Socio-Economic Impacts of Rail Transport Decline: Evidence from Ghana's Western Corridor

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ABSTRACT

Rail transport decline in developing countries produces socio-economic consequences that extend well beyond the transport sector, affecting food supply chains, agricultural production, community welfare, and environmental conditions in ways that existing policy frameworks have not adequately addressed. This study examines the socio-economic impacts of rail transport decline along Ghana's western rail corridor, drawing on three focus group discussions with twenty participants and eleven semi-structured interviews with current and former railway staff across four communities in the Tarkwa-Nsuaem Municipality, supplemented by documentary review of railway sector statistics, the national railway master plan, and municipal and national policy documents. Using a qualitative multiple case study design rooted in interpretivism and reflexive thematic analysis, the study documents participants' accounts of an approximately tenfold transport cost differential between rail and road for bulk agricultural commodities, the destruction of competitive buyer markets at former station stops, progressive farm abandonment, and the rise of illegal small-scale mining as a livelihood of last resort. Cost and price figures are participant estimates rather than verified market measurements, and the causal relationships reported are those participants themselves articulated rather than independently measured effects. The findings are interpreted through sustainable livelihoods theory and supply chain governance frameworks. The article demonstrates that the socio-economic consequences of rail transport decline are experienced as systemic rather than sectoral and suggest the need for integrated policy responses that address food security, agricultural production, community welfare, and environmental degradation alongside transport infrastructure rehabilitation.

Keywords: Rail Transport Decline; Food Supply Chains; Socio-Economic Impacts; Galamsey; Ghana

INTRODUCTION

Transport infrastructure is widely recognised in the development literature as a primary determinant of economic opportunity and social welfare in low and middle-income countries (Asomani-Boateng et al., 2015; Lucas, 2012). Access to reliable and affordable transport shapes the prices producers receive for agricultural goods, the prices consumers pay for food, the ability of rural communities to participate in regional markets, and the connectivity of individuals to healthcare, education, and social networks. When transport infrastructure fails, the consequences are felt not only in the transport sector itself but across the economic and social systems that depend on transport for their functioning.

Ghana's western rail line illustrates this dependency with particular force. The first link of Ghana's rail line was constructed between 1896 and 1901 as a colonial mineral export corridor and was further extended to other parts of the country particularly in the southern sector (Dinye, 2012; Obeng et al., 2022). The line evolved into a mixed-use transport system that carried approximately 3.5 million tonnes of freight and eight million passengers

annually at its operational peak in the 1960s (Obeng et al., 2022). By 2020, the operational extent of the network had contracted from 947 kilometres in 1960 to just 160 kilometres, and general freight and passenger services had effectively ceased across the corridor (Obeng et al., 2022; Bouraima et al., 2023). The communities that had grown up along the line, organised their commercial lives around rail transport's predictable schedules, and depended on it for market access, healthcare, and social connectivity experienced not simply higher transport costs when the railway collapsed, but the systematic unravelling of the economic and social fabric that the railway had sustained.

This article examines the socio-economic consequences of that unravelling across four communities in the Tarkwa-Nsuaem Municipality: Asuoso, Benso, Nsuta, and Tarkwa. It documents four dimensions of socio-economic impact: food price escalation and market distortion; agricultural production decline and post-harvest losses; community and social welfare consequences; and the rise of illegal small-scale mining, known locally as ‘galamsey’, as a livelihood of last resort. This article contributes to the evidence base on transport infrastructure failure and socio-economic development in sub-Saharan Africa and to the policy literature on railway rehabilitation and sustainable development in the Ghanaian context.

LITERATURE REVIEW

Transport Infrastructure and Socio-Economic Development

The relationship between transport infrastructure and socio-economic development in low and middle-income countries is well established. Asomani-Boateng et al. (2015) establish that rural infrastructure improvements in Ghana generate measurable gains in market access, agricultural income, and household welfare, and that infrastructure quality is a primary determinant of whether smallholder farmers can access competitive markets and receive prices that make agricultural production viable. Lucas (2012) extends this analysis to social outcomes, establishing that the loss of transport access imposes mobility poverty on rural communities, reducing their ability to participate in economic and social life in ways that compound the direct economic losses associated with higher transport costs.

Jedwab and Moradi (2012) contribute the specifically historical dimension, establishing that some communities along colonial railway routes in Africa grew up around the rail infrastructure rather than around pre-existing geographic or economic logic, making their continued viability contingent on the railway's operation. Their work implies a vulnerability to railway withdrawal that is more acute for corridor communities than for communities with pre-existing economic rationales for their location, and that makes the socio-economic consequences of rail transport decline in communities created by the railway qualitatively different from the consequences of road transport deterioration in communities that pre-dated their road connections.

Railway Decline in Sub-Saharan Africa

Bouraima et al. (2023) document a continent-wide trajectory of African railway deterioration, tracing the reduction in freight volumes, service coverage, and operational efficiency across sub-Saharan African rail networks from the 1960s through to the present. They identify chronic underfunding, institutional mismanagement, and the entrenchment of road transport as the dominant freight mode as the primary structural drivers of this deterioration and note that the consequences for agricultural supply chains and rural community welfare have been severe across affected countries. Poku-Boansi (2020) documents the specific trajectory of transport policy in Ghana, establishing that successive governments have prioritised road investment over railway maintenance in a pattern of path-dependent decision-making that has progressively deepened road transport dependency in the Ghanaian economy.

In addition, Dinye (2012) documents the historical role of the Ghanaian railway in regional economic development, establishing that the western line was central to the development of agricultural and food supply chains in the western region throughout the colonial and early post-independence period. His analysis provides the historical baseline against which the socio-economic consequences of the line's collapse can be assessed, confirming that the railway was not a peripheral transport option for corridor communities but the primary infrastructure around which their economic and social lives were organised. The Ghana Railway Development

Authority (2013) subsequently set out a national railway master plan intended to guide network rehabilitation and expansion, providing the formal policy baseline against which the persistence of the corridor's decline is assessed in this article.

Sustainable Transport Infrastructure and the Ghanaian Policy Environment

The United Nations Sustainable Development Goals adopted in 2015 provide a globally agreed framework for evaluating national progress on infrastructure investment and sustainable development. SDG 9 calls on countries to build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation, and its targets establish affordable and equitable access as a criterion against which transport infrastructure provision can be assessed (United Nations, 2015). The framework is invoked in this article as policy context for the socio-economic consequences documented below rather than as an analytical lens, and the alignment of corridor community positions with SDG 9 principles is examined in a companion article.

The International Energy Agency and International Union of Railways (2019) confirm that rail transport is among the most energy-efficient modes of freight and passenger movement available and that expanding rail networks in developing countries is consistent with the objectives of SDG 9, SDG 11 on sustainable cities, and SDG 13 on climate action. In the Ghanaian context, where road transport accounts for approximately 95 per cent of freight movement following the collapse of the railway, the SDG 9 framework provides both the normative standard for what sustainable transport infrastructure should look like and the policy rationale for prioritising rail rehabilitation. Ghana has embedded these commitments within its Medium-Term National Development Policy Framework for 2022 to 2025, which explicitly prioritises transport infrastructure investment as a driver of economic transformation (National Development Planning Commission, 2021).

THEORETICAL FRAMEWORK

This study is guided by two complementary theoretical frameworks that together provide an integrated analytical lens for examining the socio-economic consequences of rail transport decline. Both frameworks were applied interpretively during the analysis of an existing qualitative dataset rather than operationalised as hypotheses prior to data collection. They are therefore used to organise and explain the patterns observed in the data, and the study does not claim to have tested them.

The first is the sustainable livelihoods framework, developed by Chambers and Conway (1992) and subsequently elaborated in the development studies literature (Scoones, 1998). This framework examines how rural households construct their livelihoods from five capital assets: natural capital, human capital, social capital, physical capital, and financial capital. It establishes that transport infrastructure constitutes a component of physical capital whose withdrawal generates a livelihood shock that forces households to draw down other capital assets, including natural capital, as a coping strategy. Applied to the western corridor context, the sustainable livelihoods framework explains why the withdrawal of railway infrastructure, a form of physical capital, would generate livelihood shocks that corridor communities respond to by drawing down available natural capital, specifically agricultural land, through intensified exploitation including galamsey. This provides the analytical vocabulary for the study's examination of the galamsey causal chain as a livelihood response to transport infrastructure withdrawal rather than as an independently generated phenomenon.

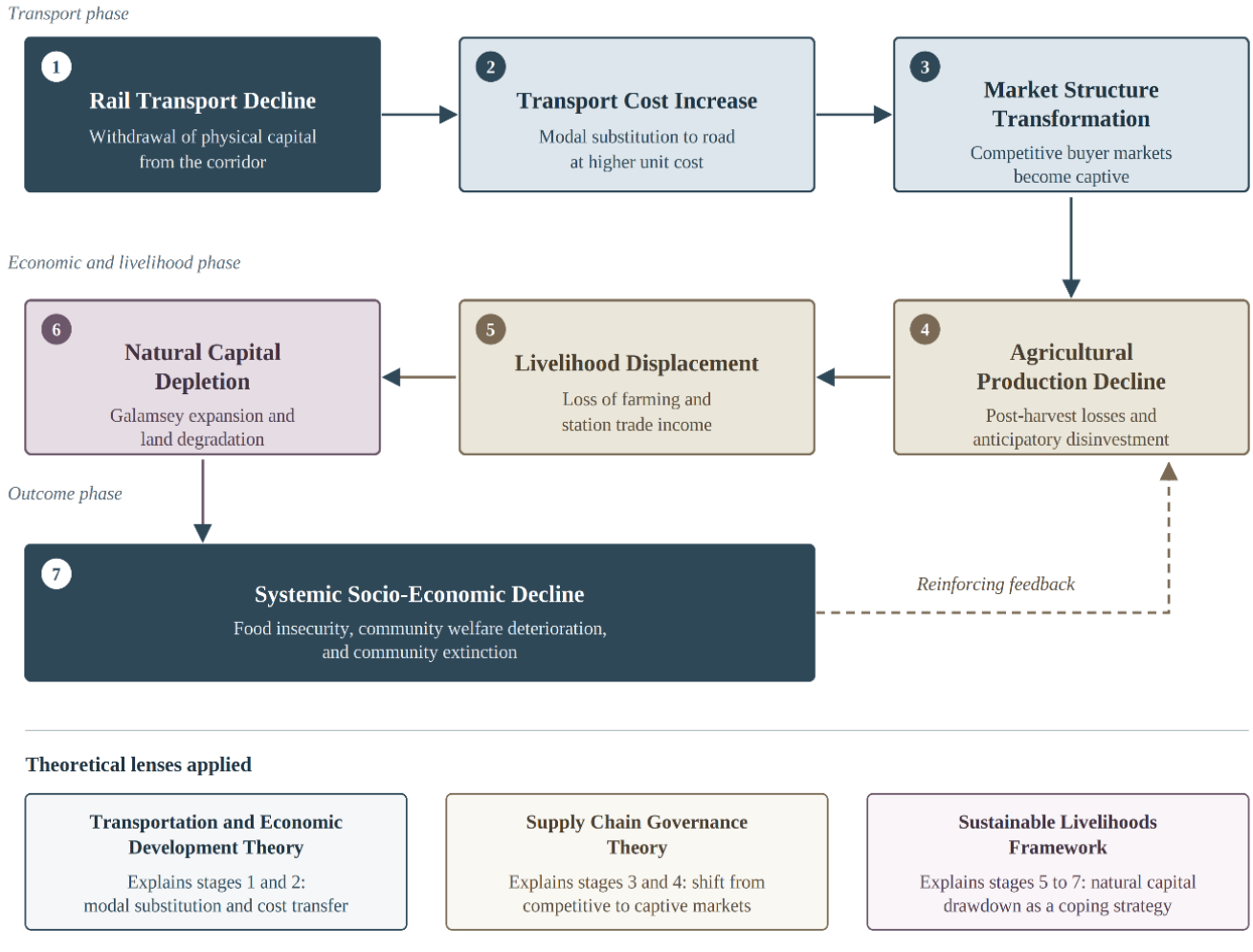
The second framework is supply chain governance theory, as developed by Lambert and Enz (2017) and elaborated in the agricultural supply chain literature. Supply chain governance theory examines how the structural relationships between supply chain actors, specifically the distribution of power and bargaining capacity between producers, intermediaries, and consumers, determine the distribution of value across the supply chain. It establishes that producers in supply chains characterised by high dependence on a small number of buyers face systematic disadvantage in price negotiation, and that the governance structure of a supply chain, specifically whether it operates under competitive or captive market conditions, is as important a determinant of producer welfare as the cost and quality of production itself. Applied to the western corridor context, supply chain governance theory provides a framework for reading the withdrawal of the railway, which had created competitive buyer markets at station stops, as a transformation of the supply chain governance structure from a

competitive to a captive model, transferring bargaining power from smallholder farmers to the few intermediaries willing to travel by road to farm gate locations.

These two frameworks are complemented by transportation and economic development theory (Banister and Button, 1993; Jedwab and Moradi, 2012), which anchors the study's account of modal substitution and establishes that the withdrawal of a cost-effective freight mode shifts the full freight burden onto road infrastructure that was not designed to carry it. Together, these frameworks guide the study's examination of the socio-economic consequences of rail transport decline by providing the theoretical vocabulary for understanding how transport infrastructure withdrawal generates livelihood shocks, market structure transformation, and natural capital depletion as connected rather than independent phenomena. The conceptual model that follows from their combination is presented in Figure 1.

The application of both frameworks in this article is, however, bounded in ways that should be stated at the outset. The sustainable livelihoods framework was developed to analyse household asset portfolios through systematic measurement of the five capital stocks, and the present study did not measure those stocks. It therefore uses the framework as an interpretive vocabulary for a pattern participants themselves described, namely the conversion of land to mining in the absence of viable farming income, rather than as a tested model of asset substitution. Equally, supply chain governance theory was developed primarily in the analysis of buyer-driven industrial value chains with documented contractual relationships, and the present study has no transaction-level data on buyer concentration, price formation, or contractual terms. The competitive-to-captive characterisation advanced below is therefore an interpretation of how participants described the change in their bargaining position, not a measured shift in market structure. Both frameworks are applied as sensitising devices in the sense intended by interpretive case study research, and the limits of that application are revisited in the discussion and limitations sections.

Figure 1 Conceptual Model of the Socio-Economic Impacts of Rail Transport Decline



This model reflects the causal sequence documented in the study's findings and provides the analytical structure within which those findings are interpreted and discussed. It makes explicit the connections between the food price, agricultural production, community welfare, and galamsey dimensions of socio-economic impact that section-by-section presentation might otherwise obscure.

Note. Authors' own construction, 2026. The arrows represent the sequence of effects as participants described it and as the study interprets that description; they do not denote measured or statistically estimated causal relationships.

METHODOLOGY

Research Design

This study employed a qualitative multiple case study design rooted in interpretivism, drawing on Yin's (2018) replication logic across four embedded community cases along the western rail corridor of Ghana. The interpretivist epistemological orientation reflects the study's commitment to understanding the socio-economic consequences of rail transport decline as they are experienced and constructed by the community members who have lived through both the period of railway operation and the period following its collapse. The study adopted an inductive analytical logic, allowing themes to be generated from participant accounts rather than derived from pre-existing categories. The multiple case study design enables the systematic comparison of findings across communities of different economic characters and geographic positions, generating patterns of convergence and divergence that strengthen the credibility of the findings through the logic of replication (Yin, 2018).

Study Setting and Participants

The four study communities, Asuoso, Benso, Nsuta, and Tarkwa, were selected purposively to represent the full range of settlement types present along the western rail corridor within the Tarkwa-Nsuaem Municipality. Asuoso is a rural smallholder farming community at the northern end of the study corridor. Benso is an agro-industrial community defined by the presence of the Benso Oil Palm Plantation Limited and a smallholder farming community. Nsuta is a mid-corridor mining community associated with the Ghana Manganese Company. Tarkwa is the urban administrative and mining centre of the municipality and the primary consumer market for food produced in the surrounding corridor communities (Tarkwa-Nsuaem Municipal Assembly, 2020).

The primary data were generated through two complementary streams. Three focus group discussions were conducted with twenty participants drawn from Benso, Asuoso, and Tarkwa, in community settings familiar to participants: a cocoa shed in Asuoso, a church in Benso and at community centre in Tarkwa. Each group was composed through maximum variation sampling to achieve diversity in occupation, gender, age, and relationship to the railway and food supply chain. Eleven semi-structured interviews were conducted with current and former railway staff recruited through purposive and snowball sampling, providing institutional and corridor-wide corroboration of the community-level evidence. Sample size was governed by the principle of data saturation rather than by statistical proportion, following Guest et al. (2006) and Braun and Clarke (2006), and the total of thirty-one participants across the two streams is consistent with the range recommended for qualitative case study research of comparable scope (Creswell and Poth, 2018; Yin, 2018). Table 1 summarises the participant profile.

Table 1 Participant Profile Summary

Data Stream	Participants	Community Coverage	Primary Occupational Groups
Focus Group Discussions	20	Benso (FGD 1), Asuoso (FGD 2), Tarkwa (FGD 3)	Farmers, food traders, retired railway workers, retired train driver, business owners, broader community members
Semi-structured Interviews	11	Western corridor including Nsuta	Station masters, civil engineers, locomotive drivers, track superintendents, post-retirement rail contractor
Total	**31**	Four communities	

Discussions and interviews were conducted in Twi and English, with the researcher conversant in Twi, enabling direct probing of responses without interpretation. Sessions were audio-recorded with participant consent, transcribed verbatim, and translated into English for analysis. Field notes were maintained throughout fieldwork and used alongside transcripts during analysis.

Two features of the participant structure require explicit acknowledgement. First, focus group discussions were held in Benso, Asuoso, and Tarkwa but not in Nsuta, which is represented in the dataset through interview participants with direct operational knowledge of the Nsuta corridor. Community-level evidence from Nsuta is therefore less richly documented than for the other three communities and claims about Nsuta in the findings that follow rest on institutional rather than community testimony. Second, interview participants are identified by the code IP followed by their participant number, corresponding to the numbering used in the parent study. Focus group participants are identified by their focus group and community only, because the focus group transcripts do not support reliable attribution of individual utterances to named or numbered participants within a group. Where two quotations from the same focus group are presented, they should not be assumed to originate from the same speaker unless the text states so.

Research Instruments

Two instruments were developed for the study. The focus group discussion guide was organised into four thematic sections. The first section established rapport and a shared reference point by asking participants to describe their main occupation and their relationship to the food market in their community. The second section addressed food supply chain practices and transport conditions before the collapse of the western rail line. The third section addressed the changes that followed the collapse, including the effects of the shift from rail to road on the cost and reliability of moving food, market access, post-harvest losses, and income. The fourth section invited participants to identify the improvements that would make the greatest difference to food supply chain activities in their communities and to comment on whether and how the railway could be restored. The researchers acted as facilitators rather than interviewers, posing questions to the group and using follow-up prompts to draw in quieter participants and to manage those who dominated discussion (Kitzinger, 1995). A co-facilitator was present at each session to record non-verbal responses and group dynamics.

The semi-structured interview guide was organised into five thematic sections corresponding to the research objectives and the contextual background needed to interpret responses: the participant's professional background and role within the railway system; the operational history of the western rail line; the factors contributing to its decline and collapse; the consequences of the collapse for communities, food supply chain activities, and freight movement; and the participant's views on the prospects for rail revival and the relevance of SDG 9 as a policy framework. Three question types were used within the guide. Open-ended questions invited participants to describe their experiences in their own words, probing questions followed up responses requiring greater depth or specificity, and reflective questions invited participants to consider broader implications toward the end of each interview (Kvale and Brinkmann, 2015).

Both instruments were piloted between 8 and 15 November 2025 with four participants drawn from outside the four study communities but within the broader Tarkwa-Nsuaem Municipality, ensuring a comparable social and economic context without contaminating the main sample. The pilot for the interview guide involved two participants with knowledge of railway operations, and the pilot for the focus group guide involved a small group of community members with experience of food trading and agricultural production. Following the pilot, questions found to be too broad or abstract were reworded to be more specific and grounded in everyday experience, the sequencing of the interview guide was adjusted to move more naturally from contextual to reflective questions, and session time estimates were revised. The revised instruments were reviewed by the research supervisor before the main fieldwork commenced (Teijlingen and Hundley, 2001).

Documentary Sources and Triangulation

A third stream of documentary and secondary material was reviewed alongside the two primary streams, following the principle that documentary sources in case study research serve as contextual and corroborating evidence rather than as a standalone method (Yin, 2018). Four categories of material were consulted. Railway

sector statistics on network extent, freight tonnage, passenger volumes, and service accessibility were drawn from the published review of Ghana's railway transport services delivery by Obeng et al. (2022) and the continental assessment of Bouraima et al. (2023), and these sources provide the historical and network figures reported in the introduction. National railway policy and rehabilitation planning were assessed against the Railway Master Plan of the Ghana Railway Development Authority (2013) and the Medium-Term National Development Policy Framework for 2022 to 2025 (National Development Planning Commission, 2021). Municipal economic and demographic context, including the composition of the four study communities and the economic character of the municipality, was established from the composite budget of the Tarkwa-Nsuaem Municipal Assembly (2020). Comparative evidence on transport cost and market access effects in Ghanaian rural settings was drawn from Asomani-Boateng et al. (2015) and Adusei et al. (2023).

Documentary material was used to verify the factual and historical claims on which the study's framing rests, to situate participant accounts within the documented policy environment, and to identify points at which participant accounts and documentary records diverged. Where convergence was found, as between participant accounts of service cessation and the documented contraction of the operational network from 947 to 160 kilometres, this is noted in the findings. It should be stated plainly, however, that the documentary stream could not substantiate the specific commodity prices, transport tariffs, and farm-level losses that participants reported. Disaggregated market price series for the four study communities, historical rail and road freight tariff schedules for the corridor, and corridor-level agricultural production statistics were sought but are not maintained in published form at the geographic resolution this study requires. The cost and price figures reported in the findings are therefore presented throughout as participant estimates, and the implications of that status are addressed in the limitations section.

Data Analysis

Data were analysed using Braun and Clarke's (2006, 2019) six-phase reflexive thematic analysis framework, generating initial codes from participant language before organising codes into themes reflecting patterns across the full dataset. The six phases were worked through in sequence. Familiarisation involved transcribing the audio recordings, reading each transcript in full at least twice, and recording initial analytic impressions in the reflective diary alongside the field notes. Initial coding proceeded line by line across the complete dataset, with codes generated inductively from participants' own formulations rather than applied from a predetermined scheme, so that formulations such as the train creating markets, the squeezing of goods in small vehicles, and farms going back to bush entered the analysis as codes in participants' own terms. Codes were then clustered into candidate themes on the basis of shared meaning rather than frequency of mention. Candidate themes were reviewed against both the coded extracts and the full dataset, at which point two early candidate themes were collapsed into the single theme reported as food price escalation and market distortion, because the market structure codes and the price codes proved inseparable in participants' accounts. Themes were then defined and named, and the four themes reported in the findings were fixed at that stage. Writing up formed the sixth phase. NVivo 15 was used to manage, organise, and code the dataset. All interview transcripts, focus group transcripts, field notes, and documentary sources were imported at the start of the analysis phase, codes were created and applied within the software during the coding phase, and the clustering of codes into candidate themes was supported by its query and visualisation functions. The software supported the organisation of the analysis rather than performing it, and the identification of patterns, interpretation of meaning, and construction of themes remained the work of the researchers (Bazeley and Jackson, 2013). Following the within-case thematic analysis, a cross-case analysis was conducted across the four communities to identify patterns of convergence and divergence, and the community differentiation reported derives from that stage of the analysis.

Sampling and analysis were governed by the principle of data saturation rather than by a predetermined sample size (Guest et al., 2006). Saturation was assessed inductively during coding by monitoring the point at which additional transcripts ceased to generate codes that were not already represented in the coding frame. No new codes relating to transport cost, market structure, or post-harvest loss were generated after the second focus group and the eighth interview, and the remaining transcripts produced elaboration and corroboration of existing codes rather than new analytic content. The single exception concerned the community extinction and station trade material, where accounts specific to particular settlements continued to add detail through the final focus group; the theme itself, however, was established before that point. Saturation is reported here as an analytic

judgement reached during coding rather than as a formally measured threshold, and the assessment applies to the three communities in which focus groups were held. It cannot be claimed for Nsuta, where no community-level focus group was conducted.

Furthermore, deliberate attention was given to evidence that complicated or contradicted the emerging account, in line with the reflexive commitments described below, and three such instances are reported here rather than set aside. First, the cocoa farming account in Benso identifies a government-fixed producer price, not transport cost, as the binding constraint on farmgate income, which indicates that transport is one determinant of producer welfare among several and that the market structure argument does not hold uniformly across commodities. Second, focus group participants in Tarkwa, while attributing the intensification of galamsey to the loss of agricultural and railway-dependent livelihoods, were explicit that small-scale informal mining predated the rail collapse in a community defined by more than a century of formal mining activity. Their accounts therefore support an interpretation of the rail collapse as an accelerant of an existing activity in that setting rather than as its origin. Third, the fish pricing account in Tarkwa attributes higher local prices partly to traders' own commercial preference for consigning catch directly to larger markets, which is a market behaviour that transport cost alone does not explain. These instances are retained in the findings and discussion because they bound the claims the data can support.

In addition, trustworthiness was assessed using Lincoln and Guba's (1985) criteria of credibility, transferability, dependability, and confirmability. Credibility was supported through triangulation across the two data streams and through member checking, in which selected participants were given the opportunity to review the authors interpretation of their accounts before the analysis was finalised. Confirmability was strengthened through external expert review in which a structured summary of findings was shared with three independent specialists in transport policy, Ghanaian economic development, and qualitative research methodology, who were asked to identify any findings that appeared unsupported or overstated. Their feedback was used to refine the framing of specific conclusions before submission.

Ethical Considerations

Ethical approval for the study was granted by Malaysia University of Science and Technology under ethics code **RE0055** prior to the commencement of any data collection. Permissions were sought to access current and former railway staff and all other participants who participated in the focus group discussions and the semi-structured interviews. These layers of formal permission ensured that the research proceeded with the knowledge and endorsement of the relevant authorities at institutional and community levels (Israel and Hay, 2006).

Before each interview and focus group session, participants received a full explanation of the purpose of the study, the nature of their expected contribution, how the data would be used, who would have access to it, and how their confidentiality would be protected. This information was communicated verbally in plain language and, where participants were literate, through a written participant information sheet. Participants were told that participation was voluntary and that they could withdraw at any point without giving a reason and without consequence. Written consent was obtained where participants were comfortable providing it; where participants preferred not to sign, verbal consent was recorded at the start of the audio recording, following the practice recommended by Creswell and Poth (2018) for community settings in which written documentation may feel intrusive. In focus groups, consent was obtained individually before the group session began. Where participants' preferred language was Twi or Fante, consent information was communicated through a bilingual research assistant to ensure genuine understanding rather than formal delivery (Kvale and Brinkmann, 2015).

Confidentiality required particular attention because participants disclosed information about institutional failures, policy shortcomings, and community grievances that could expose them to professional or social consequences if attributed by name. All participants were assigned codes at the point of data collection, and these codes were used in all transcripts, field notes, and analytical records. The key linking codes to personal details was stored separately on a password-protected device accessible only to the researchers. In the presentation of findings, participants are identified only by code and a general descriptor of role or community. Focus group participants were asked to agree collectively to maintain the confidentiality of what was shared

within the group, and it was explained transparently that confidentiality within a focus group cannot be guaranteed by the researcher in the way it can in individual interviews (Morgan, 1997).

Several participant groups included individuals who had experienced significant personal and economic loss because of the rail collapse, including retired railway workers, elderly pensioners, and smallholder farmers whose incomes had been severely affected. Discussions were conducted with attention to the risk of distress, and participants were free to decline any question. The lead researcher is Ghanaian and professionally familiar with the social and economic conditions of the Western Region, a positionality that supported rapport and the recognition of culturally specific references but also carried a risk of confirmation bias. To manage this, a reflective diary was maintained throughout fieldwork and analysis, deliberate attention was given to data that complicated the emerging themes, and the member checking process provided a further external check on the researcher's interpretations (Creswell and Poth, 2018).

FINDINGS

Food Price Escalation and Market Distortion

The most immediately and consistently reported socio-economic impact of rail transport decline was the sustained escalation of food prices which participants attributed to the shift from rail to road as the dominant mode of freight movement. The magnitude of the transport cost increase was estimated by an interview participant with forty years of service who subsequently worked as a rail feasibility contractor. Monetary amounts in the quotations that follow are reproduced as participants expressed them in the transcribed and translated record; the local currency is the Ghana cedi (GHS), and all such amounts are participant estimates that the study was unable to verify against market or tariff records.

> *"The difference in cost between rail and road is not small. To move one thousand yam tubers from Kumasi to Tarkwa by train cost about GHC 250. The same load by road costs about GHC 2,500. That is ten times more. And a box of tomatoes that costs GHC 200 in Kumasi arrives in Tarkwa at GHC 1,500 to GHC 2,000 by the time you add road transport, handling, and the trader's margin. How can ordinary people afford that?"* (IP11)

A focus group participant in Tarkwa described the aggregate food price consequence:

> *"The cost of goods here are up by about fifty per cent compared to the big towns like Kojokrom. Interestingly, the cost of fish here in Tarkwa is more expensive than in Kumasi. This is due to the transport situation. People prefer to load their catch directly to Kumasi than to use short distance cars into the towns around at higher prices due to bad roads. The trains helped to deliver fish to neighbouring towns easily and at cheaper prices."* (FGD 3, Tarkwa)

The same participant identified a further paradox that illustrated the depth of market integration failure:

> *"Same can be said of flour, even though we have the Takoradi Flour Mill sitting next to us. People prefer to sell their goods in the bigger towns than the smaller ones due to the absence of the train. We have the mill next to us but the flour is cheaper elsewhere."* (FGD 3, Tarkwa)

This flour mill paradox, in which a commodity produced adjacent to the corridor is reported to be cheaper in distant markets, is consistent with the market integration failure described in the study's conceptual model, although the study holds no price data with which to establish the differential independently.

The transport cost increase was described by participants as producing not only higher food prices but a structural transformation of supply chain governance from a competitive to a captive model, a pattern the study reads through the supply chain governance theory guiding this study (Lambert & Enz, 2017). During the period of railway operation, station stops created competitive buyer markets at which multiple buyers competed for produce, giving farmers a degree of bargaining power that their individual productive capacity alone would not have generated. When road transport replaced rail, this competitive structure disappeared. The evidence for this

transformation is participants' consistent and independently offered accounts, across both data streams and all three focus group communities, of a change in the number of buyers reaching farm gate locations and in their own capacity to refuse an offered price. The study has no buyer census, no record of farmgate transactions, and no price series with which to measure concentration directly, and the characterisation should be read accordingly. A focus group participant in Benso described the consequence:

> *"The train brought several buyers to us. Business was booming. Now the few buyers who come offer very bad prices for our products. They always complain about expensive fares on road transport. Before, we had choice. Now we have no choice. We take whatever they offer."* (FGD 1, Benso)

The scale of the cost increase absorbed by individual traders was described by a second-hand clothing trader in Benso, whose account illustrates the pass-through mechanism by which transport cost increases reach consumer prices:

> *"At first I could spend like one hundred and fifty cedis as train fare to cart all my cloth bales here to Takoradi or even Tarkwa. I just spent close to six hundred and fifty last week to bring the same goods through bus and car. Automatically, I shift the cost onto the buyers of my clothes. This has greatly affected my income and profit."* (FGD 1, Benso)

Agricultural Production Decline and Post-Harvest Losses

The food price escalation and market distortion documented in the study were described by participants as having downstream consequences for agricultural production in the form of post-harvest losses and progressive farm abandonment. Asomani-Boateng et al. (2015) establish transport access as a determinant of market participation and agricultural income in rural Ghana, and the present study documents accounts consistent with the inverse relationship in the specific context of rail collapse.

A focus group participant in Tarkwa provided a specific account of post-harvest loss:

> *"Occasionally I lose some of my farm produce when I don't get buyers on time. For example, last year, I lost almost half of my tuber of yams because my regular buyers felt it was stressful and risky carting the produce through road. I left most of the produce in the ground which ended up being rotten. Sometimes I am forced to sell them at very cheap prices to reduce loss. The buyers offer their preferred prices. The drivers are cashing in and inconsiderate especially in the evenings. The train could work even at midnight and at cheaper prices."* (FGD 3, Tarkwa)

A participant in Asuoso described the physical dimension of road transport-related spoilage:

> *"Because the cars are small, the goods get packed in improperly which contributes to the spoiling. The train could package all my goods well. You had enough space. On the road, everything is squeezed. The plantain gets bruised. The tomatoes are crushed. By the time you get to market, some of the goods are already damaged. You cannot sell them at full price."* (FGD 2, Asuoso)

Beyond immediate post-harvest losses, the sustainable livelihoods framework provides a basis for anticipating that repeated livelihood shocks will induce households to reduce productive investment as a risk mitigation strategy (Scoones, 1998). This anticipatory disinvestment was documented across the data. A focus group participant in Benso described the cost squeeze specific to cocoa farming under a fixed government purchase price:

> *"During harvest I hire the services of people to prepare the goods for the market. The price of the cocoa is determined by the government representative here. I usually get people to carry the goods from the farm. The collapse of the railway has had a heavy toll on my work. I now have to hire labourers to carry the goods at a very higher price. This has increased the price of production which affects me because the final price of the cocoa is still determined by the government. I cannot pass the cost on."* (FGD 1, Benso)

An interview participant with over forty years of service as a train driver described the corridor-wide pattern of agricultural decline from a longitudinal observational perspective:

> *"I drove that line for over forty years. I knew every farm along the route. I watched them. When the railway was running, the farms were maintained. People were farming. After the railway stopped, I could see the farms going back to bush. People were giving up. The ones who stayed reduced their production. The ones who could not manage it stopped."* (IP7)

Community and Social Welfare Consequences

The socio-economic consequences of rail transport decline extended into the broader social and community life of the corridor, affecting social participation, healthcare access, educational support, and community viability. These consequences were documented consistently across all three focus group communities and corroborated by interview participants.

The collapse of the station trade economy was a recurring theme. A focus group participant in Benso recalled the scale of commercial activity the railway had sustained at smaller stations:

> *"I used to sell at the train station. We knew when the train arrives, so we took advantage to sell our goods. I could sell about one thousand loaves of bread in a day. Now I have stopped all these."* (FGD 1, Benso)

An interview participant described the dedicated service that had functioned as the commercial backbone of inter-community food trading along the line:

> *"There was a dedicated train for the market women. It stopped at every station along the line. The women would board with their goods, sell at one station, wait for the next train, and move on to the next community. In one day, a trader could cover the whole line. That network is gone. There is nothing like it on the road. The road does not stop at every small community the way the train did."* (IP8)

The disruption of social and community life was described with personal specificity by focus group participants. A participant in Asuoso stated:

> *"Personally, I have not been going to my hometown regularly like I used to. I have been accused severally by my relatives for failing to come for social functions such as funerals, naming ceremonies, weddings. The cost of going there has become very expensive. In fact, if you can do something to revive the rail services, please do. We are suffering."* (FGD 2, Asuoso)

The financial magnitude of the transport barrier was quantified by a further participant in the same group, whose amounts appear in the transcribed and translated record as spoken and are, like all participant-stated figures in this article, unverified estimates:

> *"Just imagine that I could easily reach my hometown from here in seventeen miles through a train, yet I am forced to travel about twenty-seven miles via road to Tarkwa before I take a car to my hometown, which is like going from South to North before coming back to South. I can spend up to one hundred and twenty dollars to get to my hometown whereas a train would have taken fifty dollars in and out."* (FGD 2, Asuoso)

Healthcare access emerged as a particularly serious consequence in communities without local health facilities. A focus group participant in Tarkwa recounted:

> *"Personally, we were forced to stop in the middle of the line to help with a woman in labour. We had to help her come on board. Eventually she gave birth in the train. The train was the only access route to the hospital."* (FGD 3, Tarkwa)

Another participant described the ongoing access problem:

> *"Most of our communities do not have health facilities hence depend on the existing ones in bigger towns. The train could easily send us to these towns' health centres at lower cost. Now, you need to also think about transport cost beside the hospital bills. Some communities are cut off because of the collapse. The only access road or way to these towns is by train. Without it, there is no way."* (FGD 3, Tarkwa)

The educational consequences of rail transport decline were described by a participant in Benso:

> *"What I regret most is the dissolution of all the petty markets along the rail stops. Our kids could easily get or raise funds from selling stuff at these stops. They could sell brooms and farm produce to supplement their chop money. Most significant number of the kids have become school dropouts due to lack of finances. They go hungry at school. The train was a reliable and cheap avenue for schools and students' activities like inter-community sports. Now parents must foot expensive fees and levies for their wards to engage in these school activities. The train was almost free for students."* (FGD 1, Benso)

The most extreme social consequence was community extinction. A focus group participant in Tarkwa stated:

> *"Some communities like Akontase have become extinct now because of the train collapse and resettlement. These communities existed because of the railway. When the railway went, the people went. There is nothing left there now."* (FGD 3, Tarkwa)

This finding is consistent with Jedwab and Moradi's (2012) historical analysis establishing that communities along colonial railway routes in Africa grew up around the infrastructure, making their continued viability contingent on the railway's operation.

Galamsey and Environmental Degradation

The consequence participants described in the strongest terms was the rise of galamsey as a dominant livelihood strategy among youth and farmers displaced from agricultural and railway-dependent economic activities, and the agricultural land degradation they associated with this shift. The sustainable livelihoods framework provides one explanation for this pattern, holding that transport infrastructure withdrawal generates livelihood shocks that communities respond to by drawing down natural capital as a coping strategy (Chambers & Conway, 1992). The galamsey literature identifies poverty, unemployment, weak regulatory enforcement, and rising gold prices as established drivers of illegal mining expansion in Ghana (Hilson, 2014), and the accounts reported below should be read as participants' attribution of local galamsey expansion to transport withdrawal operating alongside those drivers rather than in place of them. The environmental claims that follow are participants' observations of soil, water, and land condition. No soil sampling, water quality testing, or remote sensing of land cover change was undertaken, and the study makes no measured claim about the extent or severity of degradation along the corridor.

The causal connection between rail transport decline and galamsey expansion was articulated explicitly by participants. A focus group participant in Tarkwa stated:

> *"I can attribute the galamsey acts to the collapse of the railway because a lot of jobs and livelihoods were affected. People have resorted to illegal mining to make money. Now, hardly will you find a farmland. The stress involved in farming and transporting produce has demotivated landowners to sell off their lands for galamsey acts. It is a shame that we move to the general market in Kojokrom to buy foodstuffs."* (FGD 3, Tarkwa)

A participant in Asuoso described the self-reinforcing cycle of food insecurity:

> *"Farmers have converted their farms into galamsey sites due to bad pricing of their produce. This contributes to the high cost of food because food has to be bought from the main market at*

Kojokrom which needs transport fares. So you pay more for transport and more for food. Everything is more expensive." (FGD 2, Asuoso)

An interview participant with over forty years of service described the physical transformation of the corridor landscape:

"I drove that line for over forty years. I knew what the land looked like. It was farmland. People were growing things. Now large parts of it are mining sites. The topsoil is gone. The water is poisoned. Even if you wanted to farm there again, the land is damaged. It is not just that people stopped farming. The land itself has been destroyed." (IP7)

A retired station master located the galamsey response within the broader trajectory of corridor decline and the absence of policy intervention:

"The young people have no jobs. The farms are not viable. The railway is gone. What do you expect them to do? They go into the bush and they mine. They destroy the land because they have no other choice. This is what happens when you leave communities without infrastructure and without support for twenty years. The galamsey is not a separate problem. It is the result of the railway collapse. If you fix the railway, you begin to fix the galamsey." (IP4)

The cross-case analysis identified meaningful differences in galamsey dynamics across the four communities. In Tarkwa and Nsuta, where formal large-scale mining has been the defining economic activity for over a century, galamsey was described as an intensification of an existing mining culture that the loss of agricultural viability has accelerated; participants in Tarkwa were explicit that informal mining predated the rail collapse in their community. In Asuoso and Benso, historically agricultural communities, galamsey was described as a fundamental rupture with community identity and a lasting transformation of the land base on which any future agricultural revival would depend. The Nsuta characterisation rests on interview rather than community focus group evidence, and is reported here as the account of railway staff with operational knowledge of that corridor rather than as community testimony.

Cross-Case Thematic Comparison

Table 2 Thematic Matrix of Socio-Economic Impacts Across the Four Study Communities

Theme	Asuoso (FGD 2)	Benso (FGD 1)	Tarkwa (FGD 3)	Nsuta (interviews only)
Food price escalation and market distortion	Convergent. Price increases attributed to road fares; reliance on Kojokrom market for staples.	Convergent. Loss of competing buyers at farm gate; trader cost pass-through reported.	Convergent. Approximately fifty per cent premium reported against larger towns; fish and flour price paradoxes.	Not evidenced at community level. No focus group data.
Agricultural production decline and post-harvest losses	Convergent. Spoilage attributed to vehicle loading conditions.	Divergent emphasis. Cocoa producer price fixed by government, so transport raises cost without a price response.	Convergent. Loss of approximately half a yam harvest reported; distress sales.	Not evidenced at community level. Corridor-wide decline reported by IP7.
Community and social welfare consequences	Convergent. Reduced attendance at funerals and ceremonies; travel cost barrier reported.	Convergent. Collapse of station trade; loss of children's station income linked to school dropout.	Convergent. Healthcare access barriers; community extinction reported at Akontase.	Not evidenced at community level. Market women's train reported corridor-wide by IP8.
Galamsey and environmental degradation	Convergent, reported as rupture. Conversion of farmland to mining sites.	Convergent, reported as rupture. Historically agricultural community.	Convergent, reported as intensification. Informal mining predates the collapse.	Reported as intensification by interview participants. No community corroboration.

Note. Convergence and divergence are judged across the coded material for each community. Entries marked as not evidenced at community level indicate that no focus group was conducted in Nsuta and that the Nsuta column therefore rests on interview accounts from railway staff with operational knowledge of that corridor. The matrix reports the distribution of evidence, not measured differences in magnitude between communities.

RESULT AND DISCUSSIONS

The findings document socio-economic impacts of rail transport decline that are described by participants as systemic rather than sectoral, cascading from transport cost increases through market structure transformation, agricultural production decline, community welfare deterioration, and environmental degradation in ways that the existing literature has not fully traced as a connected sequence. The conceptual model presented in Figure 1 provides the analytical framework for understanding these connections.

The transport cost finding, specifically the participant-reported tenfold differential between rail and road transport costs for bulk agricultural commodities, is at the higher end of modal cost differentials reported in the African transport literature (Bouraima et al., 2023), although the comparison is between a recalled estimate and published measurements and should be treated as indicative. Asomani-Boateng et al. (2015) document the market access and income benefits of rural infrastructure improvements in Ghana, and the inverse of their finding is consistent with the accounts gathered here. However, the study extends this analysis by suggesting that the consequences of rail transport decline for food prices and farmer welfare are not limited to transport cost increases but include the structural transformation of market governance that supply chain governance theory anticipates (Lambert & Enz, 2017). The shift from competitive to captive supply chain governance would imply that even if transport costs were reduced through road infrastructure improvements, the bargaining power deficit of smallholder farmers would persist because road transport does not recreate the competitive buyer markets that the railway's station stops sustained.

The agricultural production findings contribute to the post-harvest loss literature by documenting participants' accounts of the anticipatory disinvestment mechanism through which transport infrastructure withdrawal depresses production investment before any harvest occurs. Adusei et al. (2023) document agricultural production shortfalls in Ghana and recommend extension services and improved varieties as the primary policy response. The present article's evidence suggests a limit to the adequacy of this recommendation by indicating that the technical inefficiency at the farm level that Adusei et al. (2023) document may in part reflect a rational response to the transport infrastructure environment rather than inadequate technical knowledge alone.

The galamsey finding makes a specific contribution to a literature that has focused on regulatory failure, poverty, and commodity prices as the primary drivers of illegal mining expansion (Hilson, 2014). The sustainable livelihoods framework provides the theoretical grounding for understanding galamsey as a livelihood response to physical capital withdrawal rather than as an independently generated phenomenon. The community differentiation finding, specifically the distinction between galamsey as an intensification of existing mining culture in Tarkwa and Nsuta and as a fundamental rupture with agricultural identity in Asuoso and Benso, has direct implications for how policy responses to the galamsey problem are designed across communities with different historical relationships to mining activity.

Three qualifications bound the interpretation advanced above, and each follows from evidence within the dataset rather than from external critique. The first concerns alternative explanation. Galamsey expansion along the western corridor coincided with a period of rising international gold prices, intensified informal mining activity across Ghana's mining regions generally, and weak regulatory enforcement, all of which the literature identifies as drivers independent of transport conditions (Hilson, 2014). The present study cannot apportion weight between transport withdrawal and these concurrent drivers, and its contribution is therefore the identification of a pathway that the galamsey literature has not previously documented rather than a claim about its relative explanatory power. The Tarkwa accounts, which locate informal mining in the community before the collapse, are consistent with transport withdrawal acting as an accelerant where a mining economy already existed and as a more fundamental rupture where it did not.

The second qualification concerns the supply chain governance argument. The shift from competitive to captive governance is inferred from participants' consistent accounts of fewer buyers reaching farm gate locations and of a reduced capacity to refuse offered prices. It is not established through buyer concentration ratios, transaction records, or price series, and an alternative reading in which buyer numbers fell for reasons unrelated to modal shift, such as consolidation in regional trading networks, cannot be excluded on the present evidence. The Benso cocoa account, in which a government-fixed producer price rather than buyer competition determines farmgate income, further indicates that the governance mechanism operates unevenly across commodities and is strongest for crops sold into open markets.

The third qualification concerns measurement. The transport cost differential, the food price premium, and the extent of land degradation are reported as participants stated or observed them. They are internally consistent across independent accounts, which is the basis on which they are presented, but they are not market measurements, and the directional claims the article advances should be read as the structure of a documented local experience rather than as estimated effect sizes. Establishing magnitude would require a complementary quantitative study of corridor transport tariffs, market prices, and agricultural output, and such a study is the natural successor to the present one.

IMPLICATIONS AND RECOMMENDATIONS

The findings carry implications for transport policy, logistics practice, and rural development programming in developing country contexts, and five priorities follow from them in order of the directness with which the evidence supports them.

Railway rehabilitation should be appraised on a broader basis than transport cost savings alone. The evidence presented here indicates that the costs of rail transport decline are borne in food prices, in the bargaining position of smallholder producers, in the viability of agricultural livelihoods, in access to health and education, and in the condition of the land. An appraisal confined to modal cost comparison will therefore understate the social return to rehabilitation. The practical implication for Ghana is that the investment case for the western corridor should be constructed through a social cost-benefit analysis incorporating avoided costs across these domains, and that the analysis should be published so that corridor communities and civil society organisations can assess its completeness.

Feeder road investment should be treated as a complement to rail rehabilitation rather than as a substitute for it. Participants' accounts of spoilage attributable to vehicle loading conditions and of the cost of moving produce from farm to collection point indicate that the first and last segments of the journey impose costs that trunk infrastructure does not address. At the same time, the market structure evidence suggests that road improvement alone will not restore the competitive buyer markets that station stops sustained, because the mechanism concerned was the predictable concentration of buyers at fixed points rather than road quality. Feeder road and rail investment should accordingly be planned together within a single corridor logistics framework.

Market access interventions should address the market-making function that the railway performed and not only physical connectivity. The station trade economy described by participants, including the dedicated service for market traders, created recurring points at which buyers and sellers met on a known schedule. Aggregation centres, scheduled collection points, and farmer marketing organisations along the corridor would reproduce part of that function independently of the rehabilitation timetable, and would address the bargaining asymmetry that participants reported most directly.

Livelihood diversification support should be targeted at the communities in which agricultural livelihoods have become unviable, with design differentiated by community economic history. The cross-case evidence indicates that galamsey operates as an intensification of an existing mining economy in Tarkwa and Nsuta and as a rupture with agricultural identity in Asuoso and Benso. Programmes that treat the two situations identically are unlikely to succeed in either, and provision in the historically agricultural communities should prioritise the restoration of viable farm income rather than transition away from farming.

Environmental restoration should be planned and financed as a component of corridor rehabilitation rather than as a separate initiative. Participants described the conversion of farmland to mining sites as a response to the loss of agricultural viability, which implies that land restoration undertaken without addressing the transport and market conditions that generated the conversion is unlikely to hold. A corridor land restoration programme covering reclamation, soil restoration, and water quality remediation should be sequenced alongside rehabilitation works, and should be preceded by the soil and water assessment that the present study was not equipped to undertake.

Limitations Of The Study

Six limitations bound the claims advanced in this article.

First, the quantitative claims are participant estimates rather than verified measurements. The approximately tenfold transport cost differential, the reported fifty per cent food price premium, and the farm-level loss figures were stated by participants from recollection and were not corroborated against tariff schedules, market price series, or production records, because material at the required geographic resolution is not maintained in published form. These figures are reported because they were offered independently and consistently, and they indicate the order of magnitude of a problem as those affected by it understand it, but they should not be treated as economic measurements or used in modelling without independent verification.

Second, the study is exposed to recall bias. Participants were asked to compare present conditions with a period of railway operation that ended progressively from the late 1990s, and in several cases to recall prices, volumes, and journey costs from two decades or more before the interview. Retrospective accounts of a valued institution that has since been lost are liable to idealise the period of its operation, and the consistency of accounts across participants does not eliminate this risk, since the participants share a collective narrative about the railway's decline. The study has partially offset this through triangulation between community and institutional accounts and through documentary verification of the historical network and freight statistics, but the risk is not eliminated and the pre-collapse baseline reported here should be read as remembered rather than recorded.

Third, participant selection constrains the range of perspectives represented. Focus group participants were recruited through purposive and maximum variation sampling within communities, and interview participants through purposive and snowball sampling within a railway workforce, with the consequence that both streams are weighted toward individuals with a direct stake in the railway and its restoration. Those who have adapted successfully to road transport, those who entered the corridor economy after the collapse, and road transport operators themselves are not represented, and their accounts would be likely to complicate the picture presented here. The interview stream is additionally all male, reflecting the composition of the railway workforce rather than a sampling decision.

Fourth, the four study communities are asymmetrically represented in the dataset. Asuoso, Benso, and Tarkwa each have a dedicated focus group in which participants speak directly from community experience, while Nsuta is represented only through interview participants with operational knowledge of that corridor. The community-level experience of the collapse in Nsuta, including its food supply chain, social, and galamsey dimensions, is therefore documented less richly than elsewhere, and the Nsuta entries in the cross-case matrix rest on institutional rather than community testimony. The geographic scope is also narrow, being confined to a single corridor within a single municipality, and transferability to other Ghanaian or West African corridors requires comparative research rather than assumption.

Fifth, researcher positionality shapes the analysis. The lead researcher is Ghanaian, familiar with the social and economic conditions of the Western Region, and conducted the fieldwork in a language shared with participants. This proximity supported access, rapport, and the recognition of culturally specific references, and it carried a corresponding risk that interpretation would align with prior expectations about the consequences of the collapse. A reflective diary was maintained throughout fieldwork and analysis, disconfirming material was deliberately sought and is reported in the findings and discussion, and member checking and external expert review provided further checks. These measures manage the risk rather than remove it, and readers should weigh the interpretive claims accordingly.

Sixth, the theoretical frameworks were applied interpretively to an existing qualitative dataset rather than operationalised prior to data collection. The instruments were not designed to elicit evidence on the five capital assets of the sustainable livelihoods framework or on supply chain governance relationships as such, and no transaction-level or asset-level measurement was undertaken. The frameworks therefore organise and interpret the patterns observed in the data, and the correspondence between those patterns and the frameworks should be read as interpretive coherence rather than as a test of either framework. Environmental claims are participants' observations and rest on no soil, water, or land cover measurement.

CONCLUSION

This study has documented the socio-economic impacts of rail transport decline along Ghana's western corridor across four dimensions: food price escalation and market distortion; agricultural production decline and post-harvest losses; community and social welfare consequences; and the rise of galamsey as a livelihood of last resort. The findings establish that the socio-economic consequences of rail transport decline are experienced and described as systemic rather than sectoral, cascading across the food supply chain, the agricultural economy, community social life, and the physical environment in a sequence of connected effects whose combined severity is substantially greater than any single dimension of impact considered in isolation. The sustainable livelihoods framework and supply chain governance theory provided the analytical tools to trace these connections, supporting an interpretation of galamsey as a livelihood response to physical capital withdrawal and food supply chain governance deterioration as a structural consequence of competitive market destruction, rather than treating either as independently generated phenomena. These are interpretations of a documented local experience rather than measured effects, and the qualifications set out in the discussion and limitations sections bound them.

The wider implication is that the appraisal of railway rehabilitation in developing country contexts is systematically incomplete when it is confined to transport cost savings. The evidence presented here indicates that the costs of rail transport decline accumulate in food prices, in the bargaining position of smallholder producers, in the viability of agricultural livelihoods, and in the condition of the land itself, and that these costs fall on communities whose economic geography was created by the railway and has not been reproduced by the road network that succeeded it. Rehabilitation along the western corridor is therefore not only a transport investment but an intervention in food security, agricultural production, community welfare, and environmental protection, and the investment case for it should be constructed and assessed on that basis.

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