

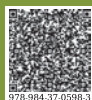
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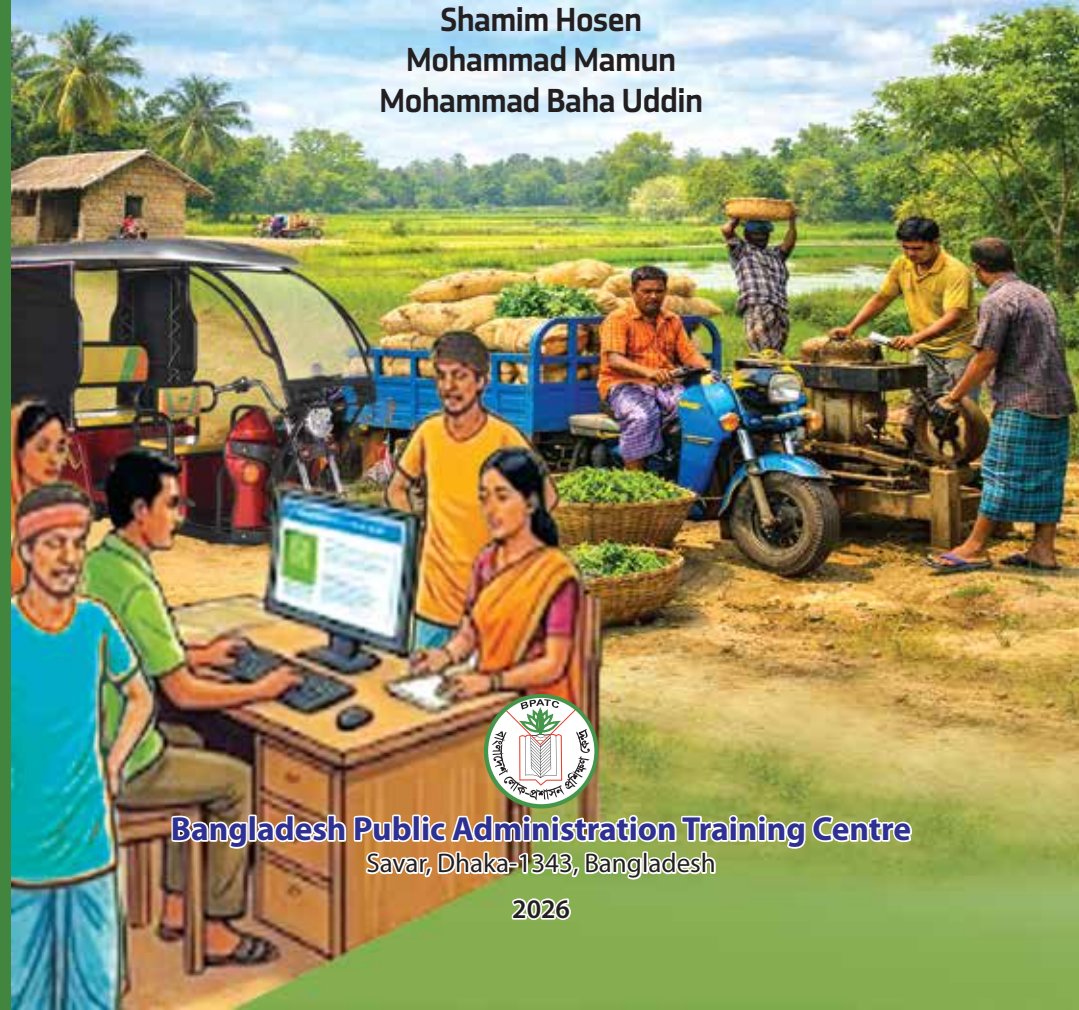
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Rural Employment and Governance through Motorized Vehicle in Bangladesh

Research Monograph

RURAL EMPLOYMENT AND GOVERNANCE *through* **MOTORIZED VEHICLE IN BANGLADESH**

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2026

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Dedication

This monograph is dedicated to the countless rural workers and communities of Bangladesh whose lives and livelihoods are being reshaped by the rise of motorized vehicles. Their resilience, adaptability, and everyday struggles inspired this research and continue to remind us of the importance of inclusive development and decent work. We also dedicate this work to the future generation of policymakers and administrators who will carry forward the responsibility of building governance systems that ensure safety, dignity, and opportunity for all.

Authors

Foreword

The Bangladesh Public Administration Training Centre (BPATC) has consistently sought to advance the knowledge that bridges research, training, and policy reform. This monograph titled “Rural Employment and Governance through Motorized Vehicles in Bangladesh” exemplifies that mission by addressing a critical yet underexplored dimension of rural transformation.

Motorized vehicles have become deeply embedded in rural socio-economy, particularly since the past decade, as a travel mode by offering transport services and access to the places of production and services, generating employment, and reshaping the community dynamics. However, in the contrary, their rapid growth and unregulated expansion has created governance challenges, safety concerns, and policy gaps.

This study, grounded in mixed-methods approach of research. Relevant data were collected from the individuals who are linked with motorized vehicles in rural areas. The data were collected using a pre-determined semi-structured questionnaire. The field survey was administered by 602 participants of the 77th Foundation Training Course (FTC), in their respective villages, as part of the field attachment activities under the “Village and Community Attachment” module. This initiative indicates as a testament to BPATC’s ability to mobilize its training participants as the field researchers, thereby linking the academic inquiry with the practical governance realities.

The monograph is significant for several reasons. First, generates empirical evidence on how motorized vehicles are transforming the rural livelihoods, household incomes, and occupational structures. Second, highlights the governance deficits that undermine decent work standards and road safety. Third, situates these findings within the broader theoretical frameworks of structural transformation and informal economy, ensuring both academic rigor and policy relevance. Finally, contributes directly to the BPATC’s training content, offering case studies and policy briefs that will enrich the learning experience of civil servants.

As Bangladesh advances towards the goal of inclusive development and decent work, this monograph provides timely insights for the policymakers, local government institutions, and development partners. It underscores the need for coherent regulatory frameworks, institutional support, and capacity-building initiatives to harness the benefits of rural motorized transport while mitigating its risks.

I commend the authors for their dedication, methodological rigor, and commitment to the BPATC's vision of evidence-based governance reform. I am confident that this publication will serve as a valuable resource for administrators, researchers, and practitioners seeking to understand and shape the evolving landscape of rural employment and governance in Bangladesh.

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Preface

The Bangladesh Public Administration Training Centre (BPATC) has consistently pursued its mission of strengthening governance, enhancing institutional capacity, and advancing evidence-based policymaking. In this spirit, the monograph, *Rural Decent Employment and Governance through Motorized Vehicles in Bangladesh*, represents a significant contribution to understanding one of the most dynamic transformations in rural livelihoods today.

Over the past decade, motorized vehicles—electric rickshaws, auto-rickshaws, and motorized vans—have become deeply embedded in the socio-economic fabric of rural Bangladesh. They have created new employment opportunities, diversified household incomes, and reshaped community interactions. At the same time, their rapid and largely unregulated expansion has raised pressing questions about governance, safety, and decent work standards. This duality—economic opportunity alongside governance challenges—forms the central focus of this study.

The research presented here is unique in its scope and methodology. It draws upon field-level data collected by 602 participants of the 77th Foundation Training Course (FTC), supported by the Course Management Team and guided by BPATC faculty. Their collective efforts ensured national representativeness and enriched the study with diverse perspectives from across Bangladesh. The voices of rural respondents—drivers, households, and community members—further ground the findings in lived realities.

This monograph is not only an academic exercise but also a practical resource. It provides empirical evidence and policy insights that will inform ministries, local government institutions, and development partners. It will also serve as a valuable input for BPATC’s training curricula, offering case studies and policy briefs that connect research with practice. In doing so, it strengthens BPATC’s role as a national hub for applied research and governance reform.

We extend our sincere gratitude to the FTC participants and faculty for their dedication, and to the rural communities whose cooperation made this study possible. It is our hope that this monograph will contribute meaningfully to the national dialogue on rural employment, governance, and inclusive development.

Acknowledgments

The successful completion of this monograph was made possible through the collective efforts, contributions, and support of many individuals and institutions. We gratefully acknowledge the following:

- **Rector of BPATC:** We express our deepest appreciation to the Rector for his visionary leadership, encouragement, and unwavering support in fostering a culture of research and evidence-based policy development at BPATC. His guidance has been instrumental in shaping this study and ensuring its institutional relevance.
- **602 Participants of the 77th FTC:** Their dedication in collecting field-level data from diverse rural regions across Bangladesh provided the backbone of this research. Their commitment to rigorous data collection and community engagement ensured the national representativeness of the study.
- **Course Management Team (CMT) of the 77th FTC:** Their guidance, coordination, and encouragement were instrumental in mobilizing participants and maintaining the quality and integrity of the fieldwork.
- **Faculties of BPATC:** We extend our sincere appreciation to the faculty members for their academic guidance, methodological support, and constructive feedback throughout the research process. Their expertise enriched the study and strengthened its analytical depth.
- **Respondents and Community Members:** We are deeply indebted to the rural households, drivers, local leaders, and community members who generously shared their time, experiences, and perspectives. Without their openness and cooperation, this research would not have been possible.

- **Research & Consultancy Division, BPATC:** We acknowledge the institutional support provided by the Research & Consultancy Division, which facilitated the design, review, and publication of this monograph.

Finally, we recognize the collective spirit of collaboration that underpins this work. It is through the combined efforts of participants, faculty, respondents, and institutional leadership that this monograph has been realized.

Executive Summary

Bangladesh's rural economy is witnessing a structural transformation, with motorized vehicles—electric rickshaws, auto-rickshaws, and motorized vans—emerging as a dominant force in shaping livelihoods, mobility, and governance. This monograph investigates how the expansion of these vehicles is reshaping employment patterns, household incomes, and community dynamics, while simultaneously exposing governance gaps and regulatory challenges.

Drawing on a unique dataset collected by 602 Foundation Training Course (FTC) participants across diverse rural regions, the study combines quantitative household surveys with qualitative key informant interviews to provide a nationally representative picture of rural motorized transport. The findings reveal several critical insights:

- a) **Economic Impact:** Motorized vehicle driving has become a major source of income, often exceeding traditional agricultural earnings. Drivers report improved living standards, enhanced social status, and greater independence. However, reliance on microloans for vehicle ownership has created debt-driven vulnerabilities.
- b) **Occupational Shifts:** Rural youth are increasingly moving away from agriculture toward motorized transport, reflecting broader structural transformation trends. This occupational shift is redefining rural labor markets and reshaping household income structures.
- c) **Socio-Cultural Change:** Motorized vehicles have altered community interactions, mobility patterns, and gender roles. While men dominate this sector, women remain largely excluded due to cultural norms and safety concerns.
- d) **Governance Challenges:** The sector operates informally, with no licensing requirements, weak enforcement of safety standards, and widespread regulatory gaps. Local extortion practices and inconsistent government measures further exacerbate vulnerabilities.

- e) **Policy Implications:** The absence of a coherent national policy for rural motorized transport undermines decent work standards and road safety. Evidence suggests that without institutional support, the sector risks perpetuating informality and economic insecurity.

The study situates these findings within structural transformation theory, livelihood diversification theory, and informal economy theory, offering a robust analytical framework. It concludes that while motorized vehicles have become indispensable to rural economic life, their unregulated growth poses risks to sustainable development, governance, and social cohesion.

This monograph provides actionable insights for policymakers, local government institutions, and development partners. It strengthens BPATC's role as a national hub for evidence-based policy research and contributes directly to training curricula, governance reform, and Bangladesh's commitments to decent work and inclusive development.

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Chapter One: Introduction

Chapter One: Introduction

1.0 Introduction

1.1 Background and Concept

Bangladesh has been undergoing rapid socio-economic transformation over the past decades, influenced by technological progress, rural–urban connectivity, and the expansion of the informal economy. Among these drivers, the adoption of motorized vehicles—especially motorized rickshaws, vans, easy-bikes, and small mechanized transport—has become one of the most visible forces shaping rural mobility, livelihood patterns, and social interaction (Goni, 2015; Rahman, 2025). Besides, the penetration of such vehicles has reduced travel time, expanded markets, facilitated access to services, and altered traditional occupational structures. Evidence from various studies indicates that mobility and transport innovations act as catalysts for economic diversification and modernization in rural societies. Motorized vehicles have therefore emerged as both an opportunity and a challenge for rural development, influencing social norms, mobility, labor distribution, and the cultural landscape in significant ways (Junayed, Mubasshir, & Sen, 2025). Moreover, in Bangladesh, the informal economy absorbs a major share of the rural workforce. With increasing mechanization in agriculture and shrinking opportunities in traditional farm labour, many rural people—especially young men—have transitioned to motorized vehicle-based occupations (Uddin, 2018; Sen, 2019). This transition has reshaped livelihood options, household income structures, and community relationships. It has also been found that motorized transport has become deeply embedded in rural economic life, offering employment, facilitating trade, and redefining the rural labor market (Karim & Salam, 2019). Furthermore, understanding this transformation is crucial for policymakers and development planners. The shift from agricultural to non-agricultural, transport-based activities raises critical questions about sustainability, road safety, governance, and rural social cohesion. Thus, an evidence-based assessment is required to design policies that support safe mobility, enhance economic opportunities, and preserve the socio-cultural fabric of rural communities.

From a development perspective, rural transport is widely recognized as a foundational enabler of economic participation, social inclusion, and access to essential services. Empirical research demonstrates that improved rural

connectivity enhances market participation, raises farm-gate prices, increases non-farm employment opportunities, and improves access to education and healthcare (World Bank, 2009; Khandker & Koolwal, 2020). In low-income countries, where formal public transport services are limited or absent in rural areas, intermediate and informal modes of transport—such as motorized rickshaws and small three-wheelers—fill critical mobility gaps (International Labour Organization, 2021). These vehicles offer flexible, low-cost, and demand-responsive transport solutions, particularly for women, older persons, and persons with disabilities who face barriers to accessing conventional transport systems. As a result, the motorized vehicle sector in rural Bangladesh has evolved not only as a transport solution but also as a livelihood system embedded within the broader informal economy.

The informal economy plays a central role in Bangladesh's employment structure, particularly in rural areas where formal job creation has lagged behind demographic growth and labor supply. Informal employment accounts for a substantial majority of rural jobs, providing income opportunities but often lacking social protection, regulatory oversight, and occupational safety standards (International Labour Organization, 2021). The rise of motorized vehicle driving as a rural occupation should be understood within this broader structural context of labor market informality and livelihood diversification. Scholars of rural transformation argue that structural change in developing economies is characterized by a gradual reallocation of labor from agriculture to non-farm sectors, including services and transport (Ellis, 2000; Saha, 2021). In Bangladesh, declining agricultural profitability due to land fragmentation, climate stress, and mechanization has accelerated this occupational shift, making motorized vehicle driving an attractive alternative due to relatively low entry barriers and daily cash income (Hossain, 2019; Zahid & Mallick, 2022).

The COVID-19 pandemic further intensified this trend by disrupting traditional rural livelihoods, reducing demand for agricultural wage labor, and accelerating shifts toward informal and flexible income-generating activities. Global and national evidence shows that informal transport services expanded rapidly during and after the pandemic as displaced workers sought alternative livelihoods and communities required localized mobility solutions (International Labour Organization, 2021; Zahid & Mallick, 2022). In rural

Bangladesh, the post-pandemic period witnessed a noticeable increase in the number of motorized vehicles and drivers, reflecting both push factors (loss of agricultural and casual labor jobs) and pull factors (relatively higher and more regular daily income from driving). This expansion, while contributing to employment generation and poverty coping strategies, has also introduced new governance and safety challenges, including unregulated vehicle operations, traffic accidents, electricity theft for battery charging, and conflicts with local authorities.

From a governance perspective, the rapid expansion of motorized vehicles in rural Bangladesh exposes critical gaps in regulatory capacity, institutional coordination, and service delivery. The sector largely operates outside formal regulatory frameworks, with limited enforcement of licensing, vehicle fitness standards, or occupational safety provisions. Studies on informal transport governance highlight that regulatory neglect often leads to unsafe working conditions, corruption, rent-seeking behavior, and adversarial relations between drivers and law enforcement agencies (Karim & Salam, 2019; Fleming, 2018). Weak governance not only undermines road safety and labor protection but also erodes trust between citizens and the state, thereby affecting broader governance outcomes in rural areas. In this sense, the motorized vehicle sector represents a microcosm of the broader governance challenges faced in regulating informal economic activities in developing countries.

The literature on decent work emphasizes that employment should not be evaluated solely in terms of income generation but also in terms of job security, occupational safety, social protection, voice, and dignity at work (International Labour Organization, 1999; Chen, 2012). While motorized vehicle driving in rural Bangladesh provides a pathway to income and social mobility for marginalized populations, it often lacks the institutional supports associated with decent work, such as access to training, health insurance, social security, and legal protection. This tension between livelihood generation and decent work standards is central to understanding the developmental implications of the sector. Without appropriate policy interventions, the expansion of motorized vehicle-based employment risks entrenching a form of precarious work characterized by income volatility, health risks, and regulatory vulnerability.

Socio-culturally, the growing presence of motorized vehicles in rural areas is reshaping everyday life, mobility practices, and community relations. Enhanced mobility alters patterns of social interaction, access to education and healthcare, participation in markets, and exposure to urban influences. At the same time, the occupational shift toward motorized vehicle driving—dominated by men—raises questions about gendered access to emerging livelihood opportunities and changing gender norms in rural mobility (Bora, 2020). International studies suggest that transport systems are deeply gendered, shaping who can move, work, and participate in public life (UN Women, 2020). In rural Bangladesh, cultural norms, safety concerns, and social expectations continue to limit women’s participation in the transport workforce, thereby reproducing gender inequalities within new forms of informal employment.

Against this backdrop, the present study positions motorized vehicles not merely as a transport technology but as a transformative socio-economic institution within rural Bangladesh. By linking rural mobility with employment, governance, and decent work, the study adopts an integrated analytical lens that bridges development economics, rural sociology, labor studies, and public policy. It seeks to move beyond descriptive accounts of vehicle proliferation to examine how motorized transport reshapes livelihood strategies, social relations, and governance dynamics at the community level. Such an approach responds to calls in the development literature for context-sensitive, evidence-based analyses of informal sector transformations and their implications for inclusive development (Chen, 2012; Williams & Lansky, 2013).

In sum, the rapid diffusion of motorized vehicles in rural Bangladesh represents a critical juncture in the country’s rural transformation. On the one hand, it offers new pathways for income generation, livelihood diversification, and improved connectivity. On the other hand, it raises complex challenges related to informality, occupational safety, environmental sustainability, gender inclusion, and governance. Understanding this dual character is essential for designing policies that harness the developmental potential of the sector while mitigating its risks. This study therefore provides an empirical and analytical foundation for rethinking rural transport policy, informal sector governance, and decent employment strategies in Bangladesh.

1.2 Problem Statement

Notwithstanding the rapid expansion of motorized vehicles in rural Bangladesh, there is inadequate empirical research examining how this change influences rural livelihoods, social norms, and community well-being. While these vehicles provide income opportunities and improved mobility, several challenges have emerged in recent years. These include concerns over occupational safety, declining participation in agriculture, increasing rural dependency on informal transport economies, and emerging social tensions related to changing mobility and gender roles (Fleming, 2018; Bagloee et al., 2016). It has been found that the existing literature focuses primarily on urban informal transport, such as rickshaw pulling in Dhaka City, with substantial documentation on work conditions, informality, and labor rights (Karim & Salam, 2019). However, rural motorized vehicle adoption remains understudied, and rural realities differ significantly in terms of governance structures, infrastructure, cultural norms, and occupational mobility. The absence of systematic evidence limits the ability of policymakers to make informed decisions regarding rural mobility, transport regulation, and employment planning. In addition, without understanding the socio-economic and cultural implications of motorized vehicle adoption, interventions risk being inconsistent or misaligned with rural needs. Therefore, a comprehensive investigation is required to analyze how the spread of motor vehicles is reshaping the rural economy and society in Bangladesh.

At a structural level, the growth of motorized vehicles in rural Bangladesh reflects broader patterns of informalization and livelihood diversification in developing economies, where labor markets are unable to absorb surplus rural labor into formal employment (Chen, 2012; International Labour Organization, 2021). While informal transport activities provide short-term income opportunities, they often lack the institutional foundations necessary to ensure decent work, occupational safety, and income security. In the absence of formal regulatory frameworks, drivers operate in precarious conditions characterized by long working hours, exposure to traffic hazards, lack of health insurance, and vulnerability to extortion or harassment by local power brokers and law enforcement agencies. Evidence from studies on informal transport governance indicates that weak regulation and enforcement can exacerbate unsafe practices, increase accident risks, and undermine workers'

rights (Fleming, 2018; Williams & Lansky, 2013). In rural Bangladesh, these vulnerabilities are compounded by limited access to legal support, weak institutional presence of regulatory agencies, and low awareness of labor rights among informal workers.

The rapid occupational shift from agriculture to motorized vehicle driving also raises concerns about the sustainability of rural livelihoods and the long-term implications for agricultural production and food security. Scholars of rural transformation have shown that structural change involves labor reallocation from agriculture to non-farm sectors; however, when this shift is driven by distress rather than productivity gains, it can weaken agricultural systems and deepen rural vulnerability (Ellis, 2000; Saha, 2021). In Bangladesh, declining agricultural profitability due to land fragmentation, climate stress, and mechanization has already constrained rural employment opportunities (Hossain, 2019). The growing reliance on motorized transport livelihoods may further accelerate the exit of young and able-bodied workers from agriculture, potentially affecting household food production, local labor availability during peak farming seasons, and intergenerational knowledge transfer in farming communities. Yet, empirical evidence on how motorized vehicle adoption reshapes agricultural engagement, seasonal labor patterns, and household livelihood portfolios in rural Bangladesh remains limited.

From a governance perspective, the unregulated proliferation of motorized vehicles exposes significant institutional and policy gaps. Transport governance literature highlights that informal and intermediate modes of transport often fall into regulatory blind spots, where responsibilities are fragmented across agencies and enforcement remains inconsistent (Bagloee et al., 2016; Fleming, 2018). In Bangladesh, rural transport regulation is characterized by overlapping mandates among transport authorities, local government institutions, and law enforcement agencies, leading to ambiguity in licensing, vehicle fitness certification, route permits, and safety standards. The absence of clear regulatory frameworks not only undermines road safety but also creates opportunities for rent-seeking behavior and everyday corruption, which erodes trust between rural communities and state institutions. Research on governance and informality suggests that such regulatory vacuums perpetuate cycles of illegality and informal negotiation, making it difficult to implement coherent policy reforms (Williams & Lansky, 2013).

Gendered dimensions of rural mobility further complicate the problem. While motorized vehicles have improved physical mobility and market access for many rural residents, the benefits of employment generation in the transport sector are highly uneven. Women remain significantly underrepresented as drivers and operators due to cultural norms, safety concerns, and restricted access to training and capital (Bora, 2020; UN Women, 2020). At the same time, changes in mobility patterns can disrupt traditional gender roles within households and communities, potentially generating social tensions. The lack of gender-sensitive transport policies risks reinforcing existing inequalities while missing opportunities to promote inclusive employment and safer mobility for women. Yet, systematic empirical evidence on how rural motorized transport reshapes gender relations, women's economic participation, and everyday mobility practices in Bangladesh is scarce.

Environmental and infrastructural dimensions also constitute underexplored aspects of the problem. The rapid expansion of battery-operated motorized vehicles has raised concerns about unsafe charging practices, illegal electricity connections, and localized environmental risks, including battery disposal and energy inefficiency. Studies on sustainable transport in developing contexts warn that unregulated growth of low-cost motorized transport can impose hidden environmental and infrastructural costs, such as road degradation, congestion on rural roads, and increased accident rates (Bagloee et al., 2016). In rural Bangladesh, where road infrastructure is often narrow and poorly maintained, the influx of motorized vehicles intensifies pressure on local transport networks, heightening safety risks for pedestrians, cyclists, and non-motorized vehicle users. However, empirical assessments of these infrastructural and environmental externalities in rural settings remain limited.

Finally, the absence of reliable, disaggregated data on rural motorized vehicle employment, earnings, occupational risks, and governance interactions severely constrains evidence-based policymaking. National labor and transport statistics tend to underrepresent informal rural transport workers, leading to policy blind spots in employment planning, social protection design, and transport regulation (International Labour Organization, 2021). Without systematic data on who participates in this sector, under what conditions, and with what socio-economic outcomes, policy interventions risk being ad hoc, urban-biased, or poorly aligned with rural realities. This

data gap is particularly problematic in the post-pandemic context, where informal transport has become an increasingly important livelihood pathway for displaced rural workers (Zahid & Mallick, 2022).

In sum, the rapid diffusion of motorized vehicles in rural Bangladesh has created a complex policy problem situated at the intersection of employment, mobility, governance, gender, and sustainability. While the sector offers important livelihood opportunities and contributes to rural connectivity, it also generates new risks and vulnerabilities that remain poorly understood in empirical terms. The dominance of urban-focused research, the lack of rural-specific evidence, weak regulatory frameworks, gender exclusion, safety concerns, and limited data availability together constitute a significant knowledge and policy gap. Addressing this gap requires a comprehensive, mixed-methods investigation capable of capturing the socio-economic, cultural, and governance dimensions of rural motorized vehicle adoption. Such an evidence base is essential for designing coherent policies that can transform motorized vehicle-based livelihoods from a survival strategy into a pathway toward decent employment and inclusive rural development in Bangladesh.

1.3 Study Objectives

The main objective of the study was to investigate the interplay between motorized vehicles and rural socio-economic. However, the specific objectives of the study were:

- a) To examine the socio-cultural implications of motorized vehicle adoption in rural areas;
- b) To assess the economic impact of motorized vehicles on household income, employment, and livelihood diversification;
- c) To identify governance issues, safety concerns, and policy gaps related to rural motorized mobility.

1.4 Research Questions

The research has addressed the following key questions:

- a) How is the adoption of motorized vehicles influencing socio-economic and cultural transformation in rural Bangladesh?

- b) What economic opportunities and challenges arise from the shift toward motorized transport?
- c) What implications does motorize vehicle adoption have for rural governance, safety, and community cohesion?

1.5 Rationale

This research is essential to understand the ongoing socio-economic and cultural transformation driven by the rapid expansion of motorized vehicles in rural Bangladesh. Firstly, rural transformation through motorization is occurring at a fast pace, yet policy and regulatory responses remain slow and fragmented due to the lack of systematic empirical evidence on rural transport livelihoods, safety, and governance. Existing transport and employment policies in Bangladesh remain largely urban-centric and insufficiently responsive to the realities of informal rural transport systems, resulting in regulatory blind spots and weak enforcement (Bagloee et al., 2016; Williams & Lansky, 2013). Without grounded rural evidence, policy interventions risk being poorly aligned with local needs and institutional capacities.

Secondly, informal transport has become a critical and often primary source of livelihood for many rural households, particularly for youth and underemployed workers transitioning out of agriculture. This shift has direct implications for poverty reduction, household income stability, and social mobility. However, the informal nature of motorized transport employment exposes workers to precarious working conditions, income volatility, health risks, and limited access to social protection and labor rights (Chen, 2012; International Labour Organization, 2021). Understanding these livelihood dynamics is therefore crucial for designing policies that can transform transport-based work from a survival strategy into a pathway toward decent employment.

Thirdly, mobility patterns are closely linked to broader rural development outcomes, including market integration, value chain participation, access to education, and healthcare utilization. Improved rural mobility has been shown to enhance market participation and service access in rural areas; however, unregulated motorization can also intensify road safety risks, environmental

pressures, and social tensions within communities (Ellis, 2000; Fleming, 2018). Examining how motorized vehicles reshape everyday mobility and rural connectivity provides important insights into how transport policies can be aligned with inclusive and sustainable rural development objectives.

Lastly, this study contributes directly to the national agenda of inclusive rural development by generating policy-relevant evidence that can guide policymakers, local government institutions, and development practitioners. By illuminating governance gaps, safety concerns, gendered dimensions of mobility, and the institutional challenges of regulating informal transport, the research offers actionable knowledge to support regulatory reform, skills development initiatives, financial inclusion strategies, and social protection measures for rural transport workers (Bora, 2020; Bagloee et al., 2016). In doing so, the study strengthens the policy relevance of rural mobility research and supports more equitable, safe, and accountable pathways for rural economic transformation in Bangladesh.

1.6 Scope of the Research

The scope of this research encompasses a comprehensive exploration of rural socio-economic transformation driven by the growing adoption of motorized vehicles, particularly motorized rickshaws, in Bangladesh. Drawing from the concept notes and FTC field-visit-based methodology, the study covered multiple dimensions of rural change, including livelihood diversification, informal employment expansion, and evolving mobility patterns. In addition, it examines how motorized vehicles reshape household income structures, alter traditional agricultural engagement, and redefine occupational aspirations of rural youth. The research has also been extended to understanding community-level dynamics such as shifts in social roles, changing gender mobility, and broader cultural implications emerging from increased connectivity. The scope further includes assessing governance and policy factors influencing the operation, regulation, and sustainability of motorized rural transport, as highlighted in the concept note. Overall, the study offers a holistic understanding of how motorized vehicle adoption is reshaping rural Bangladesh and provides evidence to guide policy responses.

1.7 Summary

Chapter One sets the conceptual and empirical foundation for examining how the rapid adoption of motorized vehicles is reshaping rural decent employment and governance in Bangladesh. The chapter situates rural motorized transport—particularly motorized rickshaws and easy-bikes—within broader processes of socio-economic transformation, livelihood diversification, and informal sector expansion. It highlights how technological diffusion and changing mobility patterns are contributing to shifts away from agriculture toward transport-based livelihoods, thereby altering income structures, labor markets, and social relations in rural communities. Drawing on insights from the informal economy and rural transformation literature, the chapter frames motorized vehicle adoption as both an opportunity for poverty reduction and market access and a source of emerging governance, safety, and equity challenges.

The problem statement underscores critical knowledge gaps in existing research, particularly the dominance of urban-focused studies on informal transport and the lack of systematic empirical evidence on rural contexts. While motorized transport provides employment and improves connectivity, the chapter identifies key concerns related to occupational safety, informalization of work, weak regulatory frameworks, gender exclusion, infrastructural pressures, and emerging social tensions. These challenges highlight the risks of policy interventions that are not grounded in rural realities, thereby reinforcing the need for evidence-based approaches to rural mobility governance and decent employment promotion.

The chapter articulates clear research questions aimed at understanding how motorized vehicle adoption influences socio-economic and cultural transformation, the nature of economic opportunities and vulnerabilities created by this occupational shift, and the implications for rural governance, safety, and community cohesion. The rationale emphasizes the policy urgency of the study in a context where rural motorization is expanding faster than regulatory and institutional responses. Through linking mobility to broader rural development goals—such as connectivity, market participation, access to services, and inclusive growth—the chapter positions the research as directly relevant to national development priorities and local governance reforms.

Therefore, the scope of the research is defined as a multi-dimensional exploration of rural change, encompassing livelihood diversification, informal employment dynamics, household income restructuring, youth occupational aspirations, gendered mobility patterns, and governance and policy frameworks shaping rural transport. Together, Chapter One establishes the analytical lens, policy relevance, and empirical direction of the study, laying a strong foundation for understanding how motorized vehicle adoption can be harnessed to advance decent employment and more accountable governance in rural Bangladesh.

Chapter Two: Literature Review

Chapter Two: Literature Review

2.0 Introduction

The rural Bangladesh has undergone significant socio-economic changes over the last few decades due to advent of motorized vehicles. These vehicles, particularly electric rickshaws, easy bikes and locally assembled three-wheelers (known as Auto), have brought drastic changes in the rural mobility, informal economic activities and occupational structures. Consequently, the rural livelihoods, jobs and community dynamics have been greatly impacted. (Biswas et al., 2019) noted that, the advent of these transports is redefining rural Bangladesh's labor market by offering new income-generation opportunities while raising questions about economic, social, and cultural consequences simultaneously.

Although motorized vehicles began appearing in Bangladesh in 2009 (Sarkar, 2009), their widespread adoption amplified particularly after the Corona Pandemic. A study reported that, in 2017 there were around 500,000 electric rickshaws and motorized vehicles operating all over the country (Rasel, 2017). However, recent evidence suggests that the motorized vehicles have become very common all over the country and have become a defining phenomenon in rural economies due to low capital requirement, demand for affordable short-distance transport and easy income opportunities. These vehicles have become an integrated component of rural and urban transport system and serve millions of passengers daily while generating substantial income (The Daily Star, 2025)

During the Corona pandemic, people started to lose many of their traditional employment opportunities and unemployment peaked in the country. It has also been observed during this period, many new technologies have taken the place of various traditional occupations and changed the pattern of production, which have been marked as "New Normalcy" in the literature. In the rural areas, extinction of many traditional means of livelihood and occupation one hand and on the other hand, the advent of easy operable battery-run vehicles, low capital investment and minimal physical labor have pushed the people involved in agriculture and low-wage occupations to consider driving motorized vehicle as an alternative occupation here after Corona pandemic (Hossain, 2019; Khandker & Koolwal, 2020). Zahid & Mallick

(2022) emphasized that, Motorized vehicles have become an integrated part of the rural informal economy in Bangladesh nowadays due to relatively low capital venture and minimal physical labor. The wide-ranging use of motorized vehicles today and the increasing popularity of driving motorized vehicles as an occupation have marked a paradigm shift in the rural economy hence marked far-reaching effects on people's livelihoods, occupations and social dynamics (Chen, 2012; Williams & Lansky, 2013). In Bangladesh, motorized vehicles are now a very attractive employment opportunity with low capital investment and minimal physical labor. On the other hand, it has also raised concerns of the government and civil society over their illegal electric consumption while charging and unregulated rise.

This study aims to examine the existing literature in this regard and intends to build a theoretical foundation of understanding the overall socio-economic impacts of motorized vehicles on the rural informal economy and identify the gaps in existing literature so the scope of the new knowledge area could be identified.

2.1 Informal Economy in Bangladesh

The term “Informal Economy”, widely used in development literature, was introduced by Keith Hart in his study of urban employment in Ghana in 1973. Hart defined “Informal Economy” as economic activities that function beyond formal regulatory frameworks but remain indispensable for daily livelihood and income generation in developing countries (Hart, 1973). Subsequently, scholars such as Manuel Castells and Alejandro Portes elaborated this term, defining the informal economy as income-generating activities that outside of state regulation but still remain connected to the formal economic framework (Castells & Portes, 1989). Later, it is further conceptualized by International Labour Organization as comprising workers and enterprises that are not fully covered by formal legal and institutional frameworks, especially the aspects of labor protection, taxation, and social security (ILO, 2018).

In South Asia, the informal sector leads employment structures and plays a crucial role in supporting livelihoods for millions of people. In Bangladesh informal economy constitutes the pillar of the labor market. According to the Labour Force Survey 2016–17, around 85–87% of total employment in Bangladesh is informal in rural areas (BBS, 2017). The World Bank and the

ILO reports also similarly indicate that the informal economy comprised of a significant share of employment and economic activities in Bangladesh, mostly in agriculture, construction, small-scale trade and traditional occupations (World Bank, 2020; ILO, 2021). ILO in its report *Extending social protection to workers in the informal economy*, 2021 claimed that the informal economy in the rural areas in Bangladesh comprises about 80% of total employment while another study of BBS says that, more than 90% of agricultural employment operates informally (BBS, 2017).

Academics mentioned that the informal economy in Bangladesh is characterized by surplus labor, rural-urban migration, lack of industrialization, and insufficient institutional capacity to regulate labor markets (Chen, 2012; Raihan, 2010). Employees in the informal sector lacks of formal contracts, minimum wage guarantees, occupational safety standards, and access to social security benefits (ILO, 2021). Notwithstanding, the informal sector play vital role in offering of employment and livelihood support for rural populations, women and unskilled workers (World Bank, 2025).

Recent studies highlight that informal economy contribute around 40–45% of the country's gross domestic product (GDP), representing the sector's contribution in achieving economic growth and poverty reduction (Mujeri, 2019; World Bank, 2020).

2.2 Motorized Vehicles as Rural Transport and Informal Livelihoods

Transportation and communication systems play a vital role in sustaining livelihoods and economic activities in developing countries, particularly in Agri-based economies where mobility is thoroughly connected with access to markets, employment, education, and all civic facilities. In Bangladesh, rickshaws, vans, auto-rickshaws, motorcycles, and various types of locally adapted vehicles are a large part of rural transportation systems. These transports not only facilitate mobility but also offer income generation opportunities for a large number of unskilled and semi-skilled workers in rural areas.

A study says that, rickshaw pulling and van driving have become significant livelihood options for landless households, particularly where agrarian employment is seasonal and unstable (Hossain, 2004). Rural transport occupations require minimal capital and provide income that can sometimes

exceed agricultural wage rates, which make them alternatives for rural workers looking for alternative sources of income.

Scholars highlighted that rural transport systems play a vital role in connecting villages with nearby markets, cities, and citizen amenities in the rural non-farm economy, (Hossain, 2004; Rahman, 2010). Modern rural connectivity nowadays acts as an intermediary of the agricultural value chain by carrying agricultural products to local markets and contributes to income diversification, socio-economic development, and poverty reduction. In rural Bangladesh, rickshaw pulling is a very popular occupation because it requires limited skills and low investment but enables better earnings.

Rural transport systems play a vital role in rural employment and socio-economic activities, such as enabling farmers to reach nearby markets, students to attend education, and patients to access healthcare facilities. Consequently, rural transport is considered an important element of rural development and poverty alleviation in Bangladesh (World Bank, 2019). At the same time, informal rural transport livelihoods often remain vulnerable due to the lack of regulatory protection, unstable income, and substandard working conditions. Scholar says that rural transport workers often face irregular income, health risks, and limited access to social protection (Roy et al., 2023; Makita, 2008).

In Bangladesh, rikshaw pulling historically was an alternative occupation for poor, low-skilled labors due to low capital and skill requirement, but after advent of motorized vehicles, electric Rikshaw, battery-run three-wheeler, Auto become popular mode of transport and alternative options of occupations.

2.3 Motorized Rural Vehicles in Bangladesh

2.3.1 Evolution of Rickshaw-Based Mobility: From Pedal to Power

The pedal-rickshaw has long been popular transport in Bangladesh, especially in rural and peri-urban areas since early twentieth century. Along with providing mobility, rickshaws also played a significant role in offering employment to a huge number of low-skilled workers. Many of these workers come from rural areas to urban and cities due to impoverishment, lack of arable lands, or decreasing earning opportunities. Literatures say that a significant portion of rickshaw pullers in Dhaka were previously involved with agricultural occupations. It highlights how this sector acts as a livelihood

safety net for rural labor (Hossain, 2019).

Begum & Sen (2005) highlighted that rickshaw pulling remains one of the most accessible occupations for rural migrant labors due to requirement of less education, minimal technical skills, and low capital. Hence, the rickshaw sector has become a place of surplus labor migrating from rural areas due to less income generation opportunity, environmental hazard, or shirking agricultural productivity.

However, the last decade has experienced a major transformation in the traditional rickshaw sector with the advent of motorized vehicles. These vehicles, often called as electric rickshaws and auto-rickshaws. These vehicles feature increased speed, less physical labor, and instrument for more earning. According to the Asian Development Bank, the use of motorized vehicles has notably increased in South Asian countries due to their relatively low operating costs and less environmental impacts compared to traditional transport modes (ADB, 2012).

In Bangladesh, the scale of this transition from traditional informal rural transportation to motorized vehicle is very prevalent. Reports indicate that battery-powered rickshaws and similar electric vehicles have rapidly spread across both urban and rural areas. A joint study, conducted by Rahimafrooz and the Asia Foundation in 2017, found that currently 2.5 core peoples regardless of town and rural area in Bangladesh uses Electric Vehicle like Auto and Electric Rickshaw daily in Bangladesh (Rahimafrooz & The Asia Foundation, 2017). The economic impact of this sector is also considerable. Recent study suggest that the motorized vehicles are now making a substantial contribution to the national economy through vehicle manufacturing, battery production, maintenance services, and transport operations (New Age, 2024).

This evolution from paddle-puller rickshaw and traditional transports to motorized vehicles has marked an important techno-economic transformation in Bangladesh's transport sector. This transition improved local mobility and created new employment opportunities in this sector. Meanwhile, the swift expansion of motorized vehicles has raised concerns regarding government regulatory framework and environmental protection that require policy attention.

2.3.2 Types of Motorized Vehicles in Rural Bangladesh

Motorized rural vehicles began to emerge in Bangladesh during the late 2000s and have since become an integral component of rural transportation systems. According to S. K. Sarkar, the spread of locally adapted motorized vehicles started to gain noticeable momentum around 2009, when small engine-based vehicles began replacing traditional pedal-powered vans and rickshaws in rural areas (Sarkar, 2009). Since then, these vehicles have become increasingly common across rural roads and local markets.

At present, several types of motorized vehicles operate widely in rural Bangladesh. The most common categories include:

Electric Auto Three-Wheelers (Auto or Easy Bike) – These vehicles resemble compressed natural gas (CNG) auto-rickshaws but are powered by rechargeable batteries and electric motors. They are widely used for passenger transport on short-distance rural and semi-urban routes.



Figure 1: Electric Auto Three-wheelers (Source: Khan, 2018)

A. Electric Rickshaws

These are modified versions of traditional pedal rickshaws equipped with batteries, DC motors, controllers, and charging systems, enabling drivers to operate the vehicle with minimal physical effort.



Figure 2: Electric Rickshaw (Source: Khan, 2018)

B. Electric Vans (Motorized Vans)

These vehicles are modified versions of traditional flat-bed vans that are widely used for transporting both passengers and agricultural goods in rural areas.



Figure 3: Electric Van (Source: Author)

2.3.3 Role of Motorized Vehicles in Rural Mobility and Accessibility

The rapid expansion of these vehicles reflects their affordability, flexibility, and suitability for rural transport needs. According to research on electric vehicle adoption in Bangladesh, motorized three-wheelers have become popular among people from all socio-economic classes due to their relatively

low fare, accessibility, and ability to operate on narrow rural roads (Fahim et al., 2022).

Moreover, motorized rural vehicles have contributed significantly to rural livelihood diversification. Many drivers are former agricultural laborers who have shifted to transport services due to declining farm employment opportunities and the expansion of the rural non-farm economy. As a result, the sector has emerged as a significant component of the informal rural transport system, providing employment while simultaneously improving rural mobility.

Despite their growing importance, the motorized rural vehicle sector in Bangladesh remains largely informal and weakly regulated. Issues such as road safety, lack of standardized licensing systems, and inadequate infrastructure continue to pose challenges for sustainable sector development. Addressing these challenges through appropriate policy frameworks and infrastructure investments is therefore essential to maximize the socio-economic benefits of motorized rural transport.

2.4 Rural Transformation in Bangladesh: Role of Motorized Vehicles

2.4.1 Rural Transformation in Bangladesh

In development literature, “Rural transformation” is often conceptualized as development theories that describe the structural change of economies over time. Walt Whitman Rostow’s modernization theory is considered as one of the most influential frameworks of rural transformation. This modernization framework says, a society undergoes five stages of development and transformation: (i) Traditional Society, (ii) Pre-conditions for Take-off, (iii) Take-off (iv) Drive to Maturity, and (v) Age of High Mass Consumption (Rostow, 1960). In this framework, economic transformation of a society constitutes through a gradual shift from traditional agriculture-based economy to diversified industrial and service-based economies backed by technological advancement and infrastructure improvements. According to Mustafizur Rahman and Shahid Yusuf, Bangladesh is now in the beginning stage of Rostow’s drive to maturity stage blessed with low-cost manufacturing, LDC graduation, gradual progress in per capita income etc (Rahman & Yusuf, 2021). Hence, Bangladesh is already now on the transformation path from an agricultural economy to non-agricultural one. This transformation is also

known as a structural transformation. It is mainly a reallocation of labor from traditional agricultural sectors to manufacturing, services, and the informal transport sector (Timmer, 2014). Saha (2021) pointed out that the role of agriculture in rural economies in developing countries like Bangladesh is decreasing gradually due to climate change, shrinking of agricultural land and innovation of different technology. Besides, Bangladesh has been experiencing a significant structural change over the last two decades, as the share of agriculture in GDP has gradually declined while the industrial and service sectors have expanded (World Bank, 2022).

2.4.2 Role of Motorized Vehicles in Rural Transformation

Recent evidences suggest that the motorized rural vehicles are playing a vital role in socio-economic change in rural Bangladesh. A study of ADB (2012) says, these transport modes have brought a rapid improvement in rural mobility by connecting remote villages to markets, towns, educational institutions, and healthcare facilities while reducing travel time and transport costs. This helps farmers access markets and boosts rural income opportunities (ADB, 2012). The recent rise of small-scale motorized vehicles has also facilitated the movement of agricultural inputs and outputs. It has helped market integration and supported the commercialization of agriculture. In addition to improving rural mobility, motorized vehicles have also created significant informal job opportunities. Many rural farmers who previously relied on seasonal agricultural labor have moved to jobs like driving, owning vehicles, and running transport-related small businesses. This shift shows a larger trend of labor movement that is common in growing economies (Timmer, 2014). Moreover, better transport connectivity leads to broader social development outcomes. Studies by the World Bank show that improvements in rural roads and transport greatly increase access to education, healthcare, and job opportunities (World Bank, 2019). Similarly, the International Labour Organization points out that informal transport services often serve as a vital safety net in developing economies where formal job chances are limited to low-skilled labors (ILO, 2018).

Although motorized vehicles are now playing crucial role in diversifying livelihoods and transforming the rural landscape, drivers often face challenges like the absence of formal licensing systems, insufficient safety rules, unstable income, and limited access to social protections (Saha, 2021). However, the growth

of motorized rural vehicles enhanced rural mobility, aided market integration, and created new non-farm job opportunities, and have become a vital part of the ongoing structural transformation of the rural economy.

2.5 Socio-Economic Implications of Motorized Vehicles

The emergence of motorized vehicles has had significant socio-economic effects in rural Bangladesh. These vehicles have emerged not only as a means of mobility but also as an expanding source of employment in the rural non-farm economy.

2.5.1 Improving Income and Livelihood Opportunities

Khan (2018) found that, the motorized vehicle like electric rickshaw has become a notable source of employment in agriculture-dependent rural areas in Bangladesh. The motorized vehicle drivers earn between TK 700-900 per day, which is much more than the daily income of a farmer or a daily wage laborer in rural area (Rahman, 2025). The initial investment in purchasing a motorized vehicle costs around 1 lack-1.5 lack, which is beyond the capacity of rural workers and farmers, but with microloans they can easily afford it. Hence, motorized vehicle owners and drivers usually rely on loans that become financially burdensome in many cases (Pramanik & Rahman, 2019). This condition now formed a new form of debt-driven informal economy in rural areas in Bangladesh. The present occupational shift towards motorized vehicles can also result in gendered implications, as men dominate these new forms of labor, while women continue to be excluded from this occupational shift (Bora, 2020).

2.5.2 Occupational Shift and Driver Profile

The traditional rural labor dynamics of Bangladesh has been drastically changed due to emergence and spread of motorized vehicles such as electric rickshaws and three-wheelers. Although these vehicles firstly introduced in 2009 in Bangladesh, their popularity rushed during and after the COVID-19 pandemic, (Barrett, Reardon, & Webb, 2012; Ravallion, 2020). During COVID-19 pandemic, there has been a rapid shift in rural employment. Many young adults and low-skilled labors tend to adopt motorized vehicle operation as a less laborious and relatively more lucrative alternative to conventional work and shrink of job opportunities (Timmer, 2014).

Rahman (2025) found that motorized vehicle drivers can earn a handsome daily that exceeds the daily earnings of farmers and wage laborers. Besides, in rural areas in Bangladesh, the young people are now opting for motorized rickshaw driving, where the older generations are often left behind to manage agricultural work (Yeasin, 2022). The new generation also finds the motorized vehicle is smart than engaging in agriculture and hard laborious daily wage jobs. This occupational shift demonstrates the mounting role of non-farm rural employment in the structural transformation of Bangladesh's rural economy (Barrett et al., 2012; Timmer, 2014).

2.5.3 Socio-Demographic Profile and Migratory Patterns

Recent findings say, informal transport operators share a distinct socio-demographic profile in Bangladesh. Majority of the motorized vehicle drivers are rural migrants with limited formal education, semi-skilled and had little formal employment opportunities (Begum & Sen, 2005; Hossain, 2012). For example, researches on of rickshaw pullers in Dhaka divulge that most of the pullers come from rural districts and many of them have only primary education or no formal education (Begum & Sen, 2005).

This profile depicts that vulnerable populations are primarily attracted by informal transport sectors, who aims to achieve financial solvency and social security. This sector remains characterized by informality and limited occupational protections, although it provides more earnings in many cases than the agricultural sector (Hossain, 2012; Barrett et al., 2012).

Overall, the occupational shift toward motorized vehicle operation reflects broader rural labor transitions from agriculture to non-farm activities. It highlights the dual role of motorized transport as both a source of income and a mechanism for structural rural transformation in Bangladesh (Ravallion, 2020; Timmer, 2014).

2.5.4 Financial Barriers and Debt Stress

The initial cost of acquiring a motorized vehicle still remains a major limitation for rural families. According to a 2019 World Bank reports, although motorized vehicles create employment opportunities, the need for initial investment often leads rural households to collect fund from microcredit or informal borrowing, which can create debt stress when earnings are unstable.

This finding is consistent with broader analyses of rural non-farm enterprise in Bangladesh, where one of the main obstacles to participation is financial availability (Haggblade & Hazell, 2010).

2.5.5 Gender Implications

Motorized vehicle employment highlights gendered patterns. Social norms, limited access to finance and unseen social restriction of women's mobility in Bangladesh kept them away from motorized vehicle occupations (Chant & Pedwell, 2008; Deere & Doss, 2006). In Bangladesh, women are rarely seen driving motorized vehicles. The South Asian transport labor market is highly male-dominated, even where participation in the informal economy is high (Mehrotra & Parida, 2018).

2.5.6 Broader Socio-Economic Effects

Improved rural mobility has implications beyond individual livelihoods. The Asian Development Bank (2012) and the World Bank (2019) both emphasize that enhanced rural transport infrastructure and services facilitate market access, reduce transaction costs, and support participation in agricultural value chains. This improved connectivity increases rural household welfare and links rural areas more effectively with regional markets.

2.6 Policy and Regulatory perspectives of Motorized Vehicles in Bangladesh

Effective policy and institutional frameworks are critical for managing and guiding the growth of motorized rural transport, but it has been one and a half decade since the rise of motorized vehicles in Bangladesh, but the government has yet to formulate any policy to regulate motorized vehicles.

2.6.1 Existing Policies for Vehicle Regulation and Ensuring Road Safety

The government has some existing policies such as National Transport Policy (NTP) 2004, The Motor Vehicles Ordinance, 1983 and BRTA Act, 1987, and National Road Safety Strategy (NRSS) 2017–2021 to regulate traditional vehicles, provide license and ensure road safety issue. National Transport Policy (NTP) 2004 focuses on improving rural mobility, encouraging cost-effective and ecologically friendly transport methods, and integrating rural

mobility into national development planning (Ministry of Communications, 2004). Although the NTP 2004 does not specifically address motorized or electric vehicles, its focus on inclusive and sustainable rural transport provides a basis for rural transport initiatives that include motorized vehicles.

The Motor Vehicles Ordinance, 1983 and BRTA Act, 1987 provide the legal basis for licensing and vehicle inspections. Besides, BRTA periodically issues circulars and technical standards for different types of emerging vehicle to ensure road safety and air pollution. But still, BRTA frameworks do not cover motorized vehicles, hence, these vehicles run without license and formal registration.

Government enacted National Road Safety Strategy (NRSS) 2021-30 which aims to reduce 50% reduction in deaths and 30% in serious injuries by 2030 (Ministry of Road Transport and Bridges, 2017). This policy emphasis on enhancing driver training and licensing for three-wheeler vehicles that run on roads, but does not have specific implications for motorized rural vehicles.

2.6.2 Policies on Motorized Vehicles

Motorized vehicles in the country are not legal and not regulated by any policy documents of the government. In recent years, Government of Bangladesh attempted to initiate some regulatory measures aiming to ban battery-run three wheelers on national roads and cities, it failed due to resistance from motorized vehicle driver community and consumers of the country. Although, any formal national EV policy has not yet been fully enacted, several relevant initiatives illustrate the government's intent:

a) Nationally Determined Contribution (NDC) & Climate Action

Bangladesh's Climate Change Strategy and Action Plan (BCCSAP) 2009 and subsequent Nationally Determined Contributions (NDC) emphasize the importance of clean transport in climate mitigation efforts (UNFCCC, 2021). Transitioning to electric vehicles is part of broader measures to cut transport emissions.

b) Draft Electric Vehicle (EV) Policy

In recent years, the government has reportedly been drafting an Electric Vehicle Policy to support electric three-wheelers and two-wheelers through

incentives like reduced duties on EV imports and tax breaks for EV batteries. Although not yet fully formalized as of early 2026, draft policy discussions indicate institutional recognition of EVs as a means to achieve sustainable rural and urban mobility (Daily Star, 2025).

As the motorized vehicles are not still got legality and not regulated by any policy documents of the government, the drivers do not require any driving license to drive these vehicles. Traffic concessions, unregulated numbers of motorized vehicles and fitness problem have witnessed severely in recent times due to lack of institutional regulation from the government.

2.6.3 Microfinance and Rural Enterprise Support for Vehicle Ownership

Microfinance and Rural Enterprise Support the growth of motorized rural transport has interconnected with microfinance policies and rural business development programs. Organizations such as Bangladesh Rural Advancement Committee (BRAC), Grameen Bank, and PKSF (Palli Karma Sahayak Foundation) offer loans and credit support that many rural entrepreneurs use to purchase vehicles. World Bank (2019) reported that, rural households collect the initial investment from microcredit or informal borrowing, which can create debt stress when earnings are unstable. So, like other rural non-farm enterprises in the developing countries, one of the main obstacles lies in this sector is financial availability (Haggblade & Hazell, 2010).

2.7 Institutional Gaps and Policy Challenges

The government of Bangladesh still lacks of due institutional framework of the to regulate motorized vehicle sector. several challenges unclosed:

- **Informality vs. Regulation:** Almost all the motorized rural vehicles continue to operate without formal registration or licensing (World Bank, 2019).
- **Gender and Inclusion:** Policies have limited explicit focus on inclusive participation of women in transport service occupations.
- **EV Policy Formalization:** While incentives for electric vehicles have been proposed, a formal comprehensive EV policy is still emerging.

- **Unplanned Labor Migration:** The agriculture and other traditional rural job sectors who relies on physical labor, experienced lack of adequate number of labors in these sectors.
- **Traffic Control and Road Safety:** Although the motorized vehicles did not get legality yet, the number of motorized vehicles increased in the roads of city and urban area and crated traffic concession. Road accidents also increased due to low-skilled drivers.

It is found, lack of proper policy document of the government has created anarchy in this sector. The newspapers often publish reports of extortion by local leaders and traffics, traffic jam, fitness problem and road accidents linked to motorized vehicles.

Prof. Ejaz Hossain (transport expert from BUET) urged the government to formulate a policy to allow the sustained growth of electric rickshaws (Daily Star, 2017). This regulatory gap depicts the urgency of the need for a comprehensive policy that can address both the economic and social dimensions of motorized transport in Bangladesh.

2.8 Theoretical Framework

The socio-economic transformation in the rural informal economy linked to motorized vehicles can be contextualized with several theories, such as:

Structural Transformation Theory: Lewis (1954) pointed that when an economy develops, people shift from the agricultural sector to higher-productivity aspects of non-agriculture sector. Labor shipment from agriculture to motorized vehicle in Bangladesh can explained with this theory.

Livelihood Diversification Theory: Ellis (2000) developed this model. This model highlights how people from rural area search for alternative sources for a better livelihood. The paradigm shift in the rural occupation in Bangladesh is highly relevant to the scope of this theory.

Informal Economy Theory: Informal Economy Theory concept explains the scenario of unregulated rural economy of the developing country marking the importance of a strong informal economy in a society where the economy is still in transition and the scope of the formal economy is very

limited (Castells & Portes, 1989). This theory helps this study in relating the motorized transport sector as a new component of the informal economy of Bangladesh.

2.9 Research Gaps

It has been found that existing literature discourses the growth of the informal economy and rural transformations in Bangladesh; there is inadequate research on how motorized vehicles-especially electric rickshaws-are restructuring the rural informal economy. While their expansion is documented (Sarkar, 2009; Rasel, 2017), little is known about the recent occupational shift where workers are moving from agriculture and low-wage manual jobs to motorized vehicle driving, a trend that augmented after the pandemic (Zahid & Mallick, 2022).

Furthermore, transport experts and city experts raised serious concerns over the unregulated rise of Motorized vehicle all over the country (Hossain, 2019). Besides, this motorized vehicle sector employs nearly 30 lakh people and transports 2.5 crore passengers daily (Rahimafrooz & Asia Foundation, 2017), but Bangladesh still lacks any national policy for regulating motorized vehicles. Several attempts, such as the 2021 ban on electric rickshaws (Tribune, 2021) and later calls to reconsider it (Tanim Asjad, 2021; Shahin Akhter, 2021) highlight regulatory inconsistencies.

Therefore, there are clearly some gaps that are need to be addressed through a systematic study. This research tends to meet these gaps to understand how motorized vehicles are transforming the rural informal economy and contribute to a paradigm shift in rural occupation and how the absence of policy affects governance and other issues due to unregulated motorized transport sector.

2.10 Conceptual Framework

The conceptual framework of this study explains the relationship between motorized vehicles, rural job opportunities, and governance structures in Bangladesh. Rural transport is significant for generating income opportunities. The emergence of motorized vehicles has opened up new window for informal job opportunities in rural Bangladesh. These vehicles allow individuals with limited formal education and skills to work as drivers or vehicle operators and has become significant source of employment generation in the rural area.

However, many of these job opportunities are in the informal sector. Labors usually face issues with job insecurity, income insatiability, lack of social protection, and poor working conditions.

International Labor Organization promoted the concept of decent employment. It refers to productive work with fair competitive pay, security at workplace, and workers' lawful rights. In rural Bangladesh, decent employment is not well ensured. At the same time, governance and regulatory frameworks greatly affect how motorized vehicles function in rural areas. Government Regulatory Institutions like Bangladesh Road Transport Authority and transport related policies aim to regulate transport sector, ensure safety at workplace, reduce traffic concession and manage licenses. However, lack of proper policy on Motorized Vehicles often let this informal transport systems outside formal governance and regulatory mechanism. Thus, this research views motorized vehicles as a key factor connecting rural mobility and job opportunities in the informal economy. The governmental regulation, including policies, and oversight, shapes these job offerings and determines if they lead to decent and sustainable livelihoods. In this framework, motorized vehicles impact rural employment results, while governance mechanisms influence how well these jobs align with decent work standards.

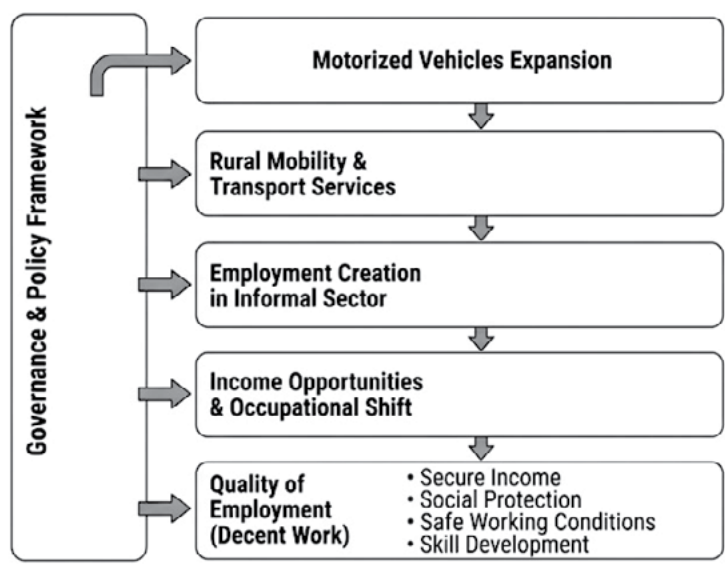


Figure-4: Conceptual Framework.

2.11 Summary

This chapter reviews the literature on the expansion of motorized vehicles and their socio-economic implications for the rural informal economy in Bangladesh. It highlights how the rapid growth of electric rickshaws, easy bikes, and battery-powered three-wheelers has transformed rural mobility, employment patterns, and livelihood strategies. The literature indicates that the informal economy dominates rural employment in Bangladesh, and motorized transport has emerged as an important non-farm livelihood option, particularly for low-skilled workers and former agricultural laborers. The review also discusses the role of motorized vehicles in rural transformation by improving market connectivity, accessibility to services, and income diversification. However, the sector remains largely informal and faces several challenges, including financial barriers, debt dependency, gender exclusion, unstable income, and lack of regulatory oversight. The chapter further identifies significant policy and research gaps regarding governance and occupational shifts in the motorized transport sector and establishes a theoretical and conceptual foundation for examining its impact on the rural informal economy.

Chapter Three: Methodology

Chapter Three: Methodology

3.0 Methods and Materials

In line with the nature of the research objectives and the complex social dynamics under investigation, the study employed a mixed-methods approach within a post-positivist paradigm. The post-positivist stance recognizes that social realities-particularly those arising from rural transformation, informal labor arrangements, and livelihood shifts-are shaped by contextual factors, human perceptions, and interactions. Thus, a combination of quantitative and qualitative tools was used to capture both measurable socio-economic patterns and the nuanced experiences of individuals and communities (Musa, & Aldiabat, 2024, and Maksimovic, & Evtimov, 2023). The study benefited from an extensive and unique data-collection process through the active engagement of 602 participants from the 77th Foundation Training Course (FTC), who served as field researchers and data collectors. These participants, representing diverse regions of Bangladesh, conducted intensive field visits to their respective native villages. Their wide geographic distribution ensured strong representation across rural socio-economic, cultural, and ecological contexts. The methodology described below details the research design, ontological positioning, sampling procedures, data-collection techniques, field protocols, data-processing methods, analysis strategies, ethical considerations, and limitations.

3.1 Research Design

The study adopts an ontological position situated within the broader lens of social change theories under a post-positivist paradigm. The post-positivist worldview assumes that reality exists but can never be fully understood with absolute certainty. Instead, it can be approximated through systematic inquiry using empirical observations, triangulation, and critical interpretation (Dulal, 2025 and Panhwar, Ansari, & Shah, 2017). In the context of rural Bangladesh, phenomena such as occupational transformation, informal economic restructuring, and the emergence of motorized vehicle-driven livelihoods require an approach capable of interpreting complex socio-economic interactions while also grounding findings in observable data. Accordingly, the research employs a mixed-methods design, integrating quantitative household survey data with qualitative insights from Key

Informant Interviews (KIIs). The integration of these methods was essential because the phenomenon of motorized rickshaw adoption intersects economic incentives, social norms, cultural values, and governance structures. Quantitative tools helped measure patterns, frequencies, and socio-economic changes, whereas qualitative methods uncovered motivations, perceptions, and lived experiences.

3.2 Study Area and Field Context

The study covers a wide range of rural areas across Bangladesh. Instead of selecting a few districts, the research capitalized on the village attachments of all 602 FTC participants, thereby ensuring national representativeness. Each participant was assigned to collect data from their home village or a rural community they were familiar with. This design allowed the study to capture micro-level transformations in informal livelihoods, mobility, agricultural engagement, and social dynamics that emerge due to the growing presence of motorized vehicles.

3.3 Population and Sampling Strategy

The target population consisted of rural households, community members, local leaders, motorized rickshaw owners/drivers, and agricultural workers. The sampling strategy varied depending on the data-collection method:

3.4 Data Collection Methods

A combination of qualitative and quantitative methods was used to ensure triangulation and depth. All FTC participants received detailed training on how to administer tools, maintain neutrality, and follow ethical protocols. Data were collected over a structured three-day field visit.

3.5 Household Survey Sampling

The household survey served as the primary quantitative tool. Each of the 602 FTC participants was instructed to collect structured survey data from a set number of households in their village. Given the large number of data collectors, the overall sample size became sufficiently large, diverse, and statistically valid. A simple sampling strategy was employed, considering the heterogeneity of rural communities. The final dataset derived from household surveys achieved significant variation in demographic characteristics,

occupational profiles, income sources, and mobility patterns, strengthening both the internal and external validity of the research.

3.5.1 Key Informant Interviews

Purposive and snowball sampling techniques were used to identify key informants. KIIs were used to obtain deeper insights into policy, governance, and community-level changes. These qualitative insights filled critical knowledge gaps left by structured surveys.

3.6 Data Processing, Management and Analysis

All quantitative survey responses were screened, cleaned, and coded prior to entry into SPSS. Missing values, inconsistencies, and outliers were checked using frequency analyses, cross-tabulations, and logic checks. Qualitative data from KIIs, FGDs, and field notes were transcribed, translated (where necessary), and stored in digital format with unique identifiers. A central database was created to maintain standardization across all datasets. Data security protocols ensured confidentiality and compliance with ethical standards. Statistical analysis was performed using SPSS to identify patterns, trends, and measurable relationships. These analyses enabled the identification of economic shifts, livelihood patterns, and demographic variations associated with the adoption of motorized rickshaws. On the other hand, qualitative data were subjected to thematic analysis and thematic insights helped contextualize quantitative findings and provided a nuanced understanding of rural transformation.

3.7 Summary

This study employed a mixed-methods approach within a post-positivist paradigm to investigate rural socio-economic transformation and the adoption of motorized vehicles in Bangladesh. Recognizing that social realities are shaped by contextual factors, perceptions, and interactions, the study combined quantitative household surveys with qualitative Key Informant Interviews (KIIs) to capture both measurable patterns and nuanced experiences.

A unique feature of this research was the engagement of 602 participants from the 77th Foundation Training Course (FTC), who acted as field researchers collecting data from their native villages. This approach ensured national representation across diverse socio-economic, cultural, and ecological

contexts. Data were collected over structured three-day field visits, following strict ethical protocols.

The quantitative component relied on structured household surveys, employing purposive sampling to reflect the heterogeneity of rural communities. Surveys captured demographic profiles, income sources, occupational patterns, and mobility behaviors. The qualitative component used purposive and snowball sampling to identify key informants, generating insights into local governance, informal labor practices, and community-level transformations.

Data processing and analysis involved cleaning, coding, and managing quantitative data in SPSS, with frequency, cross-tabulation, and trend analyses to identify economic and occupational shifts. Qualitative data from KIIs, FGDs, and field notes were transcribed, translated where necessary, and analyzed thematically to contextualize quantitative findings and provide a deeper understanding of rural livelihood diversification and informal transport economies.

This methodology enabled a triangulated, multi-dimensional understanding of how macro-level drivers, household strategies, and informal economic structures interact to shape the adoption of motorized vehicles, and its socio-economic, cultural, governance, and safety outcomes in rural Bangladesh.

Chapter Four: Data Analysis and Results

Chapter Four: Data Analysis and Results

4.0 Introduction

This chapter presents a comprehensive analysis of both quantitative and qualitative data collected during the study. The quantitative findings, derived from household surveys, are systematically examined to identify key patterns, trends, and socio-economic relationships across different respondent groups and geographic contexts. Statistical techniques are employed where appropriate to ensure rigor and reliability in interpreting the data.

Complementing this, qualitative insights obtained from Key Informant Interviews (KIIs), focus group discussions, and field observations provide contextual depth and a richer interpretive understanding of the findings. These qualitative dimensions help to explain the underlying causes, perceptions, and lived experiences that shape the observed quantitative outcomes.

The results are organized and discussed thematically to ensure clarity and coherence. Particular attention is given to the dynamic interplay between rural livelihoods, the adoption and use of motorized vehicles, and broader socio-economic transformations in Bangladesh. By integrating both data strands, the chapter offers a nuanced and holistic understanding of how mobility innovations influence income generation, access to services, social inclusion, and local economic development in rural settings.

4.1 Age Profile of Motorized Vehicle Drivers

The findings of this study shows that young and middle-aged people are the ones that drive motorized vehicles the most. Only 3% of drivers are between the ages of 16 and 18, although involvement rises among those between the ages of 19 and 21 (9.1%) and 22 and 24 (8.7%). The age groups with the highest percentages are 25–27 years old (11.3%), 28–30 years old (13.2%), 31–33 years old (17.4%), 34–36 years old (15.1%), and 37–39 years old (14%). Together, these groups account for more than two-thirds of all replies, suggesting that people in their most economically active years are highly drawn to this line of work. Older drivers who perform this task are included in the “Others” group (8.3%). In rural Bangladesh, driving a motorized vehicle is a key source of income for those in the 25–39 age range.

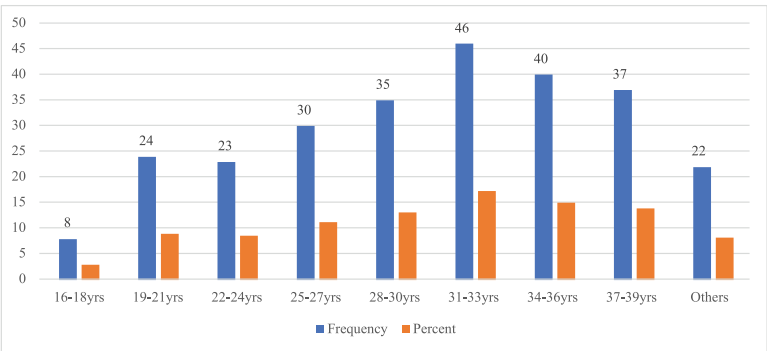


Figure 5: Age Profile of Motorized Vehicle Drivers

4.2 Gender Distribution of Motorized Vehicle Drivers

This study finds that; men predominate when it comes to operating motorized vehicles. Just 2.3% of the 265 respondents are female, compared to 97.7% who are male. This suggests that women’s engagement in this field is still very low, probably as a result of social conventions, safety concerns, and limited mobility in rural areas. The low percentage of female drivers indicates that while motorized vehicles provide potential for income, these opportunities are not yet equally accessible. Overall, the results show a sizable gender disparity in employment in rural motorized transport.

Table 1: Gender of Motorized Vehicle Drivers

		Frequency	Percent
Valid	Male	259	97.7
	Female	6	2.3
	Total	265	100.0

4.3 Marital Status of Motorized Vehicle Drivers

Most of the motorised vehicle drivers in rural Bangladesh are married. Out of 265 respondents, nearly seven out of ten (69.1%) are married, reflecting that many rely on this work to support their families. About one-quarter (24.2%) are single, indicating that young or unmarried individuals also turn to motorised vehicle driving as a way to earn a living and gain independence. A small number are widowed (3%) or divorced (3.8%), showing that even

those facing personal hardships participate in this work to sustain themselves. Overall, the findings highlight that driving motorised vehicles is not just a job but an important source of livelihood for adults of various marital backgrounds, particularly those supporting households.

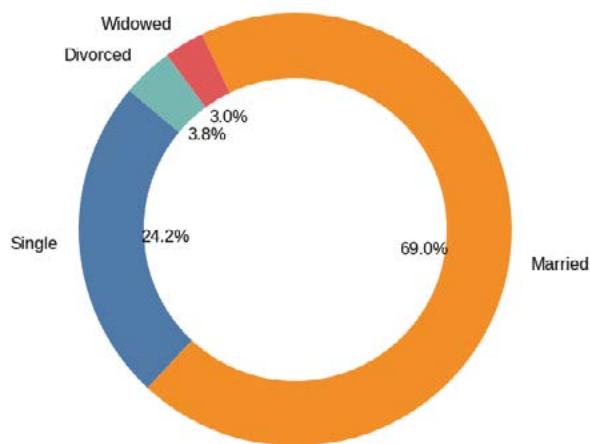


Figure 6: Marital Status of Motorized Vehicle Drivers

4.4 Educational Background of Motorized Vehicle Drivers

The educational profile of motorised vehicle drivers in rural Bangladesh shows that most have limited formal schooling. Out of 265 respondents, a large portion, 33.6%, have studied below class V, while 24.5% completed class V–VII. About 14% are self-educated, and another 14% have reached class IX–X. A smaller number hold an SSC (8.7%) or HSC (3%) certificate, and only two respondents (0.8%) are graduates. An additional 1.5% fall under other categories. These findings indicate that motorised vehicle driving primarily attracts individuals with minimal formal education, likely because the work requires limited academic qualifications and provides a quick source of income.

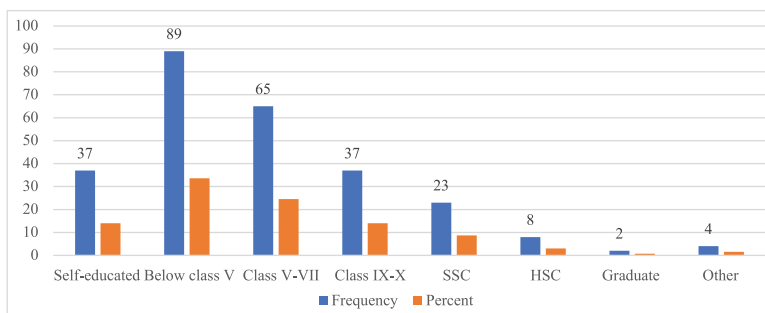


Figure 7: Educational Background of Motorized Vehicle Drivers

4.5 Daily Income of Drivers

The daily income of motorised vehicle drivers in rural Bangladesh shows that most earn a moderate living from this occupation. Nearly half of the respondents (49.1%) earn between Tk. 1,000 and 1,500 per day, highlighting that this work provides a steady source of income for many families. About 31.3% earn below Tk. 800, indicating that a significant portion still struggles with low daily earnings. A smaller group earns between Tk. 1,600 and 2,000 (14.3%), while 5.3% fall into other income brackets. Overall, these findings suggest that driving motorised vehicles offers a practical livelihood option, allowing individuals-especially those with limited education or from vulnerable backgrounds-to generate income, support their households, and improve their economic stability.

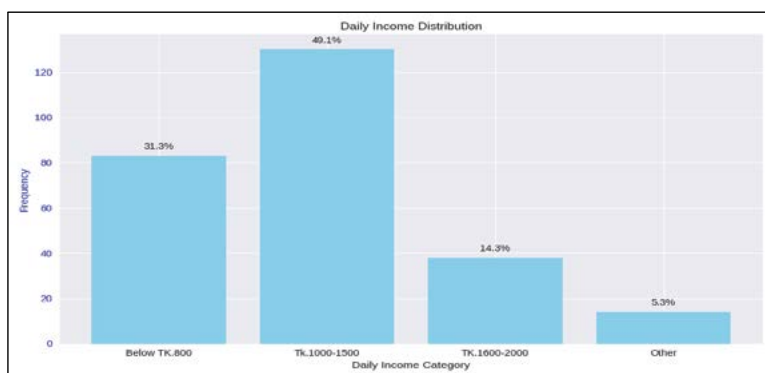


Figure 8: Daily Income of Drivers

4.6 Monthly Savings

This study finds that, monthly savings among motorised vehicle drivers reveals that a significant portion of respondents struggle to save substantial amounts. More than half of the drivers (53.2%) save below Tk. 2,000 per month, reflecting the limited surplus income after meeting daily expenses. Around 27.2% save between Tk. 2,000 and 3,000, while 19.6% are able to save between Tk. 3,000 and 5,000 monthly. These findings indicate that although motorised vehicle driving provides a steady income, many drivers still face financial constraints that limit their capacity to save. Nevertheless, a smaller portion demonstrates the potential for moderate savings, highlighting the occupation’s role in supporting household needs and offering incremental improvements in economic stability for rural workers.

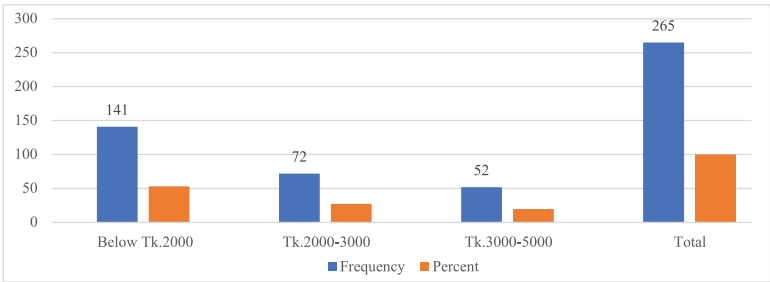


Figure 9: Monthly Savings

4.7 Family Size

Most of the respondents come from families with four or five members, reflecting the typical family structure in many communities. According to the data, 30.9% have four members, while 33.2% have five members, making these the two largest groups. A smaller portion, 17.7%, live in three-member families, and only 9.1% each belong to families with either two members or more than five members. This distribution shows that moderately sized families are the most common among the respondents. The presence of both small and larger families also highlights the diversity of household arrangements in the sample. Overall, the data presents a balanced picture of family size, with most respondents living in stable, mid-sized family units.

Table 2: Family size of Electric Vehicle Drives in Bangladesh

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Two Members	24	9.1	9.1	9.1
	Three Members	47	17.7	17.7	26.8
	Four Members	82	30.9	30.9	57.7
	Five Members	88	33.2	33.2	90.9
	More than Five Members	24	9.1	9.1	100.0
	Total	265	100.0	100.0	

4.8 School Going Family Members

The survey of this study finds that most Electric vehicle reivers and e-rickshaw pullers have school-going family members, with daughters representing the largest group. Among the participants, 39.6% reported having a school-going daughter, while 30.6% have a son attending school. Additionally, 29.8% of respondents have school-going siblings-brothers or sisters-who live with them. This indicates that many households are actively supporting the education of younger family members, whether they are children or siblings. The presence of school-aged girls in higher numbers may also reflect families' increasing emphasis on girls' education. Overall, the data highlights the important role of respondents in contributing to the care, guidance, and educational support of young learners within their families.

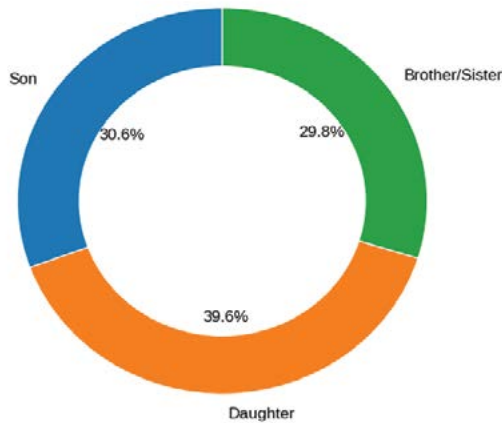


Figure 10: School Going Family Member

4.9 Ownership of Motorized Vehicle

Findings show that most respondents own their motorized vehicle, with 51.7% reporting self-ownership. This indicates that many individuals are able to invest in a vehicle with comparatively low capital, making it an affordable livelihood option. Another 41.5% of respondents operate rented vehicles, reflecting a significant group who rely on daily or weekly rentals to earn their income. A smaller portion, 6.8%, use shared vehicles, which suggests cooperative or family-based arrangements. Overall, the pattern highlights how motorized vehicles have become an accessible source of livelihood in rural areas, offering flexibility and independence.

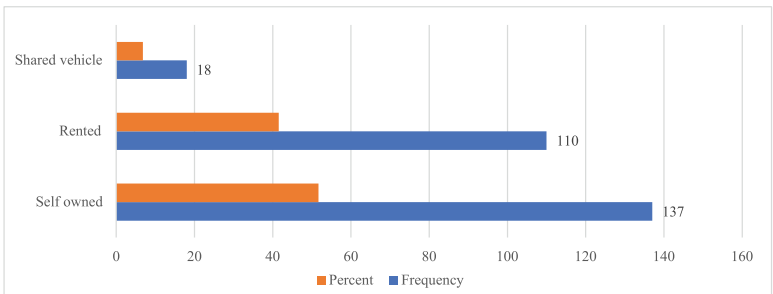


Figure 11: Ownership of Motorized Vehicle

4.10 Type of Vehicles

The study finds that auto rickshaws are by far the most common type of motorized vehicle among respondents, with 84.2% reporting their use. This dominance reflects the vehicle’s popularity as a practical and affordable means of transport for both passengers and goods in rural and semi-urban areas. Motorized vans account for 14% of the vehicles, serving a smaller but important role in transporting larger loads or multiple passengers. Only 1.9% of respondents reported using other types of vehicles, indicating that alternative motorized options are relatively rare. Overall, the data shows that auto rickshaws remain the preferred choice for livelihood generation, highlighting their accessibility, economic feasibility, and suitability for the transportation needs of rural communities.

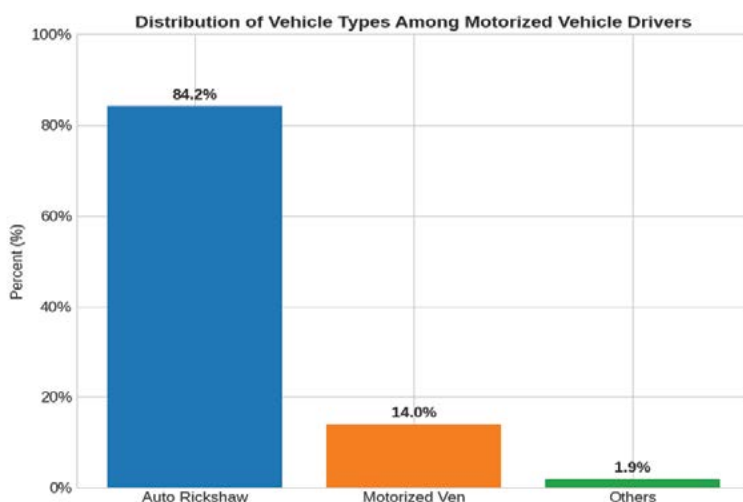


Figure 12: Type of Vehicle

4.11 Charging Option

Findings reveal that motorized vehicle drivers and electric rickshaw pullers charge their vehicles in two main places. A majority, 57%, use garages for charging, which may offer convenience or safety for their vehicles. Meanwhile, 43% of respondents charge their vehicles at home, suggesting that some drivers have access to electricity and space at their residence. This distribution indicates flexibility in charging practices, allowing drivers to choose the option that best fits their daily routine and resources. Overall, both home and garage charging are important for keeping these vehicles operational and supporting the livelihoods of the drivers.

Table 3: Charging Option

		Frequency	Percent	Valid Percent
Valid	Own house	114	43.0	43.0
	Garage	151	57.0	57.0
	Total	265	100.0	100.0

4.12 Occupational Length

This study examines how long motorized vehicle drivers and electric rickshaw pullers in Bangladesh have been engaged in their occupation. Among the

respondents, 11.7% have less than one year of experience, while 31.3% have been working for 1–2 years. Another 26.4% have 2–3 years of experience, and 18.5% have worked for 3–5 years. Finally, 12.1% of respondents have been in this work for more than five years. This distribution indicates that most workers are relatively new to the occupation, with less than three years of experience, reflecting the growing trend of motorized transport as a livelihood. At the same time, a smaller group represents more experienced workers who have been in this sector for many years.

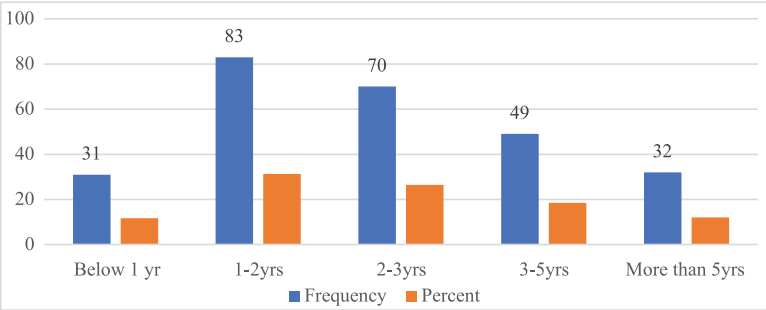


Figure 13: Occupational Length of Motorized Vehicle Drivers

4.13 Previous Occupation

The survey shows that many motorized vehicle drivers and electric rickshaw pullers in Bangladesh shifted from previous occupations. Nearly half of the respondents, 48.7%, worked as daily laborers before entering this sector, reflecting the search for more stable or less physically demanding work. About 27.2% of respondents did not have any formal occupation prior to this, indicating that motorized transport has created new livelihood opportunities for previously unemployed individuals. A smaller portion, 16.6%, came from small businesses, while 7.5% were engaged in other types of work. Overall, the data highlights that the motorized vehicle sector has become an accessible and attractive source of income, drawing workers from diverse backgrounds and providing them with economic stability and independence.

Table 4: Previous Occupation

		Frequency	Percent	Valid Percent
Valid	No Occupation	72	27.2	27.2
	Daily Labor	129	48.7	48.7
	Small business	44	16.6	16.6
	Other	20	7.5	7.5
	Total	265	100.0	100.0

4.14 Involvement in any other Job

The survey indicates that 40.4% of motorized vehicle drivers and electric rickshaw pullers in Bangladesh engage in other jobs alongside driving. If they did not have the opportunity to drive motorized vehicles, most of them would pursue these alternative occupations. Among the options, 60.4% would work in agriculture, 23.8% with NGOs, 5.3% as garments workers, 4.5% in other transport-related jobs, and 6% in other types of work. This shows that driving motorized vehicles has become an important livelihood option, but respondents remain flexible and would rely on other available employment opportunities if necessary.

Table 5: Engage in any other Job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	107	40.4	40.4	40.4
	No	158	59.6	59.6	100.0
	Total	265	100.0	100.0	

Table 6: Alternative Jobs alongside Driving

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture	160	60.4	60.4	60.4
	NGO	63	23.8	23.8	84.2
	Garments Worker	14	5.3	5.3	89.4
	Transport Worker	12	4.5	4.5	94.0
	Other	16	6.0	6.0	100.0
	Total	265	100.0	100.0	

4.15 Reasons for Choosing this Profession

The survey investigated the reasons behind respondents' decisions to work as electric rickshaw pullers or drivers of motorized vehicles. According to the results, 33.6% of respondents gave the possibility of earning more money as their most frequent justification. This occupation is a sensible choice because about 26% of respondents said they had no other career. 19.2% selected this work because it requires comparatively little capital investment, and another 19.6% valued the independence it offers. Just 1.5% of respondents gave other explanations. Overall, the findings highlight this occupation's appeal as a flexible and sustainable means of subsistence in rural and semi-urban areas and indicate that economic opportunity, accessibility, and independence are important factors influencing the choice of this occupation.

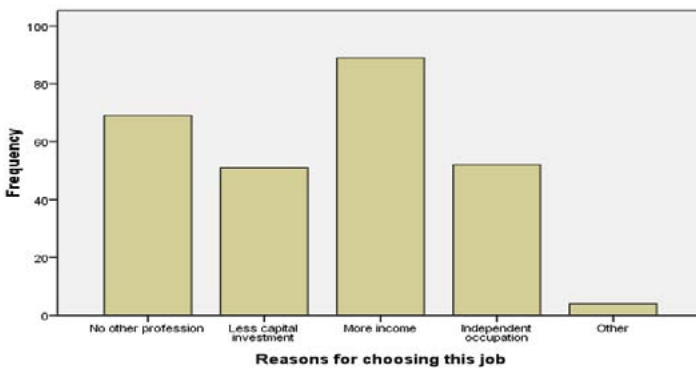


Figure 14: Reasons for Choosing this Profession

4.16 Challenges to be Faced

The respondents stated that they deal with a number of difficulties in their daily jobs as e-rickshaw pullers and drivers of motorized vehicles. High maintenance costs (reported by 25.7%) and high recharge fees (reported by 24.9%) are the most frequent issues. These costs lower their total income and make the work more difficult to maintain. For 20% of drivers, competition is a significant problem due to the increasing number of people entering this field. Furthermore, 14.7% experience insufficient demand, particularly during specific seasons or times of day. Police problems (10.6%) and sporadic extortion (3.4%) are smaller but significant problems that lead to anxiety and unease. Overall, the data indicates that these employees deal with a variety of operational and financial demands on a daily basis.

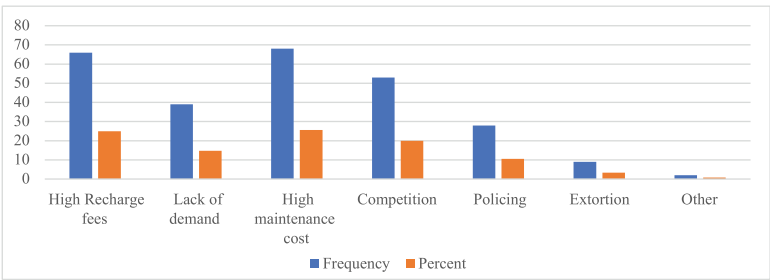


Figure 15: Challenges they have Faced

4.17 Training Status of the Drivers

The findings demonstrate that the majority of the study’s motorized vehicle drivers and e-rickshaw pullers lack formal training. There is a significant skill gap in this expanding field, as evidenced by the noteworthy 62.6% who said they had no training at all. The majority of those who did receive training did so informally: 12.5% received instruction from nearby institutions, and 17% were trained by friends or family. A very small percentage (1.1%) gained knowledge from prior work experience, and only 6.8% benefited from government training programs. This distribution implies that there are few and frequently informal training opportunities, depriving many employees of appropriate guidance on maintenance, safety, and effective driving techniques.

Table 7: Training Status of Motorized Vehicle and E-Rickshaw Drivers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	99	37.4	37.4	37.4
	No	166	62.6	62.6	100.0
	Total	265	100.0	100.0	

Table 8: Sources of Training for Motorized Vehicle and E-Rickshaw Drivers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Local Institution	33	12.5	12.5	12.5
	Family or friend	45	17.0	17.0	29.4
	Government program	18	6.8	6.8	36.2
	Previous work	3	1.1	1.1	37.4
	No training	166	62.6	62.6	100.0
	Total	265	100.0	100.0	

4.18 Monthly Medical Expenses of Drivers

The majority of drivers who operate motor vehicles pay a small amount each month for their own medical care. Basic healthcare needs are indicated by the fact that more than half of the respondents (52.8%) stated that their monthly medical expenses are approximately Tk. 1,000. 14% spend between Tk. 2,000 and Tk. 3,000 per month, and another 33.2% spend between Tk. 1,000 and Tk. 2,000. This pattern indicates that most drivers attempt to control their health-related costs within a constrained budget, which reflects their income level and general living conditions, even though their medical spending varies.

Table 9: Monthly Medical Costs for Drivers’ Personal Healthcare

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Monthly Tk. 1000	140	52.8	52.8	52.8
	Tk. 1000-2000	88	33.2	33.2	86.0
	Tk. 2000-3000	37	14.0	14.0	100.0
	Total	265	100.0	100.0	

4.19 **Smoking Habits and Daily Expenditure on Smoking**

The findings show that 64.2% of the respondents have a smoking habit, indicating that smoking is quite common among motorized vehicle drivers and e-rickshaw pullers. Only 35.8% reported that they do not smoke. Among those who smoke, daily spending varies: 34.3% spend about Tk.50, while the largest group-37.0%-spend Tk.60 per day. Smaller portions spend Tk.70 (14.3%) or Tk.80 (9.4%), and a few (4.9%) spend more than Tk.80 daily. Although these amounts may seem small, they accumulate into a considerable monthly cost for low-income workers. This highlights both the financial burden of smoking and the importance of promoting healthier habits to safeguard their wellbeing and economic security.

Table 10: Smoking Habits of Motorized Vehicle and E-Rickshaw Drivers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	170	64.2	64.2	64.2
	No	95	35.8	35.8	100.0
	Total	265	100.0	100.0	

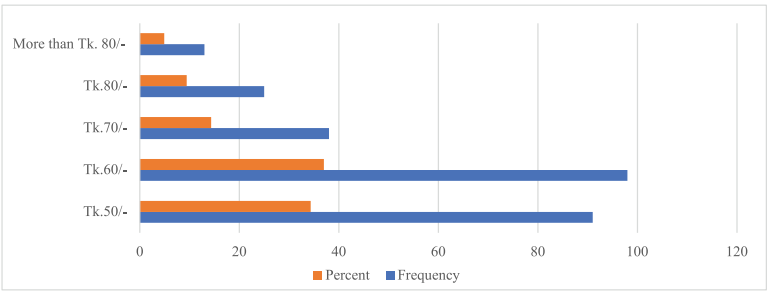


Figure 16: Daily Expenditure on Smoking by Drivers

4.20 **Social Perception of Vehicle Driver**

The study investigated the social perceptions of motorized vehicle drivers and e-rickshaw pullers. This occupation is appealing as a source of income, as evidenced by the nearly half of respondents (48.7%) who think it is linked to higher income. 10.6% value the quality of work life it offers, while 15.1% see it as a sign of modernization. Smaller groups emphasized increased risk of accidents (6.0%), job instability (9.1%), and time flexibility (9.1%). Few

people thought the work was dangerous (0.8%), diminished social value (0.4%), or caused traditional values to be lost (0.4%). Despite some worries about risks and instability, the data generally indicates that society views this profession favorably because of its economic advantages and contemporary appeal.

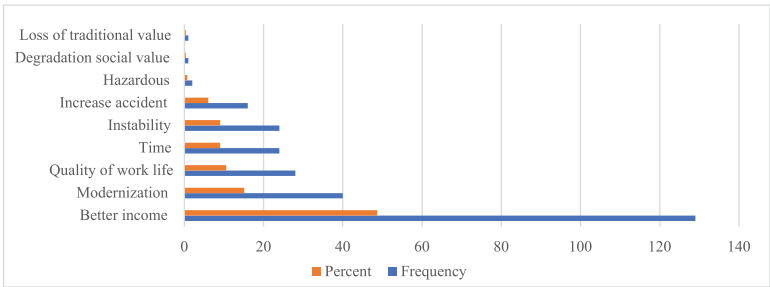


Figure 17: Social Perception of vehicle driver

4.21 Socio-Economic Effects of the Profession

The study looked at how respondents’ social and economic lives were affected by driving motorized vehicles or pulling e-rickshaws. 16.6% said they feel socially recognized, 13.6% said they are more accepted by others, and about 24.5% said that their social status has increased as a result of their profession. Regarding individual advantages, 17.7% reported that their quality of life has improved, and 20% emphasized that it opens up job opportunities for others. A smaller percentage (7.5%) noted that this line of work helps to lessen poverty. Overall, the findings suggest that this profession not only provides economic benefits but also enhances social standing and recognition, making it an important livelihood option in rural and semi-urban communities.

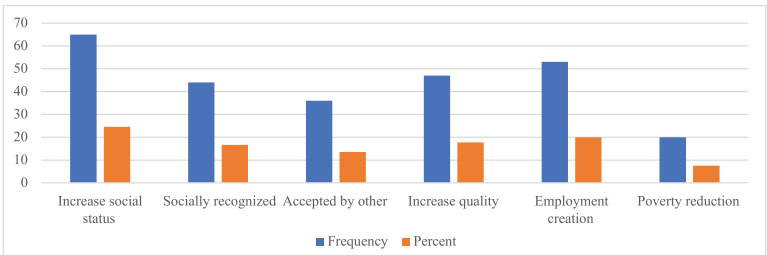


Figure 18: Effects of Motorized Vehicle and E-Rickshaw Driving

4.22 Perception on Living Standard Improvement

According to the survey of this study, most people (72.5%) feel that their living standard has improved. This shows that many are experiencing better income, comfort, or quality of life. However, about 27.5% of respondents have not noticed any change, indicating that some still face difficulties.

Table 11: Perception on Living Standard Improvement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	192	72.5	72.5	72.5
	No	73	27.5	27.5	100.0
	Total	265	100.0	100.0	

Overall, while the majority enjoy an improved standard of living, there is still room to support those who have not yet benefited.

4.23 Summary

This chapter presents the analysis of both quantitative and qualitative data on motorized vehicle and e-rickshaw drivers in rural Bangladesh. Findings reveal that the majority of drivers are young and middle-aged men, with limited formal education, primarily married, and supporting moderately sized families. Most drivers own or rent motorized vehicles (mainly auto rickshaws), earn a moderate daily income, and save modestly, while a significant portion engages in other jobs alongside driving.

The study highlights key motivations for choosing this occupation, including income potential, low entry barriers, and independence, as well as challenges such as maintenance costs, recharging fees, competition, and limited training opportunities. Drivers’ health, lifestyle, and social perceptions indicate both constraints (e.g., smoking habits, medical expenses) and improvements in living standards, social recognition, and economic stability.

Overall, the analysis demonstrates that driving motorized vehicles has become a vital livelihood strategy in rural communities, providing economic, social, and cultural benefits, while also revealing areas where policy support, training, and financial inclusion could enhance drivers’ well-being and sustainability of this sector.

Chapter Five: Critical Discussion

Chapter Five: Critical Discussion

5.0 Overview on Discussion

This chapter critically examines motorized vehicle and e-rickshaw driving as a livelihood in rural Bangladesh. The sector predominantly engages men in their prime working years, many of whom are married and support moderately sized families, emphasizing its role in household income and financial stability. Drivers generally have low educational attainment and often transition from informal or precarious work, highlighting the occupation's function as an accessible safety net. Despite providing a steady income, drivers face financial constraints due to operating costs and limited savings capacity. The widespread lack of formal training and reliance on informal skill acquisition pose risks to safety, efficiency, and long-term livelihood security. Health and lifestyle factors further affect their well-being. Nevertheless, the profession is broadly perceived positively, offering not only economic benefits but also social recognition, elevated status, and opportunities for others. These findings underscore the occupation's dual role as both a livelihood strategy and a contributor to socio-economic and community development in rural areas.

5.1 Critical Discussion

The findings of this study provide a detailed understanding of the motorized vehicle driving and e-rickshaw sector as a key livelihood source in rural Bangladesh, reflecting both its opportunities and challenges. The demographic analysis shows that the workforce is overwhelmingly male (97.7%), primarily in their prime working age of 25–39 years, mostly married (69.1%), and engaged in moderately sized families (four to five members). This demographic profile indicates that the profession plays a crucial role in household sustenance and financial stability, supporting not only the drivers themselves but also their dependents.

Education levels among drivers are generally low, with 58.1% having studied below Class VIII. This aligns with previous occupation data showing that 27.2% were previously unemployed and 48.7% were daily laborers, underscoring the sector's function as a safety net for individuals with limited formal education and few alternative employment opportunities. The

profession offers an accessible entry point for income generation, illustrating the importance of informal labor markets in rural economic transformation.

Income patterns, as revealed by the survey, show that nearly half of the respondents (49.1%) earn between Tk. 1,000 and Tk. 1,500 per day, providing a stable, albeit modest, source of livelihood. However, the financial situation remains precarious, with over 53.2% saving less than Tk. 2,000 monthly, indicating that operational and living costs absorb most earnings. High maintenance costs (25.7%) and charging/recharging fees (24.9%) were identified as the most significant obstacles, highlighting structural constraints within this informal livelihood sector that limit upward mobility and long-term economic security.

The lack of formal training for most drivers (62.6%) raises further concerns. The majority of training is informal, provided by family or friends (17%), with only a small portion receiving formal instruction from local institutions or government programs (6.8%). This skill gap not only affects the efficiency and safety of operations but also restricts drivers' ability to improve their earnings and protect their vehicles, which are essential assets for their livelihood. Additionally, health and lifestyle factors, such as widespread smoking (64.2%) and related daily expenditures (Tk. 50–80), impose recurring financial and health burdens, adding another layer of vulnerability to this workforce.

Despite these challenges, the profession is highly perceived positively. The majority of drivers (72.5%) report an improved standard of living, and many indicate enhanced social recognition (16.6%), increased social status (24.5%), and the creation of employment opportunities for others (20%). The sector is therefore more than just an economic activity; it is also a source of social dignity and community respect, reflecting its significance in rural socio-economic dynamics and modernization. The occupational shift from labor-intensive or nonexistent work to a semi-autonomous, income-generating activity demonstrates how informal employment contributes to both livelihood diversification and community-level socio-economic development.

The analysis also highlights the interplay between household characteristics, asset ownership, and vehicle type. More than half of the respondents (51.7%) own their vehicles, while 41.5% operate rented ones, revealing

different pathways to economic participation. Auto rickshaws dominate the sector (84.2%), indicating that affordability, accessibility, and operational practicality drive vehicle choice. Charging options are split between garages (57%) and home-based solutions (43%), reflecting adaptive strategies for operational continuity.

Furthermore, drivers' previous occupations and engagement in secondary work illustrate their economic flexibility. Nearly half were daily laborers before joining this sector, and 40.4% continue to engage in other jobs, primarily agriculture (60.4%), NGOs (23.8%), and small-scale business activities. This diversification suggests that motorized vehicle driving is integrated into broader livelihood strategies, providing income resilience in rural households.

The profession's challenges—including financial constraints, skill gaps, and operational difficulties—contrast with its benefits, creating a complex socio-economic landscape. Drivers derive tangible economic benefits, enhanced social recognition, and moderate improvements in living standards, yet remain vulnerable to systemic risks associated with informal employment, inadequate training, and infrastructure limitations. These findings underscore the need for targeted interventions, including skills training, financial support, and policy measures to improve working conditions, vehicle maintenance, and safety, thereby increasing both the sustainability and social value of this critical rural livelihood.

5.2 Summary

It is found that motorized vehicle driving in rural Bangladesh is a vital yet challenging livelihood. It offers economic stability, social recognition, and flexible employment, particularly for those with limited education or previous unemployment. However, the sector faces structural constraints, including high costs, lack of formal training, financial vulnerability, and health-related burdens, which limit upward mobility and long-term security. Overall, the occupation functions as a socio-economically important but precarious pathway that supports rural households, empowers workers, and contributes to local development, while pointing to the need for targeted training, policy support, and financial interventions to strengthen its sustainability.

Chapter Six: Policy Recommendations

Chapter Six: Policy Recommendations

6.0 Overview on the Policy Recommendation

This chapter presents policy and programmatic recommendations aimed at enhancing the livelihoods, safety, and social recognition of motorized vehicle and e-rickshaw drivers in rural Bangladesh. Drawing on the findings from the study's data analysis and critical discussion, the chapter identifies key challenges faced by drivers, including limited financial security, lack of formal training, health risks, gender disparities, and gaps in governance. The proposed recommendations are designed to address these issues comprehensively through financial inclusion, skill development, occupational health initiatives, gender-sensitive interventions, formalization of the sector, and ongoing research and monitoring. In addition, a policy matrix outlines expected outcomes, potential risks, mitigation strategies, and responsible agencies to guide effective implementation and ensure sustainable improvements in the sector.

6.1 Policy Options

The following legislative measures are advised in order to fully utilize the motorized vehicle industry's potential to advance decent employment and governance in rural areas:

- a) **Improve Financial Inclusion and Lower Operating Expenses:** Make it easier for drivers to get low-interest loans and microfinance programs so they can buy their own cars, which will increase their net income and lessen their reliance on rental cars. To lower maintenance and recharge costs, look into forming community-run service centers and subsidized charging stations through public-private partnerships.
- b) **Establish Mandatory Skill Development Programs:** Introduce brief, government-approved training courses on defensive driving, traffic laws, basic car maintenance, customer service, and financial literacy. Work together with regional organizations and NGOs to decentralize training so that it is available in rural areas.
- c) **Encourage Occupational Health and Safety:** Include public health education initiatives in driver education, emphasizing the negative

effects of smoking on one's health and finances. To lessen the effects of illnesses and accidents, promote and fund health insurance programs designed specifically for informal transportation workers.

- d) **Promote Gender Inclusion in the Transportation Sector:** Start focused programs to promote female involvement, such as offering women driving instruction and establishing secure, designated driving zones or shifts. Create and implement stringent anti-harassment policies to guarantee a secure workplace for everyone.
- e) **Formalize the Sector through Better Governance:** Include more drivers in the formal regulatory framework, streamline and digitize the application process for driver's licenses and vehicle permits. Establish clear grievance redressal procedures and accountability measures for law enforcement to address the problems of "police problems" and extortion.
- f) **Promote Small-Scale Industries and Local Economic Linkages:** Encourage the development of small-scale industries related to vehicle parts, repair, and maintenance at the district level through tax incentives (e.g., import duty rebates on spare parts). Foster Government–NGO partnerships to support entrepreneurship, skill development, and local value chain development, thereby generating additional employment opportunities.
- g) **Carry Out Additional Research and Monitoring:** Start long-term studies to monitor drivers' long-term health and financial results. Create a system for gathering data to track earnings, savings, and industry difficulties on a regular basis in order to guide future policy changes.

6.2 Policy Recommendations Matrix with Risks and Mitigation Strategy

Policy Area	Legislative / Policy Recommendation	Expected Outcomes	Key Risks / Challenges	Risk Mitigation Measures	Responsible Agencies
Financial Inclusion & Cost Reduction	Provide low-interest loans and microfinance to drivers for vehicle ownership; establish community-run service centres and subsidized charging stations through PPPs	• Increased driver asset ownership • Higher net income • Reduced dependency on vehicle rental • Lower maintenance & energy costs	• Loan default risks • Elite capture of subsidies • Poor management of service centres • Corruption in PPP contracts	• Credit screening & flexible repayment plans • Transparent beneficiary selection • Community management committees • Third-party audit of PPP projects	MoF, Bangladesh Bank, LGD, BRTA, Local Government Institutions
Mandatory Skill Development	Introduce short, government-certified training on defensive driving, traffic laws, vehicle maintenance, customer service, financial literacy; decentralize training via NGOs & regional institutions	• Improved road safety • Better service quality • Increased income stability • Financial resilience of drivers	• Low participation due to income loss during training • Poor quality of decentralized training • Certification fraud	• Training stipends / compensation • Standardized national curriculum • Digital attendance & certification verification	BRTA, BPATC, NGOs, Ministry of Education
Occupational Health & Safety	Integrate health education (e.g., smoking risks); introduce subsidized health insurance for informal transport workers	• Improved health outcomes • Reduced long-term healthcare costs • Lower income shock from illness/accidents	• Low enrollment in insurance schemes • Distrust of insurance providers • Weak enforcement of safety norms	• Government co-financing of premiums • Awareness campaigns via driver associations • Partnership with public hospitals	MoHFW, Ministry of Social Welfare, NGOs
Gender Inclusion	Promote women drivers through training programs; establish safe zones/shifts; enforce anti-harassment policies	• Increased female workforce participation • Safer transport environment • Social norm change in rural mobility	• Social resistance • Harassment & security risks • Tokenism without real inclusion	• Community sensitization programs • Dedicated helplines & complaint desks • Strict penalties for harassment	MoWCA, BRTA, Local Police, LGD
Formalization & Governance	Digitize licensing & permit processes; establish grievance redressal & accountability mechanisms for law enforcement	• Reduced informal practices • Lower corruption/extortion • Improved state-citizen trust	• Digital exclusion in rural areas • Rent-seeking by intermediaries • Resistance from vested interests	• Mobile service units • One-stop digital service points • Independent oversight committees	BRTA, ICT Division, Ministry of Home Affairs

Small-Scale Industrial Development & Local Economic Linkages	Encourage the development of small-scale industries related to vehicle parts, repair, and maintenance at the district level through tax incentives (e.g., import duty rebates on spare parts). Foster Government–NGO partnerships to support entrepreneurship, skill development, and local value chain development.	• Growth of local small-scale industries • Increased employment opportunities at the district level • Strengthened local value chains in the transport sector - Reduced dependency on imported services and high-cost repairs • Enhanced technical skills and entrepreneurship among local youth	• Misuse of tax incentives and subsidies • Limited technical capacity and skilled workforce • Weak coordination between government and NGOs • Market access constraints for small enterprises • Risk of low-quality products and services	• Establish clear eligibility and monitoring mechanisms for tax benefits • Introduce technical and vocational training programs • Strengthen coordination frameworks between Go–NGO partners • Facilitate market linkages and access to finance for SMEs • Implement quality standards and certification systems	Ministry of Industries, NBR, SME Foundation, Local Government Division, NGOs, Technical Training Centers
Research & Monitoring	Conduct longitudinal studies on driver health & income; develop routine data system for earnings, savings, challenges	• Evidence- based policymaking • Policy adaptability • Early identification of sector risks	• Data privacy concerns • Weak inter-agency coordination • Funding constraints	• Data protection protocols • Centralized policy dashboard • Dedicated research budget lines	BBS, Universities, Planning Commission, Research Institutions

6.3 Summary

The above mentioned actionable recommendations to strengthen the motorized vehicle and e-rickshaw sector in rural Bangladesh, focusing on improving drivers’ livelihoods, safety, and social standing. Key measures include enhancing financial inclusion through low-interest loans and community-based support services, implementing mandatory skill development programs, promoting occupational health and safety, encouraging female participation, and formalizing sector governance. Additionally, the chapter emphasizes the need for ongoing research and monitoring to inform evidence-based policies. A policy matrix highlights expected outcomes, potential risks, mitigation strategies, and responsible agencies, offering a practical roadmap for sustainable sector development. Overall, the recommendations aim to create a safer, more inclusive, and economically empowering environment for rural transport workers while supporting broader rural socio-economic transformation.

Chapter Seven: Conclusion

Chapter Seven: Conclusion

7.0 Concluding Remarks

To conclude, it is found that the motorized vehicle driving is an unorganized sector which is essential to providing young, reasonably educated, and economically engaged men with decent jobs in rural Bangladesh. The motorized vehicle provides a reliable source of income as well as improved social standing and recognition, making it an essential livelihood pathway for people leaving unemployment or unstable employment. However, a number of factors limit the sustainability of this livelihood. The drivers' long-term financial security and well-being are threatened by low savings rates, high operating costs, a near-complete lack of formal training, and serious occupational hazards (including personal habits like smoking). The unambiguous gender gap also suggests that deeper socio-cultural barriers prevent these economic opportunities from being equally accessible. Fundamentally, the motorized transportation industry is currently operating below its potential, despite having naturally emerged as a potent engine for rural employment and poverty alleviation. Drivers will remain trapped in a cycle of moderate income and low financial resilience without organized support and intervention, making it impossible for them to fully benefit from the economic mobility that their line of work offers.

7.1 Limitations of the Study

Despite using a large amount of field data from rural Bangladesh, the study has certain limitations. These include: a) data were collected by trainees, which may introduce variations in data quality despite standardized guidelines; b) the study covers a large geographic range but may not capture localized tinges of specific districts; c) the adoption of motorized vehicles is evolving rapidly, so some findings may change over time; and d) environmental impacts like carbon emissions or long-term road degradation were not quantified due to time and resource constraints. Notwithstanding these drawbacks, the study offers a solid empirical basis for comprehending Bangladesh's rural transformation through motor vehicle adoption.

7.2 Conflict of Interest and Ethical Issues

The researchers declare that there were no conflicts of interest in the design, execution, or reporting of this study. The study was conducted independently, without influence from vehicle manufacturers, government agencies, NGOs, or financial institutions that could bias the results or interpretation.

Ethical considerations were strictly observed throughout the research process. Informed consent was obtained from all participants, ensuring that they voluntarily agreed to provide information with a clear understanding of the study's purpose. Participants' privacy and confidentiality were maintained by anonymizing personal data, securely storing records, and using unique identifiers instead of names. The data-collection process also respected participants' dignity and cultural norms, and field researchers were trained to avoid coercion, undue influence, or any harm.

Furthermore, the study adhered to ethical standards for reporting and dissemination, presenting findings honestly and transparently while acknowledging limitations and potential biases. This ethical framework ensured the research-maintained integrity, protected participants, and produced credible, reliable evidence on the motorized vehicle sector in rural Bangladesh.

8.0 References

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9.0 **Appendix : Survey Questionnaire**

Bangladesh Public Administration Training Centre

Savar, Dhaka

77th Foundation Training Course

20 October 2024 to 17 April 2025

Village Attachment Survey Tool

Survey Questionnaire on “Investigate Rural Change: Informal Economy and Occupational Shifting with Motorized Vehicle in Rural Bangladesh”

[Rural Bangladesh has experienced profound socio-economic transformations in recent decades, driven by technological advancements, urbanization, and shifts in livelihood patterns. Among these changes, the proliferation of motorized vehicles, particularly motorized rickshaws, has emerged as a pivotal phenomenon. This trend reflects broader changes in the informal economy and the occupational landscape, significantly impacting rural livelihoods, employment, and community dynamics. Understanding these transformations is essential to devising policies that enhance rural well-being while preserving social cohesion and cultural values. Thus, the main objectives of this study are to: (i) Examine the Economic and Social Impact of Motorized Vehicles; (ii) Identify the Pattern of Occupational Transformation; (iii) Examine the Nature of Employment Generation; (iv) Explore Social and Cultural Implications and so on.]

Identification:

Questionnaire ID:

Name of the Respondent (Optional): ☐ District:.....

☐ Upazilla:.....

☐ Union Parishad:.....

Part A: Demographic Profile

1.1 Age of the respondents

- | | | |
|--------------------------------------|--------------------------------------|--------------------------------------|
| ☐ 16-18 Years | ☐ 19-21 Years | ☐ 22-24 Years |
| ☐ 25-27 Years | ☐ 28-30 Years | ☐ 31-33 Years |
| ☐ 34-36 Years | ☐ 37-39 Years | ☐ Others..... |

1.2 Gender:

- ☐ Male ☐ Female ☐ Other

1.3 Marital Status (MS):

- ☐ Single ☐ Married ☐ Widowed ☐ Divorced
☐ Separated

1.4 Education:

- ☐ Self-Educated ☐ Below Class V ☐ Class V-Class VII ☐ Class IX-X
☐ SSC ☐ HSC ☐ Graduate ☐ Others....

1.5 Daily Income:

- ☐ Below 500/-TK ☐ 500/- to 1000/- Tk ☐ 1000/- 1500/- Tk
☐ Others.....

1.6 Monthly Savings:

- ☐ Below 2000/-TK ☐ 2000/- to 3000/- Tk ☐ 3000/- 5000/- Tk

1.9 Family Size:

- ☐ 2 Persons ☐ 3 Persons ☐ 4 Persons ☐ 5 Persons
☐ Others.....

1.10 School Going Children: from family:

- ☐ Father ☐ Mother ☐ Spouse
☐ Son ☐ Daughter ☐ Brother/ Sister

Part B: Occupation/Employment Status:

2.1 Motorized vehicle:

- ☐ Self owned/ financed ☐ Rented ☐ Share Vehicle

2.2 Name of the Vehicle:

- ☐ Easybike ☐ Three wheelers ☐ Others.....

2.3 Charging Option/Centre:

- ☐ Own House ☐ Garage

2.4 Current Occupation length:

- ☐ Below 1 year ☐ 1-2 years ☐ 2-3 years ☐ 3-5 years
☐ More than 5 years

2.5 Previous Occupation:

- ☐ No Occupation ☐ Daily Labor ☐ Small Business
☐ Others.....

2.6 In addition to Motorized vehicle, do you engage any other work?

- ☐ Yes ☐ No

2.7 If yes, please identified:

- ☐ Agriculture ☐ NGO ☐ Garments Worker
☐ Transport Worker ☐ Others

2.8 Reasons for choosing this Profession:

- ☐ No other profession ☐ Less Capital investment
☐ More income ☐ Independent Occupation
☐ Others

2.9 Challenges that you face:

- ☐ High Recharge Fee ☐ Lack of demand ☐ Competition
☐ High Maintenance cost ☐ Policing ☐ Extortion
☐ Others.....

Part C: Capacity of Individual

3.1 Training:

a) Did you receive any training/skill for driving?

- ☐ Yes ☐ No

b) If yes, then types of trainings/ skills you received (Please put tick ☒ mark)

- ☐ Training from local institution ☐ Family or friends
☐ Government Program ☐ Previous work/Driving Experience
☐ No Training

Part D: Health Status:**4.1 Medical expense for you/your family:.....Tk.****4.2 Cost for your own purpose:**

- ☐ Monthly around 1000/Tk ☐ 1000-2000/-Tk
☐ 2000-3000/-Tk ☐ Other.....

4.3 Smoking Habit:

- ☐ Yes ☐ No

4.3(a) If yes, please mention the daily cost:

- ☐ 50/-Tk ☐ 60/-Tk ☐ 70/-Tk ☐ 80/-Tk ☐
Other.....

Part E: Socio-cultural Effects**5.1 Perception of the Society regarding motorized vehicle driving:**

(please put tick ☒ mark)

Items	Yes	No	Not at all
a) Better income source			
b) Modernization			
c) Quality of Work life			
d) Increase Accident			
e) Hazardous for Mass People			
f) Time			
g) Instability			
h) Loss of traditional values			
i) Degradation of Family and Social bondage			

5.2 Effect of this Profession: (please put tick ☒ mark)

Items	Yes	No	Not at all
a) Increase the Social Status/ Values of Rickshaw Driver			
b) Socially Recognized			
c) Accepted by other			
d) Increase Quality			
e) Employment creation			
f) Poverty reduction			

5.3 Created Opportunities of other Job creation: (please put tick ☒ mark)

Items	Yes	No	Not at all
a) Driving motorized vehicles			
b) Repair and maintenance work			
c) Charging business			
d) Transport-related business			

5.4 Do you plan to continue working as a motorized rickshaw puller in the future?

☐ Yes ☐ No

5.5 Do you think this profession improved your living standard?

☐ Yes ☐ No ☐ Not at all

5.6 Are there any other occupations you are considering for future?

☐ Yes ☐ No

Part F: Institutional Cooperation

Please rate how the following institutions help in your motorized vehicle:

Institution	Always (4)	Often (3)	Seldom (2)	Never (1)
National Government				
Local Government				
City/town Government				
Community Police				

Thank you very much for your kind cooperation

10.0 Glossary & Definition

Term	Definition
Motorized Vehicle	A vehicle powered by an engine (e.g., auto-rickshaw, van) rather than human or animal labor, used for transporting people or goods.
Motorized Vehicles	Includes electric rickshaws, auto-rickshaws, easy-bikes, and vans.
E-Rickshaw / Electric Rickshaw	A battery-powered three-wheeler, commonly used in rural and semi-urban areas for passenger transport.
Easy-Bike	Locally assembled electric three-wheeler, low-cost but often unregulated.
Household Survey	A structured questionnaire administered to households to collect quantitative data on demographics, income, occupations, and living conditions.
Key Informant Interview (KII)	A qualitative method where knowledgeable individuals provide insights on community-level changes, policies, or social dynamics.
Foundation Training Course (FTC)	BPATC training program; participants collected field data for this study.
Participant Matrix	Tool ensuring balanced representation in surveys and interviews.
Positivism	Research approach focusing on objective, quantitative data.
Interpretivism	Research approach focusing on subjective, qualitative insights.
Post-Positivist Paradigm	A research approach recognizing that social realities exist but can only be approximated through systematic observation, empirical evidence, and critical interpretation.
Livelihood	The means through which households or individuals secure income, food, and resources necessary for survival and well-being.

Livelihood Diversification	Households engaging in multiple income sources (e.g., farming + driving).
Informal Sector	Economic activities that are not fully regulated or protected by formal labor laws, often lacking social security or standardized contracts.
Informal Economy	Work outside formal regulation, often without contracts or social protection.
Informal Transport Governance	Regulation of transport systems outside formal state structures.
Decent Employment	Jobs that provide fair wages, safety, dignity, and opportunities for growth.
Decent Work Agenda (ILO)	International framework promoting fair, safe, and secure jobs.
Structural Transformation	Shift of workers from farming to non-farm jobs like transport.
Occupational Shift	Movement of rural youth from agriculture to driving motorized vehicles.
Occupational Length	Duration drivers have worked in the profession, used to assess stability.
Occupational Hazard	A risk or danger associated with performing a particular job, such as accidents, health risks, or financial instability.
Governance Deficit	Weak regulation and poor enforcement in rural transport.
Policy Gaps	Missing or unclear national policies for rural motorized vehicles.
Policy Recommendation Matrix	A structured tool linking suggested policies with risks and solutions.
Extortion Practices	Informal payments demanded by local actors (police, political groups).
Road Safety Concerns	Risks from unlicensed drivers, poor vehicle fitness, and weak traffic rules.

Community Dynamics	How vehicles reshape rural life, mobility, and social relations.
Social Perception	Community attitudes toward drivers, often mixed (status vs. informality).
Social Cohesion	Trust and cooperation within communities, sometimes strained by rapid changes.
Mobility Patterns	How transport affects access to schools, healthcare, and markets.
Gender Exclusion	Limited participation of women in driving due to cultural norms and safety issues.
Gender Inclusion	Efforts to ensure equal opportunities for all genders in employment, training, and economic participation.
Socio-Economic Status	The combination of social and economic factors (income, education, occupation, family background) influencing an individual's or group's position in society.
Microloans / Microfinance	Small loans or financial services provided to low-income individuals, often to support business ventures or purchase income-generating assets.
Financial Inclusion	Efforts to ensure individuals have access to useful and affordable financial products and services, such as bank accounts, loans, and insurance.
Formalization of Sector	The process of regulating an informal industry by implementing rules, issuing licenses, and integrating workers into the official governance framework.
Public-Private Partnership (PPP)	A collaborative agreement between government agencies and private sector organizations to provide services, infrastructure, or support for social or economic objectives.
Income Vulnerability	Risk of unstable earnings due to informality, accidents, or loan repayment.

Training / Skill Development	Structured programs designed to improve knowledge and abilities relevant to a specific occupation, including safety, maintenance, and financial management.
Health Expenditure	Medical costs drivers face, often without insurance.
Smoking Habits	Lifestyle indicator tracked in the study, showing daily spending patterns.
Battery Charging Options	Methods used to recharge vehicles, often informal or unsafe.

11.0 Authors Biography



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Sayeed Mahbub Khan is a distinguished career civil servant of the Bangladesh Civil Service (Administration), belonging to the 13th BCS batch. He currently serves as Rector (Secretary to the Government) at the Bangladesh Public Administration Training Centre (BPATC), Savar, Dhaka, appointed in May 2024. Over his career, he has held key positions including Additional Secretary in the Cabinet Division and Director General (Joint Secretary) at the Anti-Corruption Commission, contributing to policy formulation, governance reform, and institutional development. He obtained his undergraduate degree in Marketing from the University of Dhaka. He possesses recognized expertise in leadership in training management, curriculum development, and organizational management, with a strong track record in designing impactful training programs and leading institutional development efforts. His professional and academic interests include public sector management, governance, administrative reform, and civil service capacity development.



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Dr. Islam has served in key academic roles at BPATC and BRAC University (BIGD), focusing on executive training, curriculum design, and research supervision. His research interests include public sector management, HRD, governance reform, training effectiveness, and organizational performance, with numerous publications in reputed journals and international conferences.



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He has substantial experience in public administration training, research, and policy development. At BPATC, he has coordinated a number of training courses and contributed to training design, delivery, and evaluation. He has also received professional training in advanced research methodology, policy analysis, and governance from institutions in Bangladesh and abroad.

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Since joining BPATC in 2011, he has contributed to training management, research, and capacity development, besides serving in different courses. His research experience spans public administration, training effectiveness, ICT, and social protection.

He has published in peer-reviewed journals and book chapters on governance, service delivery, and development. His interests include public policy, social development, governance, and institutional effectiveness.



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At BPATC, he has gained experience in public administration training, research, and course management, serving as Course Coordinator for Foundation Training Courses and specialized programs for institutions

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THE END

