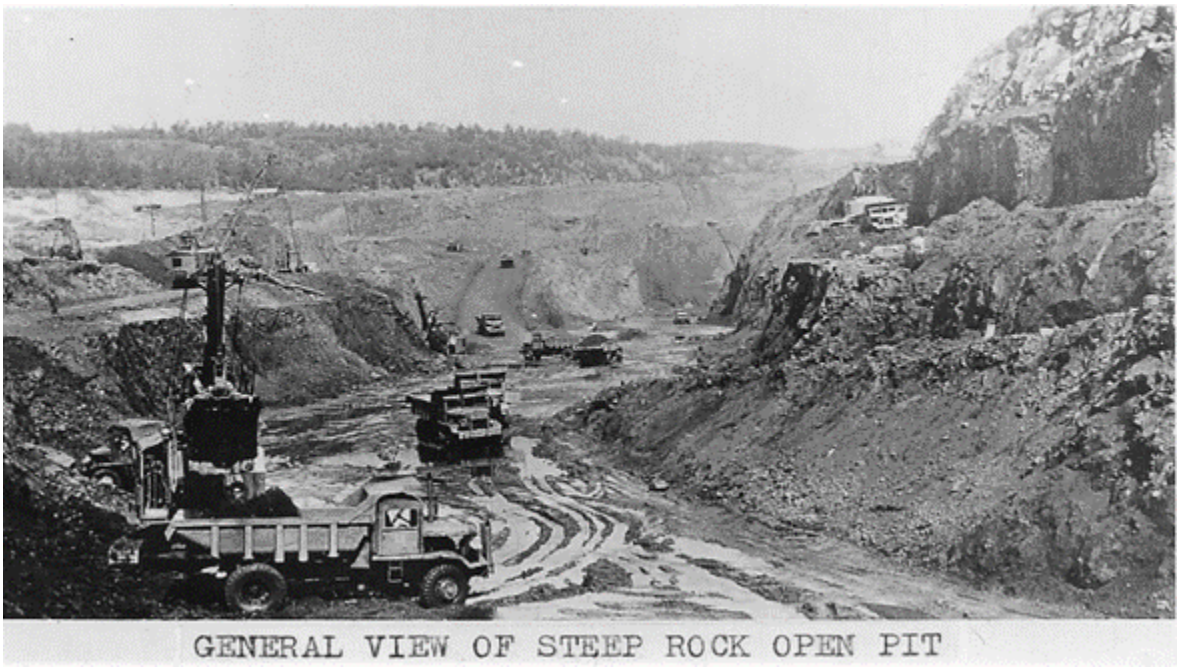


Figure 4: General view of Steep Rock Open Pit (Atikokan History, 2002)

The Steep Rock Iron Mines (SRIM) commenced production in 1944, with Caland Mines starting production sixteen years later in 1960, continuing until the late 1970s (Figure 5 & 6). These two mining operations continued to be productive until the late 1970s (Figure 5 & 6). Over the course of their operational lifetimes, Steep Rock and Caland Mines collectively extracted a total of 79 million tons of iron ore (Sowa, 2003; Michels, 1981; History of Steep Rock Iron Mines, 1960). As one participant recalled, "The mines were the heartbeat of Atikokan,

providing jobs and economic stability for decades" (Participant 031, April 2023). At the height of their productivity, SRIM alone employed over 1,800 workers, and together with Caland Mines, established Atikokan as one of Canada's foremost mining centers (Michels, 1981). The iron ore from these mines was vital to Canada's wartime efforts in the Second World War and postwar economies. This era marked a time of prosperity and community cohesion that was felt throughout Atikokan. Reflecting on this era, another interviewee noted, "Our town flourished during the peak mining years; the sense of community and prosperity was unparalleled" (Participant 037, April 2023).

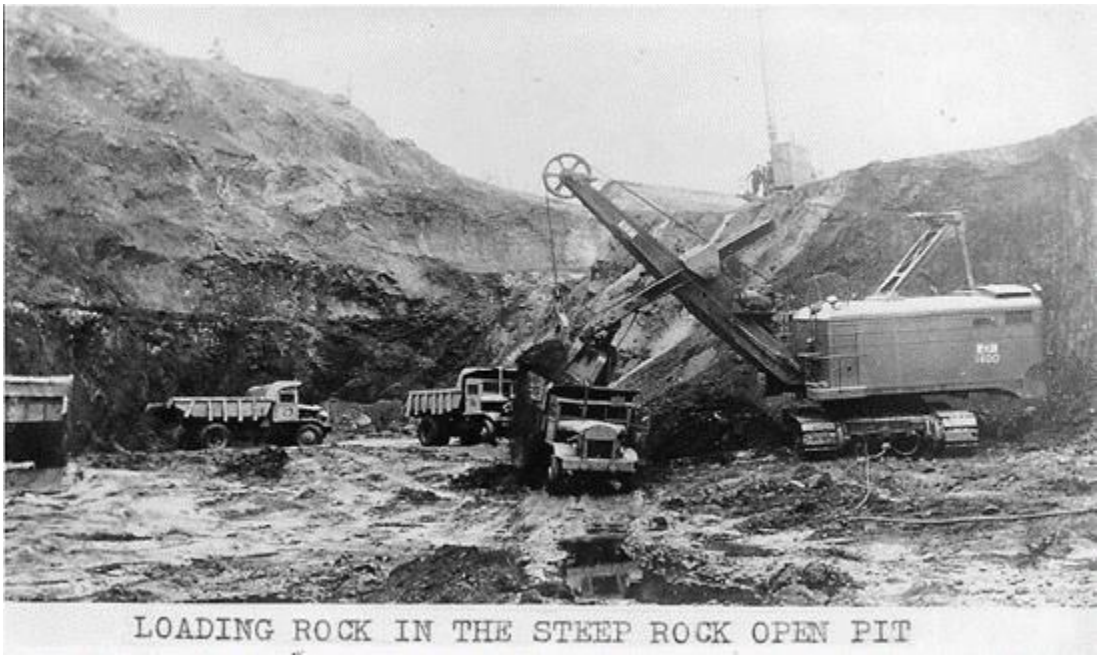


Figure 5: Steep Rock Open-pit (Atikokan History, 2002)

Figure 6: One of the first cars of iron ore being loaded at Steep Rock Iron Mines, 1945 (Atikokan History, 2002)

The Mining Years

As the mining industry flourished, Atikokan experienced substantial development and rapid population growth (Cowan & Duncan, 1957; Deller & Schreiber, 2012; Cranstone, 2002). The promise of employment and economic opportunities drew many newcomers, transforming the town from a small, close-knit community to a bustling, diverse population (Wightman & Wightman, 1997; Michels, 1981; Bartsch, 1983). "The influx of new workers and their families changed the dynamic of our town almost overnight," noted a long-time resident (Participant 021, April 2023). Most residents were transient, reflecting the ephemeral nature typical of mining towns with a constant cycle of workers arriving, staying briefly, and then moving on (High, 2018; Southcott, 2016). By the 1970s, Atikokan boasted the highest per capita income and birth rate in Canada (Sivakumaran, 2024). The population peaked at about 7,600, leading to expanded local infrastructure, including new housing, schools, and other essential services (Michel, 1981; Bartsch, 1983). "We saw a need to build quickly to accommodate the growing population, which brought its own set of challenges," remarked a member of the town council (Participant 022,

April 2023). These changes necessitated adaptations in community planning and policies to maintain cohesion and manage growth effectively (Jewel, 1983; Bartsch, 1983). As one community leader put it, "Adapting to this new reality was crucial for us to maintain cohesion and continue to grow as a community" (Participant 023, April 2023). These changes significantly altered Atikokan's physical, cultural, and social landscape (figure 7).

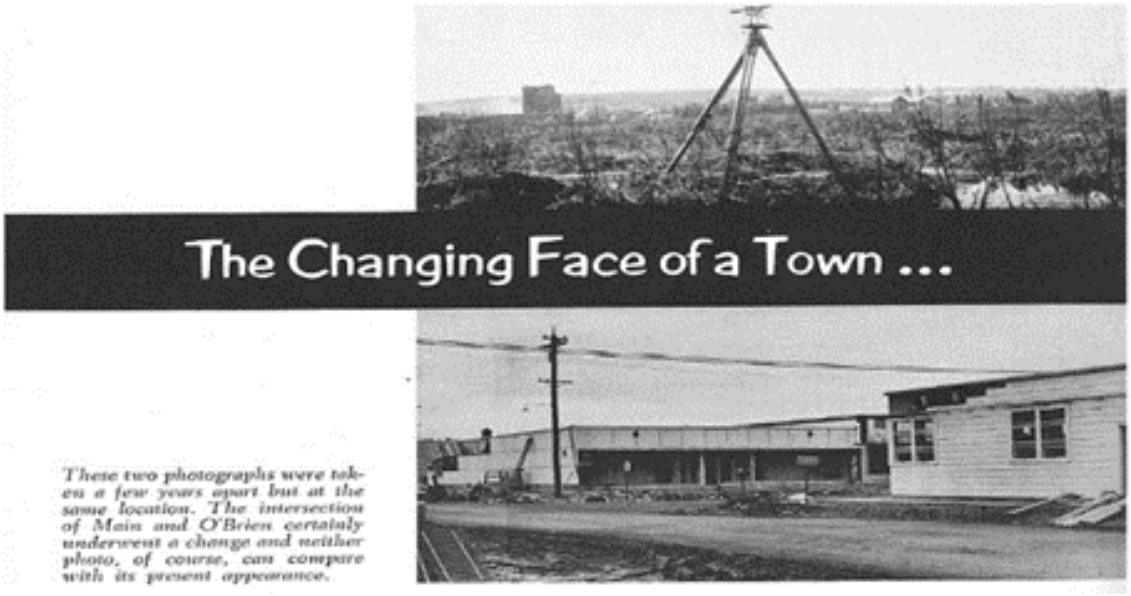


Figure 7: Steep Rock Echo, "Before & After" Photos, September 1959 (Atikokan History, 2002)

This dynamic period required robust leadership to steer the town through its growth and transformation. Central to this leadership were key figures such as M.S. 'Pop' Fotheringham, president of SRIM, and his successors, Neil Edmonstone and S.G. (Syd) Hancock (Michels, 1981). These leaders were deeply committed to the town's future and the potential of its mines, believing strongly in nurturing the town's self-sufficiency (Paulson, 1993). Echoing this sentiment, Cliff McIntosh, President of Quetico Centre, summarized Fotheringham's approach: "He believed that for Atikokan to thrive, its residents must lead community development, with the mine playing a supportive, not a controlling role" (Michels, 1981). Reflecting on this philosophy, a former town administrator remarked, "Pop's vision was instrumental in fostering a

sense of agency among residents, helping them feel they could shape their future" (Participant 024, April 2023). Fotheringham was known for advocating the 'seed money approach,' where SRIM provided initial funding for community projects without covering the full costs, encouraging self-responsibility and the continuation of local traditions. Another community leader noted, "This approach not only built infrastructure but also built resilience and a proactive community spirit" (Participant 025, April 2023). These leaders envisioned a future where, post-mining, the town's leadership would successfully shift to a new economic base (Hancock, 1982). While no alternative economic strategies were initially evident, the groundwork for discussing future possibilities had already been set, creating a proactive atmosphere for eventual economic transition.

Building on their foundational leadership, the executives at SRIM placed a high emphasis on community involvement, expecting their senior staff to actively enhance town life (Paulson, 1993). This commitment ensured that the mine's operations and its employees became woven into Atikokan's social fabric, enriching the community without dominating it. One of the key initiatives by SRIM was to advocate for the inclusion of the Steep Rock range and their mining operations within the municipal boundaries (Michels, 1981). This strategic move was instrumental in transitioning Atikokan from an improvement district to an established town government, a change that improved local governance and facilitated the integration of subsequent developments, such as those undertaken by Caland Mines, into the town's jurisdiction. This proactive approach fostered a strong sense of self-sufficiency and autonomy within the community, showcasing Atikokan's enduring commitment to self-governance, facing its challenges head-on, and maintaining accountability in decision-making. A community leader shared, "Our approach to self-governance has always been about facing challenges with our own

hands, which has made us resilient and deeply independent" (Participant 029, April 2023). Such a culture of self-reliance has deeply influenced Atikokan's identity and resilience, underpinning the town's capacity to manage its affairs independently (Paulson, 1993).

During its peak mining years, Atikokan distinguished itself through exemplary financial management. Rather than depending solely on local taxes, the town benefited from special grants provided by the provincial government. These grants were sourced from taxes collected from productive mines throughout Ontario (Michels, 1981). This funding strategy enabled Atikokan to enjoy consistent and substantial financial support from the province without direct dependency on revenues from its own mining operations. Adopting a conservative financial approach, the Town Council implemented a pay-as-you-go policy, which curtailed the need for accruing long-term debt and ensured that any loans were promptly repaid. This fiscal prudence became particularly beneficial in the early 1970s when Atikokan transitioned from relying on provincial grants to boosting its own revenues through direct municipal taxation. Remarkably, this shift allowed the town to double its revenue within a single year, enabling strategic reserves to be set aside for future needs (Michels, 1981). The foresight and financial strategies of the 1960s ensured stability during prosperous times and bolstered Atikokan's resilience, preparing it to effectively manage future economic challenges.

While the mining sector significantly boosted employment and the local economy in Atikokan, it also fostered a high dependency on this volatile industry. Such reliance exposed the town to global commodity price fluctuations and technological shifts in mining—factors that have destabilized other single-industry towns (High & Lewis, 2007; High, 2018). The rapid pace of development spurred by mining activities also raised pressing environmental concerns regarding the sustainability and long-term health of the local ecosystem. Despite these

challenges, Atikokan demonstrated a remarkable capacity to adapt. As described by one interviewee, “We've seen the ups and downs that come with depending on one industry. It's tough, but our town has always found a way to get through it by looking out for each other and exploring new opportunities” (Participant 034, March 2022). Another local leader noted, "The resilience of our community is evident in how we manage to reinvent ourselves whenever the market shifts" (Participant 033, April 2023). The community worked diligently to strike a balance between economic gains and environmental stewardship, continuously seeking ways to ensure the well-being of its residents. This endeavor involved not only mitigating the immediate impacts of mining but also planning for sustainable future growth. However, the landscape of the mining industry began to change with the advent of taconite, a new ore processing technology. Though both mining companies initially planned for long-term development of up to 100 years, taconite made the extraction of Atikokan’s local red hematite ore less economical, altering the economic calculus that had supported the town’s mining operations (Ross, 2012; Michels, 1981; Sunset Country, n.d). This technological shift underscored the fragility of relying too heavily on a single resource and prompted further diversification efforts in Atikokan’s economy, steering the community towards new industries and opportunities that could provide a more stable economic foundation.

As the 1970s dawned and with the recognition of potential economic instability on the horizon, local leaders in Atikokan initiated strategic planning and extensive community consultations to mitigate the risk of an economic downturn linked to mining. These efforts aimed to decrease reliance on the mining sector and foster a more diversified and resilient local economy (Bartsch, 1983; Michels, 1981). This proactive approach was soon put to the test as signs of the mines' potential closures emerged in the early 1970s. Reflecting on this period, one

resident noted, "Right after we received the notice from SRIM, we realized our future couldn't solely depend on mining. It was a tough lesson, but it also pushed us to think ahead and prepare for any changes" (Participant 032, March 2022). In response, the community began engaging more actively with different economic sectors, exploring opportunities for growth in areas such as technology startups, tourism, and small-scale manufacturing. Another community leader added, “We started engaging more with different sectors, looking for opportunities and even startups” (Participant 035, April 2023). This period of transition challenged the community to diversify quickly and effectively. A resident remarked, “The impending closure of the mines accelerated our efforts in strategic planning. We had to envision a new future for Atikokan that wasn’t tied to the boom and bust of mining. We have learnt our lesson” (Participant 036, April 2023).

Pre-Closure Efforts

> Atikokan is a town that wants to stay alive and thrive. The residents of Atikokan like living there and they want to continue to live there. They are willing to work hard to keep the town going (Atikokan & Quetico Centre, 1974).

In 1972, amidst a period of economic prosperity, SRIM & Caland announced its plans to cease operations by 1976. Despite this closure announcement, Caland extended its operations beyond the intended date to maximize ore extraction, which included expanding stripping operations to access more ore reserves (Thunder Bay Museum Archives, n.d.). This advance notice and subsequent four-year extension provided a buffer for Atikokan, allowing the town to continue benefiting economically from the mines while also granting time to explore alternative economic avenues and mobilize resources for the future. However, the respite was short-lived as Steep Rock Iron Mines shut down in 1979, followed by Caland Mines in 1980 (figure 9, 10 & 11). These closures marked a turning point for Atikokan, signaling the beginning of a transition away

from a mining-dependent economy (Michels, 1981; Bartsch, 1983). The impact was profound; workers who had once been assured of 'ore for 100 years!' during the optimistic 1940s felt deeply betrayed by the abrupt end to mining activities. "The closure was a massive shock, not just economically but emotionally for everyone involved," recounted a former miner (Participant 038, April 2023). Following these events, 1,800 jobs were lost, the town's population plummeted to about 5,000 within 18 months (figure 8). This decline continued, leading to a 50% reduction in population, and by 2021, Atikokan's population had dwindled to 1,929 residents (Statistics Canada, 2021; Sivakumaran, 2024). "It was a challenging time, but it forced us to rethink and reshape our future," added another community member (Participant 039, April 2023).

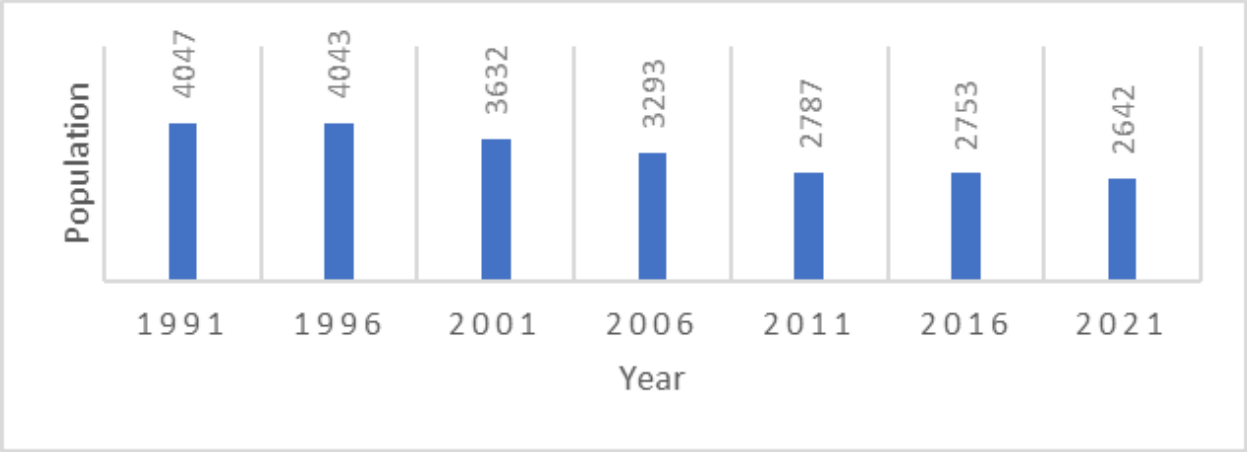


Figure 8: Atikokan Population Trend, 1991 - 2021 (Author, 2022)

A broom mounted in the final load of ore has traditionally marked the closing of a mine. It signifies a clean sweep - a particularly apt analogy considering how Caland's shutdown was managed. In the background (left) is the ore improvement plant. Pictured in front of the rail car is one of the final shifts. (Starting left, back row) Maurice DeVulder, Jake Splawski, Claude Bedard, Steve Hummel, Ernie Toffan, (unknown), (unknown), Jerry Blanchard, Bruce Staines, Joan Snider, Dave Snider, Bill Polnick, Richard Zillman; (front row) Tom Adamcewicz, Ernie St. Pierre, Barry Hummel, Moses Sheppard, and Ed Fredrickson.

Figure 9: Final load of ore with a broom mounted (Bartsch, 1983)

Ed Fredrickson (right) and Ernie St. Pierre (left) make a clean sweep as the last load of ore is dumped into a rail car for transport to Inland Steel smelters near Chicago. Co-operation marked the final days of Caland's open pit iron ore mine. Staff and hourly employees worked toward an excellent shutdown in interdepartmental workteams designed to ensure that no closure details slipped between the cracks of responsibility.

Figure 10: Workers dumping last load for transport (Bartsch, 1983)

In response to the announced closure of Caland Ore in 1972, the Atikokan Town Council took a proactive measure to mitigate potential economic impact and established the Atikokan Industrial Development Committee (AID) in February 1973 to guide the town through its economic transition, following initiatives by Councillor Murray Goodwin and Reeve Hancock. Tasked with advising on industrial development policies, AID aimed to encourage the growth of secondary industries, revitalize the community's economic base, and shield it from the vulnerabilities of being a single-industry town (Michel, 1981; Bartsch, 1983). In parallel to setting up the AID, the Council launched several development projects, including a sewage treatment plant, a new hospital, senior citizen housing, a road link to Ignace, and various recreational facilities aimed at enhancing community resilience. The AID Committee became a focal point for community efforts, pooling knowledge and strategizing on industrial development. They actively consulted with government officials about the mine closures and engaged with Ontario Hydro to discuss relocating a new electric generating station to Atikokan. This engagement led to a favorable Kates, Peats, Marwick and Company (KPM) cost/benefit study in October 1973, the establishment of the Ministry of Northern Affairs in February 1977, and garnered strong community support through well-attended public meetings (AIDC, 1978). AID's efforts notably attracted significant projects such as the Pluswood particleboard plant, the new hospital, and the Ministry of Natural Resources Building, and influenced the decision to locate the Hydro Plant in Atikokan (AEDC, 1999; AIDC, 1978). Despite the initial industrial focus, AID continued to ensure a diversified and stable economic future for Atikokan (McKay, 1982; Michels, 1981).

The Pluswood manufacturing plant, later renamed Proboard and then Fibratech, began operations in 1975, producing particle board and significantly diversifying the local economy,

leading to a minor economic boom (figure 12) (Michels, 1981; Visit Atikokan, 2024). During this period of transition, from 1975 to 1978, the workforce began to adapt to the gradual decline of the mining industry. Many workers seized opportunities in burgeoning or expanding operations beyond Atikokan, while others found new possibilities locally, particularly at the Pluswood plant, taking on part-time roles that often developed into full-time employment (AEDC, 1999). This shift marked a broader trend of workforce diversification in anticipation of the mine closures (Michels, 1981). The opening of a new hospital on February 1 of the following year further strengthened Atikokan's infrastructure, enhancing the town's appeal as a stable place to live and work. By the early 2010s, the then-shuttered plant was repurposed by US-owned Rentech Fuels to manufacture wood pellets, indicating ongoing attempts to rejuvenate the industrial base (Visit Atikokan, 2024).

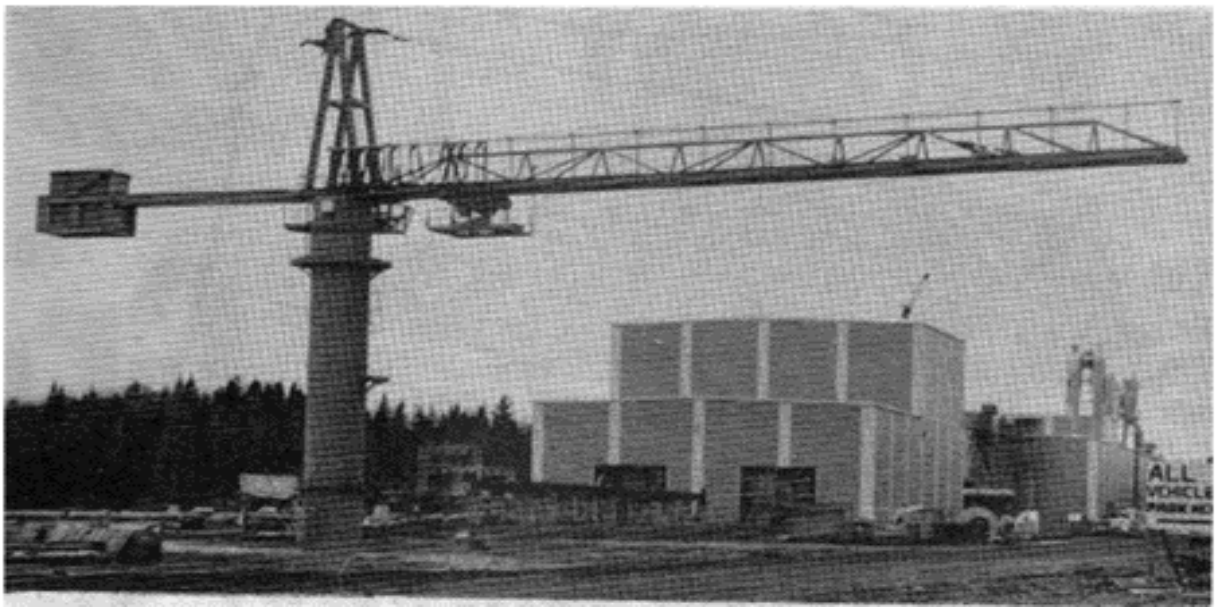


Figure 11: Stationary crane at Pluswood of Canada in Industrial Park in the west end of Atikokan, 1975 (Atikokan History, 2002)

Post-closure efforts

The closure of the Fibratech plant in 2007, resulting in the loss of about 140 jobs, underscored the vulnerabilities of secondary industries in small, remote communities to market fluctuations, resource accessibility, and transportation costs (Dunick, 2011; CKDR 2007). The experience highlighted the necessity for supportive policies, adequate infrastructure, and stable markets to ensure the sustainability of new industries. In the wake of this setback, Atikokan took proactive measures to reassess and revitalize its economic landscape. In 2010, the Edward Hoshizaki Development Consulting firm conducted a comprehensive 'Atikokan retail and service sector community gap analysis.' This report was pivotal, as it identified gaps in the local market and outlined opportunities for economic development. The insights and recommendations from this analysis were instrumental in shaping Atikokan's economic policies and strategies. It guided the town in better aligning its resources with the needs of its community and seizing potential market opportunities. Subsequent initiatives, influenced by the gap analysis, focused on enhancing local retail and service sectors, and investing in infrastructure projects that would support a diversified economic base.

The opening of Resolute Forest Products' mill in 2014, now managed by Paper Excellence, initially created 112 direct jobs, while Rentech's wood pellet mill, operational until its closure in 2017, added another 40 jobs (Clutchey, 2022). Additionally, the town’s hospital is a significant employer, providing over 100 jobs. Despite the ongoing challenges of economic diversification and industrial closures, Atikokan has maintained a resilient job market. This resilience is largely attributed to the proactive efforts of local government and the support of political representatives who have been instrumental in driving economic development forward. The re-election of Bill Mauro in 2014 was particularly significant, reinforcing a political

commitment to policies that focus on economic diversification and robust community support (Global News, 2014).

After receiving approval in 1977, Ontario Hydro began the groundwork for a coal-fired generating station at Atikokan, designed to utilize low sulfur lignite coal from Saskatchewan. The construction of the 230 MW facility was completed in the early 1980s, and the station began operations in November 1985, primarily using lignite coal transported by rail from Saskatchewan, with natural gas as the ignition fuel. This facility played a role in addressing the electricity needs of Northwestern Ontario, integrating Atikokan into the regional energy framework (figure 13).

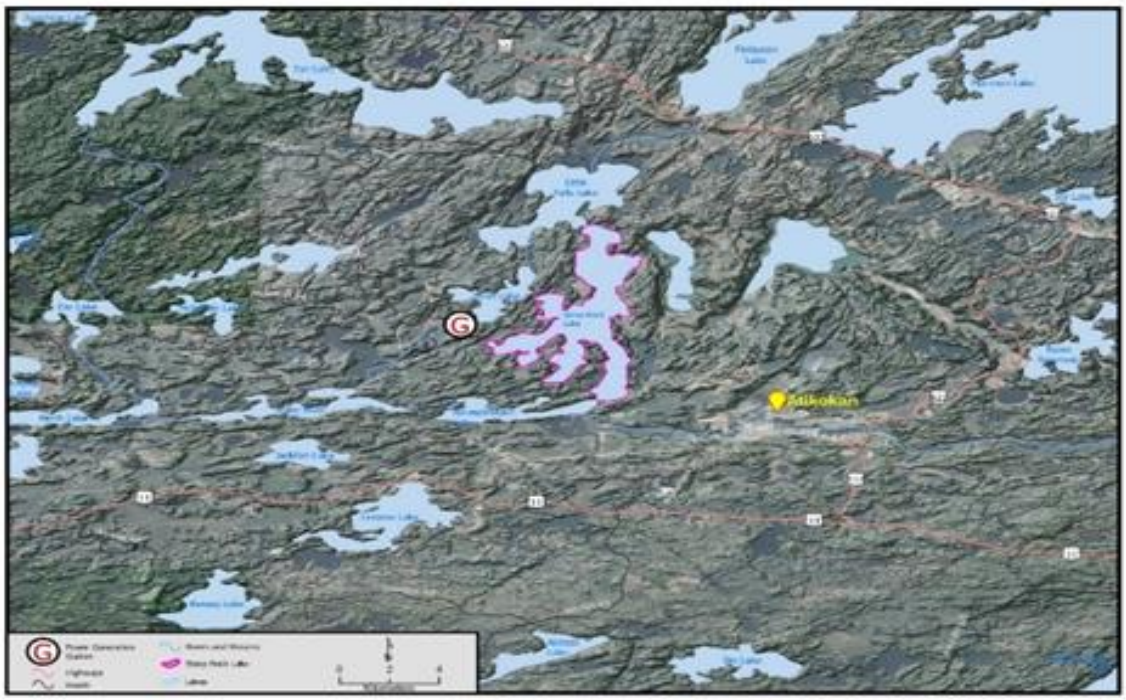


Figure 12: Location map of the Atikokan Generating Station (Author, 2024)

In response to growing environmental and health concerns, the province of Ontario committed in 2003 to phasing out coal-fired electricity by 2014. By 2014, all coal-fired power plants in the province, including the Thunder Bay Generating Station, had ceased using coal.

This transition was celebrated as one of the largest single climate change initiatives in North America, drastically reducing greenhouse gas emissions (AEDC, 2024). The coal phase-out posed a substantial risk to Atikokan, given the town's significant reliance on the Atikokan Generating Station (AGS) for economic stability. AGS, serving as a fulcrum in the local economy, employed about 90 individuals and indirectly supported around 200 local businesses through household spending (Rinne, 2021). Local leaders were acutely aware of the consequences a potential shutdown of AGS could have, with projections suggesting an annual decline of CAD 5.3 million ($3.2 million) in local spending, which would ripple across the town's economy. In a proactive move to mitigate these potential economic shocks, the provincial government allocated CAD 4 million ($3.5 million) in 2006 to research and develop cleaner electricity generation options in northern Ontario. This strategic investment led to the establishment of the Atikokan Bio-Energy Research Centre, operational from 2007 to 2010, which played a pivotal role in fostering interest in alternative fuels and sustainable energy solutions. By 2008, efforts to convert the AGS to utilize 100% biomass were underway, with trials using pellets sourced from local vendors, including those from Atikokan. This transition not only supported the local forest products sector but also increased community backing due to the town's forestry ties. After a two-year conversion process, AGS reopened in 2014 as North America's largest 100% biomass-burning power plant, significantly reducing its environmental impact and positioning Atikokan as a leader in renewable energy (World Resources Institute, 2021).

In parallel to shifting towards a forest-industry-based economy following the closure of the Steep-Rock Mine, Atikokan also embraced tourism as a key strategy for economic diversification. Declared the ‘Canoeing Capital of Canada’ in 1982, the town has long attracted

visitors, a trend documented since the early 19th century (Jasen, 1995). Located near Quetico Provincial Park, this picturesque town leverages its environmental assets and rich historical ties to canoeing. The town's history includes its role in the original fur trade routes linking Montreal to Western Canada and its early gold mining industry, where canoes were indispensable from 1890 to 1920. Today, Atikokan continues to honor this heritage and the natural beauty of Northwestern Ontario. It has developed a thriving tourism sector, hosting events like the Atikokan Bass Classic fishing tournament, which draws visitors from far and wide, enhancing local businesses through increased bookings in accommodations, dining, and retail. These events bolster Atikokan's reputation as a prime destination for outdoor sports and nature activities. Besides fishing, the town promotes various outdoor activities, including hiking and wildlife viewing. Further cementing its connection to canoeing, Souris River Canoes, one of Canada's leading canoe manufacturers, relocated here in the early 1990s, producing hundreds of canoes each year. The town's proximity to Quetico Provincial Park provides exceptional opportunities for eco-tourism (Madau, 1982). The best way to experience the park's expansive landscape is by canoe, aligning with Atikokan's identity as the 'Canoeing Capital of Canada.' This focus on ecotourism not only helps diversify the local economy but also emphasizes the importance of environmental conservation and sustainable tourism (North Shore Bureau, 2020).

Embracing these practices has rejuvenated Atikokan's economic base and community spirit (Ubriaco, 2002). The steady influx of tourists sustains local businesses, supports the economy, and bolsters the town's connection to the wilderness. As Mayor Brown stated, Atikokan is a 'safe, healthy community with a diverse economy, strong wilderness ties, and a creative spirit.' Leveraging its natural and cultural resources, Atikokan excels as a leading

destination for outdoor enthusiasts and serves as a benchmark for sustainable tourism in Northwestern Ontario (Ubriaco, 2002).

In recent years, Atikokan has actively pursued strategies to increase its population and address labor shortages. A significant strategy is its participation in the Rural and Northern Immigration Pilot (RNIP), a community-driven program aimed at attracting skilled foreign workers to smaller communities, offering them a pathway to permanent residence (Go to Thunder, n.d.). As part of the Thunder Bay and Area RNIP, Atikokan benefits by addressing local labor shortages through the integration of skilled workers. This program enables eligible Atikokan employers to extend full-time, permanent job offers to skilled foreign workers, effectively filling essential roles and contributing to the community's growth. According to Garry McKinnon, Executive Director of the Atikokan Economic Development Corporation, the town has seen a noticeable population increase over the last three years.

Atikokan is revitalizing its historical ties to mining with an innovative energy storage project, transforming abandoned iron ore mines into a massive 1,200 to 1,300-megawatt battery system. This energy project, in collaboration with First Nations partners, engineering firms, and financial institutions, is estimated to cost up to $2 billion. Additionally, Canadian Malartic has discovered 14 million ounces of gold at the Hammond Reef site and has invested approximately $250 million in the venture, with expectations of profitability when gold prices rebound. Beyond new industries, Atikokan's story is one of resilience and community loyalty. Mayor Brown and Garry McKinnon, Executive Director of the Atikokan Economic Development Corporation, highlight the town's creative and risk-taking spirit. Before being converted to burn wood pellets, a local facility, previously a particleboard mill, was saved from demolition by municipal efforts and later repurposed by Rentech, creating up to 70 jobs. On the infrastructure front, Mayor

Brown's current priorities include significant upgrades to the local arena and swimming pool, built in the early 1970s. The town has raised $5.5 million for these projects, awaiting an additional $1 million from FedNor. Remarkably, Atikokan residents themselves have contributed nearly $600,000, a testament to the community's exceptional commitment and spirit, as emphasized by McKinnon: 'Raising $600,000 from a community of 2,800 people is unimaginable! (Sivakumaran, 2024).

The town's response to the mine closures was strategically shaped by Reeve Jack Pierce and his councilors, who effectively communicated Atikokan's potential to key provincial government figures. They conveyed two critical points: Atikokan could not only recover from the mine closures but could also serve as a blueprint for other single-industry towns facing similar economic challenges. Rather than seeking direct handouts, the council aimed to secure recognition, respect, and support for Atikokan's future potential. This approach cultivated goodwill and readiness among influential individuals to assist when necessary—whether in overcoming barriers, providing support, or facilitating financial aid. The council promoted Atikokan’s potential with relentless hope and optimism, maintaining diplomatic engagement with government processes and avoiding confrontational politics. They understood that government officials were ready to help, provided they were given clear, promising, and likely successful solutions. This diplomatic and proactive approach played a crucial role in securing the establishment of the Pluswood Plant, preserving the Hydro Plant project in Atikokan, and mine clean-up (Stimpson, 2023).

In their quest for government support, Atikokan leaders argued that the decline of single-resource-based communities was a recurring issue that would persist without innovative changes. Reeve Pierce emphasized the success in building mutual respect with provincial politicians,

which ensured Atikokan easy access and favorable hearings. The council consistently presented the town not just as another case but as an opportunity to test new strategies. They proposed that Atikokan be used as a model for experimentation in economic recovery. The rationale was straightforward: if the experimental approaches failed, the result would be no worse than past failures or continued inaction. However, if successful, these strategies could serve as valuable lessons for similar communities facing economic challenges. This proactive and innovative approach prompted the adoption of various unprecedented strategies by government officials and other stakeholders in response to Atikokan's unique situation.

Atikokan continues to evolve, with significant developments including the expansion of its modern hospital (The Chronicle Journal, 2017; Fleury, 2023; Thompson, 2015; Ontario Ministry of Health, 2015). This upgrade responds to the needs of its aging population, prioritizing healthcare to ensure community well-being and make the town more attractive to residents and potential newcomers. These enhancements in healthcare facilities contribute to Atikokan's long-term demographic stability and its appeal as a place to live and work. Additionally, building on its reputation as a hub for outdoor recreation, Atikokan is expanding its tourism offerings. The town has invested in upgrading its infrastructure to improve the experience and safety of outdoor activities, such as enhancing hiking trails, adding informative signage, and improving accessibility to natural areas. These improvements not only enhance visitor enjoyment and safety but also help preserve the natural environments they highlight. Atikokan has enriched its event calendar to include cultural and historical celebrations that showcase the town's rich heritage and the diversity of its community. These events, including art exhibitions, historical tours, and cultural festivals, cater to tourists seeking cultural experiences, thereby broadening the scope of tourism beyond just outdoor sports and recreation. Furthermore,

Atikokan has intensified its marketing efforts to reach a wider audience. Collaborations with travel bloggers, targeted social media campaigns, and partnerships with regional tourism boards are key strategies employed to enhance its visibility on national and international tourism platforms. These initiatives ensure that information about Atikokan's varied attractions reaches potential visitors globally, fostering a sustained increase in tourism.

Lessons for Similar Communities

Atikokan's experience with economic transition offers lessons for other single-industry towns facing similar challenges. This section outlines strategies from Atikokan's approach to manage change and sustain community vitality following industry closures.

One of the key aspects of Atikokan's successful transition is the early warning it received about the mine closure, which provided ample time for planning and implementation of alternative economic strategies. This strategic pivot from a mining-centric economy to sectors like tourism and renewable energy highlights the importance of economic diversification. High and Lewis (2007) describe diversification not just as a survival tactic, but as a proactive measure for economic resilience, a sentiment echoed by Pike, Dawley, and Tomaney (2010) who discuss the adaptability of regions to economic changes. Communities with similar vulnerabilities might consider Atikokan's approach of identifying and developing alternative industries early, supported by Bosworth and Atterton (2012) who examine the mitigative effects of diversification in rural mining areas. This strategy reduces dependence on a single sector and, according to High (2018), can alleviate economic shocks, promoting a more stable environment before crises arise, an idea supported by Hassink (2010) in his exploration of regional resilience.

Equally important has been the proactive engagement of the Atikokan community in these strategic shifts. The involvement of Atikokan residents in the transition process has

bolstered the town's resilience. High and Lewis (2007) note the significance of community engagement in generating a range of ideas and building consensus, which ensures that residents feel genuinely invested in new initiatives. Ross (2012) supports this, pointing out that inclusive decision-making processes lead to sustained community support and success. Additionally, Joseph & Krishnaswamy (2010) highlight the crucial role of community engagement in facilitating successful economic transitions, showing that collective efforts often lead to more sustainable outcomes than individual ones. Other towns could benefit from adopting Atikokan's method of transparent communication and engaging community members in decision-making, thereby improving the effectiveness and reception of economic transformations. Johnson et al. (2020) also emphasize that the granularity of the transition process, involving community members at various stages, is key to overcoming resistance and enhancing local capacity for adaptation.

Building on this foundation of community engagement, Atikokan's leaders also demonstrated foresight by anticipating and proactively addressing potential challenges. They formed committees and secured funding for new projects before the full effects of the mine closures were realized. Such strategic planning and adaptability are underscored in the literature as vital for community resilience. Johnson et al. (2020) discusses how specific adaptation elements, such as strategic planning and securing funding, often involve community-wide efforts and are crucial for successful transitions in the face of industry closures. Other communities should similarly utilize both local and external expertise to prepare for potential economic shifts, adopting strategies that enhance flexibility and preparedness.

In addition, Atikokan effectively utilized its natural beauty and historical significance to pivot towards a tourism-based economy. This approach aligns with the findings of Yu et al. (2016),

who emphasize the importance of leveraging local assets for economic diversification. Haggerty et al. (2018) further illustrate how industry closures can be leveraged as opportunities for innovation and entrepreneurship, leading to new industries such as tourism. Additionally, Veiga et al. (2001) discuss how communities can use environmental improvements as a catalyst for developing sustainable tourism, which fosters local development. By leveraging these intrinsic assets, towns can cultivate new industries that not only stimulate economic growth but also strengthen community identity and cohesion.

Moreover, the effectiveness of these was supported by favorable policies and significant infrastructure investments, which facilitated the emergence of new industries and aided economic diversification. This approach aligns with Nelson et al. (2010), who emphasize the importance of supportive government policies and infrastructure in boosting economic resilience. Policymakers in similar communities should ensure that supportive frameworks are established, which include investing in essential physical and digital infrastructure, adapting zoning laws to new industry needs, and crafting economic incentives that promote investment and business development.

However, not all efforts in Atikokan were successful; some projects failed to meet expectations. This observation aligns with Geels (2006), who notes that innovation and transition processes often require trial and error, with learning from these experiences being vital. Communities should implement robust feedback mechanisms to monitor the results of economic development initiatives. By evaluating both successes and failures, communities can fine-tune their strategies over time, thereby enhancing their ability to manage transitions effectively. This iterative approach promotes a culture of continuous improvement and resilience, essential for sustained success.

Finally, Atikokan's experience underscores the importance of community spirit and collective resilience. The role of social capital in enhancing community resilience is well recognized, as evidenced by Southcott (2006). Other towns should strive to foster a sense of pride and optimism among their residents. Initiatives that unite the community, celebrate local achievements, and strengthen communal identity can bolster the community's capacity to withstand and surmount challenges. This not only supports economic recovery but also improves the overall well-being of the community, making it more cohesive and resilient against future adversities.

Future Research

The study of Atikokan's economic transition lays a foundation for future research aimed at deepening our understanding of how communities, particularly those in single-industry towns reliant on resource exploitation, respond to economic shifts. Future studies could benefit from a comparative analysis of towns affected by closures in various industries, potentially using longitudinal or mixed-methods approaches to capture dynamic changes over time. This can be further enhanced by incorporating international case studies to enrich our understanding by offering a global perspective on adaptive strategies and outcomes, potentially identifying universally applicable successful initiatives and policies, as well as those that are context-specific. Further exploration could also examine the specific impacts of emerging industries like renewable energy or tourism on economic stability and community development in towns previously dependent on single resource-based industries. This sector-specific analysis would help identify which industries provide the most sustainable and beneficial outcomes for post-industrial towns.

Conclusion

Atikokan's journey through economic transitions offers a unique lens into the resilience and adaptability required to navigate industry changes. The town's strategic responses to the closure of its mining operations — encompassing both pre-closure foresight and post-closure innovation — have been vital in not only preserving but enhancing its economic landscape. This study has been further enriched by incorporating the lived experiences of its residents, providing a better understanding of the community's path toward sustainability. The investigations into these lived experiences have revealed how the community perceives and interacts with the economic strategies implemented by local leadership. By examining whether Atikokan is moving towards true economic sustainability or if it is still vulnerable, this research provides insights into the effectiveness of the town's diversification efforts. The findings underscore the realities of transitioning economies, from the initial shock of industry closure to the gradual acceptance and adaptation to new economic foundations.

Atikokan's experience highlights the importance of early and ongoing community involvement, the need for strong and visionary local leadership, and the benefits of strategically leveraging both natural and cultural resources for economic diversification. As other communities look to Atikokan's story, they can draw practical approaches from its successes and setbacks. Atikokan demonstrates that with a concerted effort and cohesive strategy, communities can reinvent their economic landscapes to be more resilient and sustainable. The town’s story is a testament to its own enduring spirit and a blueprint for other towns aiming to navigate the dynamics of socio and economic sustainability.

Declaration of interests

The author declares that there are no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding Sources

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Chapter 5: Two Tales of Transformation: A Comparative Study of the Towns of Atikokan and Oloibiri[4]

Introduction

In the global tapestry of industrial and economic narratives, certain towns emerge as symbols of burgeoning prosperity due to the bounty of natural resources beneath their soil (Lawrie et al., 2011). However, over time as the chronicles of many such towns reveal, a subset of these archetypal towns face the inherent challenges that come with the depletion of resources (Beaulieu, 2013; Halseth, 2005; Hayter, 2017). The stories of the towns of Atikokan in Canada and Oloibiri in Nigeria, although set against disparate cultural and geographical backdrops, share similar trajectories of rapid growth and subsequent challenges after the depletion of their defining resources.

In the Niger Delta of Nigeria, the Town of Oloibiri transformed from a quiet agricultural community to a bustling oil hub with the discovery of oil in 1956 by Shell D'Arcy, heralding an era of potential prosperity as Nigeria approached independence (Nwajiaku-Dahou, 2012). Parallelly, in Northwestern Ontario, the Town of Atikokan, located within the traditional territory of the Anishinaabe people, transitioned from a divisional point on the Canadian National Railway (CNR) to an industrial center following the discovery of iron ore deposits in 1937, leading to the establishment of Steep Rock Iron Mines (SRIM) (Michels, 1981).

The flourishing industries brought economic growth and attracted a diverse population, yet they also introduced vulnerabilities—namely, susceptibility to global market fluctuations and resource depletion. The closure of Oloibiri's first oil well in 1978 and the downturn in Atikokan's

[4] Submitted to *Community, Work & Family Journal*.

iron ore production during the 1970s highlighted the ephemeral nature of such prosperity. These events did more than trigger economic downturns; they disrupted the social and ecological balance, posing significant challenges to the communities. Oloibiri grappled with ecological damage from oil extraction, and Atikokan faced the environmental toll of mining. Both towns embarked on challenging paths toward post-industrial reinvention. As John Loxley notes, addressing the multifaceted issues in resource-dependent communities requires understanding both local contexts and international forces (Loxley, 2010). This study explores the parallel transformations of Atikokan and Oloibiri, illustrating the global pattern of resource dependency, which cycles between economic booms and declines, contributing insights into sustainable transitions post-resource extraction.

Methodology

Building on John Loxley's framework, this research adopts a mixed-methods approach that combines quantitative and qualitative techniques to explore the socio-economic transitions in the towns of Oloibiri, Nigeria, and Atikokan, Canada, in line with Schneider's (2007) recommendations. The quantitative data provided a broad overview, while the qualitative insights - particularly from interviews, captured the lived experiences of residents as employed by Berg (2004).

This study was conducted during the COVID-19 pandemic, which significantly influenced the methodology and execution of the research. The challenges posed by the pandemic required adjustments in data collection methods and heightened attention to ethical considerations, particularly regarding the safety of the researcher and the participants. In both towns, primary data were collected through interviews and direct observations, offering firsthand insights into the current states of the communities. Due to the constraints imposed by the

pandemic, interviews were conducted using zoom video conferencing when face-to-face interactions were not feasible. These interviews were conducted in English and in Oloibiri, also in pidgin to ensure inclusivity and depth in participants responses, using a semi-structured format recommended by Berg (2004) and varied between 35 to 60 minutes. The data were coded and transcribed using ATLAS.ti software to identify themes and patterns in the qualitative data. The demographic breakdown of participants in each town was designed to capture a diverse set of perspectives, ensuring that the research encompassed views from different age groups, occupational backgrounds, and socio-economic statuses.

For Oloibiri, secondary data included an extensive review of materials such as government reports, books, articles, documentaries, academic journals, and newspapers (primarily THISDAY - a leading national publication renowned for its coverage of the Niger Delta issue). This review also focused on materials from Shell and Amnesty International to reflect on the town's long history with oil extraction and its impacts. Due to the unavailability of specific census data for the town, the study relied on descriptions and estimated figures provided by interview participants to depict Oloibiri's population. This approach helped compensate for the lack of comprehensive census information, providing a realistic depiction of demographic trends. In Atikokan, secondary data comprising Statistics Canada, government reports, local and regional archives, including the Lakehead University Library Archive, Atikokan Library and Museum resources, Archives of Ontario and other scholarly materials, were reviewed and analyzed to understand the historical and economic transition phases of the town.

The study employed a combination of purposive and snowball sampling techniques in both locations to ensure a representative and diverse participant pool as discussed by Neuman & Robson (2014). However, this method introduces potential biases: purposive sampling may not

completely represent the broader population due to the subjective selection of participants, while snowball sampling can perpetuate these biases by potentially limiting the pool to similar or interconnected individuals. Acknowledging this limitation, efforts were made to reach a varied sample by initiating contacts from multiple and diverse nodes within the community, thereby reducing the potential for homogeneity and bias in the responses gathered.

Ethical protocols were uniformly observed across both study locations. Participants were informed about the study's purpose, their rights, and the confidentiality of their responses. Informed consent was obtained, and personal identifiers were removed during data analysis to ensure privacy and ethical compliance. All data collected from both towns were securely stored on the researcher's computer.

In my study of Atikokan and Oloibiri, I acknowledge that the findings may not fully represent all single-industry towns. The reliance on self-reported data introduces potential biases, which I have tried to mitigate with rigorous methodology and varied data sources. The COVID-19 pandemic required significant methodological adjustments. With many archives closed or restricted, I relied more on digital resources to continue my research. I also adapted to social distancing requirements by shifting from face-to-face interviews to virtual platforms like telephone calls and Zoom, maintaining continuity and participant safety. These necessary adjustments may have affected the depth and nuances of the data collected, as digital communication cannot completely replicate in-person interactions. Despite these limitations, the study makes valuable contributions to our understanding of community adaptation in scenarios of resource transition.

Building upon the established research design, the analytical framework of this comparative study is grounded in theories of economic resilience, sustainable development, and

community adaptation. The analysis is structured around key thematic areas: economic decline and recovery, social and community health, and demographic shifts. This structure enables a better comparison between Atikokan and Oloibiri, aiming to examine the complex layers of each town's narrative. By examining the interplay between their unique challenges and the adaptive strategies they have implemented, the study seeks to provide insights into how each community responds to adversities. Drawing on the models of Simmie and Martin (2010), which focus on economic resilience and adaptation, this framework provides a lens for identifying and understanding the dynamics of resilience in Atikokan and Oloibiri. The application of this theoretical approach reveals significant insights into the forces shaping each town's ability to withstand and recover from social, economic and environmental shocks.

Initial findings align with the socio-economic response patterns documented by Davidson (2006) in post-boomtown scenarios, suggesting that despite their geographical and cultural differences, Atikokan and Oloibiri, share common trajectories in the aftermath of resource depletion. This comparative analysis echoes Nelson et al. (2013) findings on the influence of location and culture on recovery strategies and also enhances understanding of how these communities' strategies align with or diverge from established theories of economic development and recovery post-extraction. Amidst this exploration of community resilience, the significance of innovation and policy in shaping sustainable pathways cannot be overstated. The role of innovation and policy in fostering sustainable development, as discussed by Beaulieu (2013) and Dale et al (2010), is particularly relevant in examining how both towns have addressed the sustainability of their responses and the extent to which these approaches mitigate long-term social and environmental impacts. This comparison allows for a deeper exploration into environmental legacies and community health, areas where Pepper et al (2014) have highlighted

the need for more thorough research. Furthermore, the critical influence of governance in facilitating economic and social recovery, a significant aspect of Paton et al (2014) and Falk and Lobao (2003)'s work, emerges as a crucial variable in shaping their divergent paths post-crisis.

The following sections will detail the thematic analysis, integrating the scholarly perspectives mentioned with the findings from our study. This will underscore the responses of Atikokan and Oloibiri to their economic downturns, presenting a comprehensive view of the convergent and divergent paths these communities have navigated in the wake of their resource declines. As we reflect on the insights gleaned from this comparative analysis, it is critical to recognize the methodological integrity and ethical diligence that underpinned this research. With the findings poised to contribute to the understanding of post-extraction community adaptation, we must also acknowledge the parameters within which this study was conducted.

Social Disintegration and Community Health

The shuttering of Atikokan's iron mines and the quieting of Oloibiri's oil fields extended beyond economic loss, permeating the social fabric and community health of these once-bustling towns. Southcott (2006), for example, has documented similar patterns in resource-dependent communities in the north and these findings resonate with the towns of Atikokan and Oloibiri experiences. The closures not only led to a spike in unemployment but also triggered a cascade of social challenges that compounded the communities' suffering. In Atikokan, the sudden loss of the mines' unifying presence was felt across generations. As one school counselor noted: "We've seen a spike in absenteeism and behavioral issues. Anxiety among students is palpable; they're internalizing the stress at home" (Personal Communication, April 2023). These observations are supported by the study of Harper & Jones (2011), Mistry et al (2002) and Harper et al (2011), indicating that economic decline can significantly affect children's emotional and educational

well-being. The impact on community health in the town of Oloibiri was similarly profound. One local nurse commented, "Since the oil stopped, we've had more people coming in with stress-related ailments; hypertension and diabetes are on the rise" (Personal Communication, April 2023). Studies have shown that economic downturns correlate strongly with adverse health outcomes, often due to stress, a decline in health services, and altered health behaviors (Stuckler et al., 2009).

Over time, the social cohesion that had once been a hallmark of these towns began to unravel. In Atikokan, a former miner-turned-community organizer observed a decline in community engagement: 'Community events are less frequent, and when they do happen, the attendance is low' (Personal Communication, April 2023). Similarly, in Oloibiri, a local teacher noted a shift in family structures: 'Families are more fragmented now. Many have members who left for jobs elsewhere, leaving behind a sense of disconnection' (Personal Communication, April 2023). This trend is supported by literature on post-industrial communities, which often points to a decline in social capital and civic engagement following economic shocks (Cameron, 2021). Moreover, the healthcare infrastructure in both towns, once bolstered by economic prosperity, faced new challenges. Reduced funding and increased demand for physical and mental health services created what scholars describe as a 'perfect storm (Barnes, 2022).' Personal testimonies from Oloibiri also highlight the social impact of these economic changes. A former oil field technician shared, 'The closure left a void filled by alcohol for some; it's an open secret' (Personal Communication, April 2023). This experience mirrors findings that economic distress can lead to a rise in substance abuse as people seek escape from prevailing hardships (McLoyd, 1990; Barnes, 2022).

In Atikokan and Oloibiri, the decline in the primary industries – iron ore and oil, respectively – had profound effects beyond just economic downturns. The social and health infrastructure, previously robust and taken for granted, was pushed to its limits, disproportionately impacting the most vulnerable groups. This mirrors the findings of United Nations (2020) that the closure of key industries often leads to the erosion of community structures and support systems. The challenges faced by these towns in rebuilding their social fabric, as noted by David DesBrisay (1994), are indicative of the complex interplay between industry, economy, social cohesion, and community health. This necessitates a holistic approach to recovery, one that considers mental health and social bonds as crucial as physical health and economic stability, a concept supported by Stephenson & Wray (2005) study on post-industrial community revitalization. The resilience and hope in the personal stories from residents of Atikokan and Oloibiri, like the trader who declared, 'We may be down, but we're stitching a new tapestry of life, thread by thread' (Personal Communication, P6, April 2023), are emblematic of the socio-economic impacts and the adaptive spirit required to navigate post-industrial landscapes. These narratives resonate with the findings of East (2016) and Fabbricatti (2018), who emphasizes the importance of community-led initiatives in fostering resilience and rebuilding in the aftermath of industrial decline.

Psychological Impact and Community Morale

The cessation of mining in Atikokan and the end of oil extraction in Oloibiri did more than disrupt economic stability; they dealt a profound blow to the psychological well-being and morale of these communities. Residents in Atikokan faced not only the stark new reality of unemployment and the loss of their primary industry but also a dramatic shift in the collective psyche. "It wasn't just jobs we lost; it was our sense of pride and purpose," a former miner

expressed, his voice a blend of grief and resilience (Personal Communication, April 2023). This sentiment echoes findings in psychological and health literatures, which link unemployment with increased rates of depression and anxiety (Romans et al., 2011). The community's morale, once buoyed by the steady rhythm of mining operations, began to fray in the silence that followed the closures. In Oloibiri, the psychological impact was similarly devastating. The end of oil drilling left a void that was felt not just in pockets but in spirits. "We were once united by the oil beneath our feet; now, it feels like we are divided by its absence," commented a former oil worker, reflecting the social fragmentation that often accompanies economic downturns (Personal Communication, April 2023). Studies on post-traumatic stress in post-boom towns support these observations, suggesting a long-lasting impact on community mental health (Kinnear et al., 2013).

The narratives of despair, however, are countered by stories of resilience. Community initiatives aimed at mental health support have sprung up, led by local health professionals and supported by international Non-Governmental Organizations. "Our focus is on building a strong support network, fostering a sense of hope and solidarity," a local counselor reported, emphasizing the importance of community-based interventions in restoring morale (Personal Communication, April 2023). Moreover, researchers have observed that shared adversity can sometimes strengthen community bonds, leading to a collective determination to rebuild and revitalize (Kirmayer et al., 2009; Saul, 2022). In Atikokan and Oloibiri, this has translated into community-led events, from job fairs focusing on new industries to mental health workshops, designed to foster both individual coping skills and communal resilience. Yet, the challenge of lifting community morale remains significant.

The enduring symbols of economic prosperity, now dormant mines and silent derricks, serve as constant reminders of what was lost. The psychological toll of this landscape of abandonment can perpetuate a sense of collective melancholy, as noted by Harper and Snowden (2017). Ultimately, the stories from the towns of Atikokan and Oloibiri paint a vivid picture of the psychological aftermath of economic decline. They underscore the need for continued mental health resources and the value of community solidarity in facing the long road to recovery. These personal and communal narratives serve as critical qualitative data that complement quantitative studies on the psychological effects of economic change, providing a holistic understanding of the impacts on community morale.

Demographic Shifts and Migration Patterns

These profound psychological impacts and altered community morale have inevitably influenced demographic shifts and migration patterns in both towns. The economic downturns following the mine closures in Atikokan and the depletion of oil in Oloibiri have precipitated notable changes in the population dynamics. In Atikokan, the end of iron mining marked the beginning of a demographic shift. A local real estate agent captured the sentiment: "Houses that once echoed with the laughter of children are now up for sale, as young families move out in search of new opportunities" (Personal Communication, April 2023). This outmigration, particularly of the younger demographic, is a trend documented in the broader context of post-industrial towns facing economic hardship (Kloep et al., 2003). The migration patterns in the town of Oloibiri tell a similar story. The town, which had swelled with the influx of workers and their families during the oil boom, began to see a reverse trend. "It's a mass exodus," a school principal stated, "Each year, we see our classrooms thinning out as our young people leave" (Personal Communication,

April 2023). This exodus can lead to a skewed age distribution in the population, often leaving behind an older demographic, which presents its own set of socioeconomic challenges.

These demographic shifts in the towns of Atikokan and Oloibiri are further compounded by the 'brain drain' effect, where the outflow is not just in numbers but also in the skill and potential of the population. As a resident in Atikokan explains, "When a town loses its primary industry, it doesn't just lose people, it loses human capital – the very skills and innovation potential that could drive future economic development" (Personal Communication, April 2023). The resulting demographic changes have profound implications for the towns' futures. In Oloibiri, a community leader reflected, "The departure of the young is like watching the town's future slip through our fingers" (Personal Communication, April 2023). While in Atikokan, a former miner lamented, "With the young ones leaving, who's left to carry the town's legacy?" (Personal Communication, April 2023).

The impact on public services is equally significant. Shrinking populations can lead to reduced funding for schools and public services, creating a vicious cycle of decline that can be difficult to reverse (Lehtonen, 2021). As the towns of Atikokan and Oloibiri contend with the migration of their populations, the strategic planning for demographic adaptation becomes crucial. Policymakers and community leaders are tasked with not only stemming the tide of outmigration but also finding innovative ways to attract and retain populations that could lead to a demographic revitalization (Marré, 2020). These demographic shifts highlight the need for a multi-faceted approach in dealing with the aftermath of industrial closures. Strategies must be devised not just to address the immediate economic fallout, but also to manage the longer-term demographic implications that can define the character and resilience of a community for generations to come.

Educational and Skill Displacement

Closely tied to these demographic shifts is the displacement of educational pathways and skill sets, intricately woven into the fabric of these industries. In Atikokan, generations trained for careers in mining found themselves facing a stark new reality. "Our curriculum, once centered on mining, is now struggling to adapt to new job markets," a school instructor shared (Personal Communication, April 2023). This sentiment echoes the findings of Schollie et al (2020) who note the challenges of educational re-alignment following industry-specific collapses. The town of Oloibiri faced a parallel conundrum. The promise of oil had shaped the town's educational systems, with specialized training for the petroleum industry at the forefront. "Our schools were once pipelines to the oil fields. Today, they're pipelines to nowhere," a local educator expressed, her dismay mirroring the community's sense of betrayal (Personal Communication, April 2023). The dissonance between existing educational programs and current economic realities illustrates a form of skill displacement that research suggests can hinder the adaptability of a workforce and exacerbate unemployment (Restrepo, 2015). The implications of such educational and skill displacement are profound. Not only do they affect individual livelihoods, but they also have the potential to stall the socio-economic rebound of the entire community. "We're seeing a rise in underemployment," observed a resident of Atikokan, "people with mining skills in jobs that don't use them or pay much" (Personal Communication, April 2023). Similarly, a town planner in Oloibiri noted, "There's a mismatch between the skills our people have and what the market demands" (Personal Communication, April 2023). The literature corroborates that skill mismatches can have lingering effects on local economies, often leading to lower productivity and economic growth (McGowan & Andrews, 2015).

Both communities now face the challenge of reskilling and upskilling a workforce for sectors that may be unfamiliar and, at times, inaccessible. "We need to rethink our approach to education," suggested an Atikokan school board member, "and how it can be responsive to a broader spectrum of economic opportunities" (Personal Communication, April 2023). This strategic shift is not without precedent; case studies have highlighted successful community transitions through educational reform and skill diversification (Gruenewald & Smith, 2014). The educational and skill displacement experienced by the towns of Atikokan and Oloibiri serves as a stark reminder of the critical role that education plays in economic resilience. It underscores the need for agile educational systems that can adapt to shifting economic landscapes and prepare individuals for a variety of vocational paths, thereby safeguarding communities against the vulnerabilities of single-industry dependence.

Environmental and Infrastructural Legacy

The challenges for these towns extend beyond the reshaping of their workforce and educational systems. The closures of the Atikokan mines and Oloibiri oil wells have also left a lasting environmental and infrastructural legacy that continues to impact these communities. In the wake of the mining shutdown in Atikokan, the scars on the land are visible. Abandoned mines and neglected processing plants have become part of the landscape. "The environmental cleanup is a constant reminder of what was lost," said a former mine supervisor, pointing to the disused pits now filled with stagnant water (Personal Communication, April 2023). Environmental legacies like this pose ongoing challenges, as noted by scholars who have documented the long-term ecological impacts of mining activities (Sengupta, 2021). Oloibiri's situation parallels this legacy. The cessation of oil drilling left behind a town pockmarked with derelict oil structures and polluted lands. "The contamination of our farmlands has made the post-oil era even more

punishing," a community environmental advocate lamented (Personal Communication, April 2023). Research into post-extraction economies highlights the enduring environmental degradation that can compromise future land use and economic recovery (Ingram et al., 2006).

Beyond environmental concerns, the infrastructure developed to support these industries presents its own set of problems. The Town of Atikokan's roads and lakes, once humming with the transport of iron ore, now see sparse use. "Our town's infrastructure, built for the mines, feels oversized and underutilized," observed a local engineer (Personal Communication, April 2023). The town of Oloibiri's infrastructure, tailored to the needs of the oil industry, similarly suffers from underuse and decay. The infrastructural remnants of these industries are not just physical; they're emblematic of a period of prosperity that is no longer within reach. "The empty docks, where tankers once loaded, stand as monuments to a more prosperous time," remarked a former oil field manager in the town of Oloibiri (Personal Communication, April 2023). The literature on post-industrial landscapes discusses the psychological impact of such infrastructural relics, often referred to as “ruin porn,” which can affect community morale (Beck, 2020).

The task of repurposing or revitalizing such infrastructures is daunting but not impossible. Adaptive reuse projects have shown potential in other contexts, transforming old industrial sites into public spaces, business hubs, or cultural centers (Whitehouse, 2018). "There's potential in these old structures, opportunities for new industries," an Atikokan entrepreneur suggested optimistically (Personal Communication, April 2023). As both Atikokan and Oloibiri confront their environmental and infrastructural legacies, they join a multitude of former industrial towns facing similar predicaments. The path forward requires careful planning, investment, and often, a reimagining of the community’s identity and land use. As these towns pivot from their industrial pasts, the dual challenges of environmental remediation and

infrastructural repurposing are critical in shaping their recovery trajectories and sustainable futures.

Policy Responses and Economic Recovery Efforts

Confronted with these multifaceted challenges, the towns of Atikokan and Oloibiri have seen policy makers initiate varied responses aimed at catalyzing economic recovery. In Atikokan, policy responses have taken a multipronged approach. "We've introduced tax incentives for new businesses and are lobbying for federal grants to support retraining programs," outlined a local government official (Personal Communication, April 2023). Alongside these tax incentives, the town also benefited from financial incentives through programs such as the Regional Relief and Recovery Funds (RRRF), which provided grants and loans to attract new businesses and to stimulate local entrepreneurs. A government official added, "Our strategy was holistic. We aimed to not only provide immediate relief but also to lay down the infrastructure for sustainable growth" (Personal Communication, April 2023).

Such a holistic approach included infrastructural projects green-lit to enhance the town's allure to potential investors and new residents. Notably, the Rural and Northern Immigration Program (RNIP) was designed and implemented to attract new immigrants to the town, further diversifying the local economy and community. Such initiatives are reflective of policy recommendations in literature that emphasize the importance of government intervention in economic restructuring (Falk & Lobao, 2003). Similarly, Oloibiri has seen a range of policy-driven efforts. "First, there’s a push for investment in alternative energy projects to utilize our existing infrastructure, and second, there is also an ongoing effort to use the oil site as a potential tourism spot" shared a member of the local economic development committee (Personal Communication, April 2023). This diversification strategy is supported by research indicating

that regions with varied economic activities are more resilient to industry-specific downturns (Ormerod, 2010; Martin et al., 2016).

Both towns have also explored partnerships with educational institutions to realign local training programs with emerging industries, an approach supported by workforce development theory (Arbo & Benneworth, 2007). "Collaboration with technical colleges is key to ensuring our workforce adapts to new economic realities," a resident in Atikokan noted (Personal Communication, April 2023). In the quest for rejuvenation and self-renewal, Atikokan found powerful allies in both Confederation College and Lakehead University. Their synergistic efforts played an instrumental role in reshaping the town's socio-economic landscape, particularly in the sphere of education and skill development. Confederation College, with its history of providing vocational training and applied learning, sought to directly address the region's immediate needs by introducing bespoke programs tailored to the emerging opportunities in the North, aimed at quickly bridging the skill gap. "Our mission extended beyond just imparting education, it was about rekindling hope and fuelling the North's economic engine," a representative from the college mentioned (Personal Communication, April 2023). Parallelly, Lakehead University extended its academic prowess by facilitating more research-driven and specialized programs. "Our engagement in the region was twofold: addressing the present while building a foundation for a sustainable future. By offering specialized programs, we aimed to transform the region into a hub of innovation and enterprise," a faculty member from Lakehead University noted (Personal Communication, April 2023).

In the town of Oloibiri, efforts to rebuild the local economy included forging partnerships with educational institutions. These initiatives aimed to re-skill the workforce for new industries, with a particular focus on the environmental and alternative energy sectors, reflecting the

community's shift away from oil dependency. "Aligning our educational programs to match the skills required by alternative industries is a top priority," remarked an education coordinator from Oloibiri (Personal Communication, April 2023). Furthermore, natives from the broader Niger Delta region, which includes the town of Oloibiri, have been given access to numerous scholarships, such Niger Delta Development Commission (NDDC) Scholarships and Presidential Amnesty Programme (PAP), allowing eligible students to study specialized courses abroad. This opportunity not only diversifies their skills but also brings global expertise back to the local community, thereby enhancing the potential for innovation and growth.

The collaborations between these educational giants and local industries in both regions were nothing short of transformative, ensuring that the curricula remained dynamic, industry-relevant, and adaptable to changing market demands. This tripartite partnership between academia, local government, and industry began to pay dividends, with graduates in the towns of Atikokan and Oloibiri seamlessly transitioning into the workforce, many even venturing into entrepreneurial endeavours.

The efforts extend to infrastructural investment as well. The town of Atikokan has benefited from governmental infrastructure spending aimed at revitalizing transport links to make them suitable for new industries. In tandem with improving physical connectivity, infrastructural projects were green lit with a broader vision in mind, aiming to enhance the town's allure to potential investors. A government official provided insight: "Our strategy was holistic. We aimed to not only provide immediate relief but also to lay down the infrastructure for sustainable growth" (Personal Communication, April 2023). Among these initiatives, the Rural and Northern Immigration Program (RNIP) was designed and implemented specifically to attract new immigrants to the Northwestern Ontario, the town of Atikokan inclusive, enriching

the local workforce with diverse talents and skills necessary for a burgeoning economy. The town of Oloibiri, on the other hand, faces more complex challenges due to environmental degradation, which requires policy intervention for remediation—a topic that has been extensively explored in environmental economics (Jike, 2004).

Efforts in Oloibiri have also included infrastructural considerations, though with a focus on environmental repair and the establishment of new industries that align with sustainable development goals. However, policy responses are not without criticism. "The recovery plans are robust on paper, but the pace of change is slow," an Atikokan resident, highlighting a sentiment that is echoed in scholarly debates over the efficacy of policy implementation (Van Meter & Van Horn, 1975; Kamara & Rabie, 2021). In Oloibiri, there's a sense of urgency for policies that address immediate needs. "Long-term plans are vital, but people are struggling now," insisted a health worker, underscoring the need for policies that provide short-term relief as well as long-term infrastructure development to support economic diversification and community resilience (Personal Communication, April 2023). The implementation of these policies has also prompted academic inquiry into the role of community engagement in economic recovery. Studies suggest that policies have a higher chance of success when they are informed by community input (Irvin & Stansbury, 2004). Overall, the policy responses and economic recovery efforts in Atikokan and Oloibiri reveal a complex interplay between government action, community needs, and economic resilience. As both towns navigate the post-closure landscape, their experiences contribute to a broader understanding of the dynamics involved in recovering from industrial decline. The ongoing monitoring of these policies and their outcomes will not only inform future efforts in these towns but also serve as case studies for other communities facing similar challenges.

Conclusion

These case studies illuminate crucial lessons for communities at risk of over-reliance on single-resource economies. Foremost is the importance of foresight in planning, essential for timely economic transformation before the decline of a primary industry. Economic diversification is also critical, advocating for a mixed economy where no single industry dominates. Additionally, the establishment of institutional frameworks, like the Atikokan Economic Development Corporation, is crucial in managing economic transitions. Collaborative governance, involving all stakeholders, is key to a broad-based, inclusive approach to economic redevelopment. Oloibiri's experience particularly highlights the need for stringent environmental stewardship and robust regulatory frameworks to protect against exploitation and mitigate environmental risks. Lastly, empowering and actively engaging the community in these processes aligns economic development with the population's well-being.

The contrasting experiences of Atikokan and Oloibiri offer a profound narrative, illuminating the complex challenges and opportunities faced by resource-dependent communities worldwide. Their divergent outcomes underscore the intricate relationship between economic vitality, socio-cultural resilience, and environmental stewardship in resource management and community development. Atikokan's success story, rooted in sustainable practices, timely diversification, and strong community bonds, stands as a beacon of hope and a model for pre-emptive planning and robust local engagement. Meanwhile, the trajectory of Oloibiri unfolds differently, offering a cautionary tale. The town's struggles remind us of the risks associated with delayed action and the neglect of environmental considerations.

These narratives extend beyond their historical contexts, providing a dynamic roadmap for the future. They emphasize the need to strike a delicate balance between harnessing

immediate economic benefits and ensuring long-term communal and ecological health. The resilience and adaptability demonstrated by these towns not only offer practical guidance but also inspire optimism. They affirm that while natural resources are finite, with innovative and forward-thinking leadership, the prospects for sustainable and inclusive development are boundless.

The insights derived from the journeys of Atikokan and Oloibiri are invaluable. They highlight the importance of ongoing research into the enduring impacts of resource depletion and the effectiveness of various adaptation strategies. Future research should broaden its scope to encompass a more diverse range of resource-dependent communities and include longitudinal studies to track their evolution over time. Investigating the influence of different governance models on economic and social rejuvenation will add depth to our understanding, enabling us to better support communities navigating the complexities of economic downturns due to resource depletion.

As we look to the future, this study serves as a call to action for policymakers, community leaders, and other stakeholders. It invites them to integrate these learnings into their strategic planning, fostering proactive, inclusive, and environmentally conscious approaches. By embracing the lessons of Atikokan and Oloibiri, communities around the globe can ignite a journey towards sustainable and prosperous futures.

Chapter 6: Summary, Conclusion, Recommendations, and Future Research

In this dissertation, I explored the socio-economic transformations in Atikokan, Canada, and Oloibiri, Nigeria, focusing on their historical reliance on extractive industries. This qualitative inquiry examined community perceptions, resident responses, and the pursuit of sustainable, diversified economic alternatives to extractive dependency. The research was driven by a need to understand how communities navigate the aftermath of industrial decline, emphasizing the roles of government, residents, community-led initiatives, and policy reform in promoting economic diversification and environmental stewardship. It is crucial to note that this research was undertaken during and in the shadow of the COVID-19 pandemic, which not only posed unique challenges but also shaped the context and responses of the communities involved.

From Oloibiri, the findings reveal a community deeply affected by the consequences of oil extraction. This case study highlighted the profound socio-economic and environmental impacts of relying on a single resource, which has led to systemic neglect, economic instability, and environmental degradation. Amidst these challenges, however, a resilient spirit of activism has emerged, propelling the community's pursuit of justice and sustainable development. The story of Oloibiri is a testament to the complexities of resource dependency and underscores the role of community-led initiatives in advocating for transformative change and sustainability.

Atikokan's narrative offers a compelling contrast, showcasing the community's proactive shift towards sustainability after the decline of its primary industries. This strategic transformation involved diversifying the local economy to include clean energy and other sectors, thereby serving as a viable model of economic resilience. Atikokan's experience highlights the role of good leadership, diversification, innovative policy interventions, and community adaptability in successfully navigating economic transitions. This approach not only

mitigates the risks associated with dependency on single industries but also fosters a framework for sustained economic health.

The comparative analysis of Atikokan and Oloibiri within this dissertation sheds light on the divergent outcomes of their post-industrial transformations. This research underscores the role of local decisions, global economic forces, and individual agency in shaping the trajectories of these towns. It demonstrates how varied approaches to economic challenges, policy responses, and community engagement can result in different outcomes. These findings deepen our understanding of post-industrial community dynamics and stress the necessity of a holistic approach to addressing the challenges faced by such communities. This approach should integrate strategies for economic diversification, environmental sustainability, and social resilience. This study also underscores the importance of proactive, inclusive, and environmentally conscious planning in steering similar communities globally towards resilience and sustainability. By dissecting the factors contributing to the varied trajectories of these towns, my study offers lessons on the complexities of transitioning from extractive economies and highlights the potential for more sustainable community development practices.

Through this investigation, my dissertation not only contributes to academic discourse but also provides practical recommendations for fostering community resilience and sustainability in post-industrial settings. The findings underline the significance of embracing a holistic approach to community planning, informed by the successes and challenges experienced by the residents of Atikokan and Oloibiri. The main findings and conclusions are presented in the following sections in relation to the stated research objectives. Subsequent sections present implications of the research in relation to theory and objectives, as well as recommendations based on the findings. The final section presents considerations for future research.

Historical Dependence and Socio-economic Impacts

The primary focus of this study was to examine and compare the socio-economic impacts of the decline in extractive industries in Atikokan, Canada, and Oloibiri, Nigeria. This research aimed to explore how historical dependence on these industries had shaped the economic landscapes and social fabric of both towns, providing insights into the challenges and adaptive responses unique to each location. Grounded in the theoretical underpinnings of community resilience and sustainable development, this inquiry revealed a significant transformation in the economic landscapes and social dynamics of both communities. Despite the challenges posed by the cessation of extractive operations, there emerged a strong community recognition in both Atikokan and Oloibiri of the need to diversify economically and to foster environmental sustainability as critical pillars for future prosperity.

The investigation into Atikokan and Oloibiri's past reliance on mining and oil extraction, respectively, underscored the vulnerability inherent in mono-economies, particularly those tethered to the fluctuating fortunes of global commodity markets. However, it also illuminated the resilience and adaptability of these communities and their attempts to use innovative strategies to navigate their post-industrial realities. This shift, while fraught with challenges, has opened avenues for reimagining community identities and forging pathways towards sustainable economic structures. These new structures aim to reduce dependency on external market forces and are more deeply rooted in local capacities and a commitment to environmental stewardship.

By documenting the lived experiences of the residents and analyzing their transitions, my study contributes significantly to the academic discourse on the socio-economic transformations of resource-dependent communities. Moreover, it offers practical insights applicable to similar towns globally. This research underscores the importance of embracing change, leveraging local

strengths, and fostering inclusive governance mechanisms. These strategies prioritize long-term sustainability and community well-being, advocating for a shift from short-term economic gains to enduring prosperity.

Adaptive Strategies for Post-Industrial Socio-Economic Conditions

My research critically examined the adaptive strategies employed by Atikokan, Canada, and Oloibiri, Nigeria, in response to the socio-economic conditions following the decline of their main industries. Both communities showcased innovative approaches to economic diversification, community mobilization, and environmental sustainability. Atikokan's journey toward economic diversification reveals a strategic shift towards renewable energy sectors and eco-tourism, highlighting the importance of community engagement and proactive planning. Oloibiri's experience underscores the challenges and opportunities in advocating for environmental remediation and seeking alternative livelihoods beyond oil extraction.

The analysis reveals that successful adaptation requires a multifaceted approach, integrating local initiatives with supportive governance structures. These cases contribute valuable insights into fostering resilience and sustainable development in post-extractive industry communities, emphasizing the critical role of inclusive governance and community participation. My research underlines the need for comprehensive strategies that address economic, environmental, and social dimensions to ensure the long-term prosperity of communities transitioning from extractive industries.

My research underscored the complexity of governance structures and their profound impact on facilitating or constraining the transition towards sustainable development post-industrial decline. In Atikokan, proactive local governance and policy support played a crucial role in steering the community towards diversification and sustainability, demonstrating the

power of effective leadership and strategic vision in navigating post-industrial challenges. Conversely, in Oloibiri, the findings highlight a lack of cohesive and supportive governance, which exacerbated the socio-economic and environmental aftermath of the oil industry's decline. The stark differences in governance approaches between the two towns provided insights into the critical need for governance systems that are responsive, inclusive, and forward-thinking. This analysis offers understanding of how governance at various levels influences the capacity of communities to reinvent and sustain themselves in the wake of industrial downturns. It emphasizes the necessity of integrated governance approaches that prioritize community involvement, sustainable economic practices, and environmental stewardship to ensure resilient post-industrial transitions.

Comparative Insights and Global Pathways

My dissertation's third objective sought to distill the comparative experiences of Atikokan, Canada, and Oloibiri, Nigeria, to elucidate universal lessons on resilience and sustainable development for similarly positioned post-industrial communities. Through this lens, Atikokan's strategic embrace of economic diversification and environmental sustainability starkly contrasts with Oloibiri's enduring challenges of economic instability and environmental degradation. Yet, both towns illustrate the critical importance of proactive governance, community engagement, and the integration of sustainable practices in navigating the socio-economic aftermath of industrial decline.

The comparative analysis underscores a shared need for communities to transcend their historical economic dependencies through innovative, locally-driven strategies that prioritize long-term resilience over short-term gains. It highlights how governance structures, policy frameworks, and community initiatives can either facilitate or hinder sustainable transformation.

Drawing from Atikokan and Oloibiri's journeys, my research contributes to a broader discourse on sustainable community development, offering insights into the mechanisms that enable resilience in the face of economic transition. It advocates for a holistic approach that combines economic diversification, environmental stewardship, and inclusive governance as foundational pillars for post-industrial community renewal.

Given the comprehensive exploration of Atikokan and Oloibiri transitions from extractive dependencies to seeking sustainable socio-economic pathways, my study significantly contributes to the discourse on community resilience and sustainable development. It highlights the necessity of diversified economic strategies, robust community engagement, and environmental stewardship in fostering resilient communities. By integrating these findings into the broader academic and practical understanding of post-industrial transformations, this research offers valuable insights for policymakers, community leaders, and scholars. It not only enriches existing theories on resilience and sustainability but also sets a directive for future research in similar socio-economic landscapes, advocating for a holistic approach to sustainable community development.

Theoretical Contributions

This dissertation offers a conceptual contribution to understanding economic resilience and community adaptation within the realms of different disciplines. In line with Imperiale & Vanclay's (2016) emphasis, my study recognizes the critical importance of community resilience in enabling collective strategies for wellbeing and navigating change in post-industrial settings. Scholars such as Sánchez-Zamora et al. (2014) have extensively investigated the factors that underpin resilience, particularly highlighting the variations in resilience levels across different

communities, a theme further explored in the works of Glass et al. (2022) and Markantoni et al. (2019).

From the collected interview data, the research emphasizes the crucial role of economic diversification in enhancing community resilience in post-industrial towns. The approach differs from traditional perspectives that focus on factors like leadership or community capacity. Economic diversification, in such settings, is understood in a manner similar to the complexity highlighted by Schwarz et al. (2011) - not just by its existence, but through its multi-dimensional impact on resilience. The study suggests that economic diversification sometimes not only boosts resilience but also amplifies other resilience-supportive elements such as social capital, community capacity, and collaborative efficacy, aligning with the insights provided by McAreavey (2022) and Wilson (2012) about the contextual dependency of these factors.

My theoretical contributions through this research are manifold. Firstly, I adopt a 'bottom-up' approach, resonating with the perspectives of Akpomuvie (2010) and Fraser et al. (2006), where I focus on community-level analysis to directly elicit insights into economic diversification strategies. My approach, contrasting with broader-scale studies, offers an understanding of localized economic transitions, supporting and extending Frazier et al. (2013)'s findings on the importance of community-scale analysis. Secondly, my study acknowledges the intricate relationship between past economic practices and future community planning, challenging the linear progression assumption prevalent in existing literature. The complex interplay, in line with insights from Hu & Hassink (2020) and Haldon et al. (2020), led me to a consideration of how historical economic contexts influence future resilience strategies.

By integrating the concept of past economic identity with future resilience planning, the research addresses a gap in future research identified by Haldon et al. (2020). The hypothesis is

that a community's historical economic background can either constrain or expand the possibilities for envisioning sustainable futures, thus influencing the community's capacity to develop effective and collaborative future strategies. In essence, my dissertation not only contributes to the theoretical discourse but also provides a foundational framework for future research in understanding and supporting post-industrial community transformations.

Practical Implications

The findings from the study of Oloibiri and Atikokan hold considerable practical implications, particularly in shaping policy making, fostering community development, and guiding sustainable resource management. These insights serve as valuable recommendations for other post-industrial communities navigating similar transitions. The contrasting experiences of Oloibiri and Atikokan underscore the need for targeted and effective policy interventions. Oloibiri's challenges highlight the necessity for policies that not only address environmental remediation but also focus on economic diversification, aligning with Elfithri et al (2019) advocacy for sustainable resource management. The success seen in the town of Atikokan illustrates the effectiveness of policies that stimulate new industry development, innovation, and retraining programs, as suggested in the work of Farla (2015). These approaches demonstrate how thoughtful policy-making can significantly impact the economic and environmental health of post-industrial communities.

The adaptability and resilience displayed by the town of Atikokan provide a blueprint for similar towns. Strategies such as actively pursuing new economic opportunities, fostering entrepreneurship, and building strong community networks are crucial. The approach resonates with Henfrey et al (2023) and Foley & Martin (2000) emphasis on the importance of community-led initiatives and local engagement in driving revitalization. The role of education and training

in equipping residents for new industries emerges as a key strategy for community development, offering a practical pathway for economic transition and growth.

The environmental degradation experienced in the town of Oloibiri brings to light the critical importance of sustainable resource management. This necessitates implementing environmental regulations, responsible resource extraction practices, and investment in environmental restoration, as highlighted in De Groot et al (2013) research. Atikokan's shift towards sustainability and clean energy practices can serve as a model for other communities looking to integrate environmental considerations into their economic redevelopment plans.

Building on these insights, a set of recommendations for post-industrial communities clearly emerges from the study. It is advisable for these communities to diversify their economic bases, invest in human capital through education and training, strengthen community bonds, and prioritize environmental sustainability. Policymaking should be contextually driven, responsive to the unique needs of each community, and incorporate community input, echoing the principles outlined by Saul et al. (2013) and Helling et al. (2005). My research offers practical implications that serve as a framework for post-industrial communities and policymakers. It provides insights into strategies that promote economic resilience, community well-being, and sustainable development. Through my in-depth study of Oloibiri and Atikokan, I've uncovered valuable lessons that can guide similar communities towards successful economic and environmental transformations.

Recommendations

This section presents recommendations for a range of actions that could be undertaken to better enable the practice of sustainable development and resilience building in post-industrial communities like Atikokan and Oloibiri. These recommended actions are specifically designed

to tackle the socio-economic and environmental challenges that have been identified through this research, while also capitalizing on the unique strengths of each community to support comprehensive and inclusive development efforts.

In addressing the socio-economic challenges faced by Atikokan and Oloibiri, my research emphasizes the critical need for developing and implementing well-rounded economic diversification plans. Such plans should commence with an extensive evaluation of each community's distinctive assets, engaging local stakeholders to ensure a multifaceted understanding of potential diversification avenues. Priority should be given to sectors showing significant potential for growth and sustainability, including renewable energy, eco-tourism, and digital technology initiatives. Facilitating these initiatives through supportive policy frameworks such as tax incentives for startups and investment in local workforce training and fostering public-private partnerships can significantly bolster diversification efforts. Establish partnerships with local and regional educational institutions and leverage regional and national funding opportunities. Regularly evaluate and adapt these strategies to ensure they meet the community's evolving needs and contribute to sustainable economic resilience. This approach underscores the importance of adaptability and community engagement in cultivating sustainable economic resilience, thereby offering a strategic blueprint for post-industrial communities navigating similar transitions.

To ensure development strategies in Atikokan and Oloibiri are inclusive and community-driven, it's recommended to enhance community participation in governance and decision-making processes. This can be achieved by establishing regular town hall meetings, creating community advisory boards that include representatives from diverse groups, and leveraging digital platforms for broader engagement. Tailoring these forums to each town's unique cultural

and socio-economic context will ensure that all voices are heard, fostering a sense of ownership among residents and aligning development projects with the community's actual needs and aspirations.

Incorporating Indigenous knowledge and practices into environmental and economic planning is crucial. This recommendation urges the integration of traditional wisdom from local indigenous communities, recognizing their invaluable insights into sustainable resource management and ecological stewardship. Engaging with indigenous leaders and community members to co-create development strategies can foster culturally sensitive and environmentally sustainable approaches, ensuring that development initiatives are not only effective but also respect and preserve local heritage and biodiversity. This collaborative process enriches planning efforts with diverse perspectives, promoting resilience and sustainability in post-extractive industry communities.

To invest in environmental restoration and sustainable resource management practices, communities like Atikokan and Oloibiri should prioritize the remediation of landscapes affected by extractive activities. This involves identifying critical areas for conservation, implementing reforestation projects, and adopting sustainable agricultural practices. Additionally, establishing partnerships with environmental organizations can provide access to expertise and funding. Engaging local communities, environmental experts, and policymakers in collaborative projects is crucial to ensuring that these efforts are both comprehensive and culturally sensitive. By adopting this approach, the goal is to mitigate environmental degradation, enhance community health and well-being, and establish a foundation for sustainable economic activities that safeguard the ability of future generations to meet their needs. Such a recommendation advocates for a shift towards practices that not only remedy immediate environmental damages but also

foster long-term ecological balance and resource sustainability. These are vital for bolstering community resilience and supporting efforts towards economic diversification.

To further advance sustainable development, it is imperative to strengthen local governance frameworks to enhance support for sustainable development initiatives, focusing on building capacities within local institutions to manage and spearhead community-led projects effectively. This involves not only the enhancement of regulatory and policy environments but also the empowerment of local bodies through training and resource allocation. By fostering a governance structure that is responsive, transparent, and inclusive, communities like Atikokan and Oloibiri can better navigate the challenges of post-industrial adaptation, ensuring that development efforts are both sustainable and aligned with the community's long-term vision and goals.

In response to the challenges and opportunities identified for small business owners in the post-industrial contexts of Atikokan and Oloibiri, targeted support mechanisms are essential to ensure these entrepreneurs can thrive and contribute to the broader economic diversification and sustainability of their communities. Financial assistance tailored specifically for small businesses, including grants and low-interest loans, is crucial to mitigate the economic impacts of industrial decline and encourage business expansion and innovation. Complementing financial support with robust business development programs offering training in digital marketing, e-commerce, and sustainable practices will equip business owners with the skills necessary to adapt and grow in a rapidly changing economic landscape. Furthermore, programs designed to facilitate market access and product diversification will enable these businesses to reach broader audiences and explore new revenue streams, leveraging the unique cultural and environmental heritage of their regions.

Creating a supportive ecosystem for small business owners also involves fostering networks for peer support, shared resources, and collective advocacy. Such networks can amplify the voices of small business owners in policy discussions, ensuring their needs and contributions are recognized in community economic development plans. Additionally, advocating for policies that reduce bureaucratic hurdles and provide tax incentives for small businesses will create a more conducive environment for their growth. The establishment of online platforms and participation in trade fairs can further enhance market access, showcasing the unique offerings of Atikokan and Oloibiri on a wider scale. By implementing these targeted support measures, small business owners in post-extractive industry communities can play a pivotal role in driving sustainable economic development, enhancing community resilience, and shaping a prosperous future for Atikokan and Oloibiri.

To combat youth emigration in Atikokan and Oloibiri, targeted interventions designed to enhance local economic prospects and community engagement are essential. Addressing the root causes of youth departure—primarily the search for education and employment opportunities—requires a multifaceted strategy that includes the creation of local employment opportunities. Initiatives should focus on sectors with growth potential, such as sustainable tourism, technology, and creative industries, supported by small business incubation and entrepreneurship programs. Furthermore, the development of educational and vocational training tailored to these emerging sectors will equip local youth with the necessary skills for meaningful employment within their communities. Such efforts aim to not only stem the tide of youth emigration but also to foster a vibrant, dynamic local economy that leverages the unique strengths and assets of these towns.

Moreover, fostering a sense of community and belonging among the youth through engagement and leadership programs is critical for encouraging their active participation in shaping the future of their towns. Policies that provide incentives for young professionals and graduates to return or remain in their hometowns—such as housing subsidies, tax breaks, and business startup grants—can further bolster efforts to retain this vital demographic. Additionally, capitalizing on the growing trend of remote work by improving digital infrastructure and establishing co-working spaces can attract and retain young individuals seeking a balance between professional opportunities and quality of life. Implementing these strategies will not only address the challenge of youth emigration but will also contribute to the sustainable development and resilience of Atikokan and Oloibiri, ensuring a prosperous future for generations to come.

To effectively address the challenges posed by the isolated distances of Atikokan and Oloibiri from larger urban centers and each other, strategic initiatives aimed at enhancing connectivity and accessibility are vital. Upgrading digital infrastructure to ensure high-speed internet access emerges as a paramount strategy, enabling residents to engage in remote work, access educational opportunities online, and expand local businesses into wider markets without the need for physical relocation. This technological bridge can significantly mitigate the disadvantages of geographical isolation, fostering economic development and educational access. Furthermore, embracing digital platforms can facilitate virtual community spaces, allowing for cultural exchange and community cohesion despite physical distances. Additionally, enhancing physical transportation and logistics networks is critical for improving the connectivity of Atikokan and Oloibiri with surrounding regions. Investments in road improvements, the introduction of affordable and efficient public transportation options, and

partnerships with logistics firms can drastically reduce the costs and time associated with travel and shipping. Improved transportation infrastructure not only supports local businesses in reaching beyond local markets but also attracts tourism and new residents by making these communities more accessible. Together, these strategies offer a comprehensive approach to overcoming the challenges of isolation, positioning Atikokan and Oloibiri for sustainable growth and integration into broader economic and social networks.

Building on the momentum of enhancing physical infrastructure to bolster connectivity and support economic growth, it's imperative to also establish a robust framework for monitoring and evaluation. This involves setting clear, measurable objectives for each project, employing both quantitative and qualitative methods to gather data, and conducting regular reviews to assess outcomes against goals. Feedback from these evaluations should inform adaptive management, allowing for the refinement of strategies to better meet community needs and sustainability objectives. Engaging community members in this process ensures transparency, builds trust, and enhances the relevance and effectiveness of development efforts.

Reflection on Methodological Approach Limitations and Areas for Future Research

Reflecting on the methodological approach of this dissertation, which employed a mixed-methods strategy and the use of case studies, offers insights into both its strengths and limitations. The mixed-methods approach, combining quantitative and qualitative techniques, was instrumental in achieving a comprehensive understanding of the complex dynamics in the towns of Oloibiri and Atikokan. The quantitative data provided a broad, measurable context of the changes experienced by these communities, establishing a foundational understanding of their socio-economic impacts. The qualitative insights, particularly gathered through interviews,

added depth by capturing the lived experiences of residents to the ebbs and flows of resource dependency.

The use of case studies as the primary method was a significant strength. This approach enabled an in-depth exploration of each community, highlighting the unique challenges and responses of the towns of Oloibiri and Atikokan to their respective economic transitions. However, the study faced limitations in terms of data availability, especially for the town of Oloibiri. Limited access to current and comprehensive data may have affected the depth of analysis for this region. Additionally, while qualitative methods enriched the research with detailed, personal narratives, they also introduced potential biases, subject to the respondents' perceptions and memories.

Despite these limitations, the mixed-methods approach and the case study methodology contributed significantly to the depth and validity of the findings. This combination provided a balanced perspective, grounded in empirical evidence, and enriched with personal and contextual depth. It facilitated a holistic exploration of not just the economic but also the social and environmental dimensions of post-industrial transitions, offering a comprehensive view of the phenomena under study. While this dissertation has provided valuable insights into the dynamics of post-industrial communities through the case studies of Oloibiri and Atikokan, it is important to acknowledge its limitations and the opportunities these present for future research. One significant limitation of the study is the reliance on available data, particularly for Oloibiri. The lack of current, comprehensive data might have affected the depth of analysis in this region. The constraints imposed by the COVID-19 pandemic further highlighted the challenges of data accessibility in research. Future research could address this by employing more extensive field studies, gathering primary data directly from local sources, or utilizing more recent and diverse

datasets to provide a fuller picture of the community's situation. Additionally, the pandemic underscores the need for making information more accessible and adaptable to unexpected global events, which could be a lesson for future research methodologies.

Another limitation is the potential for cultural bias. While efforts were made to understand and accurately represent the unique contexts of both Oloibiri and Atikokan towns, the interpretations may still be influenced by the researcher's cultural background and perspectives. Future studies could involve researchers or collaborators from within these communities to offer insider perspectives on the challenges and adaptations experienced by these towns.

The scope of the study, focusing primarily on two towns, limits the generalizability of the findings. Expanding future research to include more post-industrial towns in varied geographic and cultural settings could provide a broader understanding of the commonalities and differences in community experiences across different post-industrial contexts. The study has also touched upon the psychological and social impacts of economic transitions, but there is room for more extensive exploration into how these transitions affect individuals and communities.

Future research should delve deeper into these aspects, examining the long-term effects on community identity, mental health, and social cohesion. Incorporating interdisciplinary approaches, integrating perspectives from psychology, sociology, and community health. The role of technology and innovation in reshaping post-industrial economies is another area that warrants further investigation. Future studies could explore how emerging technologies and new economic sectors can provide alternative pathways for economic development in communities transitioning away from traditional industries.

Personal Reflections and Positionality

Reflecting on my journey as a researcher through the course of this dissertation has been an enlightening experience, one that has shaped not only my understanding of post-industrial community dynamics but also my personal and academic growth. My positionality as a researcher, influenced by my cultural background, academic training, and personal experiences, has undoubtedly played a role in shaping the research process and the findings.

Coming into this research, I carried my perspectives and preconceptions, which were challenged and refined as I delved deeper into the stories of the towns of Oloibiri and Atikokan. Engaging with these communities, each with its unique history and socio-economic context, expanded my understanding of the multifaceted nature of economic transitions. It highlighted the importance of approaching such studies with an open mind and a willingness to learn from the communities themselves.

Throughout this process, I have learned the value of empathy and the importance of giving voice to those affected by economic changes. Listening to the narratives of individuals in these towns has been a humbling experience, providing insights that go beyond quantitative data and theoretical models. It reinforced the idea that behind every statistic and policy discussion are real people with real stories.

My positionality also influenced the interpretation of data and findings. I have strived to remain conscious of my biases and continuously questioned how my background might shape my understanding of the information. This reflexivity has been a crucial component of my research process, ensuring that the conclusions drawn are as objective and balanced as possible.

This journey has also been one of personal growth. The resilience and adaptability witnessed in both Oloibiri and Atikokan towns, despite their challenges, have been inspiring. It has instilled a deeper appreciation for the complexities involved in managing economic transitions and the role researchers can play in contributing to this understanding. It has also highlighted the impact that thoughtful and well-informed research can have on policy and community development.

Closing thoughts

As this dissertation draws to a close, it is essential to reflect on the journey and the broader implications of this research. The exploration of Oloibiri and Atikokan has provided a unique lens through which to view the complex and multifaceted nature of post-industrial community transitions. This study has not only contributed to the academic discourse on economic geography, community psychology, and environmental sustainability but has also offered practical insights that can inform policy and community development strategies.

The essence of this research lies in its demonstration of how communities respond differently to similar economic challenges based on their unique socio-economic and cultural contexts. Oloibiri's experience of environmental degradation and economic instability, contrasted with Atikokan's proactive adaptation through economic diversification and sustainability initiatives, provides a rich tapestry of resilience and adaptability. These case studies highlight the critical role of local decision-making, community engagement, and policy interventions in shaping the trajectories of post-industrial towns.

My dissertation underscores the significance of considering both local nuances and broader economic forces in understanding post-industrial transitions. Emphasizing the need for

holistic approaches, it integrates economic diversification, environmental sustainability, and community resilience to address the challenges faced by post-industrial towns. The findings from my study contribute to a deeper understanding of the socio-economic landscapes of post-industrial communities, offering valuable lessons for other towns facing similar challenges.

The research presented in my dissertation enriches our understanding of the dynamics of post-industrial communities. Offering a foundation for future scholarly work in the field, it provides a roadmap for policymakers, community leaders, and stakeholders in navigating and supporting the complex transitions of post-industrial towns. The insights gained from Oloibiri and Atikokan serve as a call to action for continued exploration, thoughtful policymaking, and community engagement to foster sustainable and resilient futures in post-industrial landscapes.

BIBLIOGRAPHY

Primary Sources

Archival

Thunder Bay Museum Archives. (n.d.). Steep Rock Iron Mines, 1890-1979 Fonds, Series B 27/1: Microfilm, 4 reels (MR).

Interviews by author

Oloibiri, Nigeria

Participant 001, Young Woman from Oloibiri, 40 minutes, March 2022.

Participant 002, Student, 43 minutes, March 2022.

Participant 003, Long-time Resident, 49 minutes, March 2022.

Participant 004, Descendant of a Trading Family, 56 minutes, March 2022.

Participant 005, Former Oil Industry Worker, 47 minutes, March 2022.

Participant 006, Former Oil Industry Worker, 51 minutes, March 2022.

Participant 007, Elder from Oloibiri, 52 minutes, March 2022.

Participant 008, Mother of Three, 38 minutes, March 2022.

Participant 009, Resident Near the Delta, 42 minutes, March 2022.

Participant 010, Local Resident, 46 minutes, April 2022.

Participant 011, Local Health Worker, 50 minutes, April 2022.

Participant 012, Student, 36 minutes, April 2022.

Participant 013, Local Resident, 37 minutes, April 2022.

Participant 014, Business Owner, 54 minutes, March 2022.

Participant 015, Historian from the Local Community, 55 minutes, April 2022.

Participant 016, Local Resident, 59 minutes, March 2022.

Participant 017, Local Fisherman, 57 minutes, March 2022.

Participant 018, Elderly Resident, 55 minutes, April 2022.

Participant 019, Local Resident, 48 minutes, April 2022.

Participant 020, Local Youth, 53 minutes, March 2022.

Atikokan, Canada

Participant 021, Former Miner and Community Organizer, 53 minutes, April 2023.

Participant 022, Trader, 46 minutes, April 2023.

Participant 023, Former Miner, 52 minutes, April 2023.

Participant 024, Local Counselor, 48 minutes, April 2023.

Participant 025, Real Estate Agent, 39 minutes, April 2023.

Participant 026, Resident, 38 minutes, April 2023.

Participant 027, School Instructor, 50 minutes, April 2023.

Participant 028, Government Official, 42 minutes, April 2023.

Participant 029, Resident, 54 minutes, April 2023.

Participant 030, Representative from Confederation College, 49 minutes, April 2023.

Participant 031, Faculty Member from Lakehead University, 51 minutes, April 2023.

Participant 032, Local Business Owner, 59 minutes, April 2023.

Participant 033, Resident, 37 minutes, Date: April 2023.

Participant 034, School Teacher, 44 minutes, March 2022.

Participant 035, Long-standing Resident, 41 minutes, April 2023.

Participant 036, Resident, 40 minutes, April 2023.

Participant 037, Local Pastor, 47 minutes, April 2023.

Participant 038, Resident, 55 minutes, April 2023.

Participant 039, Representative of AEDC, 56 minutes, April 2023.

Participant 040, School Counselor, 45 minutes, April 2023.

Newspapers

Africa

Daily Post (Nigeria)
Daily Trust (Nigeria)
The Guardian Nigeria News (Nigeria)
THISDAYLIVE Newspaper (Nigeria)
Vanguard News (Nigeria)
Nigerian Bulletin
The Mail & Guardian (South Africa, but included due to coverage on Nigeria)

Canada

Atikokan Progress
The Chronicle-Journal
NWONewsWatch
TBnewsWatch.com
Globe & Mail

Thunder Bay Magazine
Global News
Northern Ontario Business
Business Elite Canada
The Vancouver Daily Province
Time Magazine (international but listed under Canada due to specific Canadian content)
CKDR

Film and Media

Mary, N. (1983). History of Atikokan, 1899 - 1956 [documentary]. Atikokan Public Library.

Online Sources

Aadhityan, A. (2021, November 9). Long-dead Oilfield in Nigeria Still Sows Conflict Between Shell and Communities That Watched It Grow. *The Voice Nashville*. Retrieved from https://www.thevoicenashville.com/business/long-dead-oilfield-in-nigeria-still-sows-conflict-between-shell-and-communities-that-watched-it-grow/

Adeleke, M. (2020). Oloibiri: The community where crude oil was first discovered, poverty deprives residents of solar energy. Dataphyte. Retrieved from https://www.dataphyte.com/latest-reports/special-report/oloibiri-the-community-where-crude-oil-was-first-discovered-poverty-deprives-residents-of-solar-energy/. Accessed January 11, 2024.

Adeleke, M. (2020, November 3). Oloibiri: The community where crude oil was first discovered, poverty deprives residents of solar energy. *Dataphyte*. Retrieved from https://www.dataphyte.com/latest-reports/special-report/oloibiri-the-community-where-crude-oil-was-first-discovered-poverty-deprives-residents-of-solar-energy/. Accessed January 11, 2024.

Akam, J. (2023). FEC approves contract for Oloibiri Museum and Research Centre. *Daily Post News*. Retrieved April 21, 2023, from https://dailypost.ng/2023/02/08/fec-approves-contract-for-oloibiri-museum-and-research-centre/

Alex, A. B. (2008). From oppression to development: Chevron's policy rethink in Nigeria's Bayelsa State. *Alex B. Hill*. Retrieved January 4, 2023, from https://alexbhill.org/2008/05/08/from-oppression-to-development-chevrons-policy-rethink-in-nigerias-bayelsa-state/

Alike, E. (2009, July 7). Amnesty International blames Niger Delta crisis on lack of regulations. *THISDAY Newspaper*.

Anaeto, E., Akpan, U., & Egwuatu, P. (2023, December 4). Nigeria's economy begins major shift as oil sector rebounds. *Vanguard.* Retrieved from https://www.vanguardngr.com/2023/12/nigerias-economy-begins-major-shift-as-oil-sector-rebounds-2/

Andra-Warner, E. (2021, May 27). Steep Rock Lake: Iron Ore Mining and More. *Northern Wilds Magazine.* Retrieved from https://northernwilds.com/steep-rock-lake-iron-ore-mining-and-more/

Anonymous. (2009, May 4). Forestry collapse tops AEDC agenda. *Atikokan Progress*. Retrieved from http://atikokanprogress.ca/2009/05/04/forestry-collapse-tops-aedc-agenda/. Accessed December 3, 2014.

Atikokan History. (2002). Atikokan Historic Index. Retrieved from https://www.atikokanhistory.org/atikokan-historic-index.htm

Atikokan History. (n.d.). Atikokan Bryk Pluswood 1975. Retrieved from https://www.atikokanhistory.org/atikokan-bryk-pluswood-1975.htm

Atikokan Progress. Published by Atikokan Printing (1994) from 1950 onwards. ISSN: 1708-2862. Availability at Bibliothèque et Archives Canada / Library and Archives Canada. Online Access: https://bac-lac.on.worldcat.org/oclc/1081081774?lang=en

Chijioke, A. (2022, September 9). Niger Delta oil spills bring poverty, low crop yields to farmers. *Al Jazeera*. Retrieved from https://www.aljazeera.com/features/2022/9/9/niger-delta-oil-spills-bring-poverty-low-crop-yields-to-farmers

CKDR News. (2007, November 12). Fibratech Mill in Atikokan in receivership. *CKDR.* Retrieved from https://www.ckdr.net/2007/11/12/fibratech-mill-in-atikokan-in-receivership/

Clutchey, C. (2022, May 9). Multimillion-dollar mill upgrade underway. *The Chronicle-Journal*. Retrieved from https://www.chroniclejournal.com/news/local/multimillion-dollar-mill-upgrade-underway/article_729181ba-cdae-11ec-a3c3-df49d6baac7a.html

Craig, J. (2022, June 23). A Reckoning for Big Oil in the Niger Delta. *Hakai Magazine*. Retrieved from https://hakaimagazine.com/features/a-reckoning-for-big-oil-in-the-niger-delta/.

Dunick, L. (2011, January 31). Where there's a will. *TBnewsWatch.com*. Retrieved from https://www.tbnewswatch.com/local-news/where-theres-a-will-386754

Edeh, O. (2017, November 1). A people without a voice in Nigeria's oil-producing towns. *ICWA*. Retrieved from https://www.icwa.org/people-without-voice-oloibiri-narrative/

Esarik, B. (1985). Atikokan: Meeting its future challenge. *Thunder Bay Magazine, Business Supplement*, 3(4), S8-S9. Available at Chancellor Paterson Library Regional Collection (Nanda Gikendan Gamik - 5th Floor) (FC 3099 T5T5 Sep/Oct 1985, Volume 3, Number 4, pages S8-S9).

Fleury, C. (2023, August 3). Atikokan hospital receives funding for critical upgrades. NWO Newswatch. Retrieved from https://www.nwonewswatch.com/local-news/atikokan-hospital-receives-funding-for-critical-upgrades-7361693

Games, D. (2021, April 5). Nigeria invests billions in new infrastructure drive. *African Business*. Retrieved from https://african.business/2021/04/technology-information/nigeria-invests-billions-in-new-infrastructure-drive.

Global News. (2014). Thunder Bay-Atikokan: 2014. Retrieved from https://globalnews.ca/news/1354202/ontario-election-2014-thunder-bay-atikokan-riding/

Go to Thunder Bay. (n.d.). "Rural and Northern Immigration Pilot." Retrieved from https://gotothunderbay.ca/why-thunder-bay/rural-and-northern-immigration-pilot/

Ige, H. C. (2023). Remembering Chief Melford Okilo, 'The Country Man' 15 Years After. *National Wire*. Retrieved from https://nationalwire.com.ng/remembering-chief-melford-okilo-the-country-man-14-years-after/

LequteMan. (2016, March 13). Nigeria: Oloibiri Oil Well Dries Up, Residents Live in Abject Poverty. *Nigerian Bulletin*. Retrieved from https://nigerianbulletin.com/threads/nigeria-oloibiri-oil-well-dries-up-residents-live-in-abject-poverty.188892/

Mohammed, O., & Osinbajo, O. (2016, June 5). Ogoni: Cleaning up and oily impediment to peace, development. *This Day Live*. Retrieved from https://www.thisdaylive.com/?s=Ogoni%3A+cleaning+up+and+Oily+impediment+to+peace%2C+development

Montagnes, J. (1940, May 18). Fishing for Iron – To Win Canada's War. *The Vancouver Daily Province* (Saturday Magazine), p. 1. Retrieved from https://www.atikokanhistory.org/newspapers1931.htm#montagnes

NAN. (2021, June 22). OPEC to mark 50th anniversary of Nigeria's membership. *The Guardian Nigeria News – Nigeria and World News.*

North Shore Bureau. (2020, June 2). Big money backs tourism projects. *The Chronicle-Journal*. Updated June 4, 2020. Retrieved from

https://www.chroniclejournal.com/news/local/big-money-backs-tourism-projects/article_7a3b0b1c-a488-11ea-b6b8-afa22fc22dbc.html

Northern Ontario Business. (2002). Power plant closure proposed. *Northern Ontario Business*, 22(9), 9.

Nwakunor, G. A. (2021). 'Oloibiri story is evergreen, will remain relevant for a long time'. The Guardian Nigeria News. Retrieved from https://guardian.ng/sunday-magazine/oloibiri-story-is-evergreen-will-remain-relevant-for-a-long-time/. Accessed January 11, 2024.

Nwakunor, G. A. (2021). 'Oloibiri story is evergreen, will remain relevant for a long time'. *The Guardian Nigeria News*. Retrieved from https://guardian.ng/sunday-magazine/oloibiri-story-is-evergreen-will-remain-relevant-for-a-long-time/. Accessed January 11, 2024.

Obi, O. (2023, May 19). Oil Among the Mangrove Trees: A Portrait of Destruction in the Niger Delta, Then and Now. *Harvard International Review*. Retrieved from https://hir.harvard.edu/oil-among-the-mangrove-trees-a-portrait-of-destruction-in-the-niger-delta-then-and-now/

Ontario Ministry of Health. (2015, July 29). Ontario investing up to $11.3 million to expand and modernize Atikokan General Hospital. Ontario Newsroom. Retrieved from https://news.ontario.ca/en/release/33700/ontario-investing-up-to-113-million-to-expand-and-modernize-atikokan-general-hospital

Oyadongha, S., & Idio, E. (2016, March 16). 60 years after Nigeria's first crude: Oloibiri oil dries up, natives wallow in abject poverty. *Vanguard News*. https://www.vanguardngr.com/2016/03/60-years-after-nigerias-first-crude-oloibiri-oil-dries-up-natives-wallow-in-abject-poverty/. Accessed November 15, 2023.

Rinne, G. (2021, February 23). Atikokan biomass power plant helped pull NW Ontario through the cold snap. *TBnewsWatch.com*. Retrieved from https://www.tbnewswatch.com/local-news/atikokan-biomass-power-plant-helped-pull-nw-ontario-through-the-cold-snap-3448609

Ross, I. (2012, September). Coming Attractions Boomtown Atikokan? Atikokan Showcases Itself for New Construction. *Northern Ontario Business*, 11(32), 1-3.

Simpson, J. (2009, January 30). Who's entitled to regional assistance? It's anyone's guess. The Globe and Mail. https://www.theglobeandmail.com/news/politics/whos-entitled-to-regional-assistance-its-anyones-guess/article783071/

Sivakumaran, R. (2024). The Town of Atikokan. *Business Elite Canada*. Retrieved from https://www.businesselitecanada.com/municipalities/the-town-of-atikokan/

Skar. (2023, July 24). Melford Okilo: The first civilian governor of Rivers State. *Baze Online*. Retrieved from https://bazeonline.com.ng/melford-okilo-the-first-civilian-governor-of-rivers-state/

Staff Reporter. (1995, December 15). Nigeria's golden egg left to rot. The Mail & Guardian. Retrieved from https://mg.co.za/article/1995-12-15-nigerias-golden-egg-left-to-rot/ (accessed January 10, 2024).

Statistics Canada. (2021). Census Profile, 2021 Census of Population: Atikokan [Population centre], Ontario. Retrieved from https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=Atikokan&DGUIDlist=2021S05100028&GENDERlist=1&STATISTIClist=1&HEADERlist=0.

Stimpson, M. (2023, December 15). Province commits $60M to clean up Atikokan mine site. *NWONewsWatch*. Retrieved from https://www.nwonewswatch.com/local-news/province-commits-60m-to-clean-up-atikokan-mine-site-7991057?utm_source=tbnewswatch.com&utm_campaign=tbnewswatch.com%3A%20outbound&utm_medium=referral

Sunset Country. (n.d.). History of Atikokan, Ontario, Canada. Retrieved [May 18, 2024], from https://visitsunsetcountry.com/history-of-atikokan-ontario-canada.

The Chronicle-Journal. (2017, July 14). Hospitals receiving repairs, upgrades. Retrieved from https://www.chroniclejournal.com/news/hospitals-receiving-repairs-upgrades/article_21578b08-68a2-11e7-8cf3-f378a06c37ce.html

THISDAYLIVE. (2020). Oloibiri: A Tale of Two Firsts. THISDAYLIVE. Retrieved from https://www.thisdaylive.com/index.php/2019/08/08/oloibiri-a-tale-of-two-firsts. Accessed January 11, 2024

Thompson, J. (2015, July 29). Province invests $11.3 million in Atikokan hospital expansion. TBNewsWatch. Retrieved from https://www.tbnewswatch.com/local-news/province-invests-113-million-in-atikokan-hospital-expansion-402196

Time Magazine. (1944, August 28). Canada at war: ONTARIO: Steep Rock. *Time.* Retrieved from https://content.time.com/time/subscriber/article/0,33009,885581,00.html

Ubriaco, G. (2002). Tourism becomes vital economic driver for town. *Northern Ontario Business*, 23(2), 2.

Visit Atikokan. (2024). Today's Atikokan. Retrieved May 28, 2024, from https://visitatikokan.com/ourstory/our-history/

Walker, A. (2009). The day oil was discovered in Nigeria. *BBC News*. http://news.bbc.co.uk/2/hi/africa/7840310.stm

Willie, B. (2019). Inside Oloibiri: Community where oil drilling began in Nigeria. Daily Trust newspaper. Retrieved from https://www.dailytrust.com/inside-oloibiri-community-where-oil-drilling-began-in-nigeria. Accesses December 13, 2023.

Willie, B. (2019, July 27). Inside Oloibiri: Community where oil drilling began in Nigeria. *Daily Trust.* Retrieved from https://dailytrust.com/inside-oloibiri-community-where-oil-drilling-began-in-nigeria/

Willie, B. (2023). 67 years after, FG remembers Oloibiri. *Daily Trust*. Retrieved from https://dailytrust.com/67-years-after-fg-remembers-oloibiri/. Accessed January 10, 2024.

Published Primary and Reports

African Development Bank. (2014). African Economic Outlook: Global Value Chains and Africa's Industrialization. *African Development Bank, Organisation for Economic Co-operation and Development, United Nations Development Programme.*

Amnesty International. (2009, June 30). Nigeria: Petroleum, pollution and poverty in the Niger Delta - Report. Index Number AFR 44/017/2009. Retrieved from https://www.amnesty.org/en/documents/afr44/017/2009/en/

Amnesty International. (2011, November 10). The true 'tragedy': Delays and failures in tackling oil spills in the Niger Delta. Index Number AFR 44/018/2011. Retrieved from https://www.amnesty.org/en/documents/afr44/018/2011/en/

Amnesty International. (2013a, March 1). Nigeria: Human rights in perspective: Amnesty International submission to the UN Universal Periodic Review, October-November 2013. Index Number AFR 44/003/2013. Retrieved from https://www.amnesty.org/en/documents/afr44/003/2013/en/

Amnesty International. (2013b, November 7). Nigeria: Bad information: Oil spill investigations in the Niger Delta. Index Number AFR 44/028/2013. Retrieved from https://www.amnesty.org/en/documents/afr44/028/2013/en/

Amnesty International. (2015, November 3). Nigeria: Clean it up: Shell's false claims about oil spill response in the Niger Delta. Index Number AFR 44/2746/2015. Retrieved from https://www.amnesty.org/en/documents/afr44/2746/2015/en/

Amnesty International. (2017, November 28). Nigeria: A criminal enterprise? Shell's involvement in human rights violations in Nigeria in the 1990s. Index Number AFR 44/7393/2017. Retrieved from https://www.amnesty.org/en/documents/afr44/7393/2017/en/

Amnesty International. (2018a). Nigeria: Negligence in the Niger Delta: Decoding Shell and Eni's Poor Record on Oil Spills. [Index Number AFR 44/7970/2018]. Retrieved from https://www.amnesty.org/en/documents/afr44/7970/2018/en/

Amnesty International. (2018a, March 16). Nigeria: Negligence in the Niger Delta: Decoding Shell and Eni's poor record on oil spills. Index Number AFR 44/7970/2018. Retrieved from https://www.amnesty.org/en/documents/afr44/7970/2018/en/

Atikokan & Quetico Centre. (1974). *Atikokan: The story of a community.* Atikokan: Quetico Centre Publishing.

Atikokan Industrial Development Committee (AIDC). (1978). *Atikokan industrial development: Progress and prospects*. Atikokan: AIDC.

Atikokan Economic Development Corporation (AEDC). (2003). *Who we were, What we do*. Atikokan: Atikokan Economic Development Corporation.

Atikokan Economic Development Corporation (AEDC). (1999). *Economic development in Atikokan:* A historical perspective. Atikokan: AEDC

Atikokan Economic Development Corporation. (2024). Economic profile. Retrieved from https://atikokaninfo.com/economy/ontario-power-generation/

Atikokan retail and service sector community gap analysis, final report, March 15, 2010. (2010). Edward Hoshizaki Development Consulting.

Beckett, C., Dowdell, E., Monosky, M., & Keeling, A. (2020). Integrating socio-economic objectives for mine closure and remediation into impact assessment in Canada. Retrieved from http://research.library.mun.ca/id/eprint/14487

BTI Project. (2024). Nigeria Country Report. Retrieved from https://bti-project.org/en/reports/country-report/NGA

Chete, L. N., Adeoti, J. O., Adeyinka, F. M., & Ogundele, O. (2014). Industrial development and growth in Nigeria: Lessons and challenges (No. 2014/019). WIDER working paper. https://doi.org/10.35188/UNU-WIDER/2014/740-0

Delivering Quality Education and Health Care to All: Preparing Regions for Demographic Change. (2021). OECD. Retrieved November 9, 2023, from https://www.oecd.org/regional/rural-development/Policy%20Highlights-FINAL-opt.pdf

Government of Ontario. (2011, January 31). *Creating jobs and clean energy in Atikokan: McGuinty government re-energizing northern forestry sector* [Press release]. Ontario Newsroom. https://news.ontario.ca/en/bulletin/16757/creating-jobs-and-clean-energy-in-atikokan

Hancock, S. (1978). *Annual report*. Township of Atikokan, Ontario Hydro.

Hancock, S. (1982). *Report of the Atikokan Joint Manpower Assessment and Planning Committee.* Atikokan: The Committee.

International Monetary Fund. African Dept. (2022). Nigeria: Selected Issues Paper. *Volume 2022: Issue 034.* International Monetary Fund. ISBN: 9798400200410. ISSN: 1934-7685. Pages: 69. DOI: https://doi.org/10.5089/9798400200410.002

McGowan, M. A., & Andrews, D. (2015). Skill mismatch and public policy in OECD countries. OECD. https://doi.org/10.1787/18151973

McKay, S. E. (1982). *Helping the unemployed: transition services in Atikokan, Ontario*, *1979-1981*. [s.n.].

National Bureau of Statistics. (2010). Labour force statistics. National Bureau of Statistics. Retrieved May 20, 2023, from http://www.nigerianstat.gov.ng/pages/download

Niger Delta Regional Development Master Plan (NDRDMP) (2006). A Publication of NDDC, Abuja.

Nigeria National Petroleum Corporation (NNPC). (1992). Contribution of federal ministry government and oil companies to oil producing areas: Vol. 1. Lagos, Nigeria.

Nigerian National Petroleum Corporation. (2014). *Annual Statistical Bulletin* (1st ed.). NNPC.

Ortiz-Guerrero, C. E. (2010). A Region in Transition: The Role of Networks, Capitals and Conflicts in the Rainy River District, Ontario.

Paulson, W. (1993). *The Little Town that Could: How Leadership and Community Involvement Reshaped a Community after an Economic Tragedy*. Atikokan: Atikokan Economic Development Corporation.

Paulson, W. 2001. *Atikokan Community Strategic Plan 2001*. Atikokan: Quetico Centre.

Seminar on Developing Guidelines for Action, Atikokan (Ont.). Industrial Development Committee. (1979). *Developing Guidelines for Atikokan: Findings of a Seminar on Developing Guidelines for Action*, held at Quetico Centre on June 27-28, 1979. Available at Chancellor Paterson Library Regional Collection (Nanda Gikendan Gamik - 5th Floor) (HC 118 A8S45 1979).

Shell. (2009). Sustainability reports. Retrieved from https://www.shell.com/investors/financialreporting/annual-publications/annual-reports-download-centre.html

Shell. (2011). Sustainability reports. Retrieved from https://www.shell.com/investors/financialreporting/annual-publications/annual-reports-download-centre.html

Shell. (2012). Sustainability reports. Retrieved from https://www.shell.com/investors/financialreporting/annual-publications/annual-reports-download-centre.html

Shell. (2013). Sustainability reports. Retrieved from https://www.shell.com/investors/financialreporting/annual-publications/annual-reports-download-centre.html

Shell. (2018). Sustainability reports. Retrieved from https://www.shell.com/investors/financialreporting/annual-publications/annual-reports-download-centre.html

Stakeholder Democracy Network. (2021, October). Divesting from the Delta: Implications for the Niger Delta as international oil companies exit onshore production. Retrieved from https://www.stakeholderdemocracy.org/wp-content/uploads/2021/11/Full-report-Delta-Divestments.pdf

Statistics Canada. (2021). Profile table, Census Profile, 2021 Census of Population - Atikokan, Town (T) [Census subdivision], Ontario. Retrieved from https://www.statcan.gc.ca

The voice of Atikokan: Atikokan community strategic plan, public input summary. (1994). [s.n.].

UNCTAD. (2019). Economic Development in Africa Report 2019: Made in Africa – Rules of Origin for Enhanced Intra-African Trade. Geneva, Switzerland: United Nations Conference on Trade and Development.

United Nations Development Programme (2006a) 'Nigeria', Human Development Report 2006 Human Development Indicators Country Fact Sheets. http://hdr.undp.org/hdr2006/statistics/countries/country_fact_sheets/cty_fs_NGA. html

United Nations Development Programme. (2006). *Nigeria, Human Development Report 2006 Human Development Indicators Country Fact Sheets*. Retrieved from http://hdr.undp.org/hdr2006/statistics/countries/country_fact_sheets/cty_fs_NGA.html

United Nations Environment Programme. (2006). *Environmental Assessment of Ogoniland.* United Nations Environmental Programme.

United Nations Environment Programme. (2011). *Environmental Assessment of Ogoniland.* United Nations Environmental Programme.

United Nations, Department of Economic and Social Affairs. (2020). Recovering better: Economic and social challenges and opportunities. New York, NY: United Nations. https://www.un.org/development/desa/en/wp-content/uploads/2020/07/RECOVER_BETTER_0722-1.pdf

World Resources Institute. (2021, April 1). Ontario, Canada: Reorienting local economies by converting the Atikokan and Thunder Bay coal-fired generating stations. *World Resources Institute*. Retrieved from https://www.wri.org/update/ontario-canada-reorienting-local-economies-converting-atikokan-and-thunder-bay-coal-fired

World Trade Organization. (2017). Nigeria: Trade Policy Review.

Secondary Sources

Articles and Books

A response to Northwestern Ontario: a strategy for development. (1978). Quetico Centre.

Aaron, K. K. (2005). Perspective: big oil, rural poverty, and environmental degradation in the Niger Delta region of Nigeria. *Journal of agricultural safety and health*, *11*(2), 127-134. https://doi.org/10.13031/2013.18178

Abraham, N. M. (2011). Functional education, militancy and youth restiveness in Nigeria's Niger Delta: The place of multi-national oil corporations (MNOCs). *African Journal of Political Science and International Relations*, 5(10), 442.

Adomokai, R., & Sheate, W. R. (2004). Community participation and environmental decision-making in the Niger Delta. *Environmental impact assessment review*, *24*(5), 495-518. https://doi.org/10.1016/j.eiar.2004.01.002

Afinotan, L. A., & Ojakorotu, V. (2009). The Niger Delta crisis: Issues, challenges and prospects. *African journal of political science and international relations*, *3*(5), 191.

Agbu, O. (2004). *Ethnic militias and the threat to democracy in post-transition Nigeria* (Vol. 127). Nordic Africa Institute.

Ajomo, M. A. (1987). Law and changing policy in Nigeria's oil industry. In J. A. Omotola & A. A. Adeogun (Eds.), *Law and Development* (pp. 84-99).

Akhionbare, E., & Osuji, E. (2013). Effect of Oil Exploration on Socio-Cultural Issues in Oguta Local Government Area of Imo State, Nigeria. *Journal of Environmental Issues and Agriculture in Developing Countries*, 5(2), 19-24.

Akinlo, A. E. (2012). How Important is Oil in Nigeria's Economic Growth? *Journal of Sustainable Development*, 5(4), 165.

Ako, R., Okonmah, P., & Ogunleye, T. (2009). The Niger Delta crisis: A social justice approach to the analysis of two conflict eras. *Journal of African Development*, *11*(2), 105-122. https://doi.org/10.5325/jafrideve.11.2.0105

Akpan, W. (2005). Putting Oil First? Some Ethnographic Aspects of Petroleum-related Land Use Controversies in Nigeria. *African Sociological Review*, 9(2), 152-134. http://dx.doi.org/10.4314/asr.v9i2.23264

Akpomuvie, O. B. (2010). Self-help as a strategy for rural development in Nigeria: A bottom-up approach. *Journal of Alternative Perspectives in the Social Sciences, 2*(1), 88-111.

Akpomuvie, O. B., & Orhioghene, B. (2011). Tragedy of commons: Analysis of oil spillage, gas flaring and sustainable development of the Niger Delta of Nigeria. *Journal of Sustainable Development, 4*(2), 200-210. https://doi.org/10.5539/jsd.v4n2p200

Alakwe, K. O., & Okpara, N. (2022). Analysis of Stakeholders' Perception of the Role of Development Communication: Disturbing Tales from the Niger Delta. *Journal of Creative Communications*, *17*(2), 199-215. https://doi.org/10.1177/09732586221084378

Andrews-Speed, P., Ma, G., Shao, B., & Liao, C. (2005). Economic responses to the closure of small-scale coal mines in Chongqing, China. *Resources Policy, 30*(1), 39-54. https://doi.org/10.1016/j.resourpol.2004.12.002

Anifowose, B. (2008). Assessing the Impacts of Oil and Gas Transport on Nigeria's Niger Delta Environment. In *U21 Postgraduate Research Conference Proceedings 1, University of Birmingham UK*.

Arbo, P., & Benneworth, P. (2007). Understanding the regional contribution of higher education institutions: A literature review. *OECD Education Working Papers, No. 9*. OECD Publishing, Paris. https://doi.org/10.1787/161208155312

Arinze, P. E. (2011). The impact of oil price on the Nigerian economy. *Journal of Research in National Development*, 9(1), 211-215.

Armitage, D. (2005). Adaptive capacity and community-based natural resource management. *Environmental management*, *35*, 703-715. https://doi.org/10.1007/s00267-004-0076-z

Asekunowo, V. O., & Olaiya, S. A. (2012). Crude oil revenue and economic development in Nigeria (1974–2008). *OPEC Energy Review*, 36(2), 138-169.

Atikokan, Ontario. (1979). Available at Chancellor Paterson Library Vertical File (Nanda Gikendan Gamik - 5th Floor) non-circulating (File A872.673).

Atsegbua, L. (2002). The development and acquisition of oil licenses and leases in Nigeria. *OPEC Review*, 23(1), 55-77. https://doi.org/10.1111/1468-0076.00058

Auty, R. (2002). *Sustaining development in mineral economies: the resource curse thesis*. Routledge.

Awelewa, E. (2016). Wetlands and Livelihood Sustainability: Qualitative Evaluation of the Impact of Oil Exploitation in Ogbia Local Government, Bayelsa State, Nigeria. *Journal of Geography, Environment and Earth Science International*, 5(2), 1-12. ISSN 24547352.

Ayanlade, A. (2016). Evaluating environmental change impacts on ecological services in the Niger Delta of Nigeria. *Ife Research Publications in Geography*, *11*(1), 111-125.

Ayodele-Akaakar, F. O. (2001). Appraising the oil & gas laws: A search for enduring legislation for the Niger Delta region. *Journal of Sustainable Development in Africa*, *3*(2), 1-27.

Bainton, N., & Holcombe, S. (2018). A critical review of the social aspects of mine closure. *Resources Policy*, *59*, 468-478. https://doi.org/10.1016/j.resourpol.2018.08.020

Barnes, B. D. (2022). The Perfect Storm: Substance Abuse, Mental Illness, and Rural America. *The University of New Hampshire Law Review*, 20(2), 6.

Bartsch, J. (1983). *Steep Rock: The Men and the Mines*. Northern Light Publications.

Bartsch, W. (1983). *Exit with Excellence: How One Unusual Shutdown Transformed Mining Traditions*. C.M. McIntosh, Quetico Press.

Beaulieu, M. S. (2013). A historic overview of policies affecting non-Aboriginal resource development in Northwestern Ontario, 1900-1990. In *Governance in Northern Ontario: Economic Development and Policy Making*, edited by Charles Conteh and Robert Segsworth. University of Toronto Press, Toronto (pp. 94-114).

Beaulieu, M. S., & Southcott, C. (2010). *North of Superior: An Illustrated History of Northwestern Ontario.* James Lorimer & Company.

Beck, J. (2020). *Landscape as weapon: Cultures of exhaustion and refusal*. Reaktion Books.

Bell, S. E., & York, R. (2010). Community economic identity: The coal industry and ideology construction in West Virginia. *Rural Sociology, 75*(1), 111-143. https://doi.org/10.1111/j.1549-0831.2009.00004.x

Berg, B. L. (2004). *Qualitative Research Methods for the Social Sciences*. Boston: Pearson Education. https://doi.org/10.2307/1317652

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research, 15*(2), 219-234. https://doi.org/10.1177/1468794112468475

Berkes, F., & Ross, H. (2013). Community resilience: toward an integrated approach. *Society & Natural Resources, 26*(1), 5-20. https://doi.org/10.1080/08941920.2012.736605

Berton, P. (2011). *The national dream: The great railway*, 1871-1881. Anchor Canada.

Bird, D., & Taylor, A. (2021). Disasters and demographic change of 'Single-Industry' towns—Decline and resilience in Morwell, Australia. In *The Demography of Disasters: Impacts for Population and Place* (pp. 125-151). https://doi.org/10.1007/978-3-030-49920-4_7

Borges, M., & Torres, S. (Eds.). (2012). *Company towns: Labor, space, and power relations across time and continents*. Springer.

Boschma, R. (2017). Towards an evolutionary perspective on regional resilience. In *Evolutionary Economic Geography* (pp. 29-47). Routledge.

Bosworth, G., & Atterton, J. (2012). Entrepreneurial in-migration and neoendogenous rural development. *Rural Sociology, 77*(2), 254-279. https://doi.org/10.1111/j.1549-0831.2012.00079.x

Bothwell, R., Drummond, I., & English, J. (1990). *Canada 1900-1945*. University of Toronto Press.

Bowles, R. T. (1992). Single-industry resource communities in Canada's north. In *Rural sociology in Canada* (pp. 63-83).

Bradbury, J. H. (1979). Towards an alternative theory of resource-based town development in Canada. *Economic Geography*, *55*(2), 147-166.

Bradbury, J. H., & St-Martin, I. (1983). Winding down in a Quebec mining town: A case study of Schefferville. *Canadian Geographer/Le Géographe canadien, 27(*2), 128-144. https://doi.org/10.1111/j.1541-0064.1983.tb01468.x

Bradford, N. J. (2002). *Why cities matter: Policy research perspectives for Canada*. Canadian Policy Research Networks.

Bray, M., & Thomson, A. (Eds.). (1996). *At the end of the shift: Mines and single-industry towns in Northern Ontario*. Dundurn Press Limited.

Brown, D. (1984). The Atikokan Story: Life in a small community that suffers economic collapse. In *Mining communities: Hard lessons for the future* (pp. 29-62). Kingston: Centre for Resource Studies, Queen's University.

Brown, D. L., & Schafft, K. A. (2011). *Rural people and communities in the 21st century: Resilience and transformation*. Polity.

Brown, K. W. (2012). *A history of mining in Latin America: from the colonial era to the present*. UNM Press.

Brown, R. (2013). *Rails Across Ontario: Exploring Ontario's Railway Heritage*. Dundurn.

Brown, R. C., & Cook, R. (2016). *Canada 1896-1921: A nation transformed* (Vol. 14). McClelland & Stewart.

Browning, M., & Heinesen, E. 2012. Effect of job loss due to plant closure on mortality and hospitalization. *Journal of health economics*, 31(4), 599-616. https://doi.org/10.1016/j.jhealeco.2012.03.001

Brundtland, G.H. (1987). Our Common Future (Brundtland Report). World Commission on Environment and Development. https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

Bunker, S. G., & Ciccantell, P. S. (2005). *Globalization and the Race for Resources*. Johns Hopkins University Press.

Burfitt, A., & Ferrari, E. (2013). The housing and neighbourhood impacts of knowledge-based economic development following industrial closure. In *The Impacts of Automotive Plant Closure* (pp. 45-56). Routledge.

Cameron, S. (2021). Civic engagement in times of economic crisis: A cross-national comparative study of voluntary association membership. *European Political Science Review*, 13(3), 265-283. https://doi.org/10.1017/S1755773921000060

Campbell, S. (1996). Green cities, growing cities, just cities?: Urban planning and the contradictions of sustainable development. *Journal of the American Planning Association, 62*(3), 296-312. https://doi.org/10.1080/01944369608975696

Canada Employment, Immigration Advisory Council, Canada. Minister of Employment and Immigration, 1987. *Canada's Single-industry Communities: A Proud Determination to Survive: A Report*. The Council. Ottawa.

Carpenter, S., Walker, B., Anderies, J. M., & Abel, N. (2001). From metaphor to measurement: resilience of what to what?. *Ecosystems, 4*, 765-781. https://doi.org/10.1007/s10021-001-0045-9

Carrington, K., & Pereira, M. (2011). Assessing the social impacts of the resources boom on rural communities. *Rural Society, 21*(1), 2-20. https://doi.org/10.5172/rsj.2011.21.1.2

Chapin III, F. S., Kofinas, G. P., & Folke, C. (Eds.). (2009). *Principles of ecosystem stewardship: Resilience-based natural resource management in a changing world.* Springer Science & Business Media.

Chapman, R., Plummer, P., & Tonts, M. (2015). The resource boom and socio-economic well-being in Australian resource towns: A temporal and spatial analysis. *Urban Geography, 36*(5), 629-653. https://doi.org/10.1080/02723638.2015.1018032

Chapman, R., Tonts, M., & Plummer, P. (2014). Resource development, local adjustment, and regional policy: Resolving the problem of rapid growth in the Pilbara, Western Australia. *Journal of Rural and Community Development*, *9*(1).

Charou, E., Stefouli, M., Dimitrakopoulos, D., Vasiliou, E., & Mavrantza, O. D. (2010). Using remote sensing to assess impact of mining activities on land and water resources. *Mine Water and the Environment*, 29, 45-52. https://doi.org/10.1007/s10230-010-0098-0

Chete, L. N., Adeoti, J. O., Adeyinka, F. M., & Ogundele, O. (2014). *Industrial development and growth in Nigeria: Lessons and challenges* (No. 2014/019). WIDER working paper. https://doi.org/10.35188/UNU-WIDER/2014/740-0

Chi, G., & Marcouiller, D. W. (2013). In-migration to remote rural regions: The relative impacts of natural amenities and land developability. *Landscape and Urban Planning, 117*, 22-31. https://doi.org/10.1016/j.landurbplan.2013.04.012

Chidolue, O., & Iqbal, M. T. (2023). Design and performance analysis of an oil pump powered by solar for a remote site in Nigeria. *European Journal of Electrical Engineering and Computer Science,* 7(1), 62-69. https://doi.org/10.24018/ejece.2023.7.1.496

Chijioke, B., Ebong, I. B., & Ufomba, H. (2018). The Impact of oil exploration and environmental degradation in the Niger Delta region of Nigeria: a study of oil producing communities in Akwa Ibom state. *Global Journal of Human Social Science, 18*(3), 54-70.

Clark, P. (Ed.). (2002). *Small towns in early modern Europe*. Cambridge University Press.

Clemenson H. 1992. Are single industry towns diversifying? An examination of fishing, forestry and mining towns, in *Rural and Small Towns Canada*, edited by Ray, D., pp. 151-166. Bollman, Canada: Thompson Educational Publishing Inc.

Conde, M., & Le Billon, P. (2017). Why do some communities resist mining projects while others do not?. *The Extractive Industries and Society*, *4*(3), 681-697.

Conteh, C. (2013). Changing trends in regional economic development policy governance: The case of Northern Ontario, Canada. *International Journal of Urban & Regional Research*, 37(4), 1419-1437.

Cowan, J., & Duncan, A. (1957). *Steep Rock Iron Mines Limited*. Toronto: Northern Miner Press.

Cranstone, D. A. (2002). A history of mining and mineral exploration in Canada and outlook for the future. Natural Resources Canada, Minister of Public Works and Government Services Canada.

Creswell, J.W. (2007). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (2nd ed.). Sage Publications, Thousand Oaks, CA. 395 pp.

Cretney, R. (2014). Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience. *Geography Compass*, 8(9), 627-640. https://doi.org/10.1111/gec3.12154

Cronon, W. (1991). *Nature's Metropolis: Chicago and the Great West*. W.W. Norton & Company.

Culter, S. (1999). *Managing decline: Japan's coal industry restructuring and community response*. University of Hawaii Press.

Custers, G., Engbersen, G., & Snel, E. (2019). The economic recession and civic participation: The curious case of Rotterdam's civil society, 2008–2013. *The British Journal of Sociology*, 70(5), 1946-1970. https://doi.org/10.1111/1468-4446.12691

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. https://doi.org/10.1016/j.gloenvcha.2008.07.013

Dale, A., Ling, C., & Newman, L. (2010). Community vitality: The role of community-level resilience adaptation and innovation in sustainable development. *Sustainability, 2*(1), 215-231. https://doi.org/10.3390/su2010215

Dampier, J. E. E., Lemelin, R. H., Shahi, C., & Luckai, N. (2014). Small town identity and history's contribution to a response in policy change: A case study of transition from coal to biomass energy conversion. *Energy, Sustainability and Society, 4*(1), 26. https://doi.org/10.1186/s13705-014-0026-4

Dampier, J. E. E., Shahi, C., Lemelin, R. H., & Luckai, N. (2016). Assessment of potential local and regional induced economic impact of an energy policy change in rural Northwestern Ontario. Energy, *Sustainability and Society*, 6(1), 13. https://doi.org/10.1186/s13705-016-0079-7

Dampier, J. E., Lemelin, R. H., Shahi, C., & Luckai, N. (2014). Small town identity and history's contribution to a response in policy change: a case study of transition from coal to biomass energy conversion. *Energy, Sustainability and Society*.

Daugherty, W. E. (1986). Treaty research report: Treaty three (1873). Indian and Northern Affairs Canada. Retrieved from https://www.rcaanc-cirnac.gc.ca/eng/1100100028671/1564413174418

Davidson, E. (2006). Success stories: Young people's aspirations and the politics of class in post-boom silicon valley (Order No. 3231991). Available from ProQuest Dissertations & Theses Global. (305361613). Retrieved from https://www.proquest.com/dissertations-theses/success-stories-young-peoples-aspirations/docview/305361613/se-2

De Groot, R. S., Blignaut, J., Van Der Ploeg, S., Aronson, J., Elmqvist, T., & Farley, J. (2013). Benefits of investing in ecosystem restoration. *Conservation Biology*, 27(6), 1286-1293.

Deebom, M. B. T. B., & Zite, N. B. (2020). Assessing Technical Vocational Education Training Skills Needed for Graduates Employment in a Post-Oil Boom Economy, Nigeria. *International Journal of Modern Innovation and Knowledge*, 1(1), 27-37.

Deller, S. C., & Schreiber, A. (2012). Mining and community economic growth. Review of Regional Studies, 2(42), 121-141.

Denzin, N. K. (2017). Critical qualitative inquiry. *Qualitative inquiry*, *23*(1), 8-16. https://doi.org/10.1177/1077800416681864

DesBrisay, D. (1994). The impact of major resource development projects on aboriginal communities: a review of the literature. Ottawa, Ontario: Royal Commission on Aboriginal Peoples. Retrieved from https://www.bac-lac.gc.ca/eng/discover/aboriginal-heritage/royal-commission-aboriginal-peoples/Pages/item.aspx?IdNumber=2054

Desjardins, R., & Rubenson, K. (2011). An analysis of skill mismatch using direct measures of skills. OECD. https://doi.org/10.1787/19939019

Di Matteo, L. (2022). Arrested Development: A Brief Economic History of Northern Ontario, 1870 to 2020. *American Review of Canadian Studies*, 52(2), 163-192.

Dolejš, M., Nádvorník, J., Raška, P., & Riezner, J. (2019). Frozen histories or narratives of change? Contextualizing land-use dynamics for conservation of historical rural landscapes. *Environmental Management*, 63, 352-365. https://doi.org/10.1007/s00267-019-01136-z

Dooley, D., Fielding, J., & Levi, L. (1996). Health and unemployment. *Annual Review of Public Health*, 17(1), 449-465. https://doi.org/10.1146/annurev.pu.17.050196.002313

Dore, E. (2000). Environment and society: Long-term trends in Latin American mining. *Environment and History*, 6(1), 1-29.

Dos Santos, T. (1970). The Structure of Dependence. *American Economic Review*, 60(2), 231-236.

Doust, H., & Omatsola, E. (1989). Niger Delta. *In M 48: Divergent/Passive Margin Basins* (pp. 201-238). AAPG Memoir A132.

Dunk, T. (2002). Remaking the working class: Experience, class consciousness, and the industrial adjustment process. *American Ethnologist*, 29(4), 878-900. https://doi.org/10.1525/ae.2002.29.4.878

East, M. (2016). Community-led approaches and interventions for the regeneration of abandoned towns in southern Italy. *Ecocycles*, 2(1), 18-25. https://doi.org/10.19040/ecocycles.v2i1.40

Ebegbulem, J. C., Ekpe, D., & Adejumo, T. O. (2013). Oil exploration and poverty in the Niger delta region of Nigeria: A critical analysis. *International Journal of Business and Social Science*, *4*(3), 279-287.

Ebeku, K. S. (2002). Oil and the Niger Delta people: the injustice of the land use act. *Verfassung und Recht in Übersee/Law and Politics in Africa, Asia and Latin America*, 201-231. http://www.jstor.org/stable/43239024. Accessed 3 Apr. 2024

Edet, A. (2017). Niger Delta Region and the Crisis of Environmental and Socio-Economic Degradation. *International Journal of Social Sciences and Humanities Reviews*, 7(2), 103–112.

Eghosa, O. (2015). Resource curse or resource blessing: The case of the Niger Delta oil republic in Nigeria. *Commonwealth and Comparative Politics*, 54(2), 109-129.

Ejobowah, B. (2000). Who Owns the Oil? The Politics of Ethnicity in the Niger Delta of Nigeria. *Africa Today*, 47(1), 28-47.

Elena, T., Katifori, A., Vassilakis, C., Lepouras, G., & Halatsis, C. (2010). Historical research in archives: user methodology and supporting tools. *International Journal on Digital Libraries*, *11*, 25-36. https://doi.org/10.1007/s00799-010-0062-4

Elfithri, R., Mokhtar, M. B., & Zakaria, S. (2019). The need for awareness raising, advocacy, and capacity building in Integrated Water Resources Management toward sustainable development: A case study in Malaysia. *World Water Policy*, *5*(1), 43-54.

Eliason, M., & Storrie, D. (2009). Job loss is bad for your health–Swedish evidence on cause-specific hospitalization following involuntary job loss. *Social science & medicine*, 68(8), 1396-1406. https://doi.org/10.1016/j.socscimed.2009.01.021

Ellis, P., Fiddler, C., Gill, R., Keyworth, G., Moretti, M., Paske, J., L. Phillips, Z. Te, D. Vandebelt, & Wright, B. 2003. *Onwards Atikokan: the renewal of an ex-single-industry town*. Waterloo, Ontario: Faculty of Environmental Studies, University of Waterloo.

Elum, Z. A., Mopipi, K., & Henri-Ukoha, A. (2016). Oil Exploitation and its Socioeconomic Effects on the Niger Delta Region of Nigeria. *Environmental Science Pollution Research*, 23, 12880-12889. https://doi.org/10.1007/s11356-016-6864-1

Emah, G. S., & Adebayo, P. F. (2022). Revisiting The Nigerian Civil War: The Role Of The Ibibio In The Collapse Of Biafra, 1967-1970. *Wukari International Studies Journal*, *6*(1), 13-13.

Eregha, P. B., & Irughe, I. R. (2009). Oil induced environmental degradation in the Nigeria's Niger Delta: The multiplier effects. *Journal of sustainable Development in Africa*, *11*(4), 160-175.

Etzkowitz, H., & Zhou, C. (2017). *The triple helix: University–industry–government innovation and entrepreneurship*. Routledge.

Eweje, G. (2006). Environmental costs and responsibilities resulting from oil exploitation in developing countries: The case of the Niger Delta of Nigeria. *Journal of Business Ethics*, *69*, 27-56. https://doi.org/10.1007/s10551-006-9067-8

Fabbricatti, K., Boissenin, L., Citoni, M., & Tenore, V. (2018). Community-led practices for triggering long term processes and sustainable resilience strategies. The case of the eastern Irpinia, inner periphery of southern Italy. In *11th International Forum of Urbanism:" Reframing Urban Resilience Implementation: Aligning Sustainability and Resilience (IFoU 2018)*. HAL Id: https://hal.science/hal-01957998

Falk, W. W., & Lobao, L. (2003). Who benefits from economic restructuring? Lessons from the past, challenges for the future. In *Challenges for Rural America in the Twenty-First Century* (pp. 152-165).

Farla, K. (2015). Industrial policy for growth. *Journal of Industry, Competition and Trade*, *15*, 257-282.

Fashoyin, T. (1990). Economic recession and employment security in Nigeria in the 1980s. *International Labour Review*, 129, 649.

Fayiga, A. O., Ipinmoroti, M. O., & Chirenje, T. (2018). Environmental pollution in Africa. *Environment, development and sustainability*, *20*, 41-73.

Foley, P., & Martin, S. (2000). Perceptions of community led regeneration: community and central government viewpoints. *Regional Studies*, *34*(8), 783-787. https://doi.org/10.1080/00343400050192874

Fontaine, M., High, S., & Laframboise, L. (2024). The politics of deindustrialization. *Labor History, 65(3).*

Frank, A.G. (1967). *Capitalism and Underdevelopment in Latin America: Historical Studies of Chile and Brazil.* The Monthly Review Press. https://doi.org/10.1215/00182168-48.3.453

Fraser, A. (1907). *A History of Ontario: Its Resources and Development* (Vol. 1). Canada History Company.

Fraser, E. D., Dougill, A. J., Mabee, W. E., Reed, M., & McAlpine, P. (2006). Bottom up and top down: Analysis of participatory processes for sustainability indicator identification as a pathway to community empowerment and sustainable environmental management. *Journal of environmental management*, *78*(2), 114-127. https://doi.org/10.1016/j.jenvman.2005.04.009

Frazier, T. G., Thompson, C. M., Dezzani, R. J., & Butsick, D. (2013). Spatial and temporal quantification of resilience at the community scale. *Applied Geography*, *42*, 95-107. https://doi.org/10.1016/j.apgeog.2013.05.004

Freshwater, D. (2017). Growth beyond cities: place-based rural development policy in Ontario. *Rural Ontario Institute*, 7-24.

Frynas, G. J. (2001). Corporate and State Responses to Anti-Oil Protest in the Niger Delta. *African Affairs*, 100(398), 27-54.

Frynas, J. G. (2000). *Oil in Nigeria: conflict and litigation between oil companies and village communities* (Vol. 1). LIT Verlag Münster.

Fukuyama, F. 1995. Social capital and the global economy. *Foreign Affairs*, 74 (5), 89-103.

Furgal, C., & Prowse, T. D. (2007). Northern Canada. *From impacts to adaptation: Canada in a changing climate*, *2008*, 57-118.

Gandu, Y. K. (2014). Oil Wealth-Poverty Nexus in Nigeria's Niger Delta. *Kaduna Journal of Sociology*, *2*(1), 1-30.

Geels, F. W. 2006. Major system change through stepwise reconfiguration: A multi-level analysis of the transformation of American factory production (1850–1930). *Technology in Society*, 28(4), 445-476. https://doi.org/10.1016/j.techsoc.2006.09.006

Geels, F.W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, 36(3), 399-417.

Genova, A., & Falola, T. (2003). Oil in Nigeria: A Bibliographical Reconnaissance. *History in Africa, 30*, 133-156. doi: https://doi.org/10.1017/S0361541300003181

George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. mit Press.

Gertler, M. S. (2001). Urban economy and society in Canada: flows of people, capital and ideas. Isuma: *The Canadian Journal of Policy Research*, 2(3), 119-130.

Gill, Alison M. (1989). Experimenting with environmental design research in Canada's newest mining town. *Applied Geography*, 9(3), 177-195. https://doi.org/10.1016/0143-6228(89)90038-6

Glass, J., McMorran, R., Currie, M., McKee, A., Pinker, A., Reed, M., Meador, E., & Markantoni, M. (2022). Translating community resilience theory into practice: A deliberative Delphi approach. *Sociologia Ruralis,* 62(4), 675-698. https://doi.org/10.1111/soru.12397

Gold, R. L. (2017). Roles in sociological field observations. In *Sociological methods* (pp. 363-380). Routledge.

Graham, E., & Ovadia, J. S. (2019). Oil exploration and production in Sub-Saharan Africa, 1990-present: Trends and developments. *The Extractive Industries and Society*, *6*(2), 593-609.

Green, A. G. (2000). Twentieth-century Canadian economic history. In *The Cambridge economic history of the United States*, 3, 204-209.

Greer, A. (2019). Settler Colonialism and Beyond. *Journal of the Canadian Historical Association / Revue de la Société historique du Canada*, 30(1), 61–86. https://doi.org/10.7202/1070631ar

Groves, H. M., & Riew, J. (1963). The Impact of Industry on Local Taxes—A Simple Model. *National Tax Journal*, 16(2), 137-146. https://doi.org/10.1086/NTJ41790936

Gruenewald, D. A., & Smith, G. A. (Eds.). (2014). *Place-based education in the global age: Local diversity*. Routledge.

Guseh, J. S., & Oritsejafor, E. (2007). Government size, political freedom and economic growth in Nigeria, 1960-2000. *Journal of Third World Studies*, *24*(1), 139-165.

Gwosdz, K., Domański, B., & Bilska-Wodecka, E. (2020). Localised capabilities as an intermediating factor in the transition from an old to a new development path: The case of post-socialist industrial towns. *Moravian Geographical Reports*, 28(2), 123-135. https://doi.org/10.2478/mgr-2020-0010

Hadi, A. (1999b). Overseas migration and the well-being of those left behind in rural communities of bangladesh. *Asia-Pacific Population Journal*, 14(1), 43–58. https://doi.org/10.18356/cb7d0c96-en

Haggard, R., Cafer, A., & Green, J. (2019). Community resilience: A meta-study of international development rhetoric in emerging economies. *Community Development*, 50(2), 160-180. https://doi.org/10.1080/15575330.2019.1574851

Haggerty, J. H., Haggerty, M. N., Roemer, K., & Rose, J. (2018). Planning for the local impacts of coal facility closure: Emerging strategies in the US West. *Resources Policy*, 57, 69-80. https://doi.org/10.1016/j.resourpol.2018.01.010

Haldon, J., Eisenberg, M., Mordechai, L., Izdebski, A., & White, S. (2020). Lessons from the past, policies for the future: resilience and sustainability in past crises. *Environment systems and decisions*, *40*, 287-297. https://doi.org/10.1007/s10669-020-09778-9

Hallegatte, S. (2014). Economic resilience: definition and measurement. *World Bank Policy Research Working Paper*, (6852).

Halseth, G. (2005). Resource town transition: debates after closure. In *Rural change and sustainability: Agriculture, the environment and communities* (pp. 326-342). Wallingford UK: CABI Publishing.

Handel, M. J. (2003). Skills mismatch in the labor market. *Annual Review of Sociology*, 29, 135-165. https://doi.org/10.1146/annurev.soc.29.010202.100030

Harper, C., & Jones, N. (2011). Impacts of economic crises on child well-being. *Development Policy Review*, 29(5), 511-526. https://doi.org/10.1111/j.1467-7679.2011.00544.x

Harper, C., & Snowden, M. (2017). *Environment and society: Human perspectives on environmental issues*. Routledge.

Harper, C., Jones, N., Pereznieto, P., & McKay, A. (2011). Promoting children's well-being: Policy lessons from past and present economic crises. *Development Policy Review*, 29(5), 621-641. https://doi.org/10.1111/j.1467-7679.2011.00550.x

Hayter, R. (2017). Single industry resource towns. In *A Companion to Economic Geography* (pp. 290-307).

Helling, A. L., Berthet, R. S., & Warren, D. (2005). *Linking community empowerment, decentralized governance, and public service provision through a local development framework* (Vol. 35147). Washington, DC: World Bank.

Henfrey, T., Feola, G., Penha-Lopes, G., Sekulova, F., & Esteves, A. M. (2023). Rethinking the sustainable development goals: Learning with and from community-led initiatives. *Sustainable Development*, *31*(1), 211-222. https://doi.org/10.1002/sd.2384

High, S. (2018). *One job town: Work, belonging, and betrayal in Northern Ontario*. University of Toronto Press. http://www.jstor.org/stable/10.3138/j.ctv2fjwx7s

High, S. (2020). Deindustrialization and its consequences. In M. Fazio, T. Strangleman, & C. Launius (Eds.), *Routledge International Handbook of Working-Class Studies*. Routledge.

High, S. (2022). Towards a transnational and comparative history of deindustrialization. In S. Berger, S. Musso, & C. Wicke (Eds.), *Experiencing and managing deindustrialisation: The North-West of Italy and the Ruhr region in Germany*. Palgrave Macmillan.

High, S. (2023). The radical origins of the deindustrialization thesis: From dependency to capital mobility & community abandonment. *Labour/le Travail*, 91, 31-56.

High, S., & Lewis, D. W. (2007). Introduction. *Urban History Review / Revue d'histoire Urbaine*, 35(2), 2-13. Retrieved from http://www.jstor.org/stable/43552112.

Hilson, G. (2002). Small-scale mining and its socio-economic impact in developing countries. In *Natural resources forum* (Vol. 26, No. 1, pp. 3-13). Oxford, UK and Boston, USA: Blackwell Publishing Ltd.

Himelfarb, A. (1982). The social characteristics of one-industry towns in Canada. In R. T. Bowles (Ed.), *Little communities and big industries: Studies in the social impact of Canadian resource extraction* (pp. 16-43). Toronto: Butterworths.

History of Steep Rock Iron Mines. (1969). Available at Chancellor Paterson Library Regional Collection (Nanda Gikendan Gamik - 5th Floor) (TN 409 S7H58).

Hlatshwayo, M. (2017). Community responses to declining industries. *New Agenda: South African Journal of Social and Economic Policy*, *2017*(66), 22-27.

Hodge, G., & Wong, C. C. (1972). Adapting industrial complex analysis to the realities of regional data. *Papers in Regional Science*, 28(1), 145-168.

Hu, X., & Hassink, R. (2020). Adaptation, adaptability and regional economic resilience: A conceptual framework. *Handbook on regional economic resilience*, 54-68

Huber, J. (2000). Towards industrial ecology: sustainable development as a concept of ecological modernization. *Journal of environmental policy and planning*, *2*(4), 269-285. https://doi.org/10.1080/714038561

Huijgen, T., Van de Grift, W., Van Boxtel, C., & Holthuis, P. (2018). Promoting historical contextualization: the development and testing of a pedagogy. *Journal of curriculum studies*, *50*(3), 410-434. https://doi.org/10.1080/00220272.2018.1435724

Ibaba, S. I. (2005). Understanding the Niger Delta Crisis. *Port Harcourt: Amethyst and Colleagues Publishers*, *83*.

Idemudia, U. (2007). Community perceptions and expectations: Reinventing the wheels of corporate social responsibility practices in the Nigerian oil industry. *Business and Society Review*, *112*(3), 369-405.

Ifeka, C. (2005). Analyzing African Formations: Multi-national Corporations, Non-capitalist Relations, and Mothers of the Community. *The International Journal of Social and Cultural Practice*, 49(1), 206-224.

Ikein, A. A. (1990). *The Impact of Oil on a Developing Country: The Case of Nigeria*. Evans Brothers Limited, Ibadan, Nigeria.

Ikelegbe, A. (2001). Civil society, oil and conflict in the Niger Delta region of Nigeria: Ramifications of civil society for a regional resource struggle. *The Journal of Modern African Studies*, *39*(3), 437-469.

Ikelegbe, A. (2005). The economy of conflict in the oil rich Niger Delta region of Nigeria. *Nordic Journal of African Studies*, *14*(2), 27-27. https://doi.org/10.53228/njas.v14i2.276

Ikporukpo, C. O. (2004). Petroleum, fiscal federalism and environmental justice in Nigeria. *Space and Polity*, *8*(3), 321-354. https://doi.org/10.1080/1356257042000309643

Imperiale, A. J., & Vanclay, F. (2016). Experiencing local community resilience in action: Learning from post-disaster communities. *Journal of Rural Studies*, *47*, 204-219. https://doi.org/10.1016/j.jrurstud.2016.08.002

Ingram, J. C., Franco, G., Rumbaitis-del Rio, C., & Khazai, B. (2006). Post-disaster recovery dilemmas: Challenges in balancing short-term and long-term needs for vulnerability reduction. *Environmental Science & Policy*, 9(7-8), 607-613. https://doi.org/10.1016/j.envsci.2006.07.006

Innis, H. A. (1999). *The fur trade in Canada: An introduction to Canadian economic history*. University of Toronto Press.

Inyang, B. (2018). Militancy and youth restiveness in the Niger Delta Region of Nigeria. *African Research Review*, 12(4), 65-76.

Ipingbemi, O. (2009). Socio-economic implications and environmental effects of oil spillage in some communities in the Niger delta. *Journal of Integrative Environmental Sciences*, 6(1), 7-23.

Irvin, R. A., & Stansbury, J. (2004). Citizen participation in decision making: Is it worth the effort? *Public Administration Review*, 64(1), 55-65. https://doi.org/10.1111/j.1540-6210.2004.00346.x

Ite, A. E., Ibok, U. J., Ite, M. U., & Petters, S. W. (2013). Petroleum exploration and production: Past and present environmental issues in the Nigeria's Niger Delta. *American Journal of Environmental Protection*, *1*(4), 78-90.

Ite, A. E., Ufot, U. F., Ite, M. U., Isaac, I. O., & Ibok, U. J. (2016). Petroleum industry in Nigeria: Environmental issues, national environmental legislation and implementation of international environmental law. *American Journal of Environmental Protection*, 4(1), 21-37. https://doi.org/10.12691/env-4-1-3

Itsueli, B. J. E. (2003). The Impact of Petroleum Exploration on Agricultural, Technological, and Human Resource Development in Nigeria, 1908 - 1995. *The African Review: A Journal of African Politics, Development and International Affairs*, *30*(1/2), 67–86. http://www.jstor.org/stable/45419732

Jasen, P. (1995). *Wild Things: Nature, Culture, and Tourism in Ontario*, 1790-1914. Toronto: University of Toronto Press.

Jewell, J. (1983). *History Research Paper: An Economic and Resource Development History of Atikokan*.

Jike, V. T. (2004). Environmental degradation, social disequilibrium, and the dilemma of sustainable development in the Niger-Delta of Nigeria. *Journal of Black Studies*, *34*(5), 686-701. https://doi.org/10.1177/0021934703261934

Johnson, L., Mundell, M., Bartel, R. (2020). Resilient Geelong: Reasons for Success and Challenges for a post-COVID-19 Future. Geelong: Committee for Geelong.

Joseph, C., & Krishnaswamy, A. (2010). Factors of resiliency for forest communities in transition in British Columbia. *Journal of Ecosystems and Management*, 10(3). https://doi.org/10.22230/jem.2010v10n3a39

Kadafa, A. A. (2012). Oil exploration and spillage in the Niger Delta of Nigeria. *Civil and Environmental Research*, *2*(3), 38-51.

Kahn, M. E., & McComas, M. (2021). *Unlocking the Potential of Post-Industrial Cities*. Johns Hopkins University Press.

Kamara, R. D. & Rabie, B. (2021). The efficacy of policy and legal framework for cooperative governance and local economic development (LED) in small towns in a selected

region in South Africa. Public Management. *Scientific Journal of the Institute of Public Affairs*, Jagiellonian University, 53:7–26, https://doi.org/10.4467/20843968ZP.21.001.14134

Kazindu, H., Mupenzi, C., & Maniragaba, A. (2020). Environmental impacts analysis of mining on the surrounding communities: A case study of Rutongo Mines Ltd in Rulindo District, Northern Province of Rwanda. *Journal of Energy and Natural Resources*, *9*(2), 56.

Kessey, K. D., & Arko, B. (2013). Small scale gold mining and environmental degradation, in Ghana: issues of mining policy implementation and challenges. *Journal of Studies in Social Sciences*, 5(1).

Kiernan, M. J. (1983). Ideology, politics, and planning: reflections on the theory and practice of urban planning. *Environment and Planning B: Planning and Design*, *10*(1), 71-87. https://doi.org/10.1068/b100071

Kinnear, S., Kabir, Z., Mann, J., & Bricknell, L. (2013). The need to measure and manage the cumulative impacts of resource development on public health: An Australian perspective. *Current topics in public health*, 125-144. http://dx.doi.org/10.5772/54297

Kirmayer, L. J., Sehdev, M., Whitley, R., Dandeneau, S. F., & Isaac, C. (2009). Community resilience: Models, metaphors and measures. *International Journal of Indigenous Health*, 5(1), 62-117.

Klieman, K. A. (2012). U.S. Oil Companies, the Nigerian Civil War, and the Origins of Opacity in the Nigerian Oil Industry. *Journal of American History*, 99(1), 155–165. https://doi.org/10.1093/jahist/jas072

Kloep, M., Hendry, L. B., Glendinning, A., Ingebrigtsen, J. E., & Espnes, G. A. (2003). Peripheral visions? A cross-cultural study of rural youths' views on migration. *Children's Geographies*, 1(1), 91-109. http://dx.doi.org/10.1080/14733280302189

Knowles, M. (1996). *Atikokan progress index.* Atikokan High School Resource Centre.

Kretschmann, J. (2020). Post-mining—a holistic approach. *Mining, Metallurgy & Exploration*, *37*(5), 1401-1409; https://doi.org/10.1007/s42461-020-00265-y

Kryukova, E. M., Vetrova, E. A., Maloletko, A. N., Kaurova, O. V., & Dusenko, S. V. (2015). Social-economic problems of Russian mono-towns. *Asian Social Science*, 11(1), 258. http://dx.doi.org/10.5539/ass.v11n1p258

Krzysztofik, R., Kantor-Pietraga, I., & Kłosowski, F. (2019). Between Industrialism and postindustrialism—The case of small towns in a large urban region: The Katowice Conurbation, Poland. *Urban Science*, *3*(3), 68. https://doi.org/10.3390/urbansci3030068

Lawrie, M., Tonts, M., & Plummer, P. (2011). Boomtowns, resource dependence and socio-economic well-being. Australian geographer, 42(2), 139-164. https://doi.org/10.1080/00049182.2011.569985

Lehtonen, O. (2021). Primary school closures and population development–is school vitality an investment in the attractiveness of the (rural) communities or not? *Journal of Rural Studies*, 82, 138-147. https://doi.org/10.1016/j.jrurstud.2021.01.011

Lewis, P. (1996). From prebendalism to predation: the political economy of decline in Nigeria. *The Journal of Modern African Studies*, 34(1), 79-103.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications. http://dx.doi.org/10.1016/0147-1767(85)90062-8

Linkov I., Trump B.D., Keisler, J. (2018). Risk and resilience must be independently managed. *Nature*, 555(7694), 30–30. https://doi.org/10.1038/d41586-018-02567-0

Lobao, L. M. (1990). *Locality and inequality: Farm and industry structure and socioeconomic conditions*. SUNY Press.

Loorbach, D., & Rotmans, J. (2006). Managing Transitions for Sustainable Development. *Understanding industrial transformation*, *44*, 187-206.

Lorber, L. (2014). Holistic approach to revitalised old industrial areas. *Procedia-Social and Behavioral Sciences*, *120*, 326-334. https://doi.org/10.1016/j.sbspro.2014.02.110

Lorch, B., Johnston, M., & Challen, D. (2004). Views of community sustainability after a mine closure: A case study of Manitouwadge, Ontario. *Environments*, 1, 15-30.

Loxely, J. (2010). *Aboriginal, Northern, and Community Economic Development*. Winnipeg: Arbeiter Ring Publishing.

Lucas, R. (1971). *Minetown, milltown, railtown: Life in Canadian communities of single industry*. University of Toronto Press. http://www.jstor.org/stable/10.3138/j.ctvcj2vdx

MacKinnon, D., Kempton, L., O'Brien, P., Ormerod, E., Pike, A., & Tomaney, J. (2022). Reframing urban and regional 'development'for 'left behind'places. *Cambridge Journal of Regions, Economy and Society*, *15*(1), 39-56. https://doi.org/10.1093/cjres/rsab034

Madau, M. A. (1982). The local economic impact of Quetico Provincial Park on the town of Atikokan, Ontario. Available at Chancellor Paterson Library Microfiche Collection (Nanda Gikendan Gamik - 5th Floor) non-circulating (MFICHE MB 210).

Marais, L., McKenzie, F. H., Deacon, L., Nel, E., van Rooyen, D., & Cloete, J. (2018). The changing nature of mining towns: Reflections from Australia, Canada and South Africa. *Land use policy*, 76, 779-788. https://doi.org/10.1016/j.landusepol.2018.03.006

Marais, L., Ndaguba, E., Mmbadi, E., Cloete, J., & Lenka, M. (2022). Mine closure, social disruption, and crime in South Africa. *The Geographical Journal*, *188*(3), 383-400.

Markey, S., Halseth, G., & Manson, D. (2008). Challenging the inevitability of rural decline: Advancing the policy of place in northern British Columbia. *Journal of Rural Studies*, 24(4), 409-421. https://doi.org/10.1016/j.jrurstud.2008.03.012

Markusen, A. R. (1988). Planning for industrial decline: Lessons from steel communities. *Journal of Planning Education and Research*, *7*(3), 173-184.

Marré, A. (2020). Rural population loss and strategies for recovery. *Econ Focus*, (1Q), 27-30.

Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications.

Martin, R., & Sunley, P. (2015). On the notion of regional economic resilience: conceptualization and explanation. *Journal of economic geography*, *15*(1), 1-42. https://doi.org/10.1093/jeg/lbu015

Martin, R., Sunley, P., Gardiner, B., & Tyler, P. (2016). How regions react to recessions: Resilience and the role of economic structure. *Regional Studies*, 50(4), 561-585. https://doi.org/10.1080/00343404.2015.1136410

Martin-Breen, P. Anderies, JM. (2011). 'Resilience: A Literature Review' Bellagio Initiative, Brighton: IDS. Available at: https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/3692

Matarrita-Cascante, D., & Trejos, B. (2013). Community resilience in resource-dependent communities: a comparative case study. *Environment and Planning A*, *45*(6), 1387-1402. https://doi.org/10.1068/a45361

McAreavey, R. (2022). Finding rural community resilience: Understanding the role of anchor institutions. *Journal of Rural Studies*, *96*, 227-236. https://doi.org/10.1016/j.jrurstud.2022.10.014

McEvoy, J., & Gustafson, J. A. (1985). *Why Do People Stay in Atikokan?* Atikokan Centennial Museum.

McLoyd, V. C. (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child development*, *61*(2), 311-346. https://doi.org/10.1111/j.1467-8624.1990.tb02781.x

McNeill, J. R., & Vrtis, G. (Eds.). (2017). *Mining North America: an environmental history since 1522*. University of California Press.

Meadowcroft, J. (2011). Engaging with the politics of sustainability transitions. *Environmental innovation and societal transitions*, *1*(1), 70-75. http://dx.doi.org/10.1016/j.eist.2011.02.003

Mercier, L. (2001). *Anaconda: Labor, community, and culture in Montana's smelter city*. University of Illinois Press.

Michels, R. E. (1981). The Atikokan Story: for the Municipal Advisory Committee Northwestern Ontario. Atikokan: Quetico Center.

Mistry, R. S., Vandewater, E. A., Huston, A. C., & McLoyd, V. C. (2002). Economic well-being and children's social adjustment: The role of family process in an ethnically diverse low-income sample. *Child Development*, 73(3), 935-951. https://doi.org/10.1111/1467-8624.00448

Mitchell, C. J., & O'Neill, K. (2016). Mine site re-purposing in northern Ontario: An application of the 'Transition Template'. *The Extractive Industries and Society*, *3*(4), 1018-1030.

Mitchell, Clare J. A, and Kendra O'Neill. (2016). Tracing economic transition in the mine towns of northern Ontario: An application of the "resource-dependency model". *The Canadian Geographer/Le Géographe canadien*, 60(1), 91-106. https://doi.org/10.1111/cag.12238

Mitrović, B. (2015). Historical understanding and historical interpretation as contextualization. *History and Theory*, *54*(3), 311-332. https://doi.org/10.1111/hith.10762

Mmadu, R. A. (2013). The search for environmental justice in the Niger Delta and corporate accountability for Torts: How Kiobel added salt to injury. *Journal of Sustainable Development Law and Policy (The)*, *1*(1), 73-85.

Nault, M., & Girard, A. (1999). *Atikokan: all that we are; the first 100 years.* 100th Birthday Committee.

Nedeljković Knežević, M., Petrović, M. D., Nedeljković, S., Mijatov, M., Radovanović, M. M., Gajić, M., & Škoda, M. (2019). Changes in traditional activities of industrial area toward sustainable tourism development. *Sustainability*, *11*(22), 6189.

Nel, E. L., Hill, T. R., Aitchison, K. C., & Buthelezi, S. (2003). The closure of coal mines and local development responses in Coal-Rim Cluster, northern KwaZulu-Natal, South Africa. *Development Southern Africa*, 20(3), 369-385. https://doi.org/10.1080/0376835032000108185

Nel, E., & Stevenson, T. (2014). The catalysts of small town economic development in a free market economy: A case study of New Zealand. *Local Economy*, 29(4-5), 486-502. https://doi.org/10.1177/0269094214535022

Nelson, C., Treichler, P. A., & Grossberg, L. (2013). Cultural studies: An introduction. In *Cultural studies* (pp. 1-22). Routledge.

Nelson, R., Kokic, P., Crimp, S., Martin, P., Meinke, H., Howden, S. M., de Voil, P., & Nidumolu, U. (2010). The vulnerability of Australian rural communities to climate variability and change: Part II—Integrating impacts with adaptive capacity. *Environmental Science & Policy*, 13(1), 18-27. https://doi.org/10.1016/j.envsci.2009.09.007

Neuman, W. L., & Robson, K. (2014). *Basics of Social Research: Qualitative and Quantitative Approaches.* Toronto: Pearson Canada.

Norris, F.H., Stevens, S.P., Pfefferbaum, B., Wyche, K.F., & Pfefferbaum, R.L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41(1-2), 127-150. http://dx.doi.org/10.1007/s10464-007-9156-6

Nwajiaku, K. (2005). Between discourse and reality: The politics of oil and Ijaw ethnic nationalism in the Niger Delta. *Cahiers d'études africaines*, *178*(2), 457-496. https://doi.org/10.4000/etudesafricaines.5448

Nwajiaku-Dahou, K. (2012). The political economy of oil and 'rebellion'in Nigeria's Niger Delta. Review of African Political Economy, 39(132), 295-313. http://www.jstor.org/stable/42003277

Nwapi, C. (2010). A legislative proposal for public participation in oil and gas decision-making in Nigeria. *Journal of African Law*, *54*(2), 184-211. https://doi.org/10.1017/S0021855310000045

Nwilo, P. C., & Badejo, O. T. (2006). Impacts and management of oil spill pollution along the Nigerian coastal areas. *Administering Marine Spaces: International Issues*, *119*, 1-15.

Obi, C. (2010). Oil Extraction, Dispossession, Resistance, and Conflict in Nigeria's Oil-Rich Niger Delta. *Canadian Journal of Development Studies*, 30(1-2), 219-236.

Ochogba, C., Obulor, O., & Ogide, C. G. (2017). Effects of Oil Exploration on the Culture of Ogba/Egbema/Ndoni Local Government Area, Rivers State, Nigeria Aborigines. *International Journal of Advanced Academic Research*, 3(3), 47-57.

Odoemene, A. (2011). Social consequences of environmental change in the Niger Delta of Nigeria. *Journal of Sustainable Development*, 4(2), 123-135. DOI: 10.5539/jsd.v4n2p123

Odularu, G. O. (2008). Crude oil and Nigerian economic performance. *Oil and Gas Business Journal*, Ufa State Petroleum, Russia. Available at: http://www.ogbus.ru/eng/authors/odularo/odularo_1.pdf

Ogbonna, O. E., Mobosi, I. A., & Ugwuoke, O. W. (2020). Economic growth in an oil-dominant economy of Nigeria: The role of financial system development. *Cogent Economics & Finance*, 8(1), 1810390.

Okeagu, E. J., Okeagu, C. J., Ademiluyi, O. A., & Onuoha, N. C. (2006). The Environmental and Social Impact of Petroleum and Natural Gas Exploitation in Nigeria. *Journal of Third World Studies*, 23(1), 199-218.

Okoh, A. S. (2020). *Oil mortality in post-fossil fuel era Nigeria: Beyond the oil age*. Springer Nature

Okoji, M. A. (2002). Social Implications of The Petroleum Oil Industry in The Niger Delta. *International Journal of Environmental Studies*, 59(2), 197-210.

Okonkwo, I. V., & Madueke, N. M. F. (2016). Petroleum revenue and economic development in Nigeria. Journal of Polymer and Textile Engineering, 3(2), 39-55.

Okonmah, P. (1997). Right to a clean environment: The case for the people of oil-producing communities in the Nigerian delta. *Journal of African Law, 41*(1), 43-67. https://doi.org/10.1017/S0021855300009979

Okonofua, B. A. (2013). Triangulation, Emotional Reactivity, and Violence in the Niger Delta. *Sage Open*, 3(2), 1-14. https://doi.org/10.1177/2158244013483758

Okonofua, B. A. (2016). The Niger Delta amnesty program: The challenges of transitioning from peace settlements to long-term peace. *SAGE Open*, *6*(2), 2158244016654522

Okonta, I., & Douglas, O. (2003). *Where Vultures Feast: Shell, Human Rights, and Oil in the Niger Delta* (1st ed., pp. 1-267). Verso, New York.

Okotie, S. (2018). The Nigerian economy before the discovery of crude oil. In *The political ecology of oil and gas activities in the Nigerian aquatic ecosystem* (pp. 71-81). Academic Press.

Okpako, J. E. F. (2014). Influence of Oil Activities on the Socio-Economic and Environmental Health of Host Niger Delta Communities in Nigeria. Mediterranean *Journal of Social Sciences*, 5(17), 97-106.

Okwuosa, T. (2017). "Oil is Our Doom": Photographs of the Niger Delta and Beyond. *Critical Interventions*, *11*(2), 155-170, https://doi.org/10.1080/19301944.2017.1363508

Olayungbo, D.O. (2019). Effects of oil export revenue on economic growth in Nigeria: A time varying analysis of resource curse. *Resources Policy*, 64, 101469. https://doi.org/10.1016/j.resourpol.2019.101469

Oliver, M. D., & Stout, M. (2022). Examining natural resource management through a community development theoretical lens. *Community Development*, *53*(2), 130-149. https://doi.org/10.1080/15575330.2021.1946575

Oluwaniyi, O. O. (2010). Oil and Youth Militancy in Nigeria's Niger Delta Region. *Journal of Asian and African Studies*, 45(3), 309-325.

Omorogbe Y. (1997). *The oil and gas industry : exploration and production contracts*. Malthouse Press. Retrieved 16 May 2023 from http://books.google.com/books?id=OpZBAQAAIAAJ

O'Neill, T. (2007). Curse of the black gold hope and betrayal in the Niger Delta. *National Geographic*, *211*(2), 88-117.

Ontario Museum Association. (2024). Museum of Atikokan. Retrieved May 13, 2024, from https://www.museumsontario.ca/museum/Museum-of-Atikokan.

Onuoha, F. C. (2008). Oil pipeline sabotage in Nigeria: Dimensions, actors and implications for national security. *African Security Review*, *17*(3), 99-115. https://doi.org/10.1080/10246029.2008.9627487

Onyechi, K. C. N., Eseadi, C., Ugwuozor, F. O., Omeje, J. C., & Ngwoke, D. U. (2016). Probable Psychological Impacts of Environmental Pollution (Oil Spills) in the Coastal Area of the Niger Delta of Nigeria: A Philosophical Discourse. *American-Eurasian Journal of Agriculture and Environmental Science*, 16(2), 374-379.

Opukri, C. O., & Ibaba, I. S. (2008). Oil induced environmental degradation and internal population displacement in the Nigeria's Niger Delta. *Journal of sustainable Development in Africa*, *10*(1), 173-193.

Ormerod, P. (2010). Resilience after local economic shocks. *Applied Economics Letters*, 17(5), 503-507. https://doi.org/10.1080/13504850801964331

Orogun, P. S. (2010). Resource control, revenue allocation and petroleum politics in Nigeria: the Niger Delta question. *GeoJournal*, *75*, 459-507.

Osaghae, E. (2015). Resource Curse or Resource Blessing: The Case of the Niger Delta Oil Republic in Nigeria. *Commonwealth and Comparative Politics*, 54(2), 109-129.

Osaghae, E. E., Ikelegbe, A. O., Olarinmoye, O. O., & Okhomina, S. I. (2011). *Youth Militias, Self Determination, and Resource Control Struggles in the Niger-delta Region of Nigeria*.

Osbahr, H., Twyman, C., Adger, W. N., & Thomas, D. S. (2010). Evaluating successful livelihood adaptation to climate variability and change in southern Africa. *Ecology and Society*, *15*(2).

Oshwofasa, B. O., Anuta, D. E., & Aiyedogbon, J. O. (2012). Environmental degradation and oil industry activities in the Niger-Delta region. *African Journal of Scientific Research*, *9*(1).

Osusu, O. O., & Larry, S. I. (2020). Shell and Corporate Social Responsibility in Ogbia Local Government Area of Bayelsa State, Nigeria, 1960-2015. *International Journal of Integrative Humanism*, 12(2).

Otiono, N. (2017). Interview–Samantha Iwowo, Scriptwriter of Oloibiri (2016). *Journal of African Cinemas*, *9*(1), 99-106, https://doi.org/10.1386/jac.9.1.99_7

Parkins, J. R., & Angell, A. C. (2011). Linking social structure, fragmentation, and substance abuse in a resource-based community. *Community, Work & Family*, *14*(1), 39-55. https://doi.org/10.1080/13668803.2010.506030

Patel, S.S., Rogers, M.B., Amlôt, R., & Rubin, G.J. (2017). What do we mean by 'community resilience'? A systematic literature review of how it is defined in the literature. *PLoS Currents Disasters.* https://doi.org/10.1371/currents.dis.db775aff25efc5ac4f0660ad9c9f7db2

Paton, D., Johnston, D., Mamula-Seadon, L., & Kenney, C. M. (2014). Recovery and development: Perspectives from New Zealand and Australia. In *Disaster and Development: Examining Global Issues and Cases* (pp. 255-272).

Pepper, M., Roche, C. P., & Mudd, G. M. (2014). Mining legacies—Understanding life-of-mine across time and space. In *Proceedings of the Life-of-Mine Conference* (pp. 449-465). Brisbane, Australia: Australasian Institute of Mining and Metallurgy.

Pezzini, M. (2001). Rural policy lessons from OECD countries. *International Regional Science Review*, 24(1), 134-145. https://doi.org/10.1177/016001701761013024

Phia, S. (2009). Oil exploration in colonial Nigeria, c. 1903–58. *The Journal of Imperial and Commonwealth History*, 37(2), 249-274. https://doi.org/10.1080/03086530903010376

Pike, A., Dawley, S., & Tomaney, J. 2010. Resilience, adaptation and adaptability. *Cambridge journal of regions, economy and society*, 3(1), 59-70. https://doi.org/10.1093/cjres/rsq001

Piper, L. (2010). *The industrial transformation of subarctic Canada*. UBC Press.

Powell, F., & Geoghegan, M. (2004). The politics of community development. *The Adult Learner*, 95.

Putnam, R.D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.

Randall, J.E. and Ironside, R.G., (1996). Communities on the edge: An economic geography of resource-dependent communities in Canada. *Canadian Geographer/Le Géographe canadien*, *40*(1), pp.17-35. https://doi.org/10.1111/j.1541-0064.1996.tb00430.x

Restrepo, P. (2015). Skill mismatch and structural unemployment. *Massachusetts Institute of Technology Job Market Paper*, 13(9), 66-94. https://doi.org/10.13140/RG.2.1.4201.2242

Romans, S., Cohen, M., & Forte, T. (2011). Rates of depression and anxiety in urban and rural Canada. *Social Psychiatry and Psychiatric Epidemiology*, 46, 567-575. https://doi.org/10.1007/s00127-010-0222-2

Ross, H., & Berkes, F. (2014). Research approaches for understanding, enhancing, and monitoring community resilience. *Society & Natural Resources*, *27*(8), 787-804. https://doi.org/10.1080/08941920.2014.905668

Rowley, J. (2002). Using case studies in research. *Management research news*, *25*(1), 16-27. https://doi.org/10.1108/01409170210782990

Sachs, J.D. (2015). *The Age of Sustainable Development*. Columbia University Press. http://dx.doi.org/10.1108/IJSE-08-2016-0224

Samah, A. A., & Aref, F. (2011). The theoretical and conceptual framework and application of community empowerment and participation in processes of community development in Malaysia. *The Journal of American Science*, *7*(2), 186-195

Sánchez-Zamora, P., Gallardo-Cobos, R., & Ceña-Delgado, F. (2014). Rural areas face the economic crisis: Analyzing the determinants of successful territorial dynamics. *Journal of Rural Studies*, *35*, 11-25. https://doi.org/10.1016/j.jrurstud.2014.03.007

Sancton, A. (2005). The governance of metropolitan areas in Canada. *Public Administration and Development: The International Journal of Management Research and Practice*, 25(4), 317-327.

Sanusi, L. S. (2010). Growth prospects for the Nigerian economy. Convocation Lecture delivered at the Igbinedion University Eighth Convocation Ceremony, Okada, Edo State.

Saul, J. (2022). *Collective trauma, collective healing: Promoting community resilience in the aftermath of disaster*. Routledge.

Saul, J. E., Willis, C. D., Bitz, J., & Best, A. (2013). A time-responsive tool for informing policy making: rapid realist review. *Implementation science*, *8*, 1-15. https://doi.org/10.1186/1748-5908-8-103

Schneider, S. L. (2007). Quasi-experimental designs in behavioral research: On context, crud, and convergence. In *The SAGE Handbook of Social Science Methodology* (pp. 174-189). https://doi.org/10.4135/9781848607958.n9

Schollie, B., Negropontes, D., Buan, E., & Litun, B. (2017). *Final report: Impact of schools on rural communities study*. Alberta Education, Alberta Municipal Affairs, & Alberta Agriculture and Forestry. http://open.alberta.ca/publications/9781460131374

Schwarz, A.M., Béné, C., Bennett, G., Boso, D., Hilly, Z., Paul, C., Posala, R., Sibiti, S., & Andrew, N. (2011). Vulnerability and resilience of remote rural communities to shocks and global changes: Empirical analysis from Solomon Islands. Global Environmental Change, 21(3), 1128-1140. https://doi.org/10.1016/j.gloenvcha.2011.04.011

Sen, Y. (2010). Challenges and prospects of Nigeria's development at 50. In *Golden Jubilee Symposium Paper* at Carleton University, Ottawa, Canada. Retrieved from https://carleton.ca/africanstudies/wp-content/uploads/yima-sen-lecture.pdf

Sengupta, M. (2021). *Environmental impacts of mining: monitoring, restoration, and control*. CRC Press. https://doi.org/10.1201/9781003164012

Shandro, J. A., Veiga, M. M., Shoveller, J., Scoble, M., & Koehoorn, M. (2011). Perspectives on community health issues and the mining boom–bust cycle. *Resources Policy*, 36(2), 178-186. https://doi.org/10.1016/j.resourpol.2011.01.004

Shank, G.D. 2006. *Qualitative Research: A Personal Skills Approach*, 2nd ed. Prentice

Sharifi, A. (2016). A critical review of selected tools for assessing community resilience. *Ecological indicators*, *69*, 629-647. https://doi.org/10.1016/j.ecolind.2016.05.023

Shotonwa, I. O., Giwa-Ajeniya, A. O., & Mekuleyi, G. O. (2018). The physical and chemical components of Nigerian crude oil. In *The political ecology of oil and gas activities in the Nigerian aquatic ecosystem* (pp. 33-46). Academic Press.

Siemens, L. B. (1976). *Single Enterprise Communities on Canada's Resource Frontier*. Waterloo, Ont., Canada: Contact Press.

Simmie, J., & Martin, R. (2010). The economic resilience of regions: Towards an evolutionary approach. *Cambridge Journal of Regions, Economy and Society*, 3(1), 27-43. https://doi.org/10.1093/cjres/rsp029

Simpson, A., & Oyètádé, B. A. (2008). Nigeria: Ethno-linguistic competition in the giant of Africa. *Language and national identity in Africa*, 172.

Siyongwana, P. Q., & Shabalala, A. (2019). The socio-economic impacts of mine closure on local communities: evidence from Mpumalanga Province in South Africa. *GeoJournal*, *84*, 367-380.

Smith, M. D., Krannich, R. S., & Hunter, L. M. (2001). Growth, decline, stability, and disruption: A longitudinal analysis of social Well-Being in four western rural communities. *Rural Sociology*, *66*(3), 425-450. https://doi.org/10.1111/j.1549-0831.2001.tb00075.x

Sneddon, C., Howarth, R. B., & Norgaard, R. B. (2006). Sustainable development in a post-Brundtland world. *Ecological economics*, *57*(2), 253-268. https://doi.org/10.1016/j.ecolecon.2005.04.013

Sofield, T. H. (Ed.). (2003). *Empowerment for sustainable tourism development.* Emerald Group Publishing.

Southcott, C. (2006). *The north in numbers: A demographic analysis of social and economic change in northern Ontario*. Centre for Northern Studies, Lakehead University.

Sowa, V. A. (2003). Aspects of Sustainability Following Closure of the Steep Rock Iron Mines, Ontario. *Exploration and Mining Geology*, 12(1-4), 37-47. https://doi.org/10.2113/0120037.

Stanley, W. R. (1990). Socioeconomic impact of oil in Nigeria. *GeoJournal*, 22, 67-79.

Stephenson, C., & Wray, D. (2005). Emotional regeneration through community action in post-industrial mining communities: The New Herrington Miners' Banner Partnership. *Capital & Class*, 29(3), 175-199. https://doi.org/10.1177/030981680508700111

Steyn, P. (2009). Oil exploration in colonial Nigeria, c. 1903–58. *The Journal of Imperial and Commonwealth History*, *37*(2), 249-274.

Stognief, N., Walk, P., Schöttker, O., & Oei, P. Y. (2019). Economic resilience of German lignite regions in transition. *Sustainability*, *11*(21), 5991. https://doi.org/10.3390/su11215991

Storey, K. (2001). Fly-in/fly-out and fly-over: Mining and regional development in Western Australia. *Australian Geographer*, 32(2), 133-148. https://doi.org/10.1080/00049180120066616

Stuckler, D., Basu, S., Suhrcke, M., Coutts, A., & McKee, M. (2009). The public health effect of economic crises and alternative policy responses in Europe: An empirical analysis. *The Lancet*, 374(9686), 315-323. https://doi.org/10.1016/S0140-6736(09)61124-7

Tamuno, S. O., & Edoumiekumo, S. G. (2012). Nigeria in the Niger Delta: An Allegory of the 'Legs Tying the Hands'. *International Review of Social Sciences and Humanities*, *4*(1), 113-120.

Taylor, B. W. (1978). *Steep Rock: the men and the mines*. Quetico Publishing.

Teitelbaum, S., Montpetit, A., Bissonnette, J. F., Chion, C., Chiasson, G., Doyon, F., F., Dupras, J., Fortin, M.J., Leclerc, É., St-Amour, C. and Tardif, J. (2019). Studying resource-dependent communities through a social-ecological lens? Examining complementarity with existing research traditions in Canada. *Society & natural resources*, *32*(1), 93-112. https://doi.org/10.1080/08941920.2018.1517913

Timothy, D. J. (2012). Archival research. In *Handbook of research methods in tourism*. Edward Elgar Publishing. https://doi.org/10.4337/9781781001295.00028

Tonts, M., Plummer, P., & Lawrie, M. (2012). Socio-economic wellbeing in Australian mining towns: A comparative analysis. *Journal of Rural Studies*, 28(3), 288-301. https://doi.org/10.1016/j.jrurstud.2011.10.006

Tonwe, D. A., Ojo, G. U., & Aghedo, I. (2012). Spoils politics and environmental struggle in the Niger Delta region of Nigeria. *Inkanyiso: Journal of Humanities and Social Sciences*, *4*(1), 37-48.

Tronrud, T. J. (1990). Buying prosperity: The bonusing of factories at the Lakehead, 1885-1914. *Urban History Review*, 19(1), 1-13.

Tsang, E. W. (2014). Generalizing from research findings: The merits of case studies. *International Journal of Management Reviews*, *16*(4), 369-383. https://doi.org/10.1111/ijmr.12024

Udonwa, N. E., Ekpo, M., Ekanem, I. A., Inem, A. V., & Etokidem, A. (2004). Oil doom and AIDS boom in the Niger Delta region of Nigeria. *Rural and Remote Health*, *4*(2), 1-7.

Ukeje, C. (2001). Oil communities and political violence: the case of ethnic Ijaws in Nigeria's Delta region. *Terrorism and political violence*, *13*(4), 15-36.

Ukeje, C. (2001). Youths, violence and the collapse of public order in the Niger Delta of Nigeria. *Africa Development/Afrique et Développement*, 26(1/2), 337-366.

Ulrich-Schad, J. D., & Duncan, C. M. (2018). People and places left behind: Work, culture and politics in the rural United States. *The Journal of Peasant Studies*, *45*(1), 59-79. https://doi.org/10.1080/03066150.2017.1410702

Umukoro, N. (2018). Human Rights Violations and Transitional Justice in Nigeria's Niger Delta during Civilian Rule. *Journal of Global South Studies*, *35*(1), 87-103. https://www.jstor.org/stable/48518835

Usang, E. E., & Ikpeme, N. J. (2015). The Niger Delta oil rich region: The paradox of fascination and horror. *Academic Journal of Interdisciplinary Studies*, *4*(1), 117. http://dx.doi.org/10.5901/mjss.2015.v4n1p117

Uwakonye, M. N., Osho, G. S., & Anucha, H. (2006). The impact of oil and gas production on the Nigerian economy: A rural sector econometric model. *International Business & Economics Research Journal (IBER)*, *5*(2). https://doi.org/10.19030/IBER.V5I2.3458

Uyigue, E., & Agho, M. (2007). Coping with climate change and environmental degradation in the Niger Delta of southern Nigeria. *Community Research and Development Centre Nigeria (CREDC)*, *1*(30).

Uzonwanne, M. C. (2015). Economic diversification in Nigeria in the face of dwindling oil revenue. *Journal of Economics and sustainable development*, *6*(4), 61-67.

Vaishar, A., Šťastná, M., & Zapletalová, J. (2023). Small industrial towns in Moravia: a comparison of the production and post-productive eras. *European Planning Studies*, *31*(8), 1776-1796. https://doi.org/10.1080/09654313.2022.2110377

Van Drie, J., & Van Boxtel, C. (2008). Historical reasoning: Towards a framework for analyzing students' reasoning about the past. *Educational Psychology Review*, 20(2), 87–110. https://doi.org/https://doi.org/10.1007/s10648-007-9056-1

Van Meter, D. S., & Van Horn, C. E. (1975). The policy implementation process: A conceptual framework. *Administration & Society*, 6(4), 445-488. https://doi.org/10.1177/009539977500600404

Veiga, M. M., Scoble, M., & McAllister, M. L. (2001). *Mining with communities. Natural Resources Forum*, 25(3), 191-202. Oxford, UK: Blackwell Publishing Ltd.

Veno, A., & Dufty, N. F. (1985). Mine towns in Australia's Northwest: Options for operation and quality of life. *Ekistics*, 176-179. http://www.jstor.org/stable/43622840

Ventresca, M. J., & Mohr, J. W. (2017). Archival research methods. *The Blackwell companion to organizations*, 805-828. https://doi.org/10.1002/9781405164061.ch35

Wallerstein, I. (2011). *The Modern World-System I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century* (1st ed.). University of California Press. Available at http://www.jstor.org/stable/10.1525/j.ctt1pnrj9.

Watkins, M. H. (1963). A staple theory of economic growth. *Canadian Journal of Economics and Political Science/Revue canadienne de economiques et science politique*, *29*(2), 141-158.

Watts, M. (2001). Petro-violence: Community, extraction, and political ecology of a mythic commodity. *Violent environments*, 189-212.

Watts, M. (2004). Resource Curse? Governmentality, Oil and Power in Niger Delta, Nigeria. *Geopolitics*, 9(1), 50-80.

Watts, M. (2004). The Sinister Political Life of Community: Economies of Violence and Governable Spaces in the Niger Delta, Nigeria (Working Paper No. 3). Institute of International Studies, University of California, Berkeley. Retrieved from https://geography.berkeley.edu/sites/default/files/3-watts.pdf

Watts, M. (2007). Petro-Insurgency or Criminal Syndicate? Conflict and Violence in the Niger Delta. *Review of Political Economy, Class Resistance and Social Transformation*, 34(114), 637-660.

Watts, M. (2011). Blood Oil: The Anatomy of a Petro-Insurgency in the Niger Delta, Nigeria. In A. Behrends, S. P. Reyna, & G. Schlee (Eds.), *Crude Domination: An Anthropology of Oil* (pp. 49-80). New York: Berghahn Books.

Welsh, M. (2014). Resilience and Responsibility: Governing Uncertainty in a Complex World. *The Geographical Journal*, 180(1), 15-26. https://doi.org/10.1111/geoj.12012

Whitehouse, T. (2018). *How Ruins Acquire Aesthetic Value: Modern Ruins, Ruin Porn, and the Ruin Tradition*. Springer.

Wightman, R. W., & Wightman, N. M. (1997). *The Land Between: Northwestern Ontario Resource Development, 1800 to 1990s.* Toronto: University of Toronto Press.

Wilson, G. (2012). *Community resilience and environmental transitions*. Routledge.

Wilson, S. H., & Walker, G. M. (1993). Unemployment and health: A review. *Public Health*, 107(3), 153-162. https://doi.org/10.1016/s0033-3506(05)80436-6

Winkler, R., Deller, S., & Marcouiller, D. (2015). Recreational housing and community development: A triple bottom line approach. *Growth and Change*, *46*(3), 481-500. https://doi.org/10.1111/grow.12100

Woodrow, M. (2002). *Challenges to sustainability in Northern Ontario*. Maureen Woodrow, Institute of the Environment, University of Ottawa.

Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *The World Bank Research Observer*, 15(2), 225-249.

Wright, K. A. (2007). Reenergizing small communities: A vital role for rural schools. In *The Educational Forum* (Vol. 71, No. 4, pp. 345-360). Taylor & Francis Group. https://doi.org/10.1080/00131720709335024

Yahaya, M. Y. (2020) The political-economy of oil exploration and environmental degradation in the South-South: Paradoxis of poverty and endowment. *International Journal of Political Science and Governance*, 2(1): 75-79

Yao, J., & Liu, Y. (2021). Diversification of The Nigerian Economy. In *Nigeria: Selected Issues (IMF Country Report No. 21/34).*

Yin, R. K. (2009). How to do better case studies. *The SAGE handbook of applied social research methods*, *2*(254-282); George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. mit Press.

Yu, C., de Jong, M., & Cheng, B. (2016). Getting depleted resource-based cities back on their feet again–The example of Yichun in China. *Journal of Cleaner Production*, 134, 42-50. https://doi.org/10.1016/j.jclepro.2015.09.101

Zald, M. N. (1993). Organization studies as a scientific and humanistic enterprise: Toward a reconceptualization of the foundations of the field. *Organization science*, *4*(4), 513-528. https://doi.org/10.1287/orsc.4.4.513

Zaslow, M. (2016). *The northward expansion of Canada 1914-1967* (Vol. 17). McClelland & Stewart.

Dissertations and Theses

Achunike, O. (2020). *Social impacts of oil extraction in the Niger Delta region, Nigeria* (Doctoral dissertation, University of Northern British Columbia). https://doi.org/10.24124/2020/59079

Akpan, W. N. (2005). *Between the sectional and the national: Oil, grassroots discontent and civic discourse in Nigeria* [Doctoral dissertation, Rhodes University]. https://core.ac.uk/reader/145055245

Anifowose, B. (2008). Assessing the impacts of oil and gas transport on Nigeria's Niger Delta environment. In *U21 Postgraduate Research Conference Proceedings 1*, University of Birmingham UK.

Enyia, N. T. (1991). *Oil Exploration and Production in Rivers State: An Analysis of the Political and Socioeconomic Consequences for Six (6) Communities: 1950-1990.* [Doctoral Dissertation, University of Port Harcourt, Nigeria].

Godwin, A. (1976). *Geochemical and toxicological investigation of the Hogarth and Caland pit lakes, former Steep Rock Iron Mine site* [Master's thesis, University of Western Ontario].

Mikkelsen, L. B. (2012). *Preliminary hydrodynamic modelling of the Steep Rock pit lakes, Atikokan, Ontario* [Master's thesis, Lakehead University].

Olivier, S. A. (2009). *The Effects of the knowledge economy on women and resource dependent communities in Northern Ontario* [Master's theses, Lakehead University].

O'Neill, K. (2015). *Bridging mining-scarred landscapes and nature-and resource-based tourism and recreation in Northern Ontario* [Master's thesis, University of Waterloo].

Wiwa, R. (2014). Youth coping strategies resulting from the Niger Delta oil crisis [Master's thesis, University of Guelph]. Guelph, Ontario, Canada.

APPENDIX I: INTERVIEW GUIDE FOR INTERVIEWS IN THE TOWNS OF OLOIBIRI AND ATIKOKAN 2022-2023

Before we begin, I would like to remind you that:
- You have chosen to have your name be public. OR you have chosen to remain confidential.

1. Were you an employee of the company? If yes, for what period of time did you work with the company?

2. Can you describe the changes in the economy of your town that have taken place over the last decade?

3. What do you remember about the state of the town during the period when the company was active? What is your general thoughts on the current state of the community?

4. What are the main issues in the town right now in relation to the "bust"? How is it affecting families, relationships and the town as a whole? And what do you think can be done to mitigate these issues?

5. How is this "bust" affecting you and your family?

6. What ways have you and your family found to handle this boom-and-bust industry?

7. Are you satisfied with the role of government in helping the forest industry to come out of the present crisis or to support alternative employment (other sectors, self-employment)?

8. Has there been any change in the kind and the number of community organization that exist, for example, churches, service clubs, and athletic organizations?

9. What has been the role of community organizations (non-governmental organizations) in the present industry crisis?

10. What kind of support do you think is needed to promote economic development in your community?

11. What sort of changes, if any have there been in people's employment? Have new or different kinds of jobs come into existence? Do you think the town is transiting to become stable and economically diverse, or the town is still vulnerable due to the "bust"?

12. What processes or policies do you think can be adopted in ensuring that the town transit to become stable and economically diverse? What resources and capacities do the town have to become sustainable and economically diverse?

13. What do you think are the internal and external barriers to achieving a stable and economically diverse community? And how do you think this can be mitigated? Are

there changes in the way this town is governed that might help improve the situation here?

14. What are other issues in your opinion that we have not discussed in this interview so far?

APPENDIX II: ABSTRACTS OF MANUSCRIPTS (CHAPTER 3, 4, AND 5)

Abstract 1: Oloibiri: Lessons from the Lifecycle of a Single-Industry Town in Nigeria

This study examines the socio-economic aftermath of the oil industry's closure in the town of Oloibiri to derive key lessons for similar towns. Central to the research is the question: What lessons can be learned from Oloibiri's experience with resource development and economic transformation? The methodology combines primary and secondary data, including historical contextualization and interviews, to explore the town's transition after the oil industry's exit. The findings reveal economic and social impacts, including job loss, environmental degradation, and forced migration. These challenges have led to a decline in population and living standards, and the disruption of traditional occupations and small businesses. The study uncovers an interplay of factors, including government policies, mismanagement, and global market shifts, contributing to Oloibiri's current state of condition and poverty. The town's struggles with lack of adequate infrastructure, pollution, and limited employment opportunities highlight the immediate need for systemic change. By documenting Oloibiri's journey, the research underscores key lessons for managing the socio-economic transitions of single-industry towns, emphasizing the importance of diversification and sustainable development. Further research is encouraged on peripheral RBCs in Nigeria to inform strategies for their resilience and growth.

Keywords: Oloibiri; resource-based community; economic transition; environmental degradation; socio-economic impact; sustainable development

Abstract 2: Lessons from Atikokan: Adapting and Thriving Through Change

The town of Atikokan has experienced economic transformation, evolving from a railroad hub to a mining powerhouse, and subsequently into a community prioritizing renewable energy and tourism. This article examines Atikokan's adaptability to shifts in socio-economic landscapes,

highlighting lessons applicable to similar resource-dependent communities. Through an analysis of Atikokan's historical reliance on natural resources and diversification strategies, this study underscores the critical roles of adaptability, community engagement, and proactive leadership in fostering resilience and sustainable development. The findings reveal how Atikokan is navigating economic fluctuations through strategic planning, offering insights into leveraging local assets for sustainable community planning. This case study serves as a roadmap for other towns navigating similar transitions, advocating for a forward-thinking approach to community development.

Keywords: Economic transformation, Community resilience, Sustainable development, Strategic planning, Vulnerability

Abstract 3: Two Tales of Transformation: A Comparative Study of the Towns of Atikokan and Oloibiri

This paper presents a comparative analysis of two resource-dependent towns, Atikokan in Canada and Oloibiri in Nigeria, focusing on their transformations during the post-extraction period from 1990 to 2021. Both towns have experienced significant declines in their primary industries but have responded quite differently. Atikokan has started transitioning into a sustainable community by leveraging clean energy and diversifying its economic base. Conversely, Oloibiri has faced systemic neglect, environmental degradation, and economic instability, yet has also witnessed a rise in activism, which is driving efforts towards justice, remediation, and sustainable development. This study explores the factors influencing these divergent responses and provides insights into the roles of local governance, global economic forces, and community agency in shaping the transformation of resource-dependent towns. The

conclusions drawn from the experiences of both towns offer essential lessons for guiding sustainable resource management and informing policy decisions in similar contexts globally.

Keywords: Resource Extraction, Community Transformation, Sustainable Development, Economic Diversification

APPENDIX III: APPROVAL OF THE RESEARCH ETHICS BOARD

Research Ethics Board
t: (807) 343-8283
research@lakeheadu.ca

January 07, 2022

Principal Investigator: Dr. Michel Beaulieu
Student: Mr. Temitope Ojo
Social Sciences and Humanities\History
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1

Dear Dr. Michel Beaulieu and Mr. Temitope Ojo:

Re: Romeo File No: 1468961

On behalf of the Research Ethics Board, I am pleased to grant ethical approval to your research project titled, "Looking Back, Looking Forward: Resource-Based Communities and Development".

Ethics approval is valid until January 7, 2023. Please submit a Request for Renewal to the Office of Research Services via the Romeo Research Portal by December 7, 2022, if your research involving human participants will continue for longer than one year. A Final Report must be submitted promptly upon completion of the project. Access the Romeo Research Portal by logging into myInfo at:

https://erpwp.lakeheadu.ca/

During the course of the study, any modifications to the protocol or forms must not be initiated without prior written approval from the REB. You must promptly notify the REB of any adverse events that may occur.

Best wishes for a successful research project.

Sincerely,

Dr. Claudio Pousa
A/Chair, Research Ethics Board

/sa

APPENDIX IV: CONSENT FORM

Consent for Participation in "Shifting Grounds: The Rise, Fall, and Resurgence of the Towns of Atikokan and Oloibiri"

MY CONSENT:
I agree to the following:

- ✓ I have read and understand the information contained in the Information Letter.
- ✓ I agree to participate.
- ✓ I understand the risks and benefits to the study.
- ✓ That I am a volunteer and can withdraw from the study at any time and may choose not to answer any question.
- ✓ All data collected will be securely stored separately on Temitope's computer during the project and for 5 years following completion of the project. Information collected as part of this research may be used to write academic papers, presentations and theses, which can be made available to you should you request them.
- ✓ I understand that the research findings will be made available to me upon request.
- ✓ I will remain confidential, unless I otherwise explicitly give permission to use my identity

By consenting to participate, I have not waived any rights to legal recourse in the event of research-related harm.

I understand that I am free to withdraw my consent and discontinue my participation at any time without negative consequences.

In terms of the identification of my interview, I understand that my participation in this study is either (please choose one):

_____ **public**: My identity may be revealed in any publications or presentations that may result from this interview.

OR

_____**Confidential**: My identity will only be known to the interviewer My identity will only be known to the interviewer, and I will be assigned a pseudo name for any publications or presentations that may result from this interview.

I **agree**/**disagree** (please circle one) that transcripts and/or Recordings of my interview may be stored at an archive for long-term preservation, where it may be used by future researchers.

Further Remarks:

_____
_____
_____
_____
_____

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

PARTICIPANT:

NAME (please print):

_____

SIGNATURE:

_____

DATE:

_____

INTERVIEWER:

NAME: TEMITOPE OJO

SIGNATURE:

_____

DATE:

_____

If at any time you have questions about the proposed research, please contact Temitope Ojo (ojot@lakeheadu.ca or 807-630-7796) or Dr. Michel S. Beaulieu, Lakehead University, michel.beaulieu@lakeheadu.ca. Local Contact Information: Department of History, Lakehead University, Thunder Bay, Ontario, P7B 5E1, 807-343-8341 or (mobile) 807-621-3986.

If at any time you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Sue Wright, swright@lakeheadu.ca, and 807-343-8283.

APPENDIX V: INFORMATION LETTER FOR PARTICIPANTS

Letter of Information for Potential Participants in "Shifting Grounds: The Rise, Fall, and Resurgence of the Towns of Atikokan and Oloibiri"

Dear Potential Participant:

You are invited to participate in a doctoral research entitled "Shifting Grounds: The Rise, Fall, and Resurgence of the Towns of Atikokan and Oloibiri."

PURPOSE

My name is Temitope Ojo and I am a doctoral student at Lakehead University. I am undertaking a project to examine, highlight and document the socio-economic changes that have taken place in your town since the middle of the twentieth century. Importantly, I will assess whether your town is transitioning to become potentially stable and economically diverse, or economically vulnerable. My study seeks to better understand how to examine Resource Based Communities (RBCs), like yours, and address the socio-economic issues your town faces when going through boom-and-bust cycles. I will also provide recommendations to policy makers and community planners which may help improve the clarity of RBCs sustainable development policies and regulations. This project is being undertaken by the supervision of Dr. Michel S. Beaulieu for my PhD thesis.

WHAT INFORMATION WILL BE COLLECTED?

During the interview I will ask you questions about your experiences working within the resource industry and how changes within in the industry have impacted your personal and professional life. You will be asked questions about how you remember your town when the industry was active, what your town was like after the closure, and current issues your town faces. You will be asked to state your thought on the current state of the town and would also be asked to give a general thought on whether the town is transiting to become stable and economically diverse, or the town is still vulnerable. Local language will be used for participants whose English is not their first language.

WHAT IS REQUESTED OF ME AS A PARTICIPANT?

You will be asked to undergo an hour-long interview, either over the phone or on a video call. The interview will be audio-recorded with your permission, so that I can transcribe our conversation.

WHAT ARE MY RIGHTS AS A PARTICIPANT?

You are under no obligation to participate and are free to withdraw at any point, without prejudice to pre-existing entitlements. You can refuse to answer any questions you may not want to answer.

WHAT ARE THE RISKS AND BENEFITS?

There is a risk that you may feel emotional distress speaking about your experience. Counselling services are provided at the end of this letter, and where there are no counsellors in the town, provisions will be made available to talk to a counsellor. There are no direct benefits. The general benefits are that this research will provide recommendations to policy makers and stakeholders to better learn, strengthen and build on the resilience of these towns and contribute to the development of planning procedures for other small, remote towns facing economic and resource growth or decline. It will also provide a basis for learning how to cope with sudden economic disruption in small, remote towns.

HOW WILL MY CONFIDENTIALITY BE MAINTAINED?

Before undertaking the interview, you will be asked to sign a consent form stating that you clearly understand the nature of the project. At this point, you will have the opportunity to indicate in the consent form whether you would like to remain confidential through the use of a pseudoname. Names will not be published without explicit consent. You can end your participation in the study at any point up until the submission of the project to the thesis committee. The student researcher, Temitope Ojo, and thesis supervisor, Dr. Michel S. Beaulieu, are the only two individuals who will have access to your identifiable data.

WHAT WILL MY DATA BE USED FOR AND HOW WILL IT BE STORED?

The data will be used for my graduate thesis in the Doctor of Philosophy (Forest Sciences) program at Lakehead University. Information collected as part of this research will be used to write academic papers, presentations, and PhD thesis, which can be made available to you should you request them. Your confidential information will be stored separately from the data collected. Both will be securely stored on my computer during the project and for 5 years following completion of the project. Thereafter, if you have provided your consent, the information will be donated to the Atikokan Museum in the case of Canada and to the Ministry of Niger Delta in the case of Nigeria for use by future researchers and general public.

HOW CAN I RECEIVE A COPY OF THE RESEARCH RESULTS?

If you would like a copy of the research results, please indicate your desire at the time of interview. Alternatively, you may contact us after the interview using the information below.

RESEARCHER CONTACT INFORMATION:

If you are interested in participating, or have any questions or concerns, please contact Temitope Ojo at: ojot@lakeheadu.ca or, 807-630-7796; or Michel S. Beaulieu at: michel.beaulieu@lakeheadu.ca, or, 807-343-8341.

There are no conflicts of interest.

RESEARCH ETHICS BOARD REVIEW AND APPROVAL:

This research study has been reviewed and approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to

speak to someone outside of the research team, please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.