# Entanglements of Infrastructure, Resources, and Community Politics in Northeast India: A Study of the Patkai Hills, Arunachal Pradesh

**A Thesis**

Submitted in Partial Requirements for the Degree of

**Doctor of Philosophy (PhD)**

By

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## Certificate

This is to certify that the thesis titled **Entanglements of Infrastructure, Resources, and Community Politics in Northeast India: A Study of the Patkai Hills, Arunachal Pradesh,** being submitted by Manta Wangsu to the Indraprastha Institute of Information Technology (IIIT) Delhi, for the award of the degree of **Doctor of Philosophy** (PhD), is an original work carried out by him under my supervision. The contents of this thesis, in full or in parts, have not been submitted to any other institute or university for the award of any degree or diploma.

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## Declaration

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# Abstract

Based on the ethnography of the Tangsas conducted from July 2022 to September 2023, this study examines the operations of the informal coal industry in the Patkai Hills region of Arunachal Pradesh, involving multiple actors, including the community, the state, and non-state actors such as armed groups and external private players. It explores the interplay between the extractive process of the coal industry and road infrastructure, focusing on how the community is impacted by this and their perceptions of development. The study reveals the specific political, infrastructural, and economic conditions under which a formal coal industry transitioned to informal coal operations. In doing so, it interrogates what constitutes the region's politics of regulations and deregulations within the larger political economy of development. The study also highlights the evolving socioeconomic dynamics within the Tangsa community, particularly in relation to changing landholding practices, ecological implications, livelihood crises, and widening intra-community inequality, among other issues that have been shaped by this shift.

The findings of this study further indicate how participation in the region's informal coal economy is primarily determined by distinct social locations within the community, political positions, and economic circumstances. Rather than viewing all the involved actors as homogeneously complicit, the study illuminates the ground realities where the larger sections of the Tangsa community remain excluded from equitable benefits despite their involvement in the extractive process, while influential local elites secure disproportionate profits. The study situates this phenomenon within the region's broader context of development interventions and resource politics, demonstrating how informal coal mining manifests as extractivism, driven by the penetration of external capital and changing internal social dynamics among the Tangsas. Ultimately, it explores the relationships between an emerging ecological crisis and widening intra-community inequalities among the Tangsas stemming from the informal coal operations in the Kharsang area of the Patkai Hills region.



**Keywords:** Coal, Infrastructure, Tangsa Community, Elites, Extraction, Patkai Hills, Arunachal Pradesh, Northeast India

# Contents

To my father, Ngamnyai, and mother, Phenak, who, despite never having attended school, ensured that my siblings and I received the best education possible. Thank you for the fights you have fought for us against all odds and challenges.

To my siblings, Mantong, Korjam, Jalem, Nalih, and Jawlih, and my sister-in-law, Phekhu, and my nephew, Jawan, for their unconditional love, care, and support.

# Introduction

## 0.1 Background

“History is repeating itself. In the 1980s and 1990s, the government benefited from the timber industry here (Patkai Hills region), but we are still backward. The oil industry has been operational since the 1970s, yet our people hardly benefit from it. Now people say that the coal industry will bring development, but all I can see is the destruction of our fields and forests”, said Mr. P. Longphi, a community elder during the interview at Kharsang. This is one of the important narratives that underscores the historical context of extractive industries and the nature of socioeconomic relationships that local communities continue to share with them in the Patkai Hills region of Arunachal Pradesh. This study situates the experiences of the Tangsa community concerning informal coal operations within the wider context of extractive development and resource politics in Arunachal Pradesh and the northeastern region.

Colonial legacies rooted in the extractive model and Western-led notion of development have historically influenced the making of modern India. Development in post-colonial India has rested on the intensive exploitation of natural resources (Baruah, 2021; Kikon, 2019). However, this has not led to proportional socioeconomic development in the regions where resources are extracted. Therefore, this pattern of development is termed “extractive” since the resources, such as minerals, are often outsourced from a particular place without correspondingly benefiting the affected local communities. Extraction, in this context, is not only tied to the economic aspect but also to political-economic structures, in which material values and profits predominantly outflow from peripheral regions to power centres and global markets, while adverse socioeconomic and ecological impacts remain extremely localised (Tsing, 2005).

Like many other developing countries, newly formed India also aspired to adopt developmental methodologies from economically advanced countries, like the Soviet Union and the United States. Consequently, India’s desire for a planned, centralised development-led economy was debated and articulated even before independence. This pursuit aligned and coincided with the emerging Western-led idea of underdevelopment and development, which gained traction across the Global South, including Asia, Africa, and Latin America, during the post-war era (Escobar, 2012). This model advocates for expansive industrial output as development, while

an agricultural-dependent economy or inadequate industrial investments are often considered indicators of underdevelopment. However, the direct import of this developmentalism without sensitivity to the local contexts has not only proven unsuitable for the socio-political realities of third-world nations but also perpetuated global inequality and Western imperialism (Bagchi, 1989; Hardt & Negri, 2001). During this period in India, there were profound internal contradictions and power struggles within the political class and business community in the immediate years preceding and following independence in 1947 concerning the nature of the development model that the country should adopt (Zachariah, 2005).

Gandhi and his followers have firmly opposed the modern planned economy and promoted the concept of Swaraj, which emphasised decentralised political and economic self-reliance (Guha, 2019). They proposed reviving indigenous khadi and village industries, in contrast to the Western-modern development model pushed by political elites and the powerful business class. The modern planned development eventually prevailed over the Gandhian model, as the influential business community (the Federation of Indian Chamber of Commerce and Industry, or FICCI) in 1935, and the political class (the Congress National Planning Committee, or NPC) in 1937, strongly endorsed adopting a planned economy for India. This is how the foundation for India's development, based on an economic growth-oriented approach, was laid down, resulting from the interplay of political processes, intellectual discourses, and influences from global phenomena, both during the pre- and post-colonial periods. It was further concretised with the official establishment of the Planning Commission in 1950, with the first five-year plan (1951-1955) focusing on heavy industries and mega infrastructural projects (Karmakar, 2012; Menon, 2018).

The Indian state justified the Soviet-inspired planned economy as a welfare-friendly, socialist, and people-centred approach to development. However, in practice, it relied on a centralised, top-down approach grounded in capitalist-inclined economic growth and development (Balakhishnan, 2007). The state, here, believed that India could only develop through better mega infrastructures and expansive industrialisation. Therefore, it sought to mobilise every resource in the country to achieve these objectives through technocratic processes and the influence of the state’s power (Haines, 2022). Educational institutions, such as the Indian Institute of Technology (IITs), were established to address the manpower requirement of these industries. Even investments in Research and Development (R&D) or the science and technology sectors were also directed to strengthen mega infrastructural projects and

industrialisation (Sukumar, 2019). Agriculture, another primary focus of the Indian state since the first five-year plan, was also closely linked to the irrigation and energy sectors, which are to be supplied through large dams and allied mega infrastructures (Baviskar, 1997). Nehru, India's first prime minister, for instance, referred to the large dams as the temples of modern India, reiterating the state's obsession with mega infrastructures as a sign of development.

Consequently, the early post-colonial era witnessed a significant surge in the construction of mega infrastructures, such as hydropower projects and the expansion of heavy extractive industries, including copper, steel, coal, and oil, across resource-rich regions in the country (Barua, 2005; Baviskar, 1997; Munshi, 2012; Nilsen, 2010; Vakkayil, 2021). The nurturing of these critical sectors was seen as the backbone of the nation-building exercises, with statist-oriented developmentalism only expanding. This further enabled the Indian state to implement a nationalist development agenda with considerable autonomy and impunity (Chibber, 2003). However, this impunity of the state, with a centralised approach, has, on the other hand, miserably failed to address the issues of exploitation and socioeconomic exclusion faced by marginalised communities due to unjust top-down developmental activities imposed across India's peripheral regions (Munshi, 2012; Oommen, 2023; Ranjan, 2017). Xaxa (2018) has termed this phenomenon as 'coercive development', where weaker sections of society, particularly tribal communities, are forced to become excluded and victims on multiple fronts by state-led so-called development interventions.

While the emerging capitalist class, political elites, and middle class have continued to gain benefits from the developmental activities through various contract works, jobs, and urban facilities, the larger sections of the country's poorer population remain marginalised politically and socioeconomically in post-colonial India (Harriss-White & Heyer, 2014; Nilsen, 2010; Shah et al., 2017). In particular, development-affected communities from resource-rich peripheral regions, such as Chhattisgarh, Odisha, Jharkhand, and the northeast, have been displaced and uprooted from their villages, forests, and ancestral homelands due to the aggressive expansion of extractive industries, including oil and coal mining, as well as the construction of large dams and other mega infrastructures (Haldar & Abraham, 2015; Kennedy & King, 2013; Levien, Michael, 2011; Nilsen, 2018; Ray et al., 2024; Roluahpuia, 2018; Sud, 2021; Vakkayil, 2021). This has consequently led to uneven development in the early post-colonial era and contemporary India, undermining the land rights, cultural aspects, and social

justice of the affected, vulnerable communities, particularly tribals and other marginalised groups (Xaxa, 2008).

It is for this reason that most tribal struggles and the politics of indigeneity in modern India have centred around questions of land, self-determination, greater autonomy, and their claims over natural resources (Jairath, 2020). The affected communities have resisted and challenged the imposed hegemonic development of the Indian state through social movements and cultural/identity politics, reclaiming their resources, cultural and political spaces, and socio-economic rights (Shimray, 2004). The extension of this has been that the resistance against the extraction of resources and imposed development has also taken the form of armed insurgency in the northeast and Naxalite/Maoist movements in the resource-rich peripheral region of central India. Nevertheless, the state-led extractive interventions continue to expand in the name of national development. As a result, the unprecedented demand for land and other natural resources for developmental activities has created complex grounds for contestations over land, social identities, and mineral reserves among multiple stakeholders, including affected local communities, the state, and non-state actors such as corporate players and armed groups (Paltasingh & Satapathy, 2021).

The economic reform of the early 1990s further facilitated the aggressive extraction of natural resources and the expansion of large infrastructural projects, with a structural arrangement supported by the state's neoliberal policies (Jairath, 2021; Jha & Pankaj, 2021; Mishra & Nayak, 2020; Patel, 2021; Patnaik, 2007; Walker, 2008). This marked a significant shift from public control of the state-led economic development to greater privatisation, enabling private players to enter key sectors such as mega-infrastructure and heavy extractive industries. By design, neoliberal policies have been engineered primarily to serve the interests of the state and capitalist forces through various selective regulations and deregulation measures initiatives, such as Special Economic Zones (Levien, 2012; Nair, 2021; Nielsen & Oskarsson, 2016). This, in turn, has worsened long-standing issues of development-induced displacement of marginalised communities, ecological destruction, and large-scale resource dispossession, which have been more reinforced in recent times, including in India’s northeastern region (Barua, 2005; Fernandes, 2009; Ray et al., 2024).

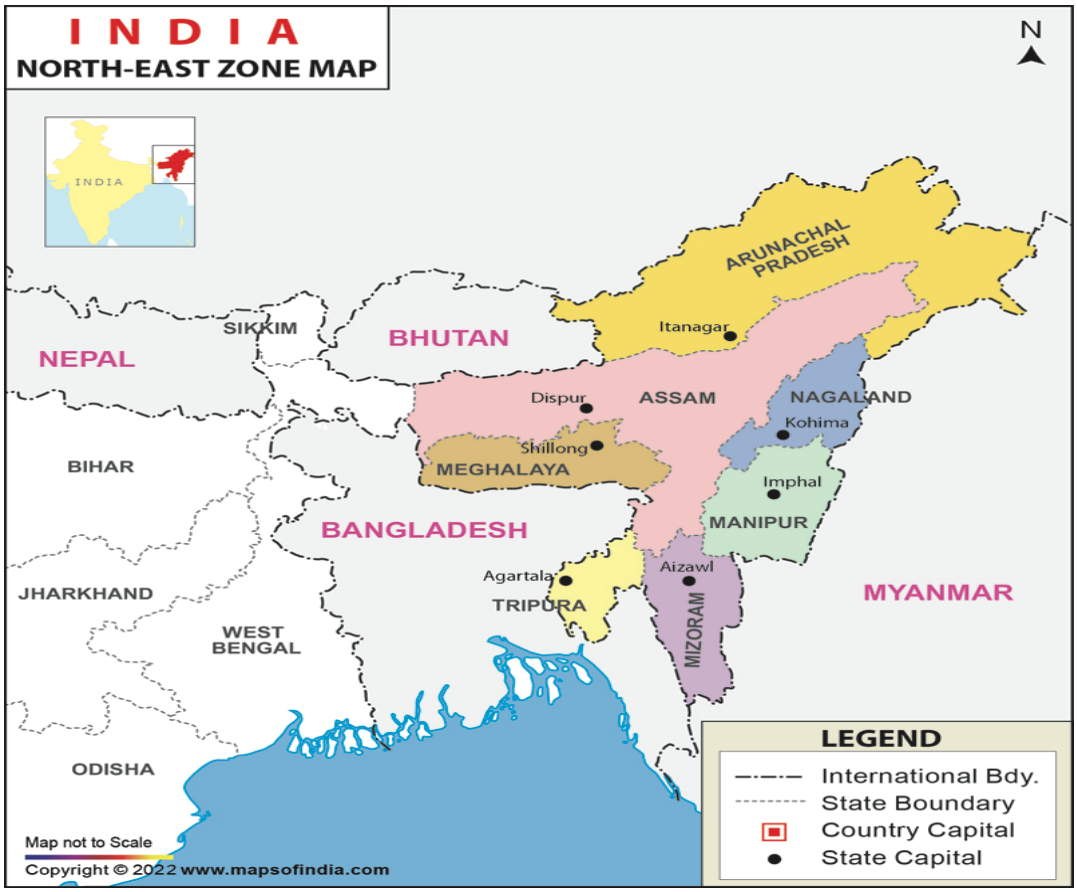
## 0.2 Northeast and the Development Discourses

Several scholars have continued to critique India's extractive development interventions in the northeast as the extension of colonial projects, driven by geostrategic objectives and the extraction of resources (Barbora, 2022; Baruah, 1999; Rashkow, 2010). The colonial policies towards the northeastern region had a great impact on India's post-independence administrative system, constitutional arrangements, and development strategies. The colonial governance system had segregated hill areas from the plains, and the economic exploitation of natural resources, such as oil, tea, and timber, mainly guided its extractive policies. Unfortunately, the post-colonial Indian state continued the same attitude and colonial policy towards the region, grounded on the logic of resource extraction and strategic consolidation. Here, the policy formulators and lawmakers in Delhi have primarily viewed the region through a narrow lens, focusing on national security, resource extraction, and geostrategic interests. As a result, although political and administrative integration has been primarily accomplished, inclusive socio-economic development and emotional integration of the northeastern region with the rest of India remain a challenging task (Singh, 2006). The recurring regionalist socio-political grassroots movements against the extraction and outsourcing of mineral resources, as well as armed struggles for self-determination in the region, exemplify this.

Notably, the term "Northeastern Region" per se was coined as political nomenclature to manage state-led nationalist projects of integration and development initiatives in post-colonial India. Here, the present-day eight states (the seven sister states of Arunachal Pradesh, Assam, Mizoram, Nagaland, Meghalaya, Manipur, and Tripura, along with one brother state of Sikkim) were formally recognised as the North-East or northeastern region part of India with the passing of the North-Eastern (Reorganisation) Act, 1971, by the Indian Government primarily for political and administrative reasons. This Act subsequently established the North-Eastern Council (NEC) in 1972, a statutory advisory body cum regional planning body which looks after the economic and social development planning of the region. The state of Sikkim was added to the NEC in 2002, following the creation of the Ministry of the Department of North Eastern Region (DoNER) by the central government in 2001, to accelerate and coordinate the overall socio-economic development of the region. This central ministry eventually took over the North-Eastern Council (NEC) to function under its supervision. In the context of this study, I use the term "northeast" as a political and geographical category, which is a result of post-

colonial state-making, militarised governance, and extractive development interventions in contemporary India.

**Fig: 0.1**




**Credit:** Map of India (Map of Northeast India)

Northeast India occupies a geostrategic position characterised by its rich biodiversity and abundant mineral resources. It notably accounts for twenty-one per cent of India's hydrocarbon reserves (Ayangti Longkumer & Mahongnao, 2017). As mentioned above, these attributes have continued to be instrumental in shaping India's policies even today towards the Northeast, with a predominant emphasis on promoting extractive industries and constructing mega infrastructures, such as highways, to facilitate its logistical needs (Arora & Ziipao, 2020). Furthermore, due to its geostrategic and security significance as a bridge connecting India to East and Southeast Asia, the Northeastern region was also officially incorporated into India's Look East Policy in the early 1990s, now referred to as the Act East Policy. It explicitly outlines infrastructures as a vital component for strengthening extractive industries and extending

economic relations with neighbouring Southeast Asian countries (Haokip, 2015). The ongoing mega ambitious international road project, namely the India-Myanmar-Thailand highway, is a prime example. The contemporary post-liberalisation policy approach, which includes the Act East Policy, now views the northeast not only as a peripheral buffer zone and domestic extractive site but as the centre of a thriving and integrated economic space, which will open the door for the Indian establishment to explore the economies of Southeast Asian countries and beyond (Haokip, 2015).

Subsequently, this policy approach has been played out as an extension of India's imperialism and internal colonisation in a different form to extract the natural resources of the northeastern region (Baruah, 2020). Here, development politics have primarily centred on contestations over resources and control of securitised territory through massive militarised infrastructural interventions that are only intensifying over time. These characteristics of development practices and discourses are deeply embedded in the region's socio-political fabric and regional contexts (Barbora & Phukan, 2023; Baruah, 2007; Kikon, 2019a). As such, critical mega-projects, like the national highways, border roads, and bridges, have historically been constructed to strengthen military movements and meet the logistical requirements of growing extractive industries, rather than prioritising the needs of local communities (Rahman, 2014; Ziipao, 2020). This has effectively turned the region into a militarised resource frontier and extractive site, intertwining development discourse with the questions of ethnic identity politics, armed resistance movements, and the demand for greater regional political autonomy over resource governance.

## 0.3 Locating Road Infrastructural Interventions

While the Northeast has historically served as an extractive frontier, as mentioned above, since the colonial era, the exponential expansion of mega-infrastructures represents an intertwining layer of militarised development in the region. It is emerging as a dual tactic of the state to reinforce longstanding extractive projects and enhance India's geostrategic positioning, as mentioned earlier. The mega road interventions, in particular, illustrate this. It not only serves as a physical infrastructure for mobility but also as an instrument of resource control, a driver of economic activities, and a political tool of state-led territorial expansion. Here, on the larger level, the militarised nature of mega road interventions in the northeast symbolically represents

the Indian state's exertion of power and prevails as a tool of governance of the nation-state. At the localised level, on the other hand, it has remained highly contested, and different communities perceive it in various ways. Recent work by Gohain (2025a) demonstrates how roads can expose unequal power relations, conflicts, and exclusionary practices by utilising the very infrastructure of mobilities. Ziipao's (2020) work in Manipur, for instance, highlights how the uneven distribution of road networks and other physical infrastructures often characterises the notion of division between hill and valley communities. He theorised this aspect as the "infrastructure of injustice," underscoring the region's intra- and inter-power dynamics and the unequal socioeconomic implications of infrastructural interventions, which extend beyond the community-state dichotomy and the grand narratives of state-corporate development.

Within this broader context, the reciprocal growth of extractive industries, particularly oil and coal mining, alongside the expansion of mega road interventions, may appear coincidental in many cases. However, this is a well-strategised policy-level initiative that the state has undertaken in the northeast, with the lines between development and securitisation of the region becoming blurred (Barua, 2005b; Baruah, 2020; Haokip, 2015). This phenomenon has become so prevalent that physical infrastructures, such as roads, accelerate the expansion of extractive industries, which in turn further create the cycle that necessitates the construction of more mega highways to meet their logistics requirements. Kikon's work (2019b) in Assam and Nagaland underscores how the construction of roads is strategically implemented around oil- and coal-rich locations, enabling state agencies and private companies to access remote mining/drilling areas and exploration sites. The state usually boasts of such roads and mega highways as a developmental effort to overcome the remoteness and backwardness of local communities without disclosing its underlying agenda. The construction of infrastructure, such as roads in this context, is framed in a way that evokes a sense of modernity and development through its technical functions and logistical aspects, which serve the people.

Resultantly, these ideas of developmental values, such as logistical services and the modernity associated with infrastructure, have also continued to appeal to the region's local communities, underlining their changing aspirations for development and gradual legitimising of the state's initiatives over the years. This is relevant to what Larkin (2013) conceptualised infrastructure as not merely a material network that facilitates the mobility of ideas, goods, and services, but also as a symbol of the state's political power and governance structures. Larkin here argues that this phenomenon reinforces the state's legitimacy, as well as the emotional and relational

attachments of the people to the idea of progress it promotes and reproduces. For instance, similar to how large dams have been portrayed as symbols of modernisation, mega road projects, such as national and border highways, are often presented as signs of progress for the people of the Northeast (Baruah, 2020; Dzuvichu, 2013; Gohain, 2008; Itu, 2024; Roluahpuia, 2018; Ziipao, 2004). Nevertheless, the extent to which the larger local communities have benefited from existing state-led mega road infrastructure interventions has remained a heated and ongoing debate in the region. Within this context, as an agent of extraction, the nature of road infrastructure interventions in the northeast, thus, offers a critical perspective to unpacking the temporal dynamics of how it transforms the socio-political lives of resources and the local communities affected by them.

## 0.4 Tangled Resource Politics

The northeastern region's critical resources, such as oil, coal, and other mineral reserves, have historically been socio-politically contested and are continually negotiated among various stakeholders, including local communities, the state, and non-state actors, like armed groups and private companies. The emergence of development initiatives, such as mega road constructions as a logistical project of extraction, has further fuelled this already complex resource politics in the region (Baruah, 2007; Kikon & McDuie-Ra, 2021; McDuie-RA, 2008). This is evident in the persistence of protests against state-corporate control of mineral-extractive industries, anti-dam movements, and demands for political autonomy, as well as resistance to the Armed Forces (Special Powers) Act (AFSPA), among other issues. Even the rise of the Assam movement in the 1980s and the subsequent armed resistance led by the United Liberation Front of Assam (ULFA) in the 1990s are closely tied to the desire for political sovereignty over control of the region's critical resources, such as oil, timber, and coal, among others (Deka & Kikon, 2025; Moral, 2020). It thus presents not only a complex resource politics but also a contested battleground for controlling the region's larger political economy of development.

Unlike in other regions of India, where the state's monopoly over natural resources remains relatively absolute, the northeast is characterised by assertions from local communities and non-state actors, such as armed groups, in addition to constitutional measures like the Sixth Schedule, which recognises their rights over governing resources. The Naga insurgent armed

groups and Civil Society Organisations (CSOs), for instance, claim that resources, such as the land, forests, and mineral reserves, belong to the Naga communities, not to the state (Hausing, 2014; Wangsu, 2025.; Wouters, 2016). The state likewise exerts legitimacy over mineral reserves and lands through the promise of development, while private companies/players establish alliances with the local government and local elites to gain access to resources for extraction (McDuie-Ra, 2007; Ray et al., 2024; Wouters, 2023). At the same time, insurgent armed groups form a nexus with these extractive entities to benefit themselves through taxation from industries and developmental projects (Baruah, 2020b; Mampilly & Thakur, 2024; Misra, 1978; Wouters, 2016). This is what Baruah (2007) referred to as 'insurgent dividends,' the leakages of state funds and taxes collected by insurgent armed groups, which were meant for development activities in the region.

On the other hand, the larger section of local communities are forced to face the adverse consequences of extractive activities, thereby prompting them to engage in resistance, negotiation, and sometimes, accommodating or participating in the extractive practices themselves due to their socioeconomic conditions (Barbora, 2022; Barua, 2005b; Das, 2007; Ray et al., 2024; Vagholikar, 2010). Yet, without accounting for the equitable conditions of the larger local communities, the state and extractive actors, such as local elites and private players, continue to defend the exponential extraction of resources based on a capitalist worldview, understanding that a more industrialised place is a more developed one. This capitalist extraction of resources, however, has not translated into equitable development of the larger local communities. Instead, it has intensified the commodification of the region's resources, which is often ecologically destructive and socioeconomically exploitative. As a result, the interplay of these resource extraction processes alongside the uneven mega infrastructural interventions has further deepened economic inequalities, land dispossession, and social exclusion in the northeast (Arora & Ziipao, 2020; Fernandes, 2001; Hussain, 2000; McDuie-Ra, 2007; Rashkow, 2010; R. R. Ziipao, 2022). Often, these ground realities primarily determine the everyday political and socioeconomic interactions of the region's larger local communities, which have produced and reproduced new relationships and social dynamics that have emerged over the years.

## 0.5 Situating the Extractive Industry

While the infrastructural initiatives have indeed transformed the northeast into a more industrialised or extractive zone and better connected to global markets, the promise of equitable development for local communities remains a distant aspiration. These interventions, particularly mega infrastructures and mineral extractive industries, are by design heavily dependent on land and the extraction of resources, leading to inter- and intra-community conflicts, ecological degradation, and socioeconomic exploitation, among other issues (Baruah, 2020a; Karlsson, 2022; Kikon, 2019a). Within this framework of extractive development in the northeast and India at large, coal has become among the most commoditised resources, currently providing 79 per cent of the country's energy requirements (Energy Statistics India, 2025). This official data doesn't often include the output from informal coal industries scattered across the mineral-rich regions, including the northeast. This reflects the global patterns of dual extractivism, where state-corporate and informal coal industries operate simultaneously across resource-rich developing countries in Asia, Africa, and Latin America. Here, across these Global South nations, the extractive landscapes of coal operations are often governed through a development model that facilitates the penetration of capital from developed capitalist countries through weak legal regulations and a state-corporate nexus (Anugrah, 2023; Meyer & Tarrow, 1998).

The coal politics in India particularly manifest the very core of state-led extractive developmentalism. The Indian state consolidated its extractive projects with the nationalisation of the coal sector in 1973 through the Coal Mines (Nationalisation) Act, 1973. The subsequent establishment of Coal India Limited (CIL) in 1975 was a direct result of this initiative. However, the inner workings of the industry remain essentially the same, despite the coal being nationalised, where coal extraction became a political tool for coercive developmental interventions. Similar to other global contexts in Latin American and African countries, India's coal industry is viewed as a non-negotiable core component of energy security and development initiatives (A. Mohan & Topp, 2018; Oskarsson et al., 2021). However, as scholars such as Kikon (2019b) and Lahiri-Dutt (2014) point out, this nature of the coal industry and developmentalism in post-colonial India has remained deeply exploitative and exclusionary, particularly for mining-affected local communities. With resource governance now incorporating inputs and policy guidelines from neoliberal spaces, such as think tanks and

large corporations, the extractive industries, including coal operations, have been increasingly and aggressively privatised and deregulated over the years to facilitate capital accumulation.

Both globally and in India, coal has historically been politically controversial, ecologically harmful, and socioeconomically consequential. In the peripheral extractive regions, such as the northeast and the tribal belts of central India, these strands, which are attached to coal extraction, continue to inform the larger questions of social justice, resource governance, and development politics in contemporary times. The works of Lahiri-Dutt (2014) demonstrate how mining activities have dramatically fractured community ties with nature and forests, destroyed sacred places, and led to the loss of ancestral villages and social identities. Likewise, Paltasingh & Satapathy (2021), Noy (2020), and Ghose (2016) highlight how mining activities in tribal-dominated areas in Chhattisgarh, Odisha, and Jharkhand have drastically transformed the regional ecosystems, exacerbating the loss of forest cover, mining-induced dispossession, and polluting riverine systems. These have considerably disrupted the land relations, traditional knowledge, and cultural landscapes of tribal (Adivasi) communities across India's peripheral regions, generating varied responses over the years in post-colonial India.

The resistance movements against coal mining in India have employed both legal mechanisms and grassroots social protests, which have manifested in various ways across different regions. However, despite these efforts, India's governing systems have continued to primarily favour a corporate interest and extractive development model over coal-mining-affected local communities under the guise of serving the "public good and purpose" (George, 2014; Herbert & Lahiri-Dutt, 2004). These mining-affected communities, as a result, disproportionately bear the brunt of the political implications, loss of livelihoods and displacement (Lahiri-Dutt, 2007). Over 2.5 million people in the Jharkhand region alone, for instance, have been displaced due to the mining activities since India's independence, who are now living in extreme poverty and without proper rehabilitation and resettlement (Fernandes, 2009). Here, the existing laws, such as the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, remain ineffective on the ground. These measures were enacted to address issues such as displacements, inadequate monetary benefits, and denial of land rights, among others, that tribal communities have experienced.

State-owned public institutions, such as Coal India Limited, have traditionally dominated the coal sector, utilising it as a tool of state power and an engine of economic growth. However, the coal sector is increasingly opening up to private players, marked by a state-corporate nexus of deregulations and corrupt practices. The Coalgate scam of the 2010s and the ongoing issues concerning coal mines operated by the Adani group in the Hasdeo region of Chhattisgarh exemplify this growing corrupt nexus between the state and corporate players, as well as the shift towards aggressive privatisation of the sector (Mathur, 2025; Shubhangi & D. Mohan, 2025). The new proposed 2023 Forest (Conservation) Amendment Bill, for instance, is likely to open more such backdoor avenues for the state and corporate houses to extract resources, such as coal mining, across the tribal belt areas in central India and the northeastern region. The recent trends in the energy sector further suggest that the capitalist transition of the coal industry is not only flourishing and expanding but also contradicting India's global commitment to control and reduce carbon emissions (A. Mohan & Topp, 2018). Thus, the socioeconomic and ecological costs of coal mining continue to pose a contentious debate in India's just transition plan and contemporary developmental interventions.

## 0.6 Coal Regime in the Northeast

The existing scholarship on informal coal mining in South Asia has repeatedly underscored that informal extractive practices by communities are not merely legal and regulatory problems but outcomes of broader socioeconomic and political conditions. Especially, the coal regime in India is both diverse and complexly arranged. Lahiri-Dutt (2016) identified four overlapping coal economies, characterised by distinct labour regimes, regulations, and production methods. First, there is national coal, controlled by the state-led Coal India Limited (CIL), which produces around 81 per cent of India's coal. Second, private captive coal mines (neoliberal coal) account for about 6.5 per cent of coal production. Third, statecraft coal (non-legal coal), the mining which operates in a legal grey area due to special constitutional provisions, such as the sixth scheduled. Finally, subsistence coal mining (small-scale informal mining) which is often considered illegal by the state. These diverse coal regimes, thus, in India paint an ironic picture of productivity and labour patterns, where the formal sectors (CIL and captive mines) generate more output, while the informal sectors (statecraft and subsistence mining) continue to employ more people (Harriss-White, 2010, p. 172; Lahiri-Dutt, 2016). This phenomenon

reflects the complex reality of coal economies in India, shaped by a diverse socioeconomic system, legal ambiguities, and political structures.

The northeast of India, in particular, presents a difficult terrain of coal politics, shaped by the interplay of colonial extractive legacies, militarised development, and resistance movements, including armed insurgencies. Here, the coal industry in the region extends far beyond the grand narratives of development, as local communities are both directly impacted and widely involved in it. As such, the local communities have long been informally yet actively engaged in coal operations, blurring the distinction between the legality and illegality of extractive industries in the northeast. The involvement of local communities in the coal mining industry is often viewed by them as a legitimate political and cultural claim over their resources, countering the sole monopoly and control of the state/government, and corporate players/capitalist forces. On the other hand, the state sees critical resources, such as oil, coal, and other mineral reserves, as government properties that should be utilised for national development and extracted through its regulations and mandated agencies. The opposition to this view of the state from local communities is deeply embedded in the region's socio-political history and contexts. For instance, the Assam movement's popular slogan, "Tez dim, tel nidiu" ("We shall give our blood, not oil") of the 1980s still echoes in the public gatherings and protests in the region, underlining the mistrust towards the state and positioning firm opposition against the control and outsourcing of mineral resources from their homelands.

These layered socio-political realities of resource politics have consequently given rise to two distinct types of coal industries: formal and informal mining industries (non-legal and subsistence coal) in the northeastern region of India. The formal coal industry is operated, regulated, and controlled by state institutions or licensed and mandated private companies. It also operates in a public-private partnership between the government and corporate houses. The second type is informal coal mining, which is typically undertaken by local communities without the permission or oversight of the state or government. Here, the informal coal operation remains a point of contention, as the state often exerts and imposes its executive, legislative, and judiciary powers to declare any form of informal coal extraction undertaken by the local communities illegal, further highlighting the region's fragmented and contested terrain of resource politics. The rat-hole mining in Meghalaya and informal coal industries in Assam

and Nagaland are widely known examples that operate within a legal grey zone[1], where resource governance is neither entirely state-controlled nor fully community-led. Lahiri-Dutt (2016) describes this grey zone mining economy as "statecraft" coal, a non-legal category of venture, in which ethnic identity and the special status of the Sixth Schedule are used as cultural tools to defend the community's rights over mining and related activities.

In the context of the northeast, informal coal mining is not operating only because the state is unable to regulate or its mechanisms are weak, but also because it is a historically produced mode of resource governance, constitutional exceptionalism, and moral-cultural claims over resources by local communities. Lahiri-Dutt's work (Lahiri-Dutt, 2017) explains this by theorising coal mining, shifting the analytical lens from illegality to the politics of legitimacy and the moral economy. She highlights that while illegal mining in subsistence coal states like Jharkhand is often defended by the mining community by invoking moral claims over resources, the informal mining in the northeast is a statecraft, a frontier mode of governance strengthened by constitutional provision of the Sixth Schedule, which grants communities power over resource governance, land-related issues, and local political/cultural affairs. It operates in a grey zone between illegality and legitimacy, where the regulatory framework is ambiguous. The communities defend their activities through cultural and political rights over land, community ownership of resources, and historical marginalisation by the state. This, in turn, has produced a politics of legitimacy across the northeastern states in which informal coal mining is considered legitimate by local communities, while the state often views it as illegal activity.

This theorisation of informal coal mining is crucial for understanding state-community entanglements, underscoring that the state is not external to community-based coal operations. Instead, the state mechanism, particularly in the northeast, operates through constitutional provisions and legal arrangements that mandate local communities in the utilisation and governance of resources. The emergence of the informal coal mining in the region, therefore, has resulted not only from outside the state but also from a specific social contract arrangement of the state and communities of the northeast. In the context of Arunachal Pradesh, the state

[1] Harriss-White (2010) has defined the informal economy as activities that operate beyond the regulations of the state, and the formal economy as activities which fall within the state regulations. According to her, the formal regulations often coexist with informal practices, wherein formally affiliated enterprises informally behave in terms of labour exploitation, taxation, and procedures of the regulations.

per se does not fall within the Sixth Scheduled area but comes under the Inner Line Permit (ILP) regime mandated by the Bengal Eastern Frontier Regulation, 1873, which also protects the cultural rights and resources of the local communities, apart from regulating the inflow of people from outside.

The informal coal in Arunachal Pradesh, by and large, operates similarly to Lahiri-Dutt's (2004) conception of "people's mines", where informality is embedded in assertions of customary resource rights and livelihood coping mechanisms, rather than being reducible to mere illegality. Understanding this aspect is particularly crucial in the context of the Patkai Hills region, as the "state of exception" differs from that in Sixth Schedule areas, such as Meghalaya and Nagaland, and is mostly rooted in the continuation of the ILP regime and the moral claim to community rights and customary institutions. Here, customary institutions and informality represent the moral economy of resource claims, which local communities view as an informal mining enterprise rooted in their cultural rights, historical neglect, and local economies (Lahiri-Dutt, 2017).

Furthermore, the perspective from borderlands scholarship also shows that frontier borderland regions, such as northeast India, often remain a space of continuous negotiation between the nation-state and local autonomy, rather than being completely governed by formal state institutions. Hussain's (2015) formulation of "liminal spaces" in this context is applicable to the northeast, including the Patkai Hills region of Arunachal Pradesh, where resource extraction and infrastructural intervention do not resolve marginality but reorganise it through selective connectivity and informality. While this perspective helps understand the persistence of informal coal operations, in which the state's authority is mediated by customary institutions and informal power structures, infrastructures like highways serve as a medium connecting the frontier region to mainstream markets. This is how both informality of coal within the region and developmental interventions provide the platform for extractivism to flourish, often benefiting a few regional/local players, the state, and big non-state actors, such as corporate entities (Baruah, 2020a; Kikon, 2019a).

The broader landscape of coal politics thus underscores that informal mining has emerged at the intersection of fossil developmentalism and subaltern moral claims over resources, making it both the project of frontier incorporation facilitated by the state's developmental interventions. The tangled coal-road frontier economies of extraction in the northeast are

similar to the phenomena of liminal economy, as shown by Hussain's (2015) work on Boundaries Undermined. He argues that the Bangladesh-India border is not a mere marginal leftover space, but is a politically productive zone where informal extractive activities, ruination, and state-making unfold simultaneously. Here, the Hussain's (2015) theorisation of liminality helps to understand the frontiers, such as the northeast, not as simple exclusion, but as a condition in which selective infrastructural intervention becomes part of the state's territoriality and extractive projects, while remaining constantly militarised and politically unstable for local communities. In this sense, the mega roads not only function as physical infrastructure but also serve as the state's technology of governance and as a means of incorporating fossil developmentalism to impose and expand in the name of nation building.

Wider scholarship on fossil developmentalism in India further shows that the state continues to present large dams and critical mineral resources, such as oil and coal, that are essential for national energy security, modernisation, and the nation's economic development (Chatterjee, 2020; Lahiri-Dutt, 2014; D. K. Mishra, 2019; Oskarsson et al., 2021; Roluahpuia, 2018). In the northeast, infrastructural interventions advance the state's ambitions but often fail to achieve holistic development for local populations. Within these broader developments, in recent years, road infrastructure, in particular, has served as a corridor for the strategic integration and selective expansion of the state's extractive projects, while informal coal mining in the northeast has emerged as a most visible tool for local communities to assert their moral claims to extract resources. This is happening as fossil developmentalism in India, a development model that relies on fossil fuels, is expanding, with coal mining, in particular, as the primary sector (Lahiri-Dutt, 2014).

Against this backdrop, it is crucial to understand that the road-coal entanglements form a broader extractive assemblage through which the region is governed, opened to external players and complex economic activities are made possible. Selective road infrastructure makes extractive projects possible, and extractive activities, in turn, give economic logic to those infrastructures. The road here often connects enough for extraction, but not for inclusive development of the region and its people. Consequently, coal, being the most commoditised resource, becomes the most visible immediate economic enterprise, as it uses selective connectivity more effectively and involves local communities widely in the extractive process.

The complex nature of this coal politics and associated development issues in the northeast has been further examined by Kikon (2019) who conceptualised the coal regime in the northeastern region not merely as a phenomenon of resource extraction but as a political and symbolic battleground, where multiple entities, including local communities, the state, and non-state actors, compete and negotiate to control resources. Here, the participation of locals in the informal coal industry is also linked to the evolving intra-power dynamics within communities, dependent on political patronage networks formed through the complicity of the state and private players. In the cases of Assam and Nagaland, the informal coal industry has not only exhibited cultural claims to extraction by communities, but also the influence of local elites to control the means of production and accumulation. In Meghalaya, as shown by Dutta's work (2022), the expansion of informal coal mining began as a community-led enterprise, but the extractive process remains deeply unequal, creating varied stances and views within local populations and Civil Society Organisations (CSOs). Besides, recurring ecological problems, elite formation within local communities and the dispossession of tribal lands have also emerged as contentious and impactful developmental issues in the region (Karlsson, 2011; McDuie-Ra & Kikon, 2016a). Within this broader context, although the social and ecological costs are high, the cultural claim of local communities over informal mining is rooted in their view of mineral deposits, for that matter, any resources, as embedded in their ethnic identity and social landscapes, not just in the physical landscape.

These scholarly works have not only contributed to strengthening the literature on coal mining regimes but have also significantly enriched our understanding of the socioeconomic relations, political dynamics, and historical contexts of broader resource politics in the northeast. However, most of these growing bodies of academic works, particularly concerning coal politics and associated developmental issues, have concentrated on the socio-political contexts of Assam, Meghalaya, and Nagaland. Arunachal Pradesh, where the informal coal industry is actively operational, remains largely unexplored in mainstream scholarly work, despite the emergence of rich academic works on development and border studies from there. It is in this context that my research study from the Patkai Hills region of Arunachal Pradesh brings ethnographic insights to the growing body of existing academic work on entangled questions of resource extraction, infrastructures, and community politics in relation to the informal coal mining and the larger political economy of development in the region. More importantly, while my study aims to add to the rich body of scholarship by examining the specific socio-political contexts of Arunachal Pradesh, it also highlights the larger development politics and the shared

extractive experiences that local communities confront across the peripheral northeastern states of India.

## 0.7 Problem Statement: Relevance of the Research

While the existing bodies of work within socio-anthropology and social sciences scholarship have laid the foundation for understanding resource politics in the northeast, substantial gaps remain in current knowledge and academic engagement concerning aspects of development politics associated with the informal coal industry. This is particularly evident in terms of geographical location, social settings, and political contexts within the margins of the peripheral northeastern region. One such visible gap is the relative lack of theorisation and empirical insight into the experiences and socio-economic realities of local communities based in Arunachal Pradesh, especially with regard to the informal coal operations and allied extractive industries. In light of this, this study provides a critical examination of the ethnographic accounts of the Tangsa community, focusing on their socioeconomic conditions and the political factors that contributed to the emergence of the informal coal industry in the Patkai Hills region. In this manner, my study of the informal coal operation in the Patkai Hills region is of significance, as it unpacks the role of local communities in their engagement with developmental issues, and infrastructure, the state, and non-state actors, such as armed groups and private players.

Coal, in general, is a highly commoditised resource and presents multifaceted challenges attached to it. Here, the informal nature of the coal industry's extractive process extends beyond the question of development aspects and ecological considerations, underscoring the changing relations within the mining-affected community. Thus, my research work paves the way to examine the intra-community dynamics and ground realities in a more localised manner, embedded in the region’s larger structural sociocultural, economic, and political contexts of resource governance. Given that Arunachal Pradesh is at the heart of major road interventions within the northeast, this research offers a comprehensive perspective on understanding the intersection of infrastructural projects and resource extractions. This dimension of study debunks the notion of the northeastern region as a homogeneous category of resource frontier, thereby shedding light on the intra-dynamics of entangled issues of resources, infrastructures, and community politics within the context of Arunachal Pradesh.

Conceptually, the study contributes to the larger understanding of how coal mining manifests as extractivism in peripheral regions. Here, the Patkai Hills region, as the epicentre of extractive industries within Arunachal Pradesh, serves as a frame of reference through which the political economy of development in Arunachal Pradesh, as well as the northeast, is critically examined. This is because intersectional issues of informal coal operations and mega road interventions help us understand the process, practices, and politics of the region's larger extractive development. This is crucial as the study captures the region's socio-political landscape of an exploitative structural framework based on the logic of the accumulation process. Against the backdrop of this broader context, my ethnography of the Tangsas, based in the Patkai Hills region, seeks to understand socioecological, economic, and political challenges the community faces as it navigates its aspirations for development. Moreover, my study problematises the contestation over resources, shedding light on the region's recurring entangled issues of changing land relations, ecological concerns, and mining-induced dispossession, among other challenges. ultimately, while the study focuses on developmental challenges, narratives from the field, and the struggles of the local community, it also reveals insights into the capitalist transition within the community, which itself is a defining characteristic of contemporary India.

## 0.8 Profile of the Field: The Context

The Patkai Hills region of Arunachal Pradesh comprises the present-day three districts of Tirap, Longding, and Changlang, also known as the TLC region. During the Union territory era, these districts were part of a single administrative unit within the undivided Tirap district. When Arunachal Pradesh gained full-fledged statehood in 1987, Changlang district was established by carving out the undivided Tirap. Subsequently, the district of Longding was formed in 2012 for administrative reasons by further dividing Tirap. However, despite being separate districts, they have remained a single administrative unit at various levels due to the proximity of their geographical locations, close socio-cultural affinities, and also because of the economic and political factors. The creation of the Department of Tirap, Changlang, and Longding (DoTCL) by the government of Arunachal Pradesh, for instance, explicitly highlights those factors and the commonalities that these three districts share on multiple fronts.

The region is geographically located in the southeast part of Arunachal Pradesh, sharing domestic borders with Assam and Nagaland, and an international boundary with Myanmar. It covers 9.46 per cent (7024sqkm) of the total area of 83743sqkm of Arunachal Pradesh. The region is part of a series of mountain ranges, commonly known as the Patkai ranges, that span across the states of Nagaland and Arunachal Pradesh on the Indian side and extend into the northern part of Myanmar. It is for this very reason that the TLC districts are popularly known as the Patkai Hills region of Arunachal Pradesh. Due to this unique strategic location, the region has long remained the centre of border trade activities, promoted by both local communities and the government. The Pangsau Pass border trade (weekly market) at the Indo-Myanmar border, near Nampong under Changlang district, is one example. However, these border socio-economic activities have been adversely impacted in recent years due to ongoing political instability in Myanmar.

**Fig: 0.2**


**Credit:** Map of Arunachal Pradesh (Map of Ar. Pr. indicating the districts, domestic and international boundaries)

The Wancho, Nocte, Tutsa, and Tangsa tribes predominantly inhabit the Patkai Hills region. These major communities are considered part of the larger Naga ethnic group due to their close cultural affinities and similar social practices. The Wanchos entirely occupy the Longding district. The Tirap district is home to the Nocte, Ollo and Tutsa tribes. The Tangsas and Tutsa majorly reside in the Changlang district, apart from other non-Naga minor tribes, such as the Lisu and Singpho, who are mostly settled in the northern parts of the Changlang district. The Changlang districts also host numerous Tibetan refugees in the Miao sub-division, as well as Chakma and Hajong refugees in the Bordumsa and Diyun sub-divisions, making the region demographically very diverse and vibrant. Yet, there have been social-political tensions, particularly concerning citizenship issues for the Chakma and Hajong refugees, which still remain unresolved and are a politically sensitive topic in the state of Arunachal Pradesh (Bath, 2023).

Ecologically, the Patkai Hills region is rich in natural resources and holds significant potential for hydrocarbon reserves. Here, the availability of mineral resources, particularly oil and coal, has transformed the Patkai Hills region of Arunachal Pradesh into a hub of extractive industries, generating considerable revenues for the government and private companies. The state has continued to promote industrialisation in this region, claiming it will bring development to both local communities and the state as a whole. The government's declaration of the Balinong (Kharsang area) in Changlang district as a Special Economic Zone (SEZ) in 2022 is an example of this. However, despite the rapid expansion of extractive industries alongside mega infrastructural interventions, the TLC region is among the most underdeveloped districts in terms of socioeconomic indicators in the entire Arunachal Pradesh (Sharma & Chakraborty, 2016a). This has generated a contentious debate among local communities regarding development, considering that the Patkai Hills region is the leading industrial centre of Arunachal Pradesh. As such, the critical industries, including oil and coal, are concentrated in this region and continue to provide over 70 per cent of the state government's domestic revenues (Wangsu, 2025).

Politically, the Patkai Hills region is highly contested and a source of territorial dispute. The TLC districts are the only region in Arunachal Pradesh affected by insurgency. It is a stronghold of the Nationalist Socialist Council of Nagalim (NSCN), the Naga armed groups demanding a separate nation from the Indian state. These Naga armed groups, such as the NSCN-IM, NSCN-K and NCSN-R, claim that the Patkai Hills region of Arunachal Pradesh is an integral part of

the greater Nagalim, as a majority of the dominant communities living there are considered culturally and ethnically Nagas. These Naga armed groups remain deeply involved in electoral politics and developmental activities, including coal mining within the jurisdiction of the Patkai Hills region. Besides, local communities have been demanding the establishment of the Patkai Autonomous Council (Sixth) from the government since the early 2000s, citing poor socioeconomic conditions in the area and among its people. All these shaped the political economy of development in the Patkai Hills, leading to varied and contested claims over resources (like coal) by multiple actors, such as the local communities, state, and non-state actors like the armed groups and private players. It is under these socioeconomic conditions and political context that the informal coal industry is operating in the Patkai Hills region of Arunachal Pradesh.

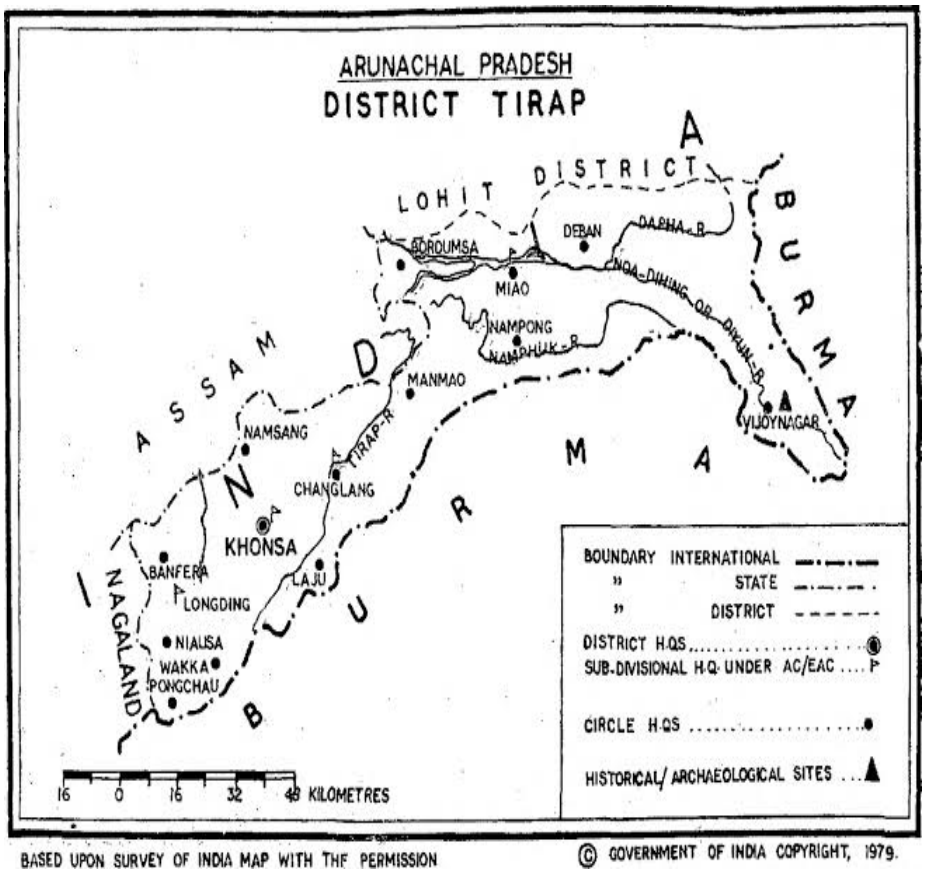
## 0.9 Making of the Patkai Hills Region: A Timeline

The Patkai Hills region emerged as a promising economic hub by the end of the North-Eastern Frontier Agency (NEFA) era in the early 1970s, with state-led development initiatives beginning to take off, accompanied by the discovery of mineral reserves and the potential for an expanding timber industry. Oil drilling officially started in 1983 at the Kharsang oilfield when Arunachal Pradesh was still a union territory, and the TLC districts were under the undivided Tirap district. By the time Arunachal Pradesh became a full-fledged state, the Patkai Hills region had already become a formidable centre of the timber industry, alongside the then-undivided Lohit district (Lainé, 2012a). From the 1970s to the 1990s, the timber industry in these regions played a crucial role in laying the foundation of the newly created state of Arunachal Pradesh. This industry contributed over 80 per cent of domestic revenues to the state government until the mid-1990s before it was banned entirely by the Supreme Court of India in 1996. The Patkai Hills region continues to give the majority of domestic revenues in royalties to the state government of Arunachal Pradesh from existing oilfields and other extractive industries.

The legacy of the timber industry in the Patkai Hills region is so strong that even today, the region is still dotted with plywood factories, woodcrafts, and sawmills, most of which have been abandoned, while some remain operational. The banning of the timber industry came as a considerable shock to the local communities, both economically and socially, as most of them

were directly or indirectly engaged in timber-related businesses. At the same time, many people were pleased with the imposition of the ban, as the local ecology was degrading rapidly due to massive deforestation. As part of the socio-economic transition from the timber regime, the state government encouraged local communities to venture into small-scale tea cultivation and horticulture, and to shift from Jhum cultivation to settled cultivation practices. However, these attempts were unsuccessful and failed to channelise due to a lack of proper support from the government agencies, rampant corruption, and other sociopolitical factors. As a result, most communities, such as the Tangsas, Noctes, Tutsas and Wanchos across the region, were left to their own devices to continue to rely on Jhum (shifting) cultivation as their primary source of livelihood.

**Fig: 0.3**




**Credit:** Govt. of India (Map of the then-Undivided Tirap district/Patkai Hills region)

Due to these significant socioeconomic transformations, the Patkai Hills region underwent substantial developmental upheaval in the late 1990s through the 2000s. Further, amidst the decline of the timber industry, the centre has substantially increased funding to the government of Arunachal Pradesh to accelerate economic growth and development in the state. Particularly,

funding for mega infrastructures in the state has increased considerably over the years, given its strategic location that shares borders with China, Myanmar, and Bhutan. The most recent examples of such mega-development interventions include the 1,748 km-long Arunachal Frontier Highway, approved in 2023, and the proposed 11,000 MW Siang Upper Multi-Purpose Project (SUMP), notified in 2025. On the other hand, the government of Arunachal Pradesh sought additional sources to generate domestic revenues, apart from the funds it receives from the central government for mega projects, such as hydropower projects and border highways. It was also because of that that the state government was implicitly not on the same page with the Centre and the Supreme Court with regard to imposing the ban on timber, although they never strongly expressed it explicitly. Therefore, the state government started to mobilise avenues of domestic revenues within the state while continuing to accept huge funds from the Centre in exchange for unconditional support in implementing nationally significant mega projects, such as large dams, border highways, and military bases, among other projects.

By the late 1990s, the Arunachal Pradesh government focused on accelerating the expansion of the existing oil industry and started coal mining to solidify its economic plan to generate more revenues. Coincidentally, both the oil and coal reserves/industries are again concentrated in the Patkai Hills region. For this reason, the strategy of the state government initially didn't go very well with the local communities of the Patkai Hills region, as they were still recovering from the economic shock of the timber industry's decline. However, by the early 2000s, the local elites and the state government secured support from the local communities by promising them economic opportunities and development through the coal industry in the region. This is how the downfall of the timber industry was immediately superseded by the coal industry, which officially commenced in 2007 at the Namchick-Namphuk Coalfields at Kharsang, Changlang district. This coal operation was initiated under the care of the state government undertaking, namely the Arunachal Pradesh Mining and Trading Corporation Limited (APMCL), with the private entity National Mining Company Limited (NMCL) serving as the regulating agency. Here, the state-corporate model was adopted to initiate coal mining and related activities in the region.

Notably, this quick shift from the timber industry to another form of an extractive industry, particularly the coal mining in the Patkai Hills region, coincided with the ceasefire agreement of 1997 between the Nationalist Socialist Council of Nagaland-Isak-Muivah (NSCN-IM) and the Government of India (GoI). The ceasefire opened the doors for the NSCN-IM and other

Naga stakeholders to negotiate for separate political autonomy for greater Nagalim. This territorial claim also encompasses the Patkai Hills region of Arunachal Pradesh, in addition to Nagaland, parts of Myanmar, Manipur, and Assam. As a result, the Naga insurgent armed groups became more actively involved in the Patkai Hills region by the early 2000s, engaging in electoral politics and day-to-day developmental activities, such as coal mining operations and oil extraction, both directly and indirectly. That being so, amidst the backdrop of growing extractive industries, the region also began to experience increased political instability, armed violence, and militarisation, as the ceasefire is not applicable within the jurisdiction of Arunachal Pradesh. Moreover, this was also a time when local communities began to demand the establishment of the Patkai Autonomous Council from the government. All these developments and recurring events shaped the nature of development politics in the Patkai Hills region, where it is characterised by resource extraction, political instability, and insurgency/militarisation.

## 0.10 Emergence of the Informal Coal Industry

As an effort to consolidate domestic revenues, the state-sponsored mineral exploration teams have discovered coal reserves in all three districts of the Patkai Hills region in the last three decades. Despite this, the centre has not yet approved coal mining in the Tirap district due to its proximity to the Patkai Dehing National Park. In the case of Longding, the coal reserves are found in the Kanubari area, but mining has yet to begin, as the local community, the Wancho villagers, are hesitant to give away their lands for coal operations. The only place where coal mining has been undertaken so far is in the Kharsang sub-division and its neighbouring areas, located in the Changlang district, with exploratory mining activities starting in the late 1990s. Initially, the experimental coal mining and related activities encountered conflict with locals as they were carried out on agricultural lands and forests belonging to the Tangsa villagers. As a result, coal mining remained passive and did not gain momentum until the early 2000s. It was only in 2007 that coal mining on a large scale officially commenced in the Kharsang area when the state government of Arunachal Pradesh, under the aegis of the State Public Sector undertaking, the Arunachal Pradesh Mining & Trading Corporation Ltd (henceforth APMTCL), took over the Namchick-Namphuk Coal Fields within the Kharsang area after receiving approval from the central coal ministry.

The Tinsukia-based National Mining Company Limited (henceforth NMCL), a private mining company, was selected by the APMTCL as the regulating agency in 2007 to operate the Namchick-Namphuk Coal Fields for five years through a tender process. The mining-affected villages around the Kharsang area, such as the Longsa, Longsi, and Insa, were assured of developing their areas and economic opportunities as compensation. For this reason, direct monetary benefits were not provided to the villagers affected by the coal mining activities. At this time, the community also began to see the coming of state-led coal operations in the area as new economic avenues that would unchain them from backwardness and poverty, as the persuasive promises by the state government convinced them. The intense coal mining under APMTCL and NMCL took place for five years. However, in 2012, some disturbing facts [2]and developments of illegal activities emerged concerning coal mining operations in the Kharsang area. The Kolkata-based BLA Projects Pvt. Ltd. filed a petition in the Gauhati High Court against the government of Arunachal Pradesh and the NMCL, alleging that APMDTCL had arbitrarily extended a contract for three months to NMCL without following due process.

BLA project's petition further claims that the unethical partnership of APMDTCL incurred a significant loss of state revenues that could have been utilised for the public good, as the coal extracted from the Namchick-Namphuk Coalfields was sold at considerably low rates below market prices. The High Court temporarily halted mining activities in the Namchick-Namphuk coalfields after examining the petition. While this petition was still pending in the High Court, the expansion of informal coal mining in the Kharsang area, near the Namchick-Namphuk coalfields, became increasingly visible in the public domain. APMDTCL and NMCL were again accused of facilitating and covering up these informal (illegal) coal operations in the area. This informal coal mining in the Kharsang area at first began as a venture by a few local elites (local elites), with capital and connections, in collaboration with external private players. Many poor villagers also subsequently resorted to engaging in the informal coal operations in various ways (mining and leasing lands), as it generated more income and incentives than jhum cultivation.

The Kharsang area, in that way, swiftly became an epicentre of the informal coal industry and spread across the surrounding areas in the Patkai Hills region, particularly within the

[2] The APMDTCL and NMCL were found guilty of corruption, covering up the expanding illegal (informal) coal mining, and facilitating the involvement of the insurgent groups in the coal mining operations in the Patkai Hills region.

Changlang district over the years. This new development, coupled with a petition in the court, eventually prompted the Union Home Ministry to constitute a committee in 2012 to conduct a surprise visit to the Namchick-Namphuk Coalfields to investigate coal mining and related activities. Consequently, the committee explicitly reported that informal coal mining had been undertaken in the Kharsang area with the knowledge of NMCL and APMDTCL. It further noted that the profits generated from these informal coal mining operations had indirectly and directly funded armed groups, like the NSCN-K and NSCN-IM, as they are also involved in this extractive process. As a result, the Union Coal Ministry imposed a complete ban on any forms of coal mining activities in the Kharsang area and the Patkai Hills region, including the state government-designated Namchick-Namphuk Coalfields, in 2012. However, due to existing socioeconomic conditions and political dynamics, the informal coal industry in the Kharsang area continues to take place. It is now a politically contentious developmental issue in the Patkai Hills region of Arunachal Pradesh, which my study explores.

## 0.11 Research Objectives

My study of the informal coal industry in the Patkai Hills region unfolds against the tangled resource politics of the northeast, in particular, and the larger state-corporate extractive development model in India, in general. From discussing the region's historical context to power dynamics and socioeconomic conditions of the local communities, this study aims to explore the politics of making the Patkai Hills region a resource frontier within the margins of Arunachal Pradesh. Firstly, the study aims to understand the conditions under which the state-corporate formal coal industry has shifted to informal coal operations, examining the roles of the Tangsa community, local government mechanisms, and non-state actors, including armed groups and private players. It seeks to uncover what constitutes the politics of regulations and deregulations within the larger political economy of development in the Patkai Hills region.

The study also aims to explore how the informal coal industry intersects with road infrastructural interventions and how this interplay shapes the perception of development in the region. It intends to understand the extent to which the Tangsa community benefits from the informal coal industry and the social relations that emerge around it. In doing so, the study aims to understand how different sections of the Tangsas participate in the extractive process of the informal coal industry, and in what manner the larger community members, local elites,

and other actors participate in it. The study further aims to explore the connections between the growing intra-community socioeconomic disparities and the ongoing ecological crisis resulting from increasing extractive activities in the region, and how this is impacting the everyday lives of the affected Tangsa community on multiple fronts.

## 0.12 Research Questions

- In what manner the community, local elites, and other actors participate in the region's informal coal industry, as well as how these actors are engaged in different ways

- What is the intersection of infrastructural interventions and resource extraction, and how is it linked to uneven development among the Tangsa community in Arunachal Pradesh?

- What are the perceptions of development emerging through routes of contestation, negotiation, and appropriation of extractive development adopted by local communities, the state, and the non-state actors in the Patkai Hills?

## 0.13 Methodology

**Research Design:** This ethnographic study was undertaken in the Kharsang area, an administrative subdivision of Changlang district in the Patkai Hills region of Arunachal Pradesh. The study was conducted from July 2022 to September 2023, a period of over a year. My field collaborations and engagements are primarily associated with the Tangsa community involved in the informal coal industry in the Kharsang area. The field site includes the Kharsang town, semi-urban towns/centres and the mining-affected Tangsa villages under the administrative unit of Kharsang subdivision. Even though my primary fieldwork site and focus largely remain the Kharsang area, the nature of my ethnographic work took me to Miao town, Jairampur, and Nampong town, as well as other towns and villages across Changlang and other parts of the Patkai Hills region and eastern Arunachal Pradesh. I have also explored some areas in upper Assam, such as Jagun, Ledu, Margherita, and Namdang, where coal mining and related activities are actively operational and integrally connected to the Patkai Hills region.

In this ethnographic study, as suggested by Clifford and Marcus (2010), beyond just contextualising and interpreting research subjects, I have focused on building rapport and living with the Tangsa community as a part of intensive long-term fieldwork. This has allowed me not only to familiarise myself with the everyday affairs of the mining-affected Kharsang area, but also to understand how the different actors, including Tangsa villagers, local elites, state agencies, and non-state actors (private players and armed groups), interact with each other and with the informal coal mining and other developmental activities. I employed the ethnographic approach of thick description (Geertz, 1972) and polyvocality (Fortun, 2012) that holistically captures the multiple voices and perspectives from diverse backgrounds and stakeholders from the field. Here, my study not only brings out the contextual ethnographic insights, but, as advocated by Shah (2017), it questions the existing power structures within the Tangsa community and larger political economy of development, involving the state and non-state actors that are driving the informal coal industry and associated issues in the Patkai Hills region.

**Collaborators:** Throughout my extensive fieldwork, conducted between July 2022 to September 2023, I have closely engaged with various stakeholders in the Kharsang area and across the region, travelling frequently to different locations. My primary collaborators include the Tangsa villagers, public leaders (political class), and local elites (coal contractors from within the community). I also closely engaged with external private coal contractors, students' unions, members of local Civil Society Organisations (CSOs), government officials, and migrant workers, such as excavator operators, truck drivers, and employees at coke plants, among other respondents. I adopted purposive and snowball sampling to select and identify key collaborators/stakeholders at the initial phase of my fieldwork. I have conducted 124 in-depth unstructured interviews and semi-structured interviews, household surveys of three mining-affected villages, and group interactions with my collaborators/respondents throughout the fieldwork period at various locations, including coal mines, coke plants, hotels, homes, and other settings. Most of my interviews, interactions, and daily conversations with my collaborators in the field took place in Hindi, Assamese, and English. Fortunately, I am comfortable with these languages, in addition to the Wancho local dialect, which, in various ways, worked in my favour throughout the fieldwork.

More importantly, although my ethnographic study uses the conventional tools of interviews, household surveys and discussions, it further derives strength from daily interactions with a

diverse set of people in the region, participant observations from everyday fieldwork, and the lived experiences gained through intensive fieldwork over a year. This has provided me with multi-dimensional perspectives and longitudinal diverse voices from the field, which have been vital to understanding the complex terrain of the informal coal regime, developmental activities, and resource politics of the Patkai Hills region. I have used pseudonyms for the names of the respondents and most of the places, like the villages or other locations. Furthermore, all the field-based photos in the thesis were taken by me.

**Fig: 0.4 List of Collaborators and Stakeholders**

| Collaborators/ Respondents | No. of Interviews | Settings of Engagement | Gender |
|---|---|---|---|
| **Community Leaders & Representatives (MLA, ZPMs, GPMs, GB, village chiefs, public leaders etc.)** | 20 | Village, home visits, office appointments | 17 Males, 3 Females |
| **Villagers and Community members** | 53 | Village, home visits, agriculture fields, coal mining sites | 28 Males, 20 Females |
| **Govt. Officials (admin officers, police, forest officials, mining officers & guards)** | 12 | Office, home visits, check gates, duty sites | 10 Males 2 Females |
| **Coal Contractors & Traders (Coke plants owners, miners, JCB & truck owners)** | 15 | Coke Plants, Workers' housing site, mining sites, private residence | 13 Males, 2 Females |

| | | | |
|---|---|---|---|
| **Migrant Workers (Coal mine workers, brick kiln labours, construction workers, drivers)** | 14 | Labour Camps (Temporary Housing), Brick Kilns, Roads, Local Markets, Hotels etc. | 15 Males |
| **Civil Society Organisations (Tribal bodies, Students' Unions)** | 10 | Appointments, Home Visits, Public Events | 10 Males |
| **Total** | 124 | | 97 Males, 27 Females |

This table shows the list of collaborators, indicating the number of interviews, backgrounds, gender and settings of the engagement in the field. However, this table only includes the in-depth semi-structured and unstructured interviews. It doesn't indicate the number of daily conversations, informal discussions, and interactions in the field.

**Positionality:** As mentioned above, since the issues related to the informal coal industry in the Patkai Hills region of Arunachal Pradesh remain contentious and sensitive, the names of most collaborators and places have been anonymised, or pseudonyms and acronyms are used. This is done to maintain the confidentiality of collaborators who are involved in the process of my fieldwork, both directly and indirectly, through interviews, interactions, and discussions, among other forms. Furthermore, I also admit the fact that my positionality (I belong to the Wancho community) as a male researcher from the same region, to a great extent, provided me with easy access to avail insider information, access to various places (like coal mines and coke plants) and meeting different people, such as local politicians, coal contractors, student leaders, members of local CSOs, and the community people across the Tangsa villages. As a male researcher, I was able to go alongside coal contractors to different mining sites situated in isolated places and deep forests, which was also helped by the fact that I belong to the same region as the coal contractors.

As a researcher from the same region, I acknowledge that my extensive access to places and information has enriched my empirical data. But my lived experience and collaboration with

my own people would influence how I view and interpret extractive relations between the community and external entities, such as the state and coal contractors and companies from outside the Patkai Hills region. Here, my positionality, for sure, provides me with the opportunity to offer reflexive insights and an insider perspective, which will contribute to a better understanding of intra-community dynamics in relation to coal politics. As a male researcher from the region, I am also aware that this positionality would have played a key role in how I perceived and integrated the everyday practices of implicit and explicit hierarchies of elite-villager dynamics into the research process. Therefore, I attempted to holistically assess and mitigate uncritical analysis and bias, particularly regarding customary laws, intra-inequalities, gender power relations, and elite legitimacy by expanding and diversifying the pool of respondents and cross-checking the fieldnotes.

Furthermore, I rarely found any women who were working or overseeing mining activities in the coal mines throughout my fieldwork in the Kharsang area. This stems from the fact that the landscape of the coal mining industry in the northeast, including the Patkai Hills region, remains widely masculine, as primarily men have traditionally been assigned to perform income-generating activities outside (Dutta, 2022; Kikon, 2019a). It is for this reason that this factor has influenced the gender distribution of my interviewees, as I have conducted more interviews with men than with women during fieldwork.

The Tangsa and Wancho communities belong to the same larger Naga ethnic group, which has helped me in many aspects during the fieldwork. This was also evident in how my interlocutors often acknowledged me as their own while interacting and sharing information. While, I acknowledged my advantage positionality as attached to multiple identities, as a male and researcher from the same region, it has also offered me the opportunity to be reflexive in my own research approach and critically look at my location of gender, belonging to one of the dominant communities from the region, and as a local researcher who is working with people from the same place. Within this broader context, I attempted to write and bring insights about my people and place in relation to the varied experiences of informal coal mining and the larger development politics which have been confined to the margin within the margin. I have maintained ethical standards in my research process, but I am conscious that my positionality has influenced my interactions with collaborators in the field, involving different local communities and other stakeholders under complex power dynamics in the region.

Consequently, as a researcher, I have been reflexive in my approach to critically understand and interrogate my positionality in the epistemic process of knowledge production while being ethically accountable to the research participants with whom I collaborated. I am aware that my positionality, to some extent, has shaped my experience in the field, influencing how I chose and engaged with my respondents. It has also shaped how the collaborators have interacted with, perceived, and reciprocated to me during my engagements in various ways, such as sharing sensitive information, among others. Within this context, I have attempted to bring out the collective experiences and diverse voices from the field, capturing both intra-power dynamics and the larger, macrostructural forces operating in the Patkai Hills.

**Theoretical Framework:** This ethnographic study adopts extractivism as a framework within a broader theoretical frame of political economy that draws on scholarship from socio-anthropological and social sciences. Extractivism as a theoretical framework offers a nuanced understanding of resource extractions as processes and practices that are both socially embedded and externally enforced (Chagnon et al., 2022). Since this research is rooted in interrogation of the intra-dynamics of the Patkai Hills region, while also considering the macro-structural forces at play, the extractivism framework is useful. Here, capturing the macro dynamics within the local context is crucial, as it provides a broader view of the interconnections of the ground realities in relation to the larger trans-regional political economy of the extractive industries. Within this broader context, coal mining is extractivist in the sense that, irrespective of whether it is formal or informal, it intensifies resource exploitation, and the generated values reproduce inequality rather than promoting equitable development. The framework of extractivism thus allows for examining the inflow of capital from outside, which fuels the extractive process, and who benefits from it locally, and who experiences the adverse ecological and socioeconomic impacts of the extractions remain localised. Additionally, it facilitates the analysis of how the coal-related commodities from the region's informal industry are integrated into the mainstream trans-regional markets, among other aspects.

Drawing on the work of scholars such as Kikon (2019), Shah (2010, 2017), and Tsing (2005), it foregrounds the need for critical ethnographic engagement and analysis of power relations, socioeconomic inequalities, and the local-macro connection of extractive development that impacts the involved or participating local communities. Extractivism as a theoretical lens helps to understand not only the vital role states play but also the considerable influence that local communities and the non-state actors, such as local elites, external private players, and

insurgent armed groups, exert on the functioning of extractive industries. It does so by underlining the informality not only as a shadow economy, but as an integral part of an extractive regime. It captures the interplay of development policies, inter- and intra-power dynamics, and existing socioeconomic circumstances that converge to fuel the expansion of extractive practices, particularly the informal coal operation in the Patkai Hills region. As I am keen to understand the relation between the state and community around resource extraction, this framework is suitable. The state acts as both an external macrostructure and a socially embedded entity in the Patkai Hills region. Here, the extractivism as a framework provides a comprehensive analysis of both external elements that nurture informal coal mining and the internal extractive practices within the community that created conditions for capitalist ventures to grow locally.

Furthermore, as a highly commoditised resource, the operation of the coal industry in a particular place and its logistical factors, such as road infrastructure facilities for coal transportation, are determined by the nature of state interventions and the larger development policies. Similarly, the larger trans-regional markets shape the transactional aspects, such as the prices/rates of coal-related commodities and their profit margins. Within this broader context, the politics of informal coal operations in the Patkai Hills region transcends the conventional understanding of macroeconomic structures, which largely focus on the role of external forces, such as the state, policies, and corporate entities. However, the capitalist extraction of coal is constituted not only through the state's neoliberal policies but also through the daily participation of people in it, as owners, as owners of assets critical to mining, as part of the bureaucratic machinery. This is particularly relevant in the case of the informal coal industry in the Patkai Hills region, where the mining-affected Tangsa community and other local populations are deeply involved. Against this backdrop, extractivism as an analytical frame allows for more room to critically examine the extractive process involved in the extraction of natural resources, particularly the informal coal mining in the context of the Patkai Hills region.

## 0.14 Chapterisation

This thesis consists of seven chapters in total, including this **introductory chapter** and a **Conclusion**:

**Chapter 1: Community, Resources, and Development Aspiration**

This chapter presents an ethnographic profile of the Tangsa community and its socio-political context, with a focus on their role in the informal coal industry. It provides a foundational understanding of the Tangsa community's landholding system, resource governance, and prevailing socioeconomic conditions. It examines the dynamics of resource extraction and the community's responses to it, highlighting the complexities of socioeconomic and political factors that drive informal coal mining in the region.

**Chapter 2: Entangled Road and Coal: Extraction and Infrastructural Intervention in the Patkai Hills Region**

This chapter examines the intersection between the informal coal industry in the Patkai Hills region and broader mega-infrastructure interventions in the northeast. The fieldwork made evident the role of critical infrastructure, such as roads to the coal industry. The chapter provides an overarching view of the political economy of development, situating the interplay between informal coal mining and road infrastructure in the Patkai Hills region. The chapter not only provides insights into the nature of mega road interventions but also into the existing distribution of rural road networks, which remain in poor condition in contrast to the mega roads in the region. Within this context, it examines how, by design and default, the two contrasting sides of the poor rural road networks and massive strategic mega highways have worked in a way that facilitates the growth of extractive industries, including informal coal operations in the region.

**Chapter 3: The Politics of Development: Extractive Relations and Political Economy of the Coal Industry**

This chapter explores the political economy of development, focusing on the role played by multiple entities, including the state, communities, local elites, and non-state actors such as insurgent armed groups and private players. It also examines the changing power dynamics within the community, underscoring the rise of the local elites. The chapter further investigates the bureaucratic procedures and processes that sustain the extractive relationships of the informal coal industry. It highlights the politics of regulations and deregulations, involving both

informal and formal institutions, which facilitate the growth of extractive industries, particularly the informal coal operations in the Patkai Hills region.

**Chapter 4: Emerging Inequality: Land, Local Ecology and Livelihoods**

This chapter focuses on the land question and the process of resource appropriation among the Tangsa community, which has resulted from the expansion of the informal coal industry in the region. In light of this, it explores the emerging, intricate relationships between ecological degradation, livelihood crises, and widening intra-socioeconomic inequalities within the Tangsa community, stemming from the ongoing informal coal mining. The chapter also examines the coping mechanisms and diversification of livelihood options that the mining-affected Tangsa community is adopting to cope with the socioecological and economic challenges posed by the increasing extractive activities in the Patkai Hills region.

**Chapter 5: Extractivism in the Periphery**

Chapter five offers theoretical and empirical insights into understanding the region's informal coal mining as a form of extractivism. It critically analysed the various themes that emerged from this ethnographic study, underscoring the multifaceted dimensions of informal coal extraction in the Patkai Hills region. Grounded on the experiences of the region's unequal informal coal operations, the chapter further interrogates how the extractive practices within the community embodied the very capitalist values they claim to contest. In doing so, it sheds light on the reinforcement of intra-community inequalities and social hierarchies among the Tangsas that are pushing them to confront exploitation and marginalisation on multiple fronts.

**Conclusion Chapter**

This chapter discusses and summarises the overall findings of the study. It highlights the insights from the field and raises concerns related to the informal coal industry in the Patkai Hills region of Arunachal Pradesh. It reiterates the overall findings of the study (thesis). Finally, the chapter concludes by underscoring new emerging issues in the field, as well as the potential for further research on the broader coal industry and the evolving extractive developmental politics in the Patkai Hills region and the northeast at large.

# Chapter 1
# Community, Resources, and Development Aspiration

## 1.1 Ethnographic Profile of the Tangsas

The Tangsa tribe is a trans-Patkai ethnic community residing in the Indian state of Arunachal Pradesh and Assam, as well as the Sagaing division and Kachin state of Myanmar (Barkataki-Ruscheweyh, 2018). The term "Tangsa" is etymologically derived from two words: "Tang", which means hills or mountains and "Sa", which means people of the highlands or children of the hills. This term reflects the Tangsa community's socio-geographical context, which is closely tied to the trans-national Patkai Hills range. Within the Tangsa community, there are 35 different sub-tribes. A considerable number of the Tangsa population is concentrated in the Changlang district of Arunachal Pradesh, making them one of the major Naga tribes, alongside Wancho, Nocte, and Tutsa in the Patkai Hills region (Wangsu, 2025). The Tangsas on the Indian side trace their cultural affinity and place of origin to present-day Myanmar, where they still maintain kinship, clan, and cultural ties across the borders. It is crucial to recognise here that it was only after the establishment of the Indian state that the Tangsas and several other communities in the northeast were rendered as cross-border ethnic groups (Puia, 2023; Sur, 2021). This is because the creation of nation-state borders has disregarded the ethnic-cultural ties and the traditional territorial boundaries of the communities in the region (Misra, 1978; Shimray, 2004b). Gohain (2025b) has defined this phenomenon as an imagined border, a cultural area that represents the multiplicities of transboundary communities and their relations to the nation-states.

There are variations in language/dialect among the sub-tribes of the Tangsa community, but all their sub-dialects or languages belong to the same Tibeto-Burman family. With the increasing influence of the Indian state and the spread of modern education, the Tangsas are gradually adopting Hindi, English, and Assamese as common languages for public interactions, gatherings and everyday communication. In recent decades, the collective identity of the Tangsas has become more prominent than the identities of particular sub-tribes in the context of the Patkai Hills region of Arunachal Pradesh. For instance, official government documents, such as the tribe certificate, are issued under the name of "Tangsa tribe", rather than the names

of specific sub-tribes. Additionally, the cultural avenues, such as the traditional festivals, emphasise promoting the commonalities of the Tangsas. The Moh-Mol festival is a prime example, where all sub-tribes come together annually to celebrate the onset of the agricultural season and the beginning of their new year as a unified, larger Tangsa community.

**Fig: 1.1**


**Credit:** Wikimedia Commons (Map showing the presence of the Naga tribes, including Tangsas across India and Myanmar, indicated by blue colour)

The majority of the Tangsa people are now Christians, although some continue to practice their old traditional beliefs. Additionally, certain groups within the Tangsa community have adopted

a new religion called Rangfraism, incorporating traditional practices [3]with elements from other mainstream religions, such as Christianity, Islam, and Hinduism (Barkataki-Ruscheweyh, 2015). At a broader level, the Tangsa community is socially organised into sub-tribes, and within these sub-tribes, societies are further divided into clans. At the local or micro-level, the village serves as the primary political and social unit for the Tangsa community across all sub-tribes (Simai, 2008). Traditionally, the political and community affairs were governed by the village tribal council, led by a chief who is usually a man. The chief is responsible for overseeing community affairs and administering the village council. However, this role has now largely become symbolic in nature due to the influence and entry of modern state governance systems and structures. State institutions these days dominantly govern and determine the socioeconomic conditions, development activities, and everyday affairs of the community at large. Furthermore, the impacts of contemporary economic structures have also penetrated various domains over the years, prompting the Tangsas to adopt more commercialised transactional relations compared to their earlier way of being. The concept of common property resources, such as land and forests among the Tangsas, has undergone a qualitative shift to more intense private ownership and has been highly commoditised through a new economic structure.

Notably, the Tangsas are among the richest communities in the entire Arunachal Pradesh, in terms of inhabiting vast geographical areas that are abundant in biodiversity and mineral resources, including oil and coal. Due to these reasons, the territories of the Tangsa community have attracted significant attention from the state and private sectors regarding industrial-focused state-corporate development initiatives in recent decades. As a result, the Tangsas have often found themselves at the receiving end of expanding extractive industries, such as the oil, timber and coal mining in the region. Currently, the oilfield and coal industries, which are actively operating in Arunachal Pradesh, are primarily concentrated in areas predominantly inhabited by the Tangsa community (Wangsu, 2025). Consequently, these expanding extractive industries, however, have not only transformed the economic spheres of the Tangsas but also disrupted the socio-cultural and ecological landscapes of the Patkai Hills region. Particularly, following the collapse of the formal state-corporate model of the coal industry due to bans imposed by the central government in 2012, the Tangsa community has increasingly been

[3] Traditional practices of Rangfraism includes animal sacrifices, believing in nature and spirits. Religious texts, hymns, worship services, building for congregation, and conception of idol are some the features incorporated from the mainstream regions into Rangfraism.

involved in informal coal mining. This shift has significantly impacted land relations and the traditional resource-holding system, placing the community in a complex transitional dilemma. They are now confronting growing socioeconomic inequalities, ecological degradation, and dispossession from community resources, such as land, while also navigating their aspiration for development.

## 1.2 Land Relations and Customary Resource Governance

The question of land, in particular, provides a comprehensive understanding of the underlying issues of resource extraction, including informal coal mining and larger state-corporate development interventions in the Patkai Hills region. For local communities, particularly the Tangsas, the concept of governance and ownership rights to appropriate resources, such as land and mineral reserves, is closely connected to their cultural formations, ethnic identities and livelihood security per se. The unequal relations within the region's informal coal industry are reflected in the increasing appropriation of resources by a few influential actors and the consequences of changing land relations within the Tangsa community, among other recurring issues. Here, the emergence of the informal coal industry in the region is deeply localised and tied to the intra-power equations and socioeconomic conditions of the Tangsa community and their land ownership or resource governance system. Traditionally, the land relations and their utility among the Tangas are governed and guided by customary laws, similar to most of the tribal communities in the northeastern region of India (Dutta, 2022; Fernandes, 2009).

The Tangsa community in the Kharsang area, the epicentre of the informal coal industry in Arunachal Pradesh, has distinct resource ownership systems, the dual individual landholding ownership and common property resources (CPRs) systems. Certain forests, hills, and rivers are considered CPRs by the community, while the general lands, such as residential and agricultural lands, are subject to an individual ownership system guided by customary law, which prohibits permanent selling or transferring land outside the community. In a broader sense, even private land here is a common property resource (CPR), although it is owned individually under the community's rule of usage, which has to be rotated within the community. Male children typically inherit the land with individual rights to land according to traditional customary laws. However, customary laws do not prohibit the people from transferring their lands within the community, either through purchase or voluntary means. The

exploitation of this loophole in the customary law system is used to appropriate land from poor villagers and convert it into coal mines or other extractive industries by local elites and their external collaborators. Seasonal leasing of lands is also permissible to outsiders or private investors for mining activities, and is not deemed as the alienation of community resources, as the lands are seen to be returned to the villagers when the lease period is over.

All these developments regarding the extractive practices of resource appropriation and varied interpretations of customary laws remain politically charged and culturally sensitive issues in the Tangsa-dominated areas of the Patkai Hills region. This phenomenon has also been observed in the cases of informal coal industries in the states of Meghalaya and Nagaland, although the sociopolitical contexts of each place vary from one another in various ways. In Meghalaya and Nagaland, the customary governance of lands and other resources is protected through constitutional measures outlined in the Sixth Schedule (Article 371), allowing communities to manage their resources and local socio-political affairs (Dutta, 2022). Similarly, in the context of Arunachal Pradesh, alienation of community resources like lands and influences of the outsiders are to some extent protected/secured through the Inner Line Permit (ILP) system established under the Bengal Eastern Frontier Regulation of 1873. However, despite these provisions, the infiltration of capitalist extractive practices, responsible for the appropriation of community resources, has only intensified over the years with the increasing influence of the state, local elites, and private players (Baruah, 2020a; Collective, 2019; McDuie-Ra & Kikon, 2016b).

Additionally, the local elites play a role in manipulating customary laws and serve as intermediaries between the state, coal contractors, and other non-state private actors for resource appropriation. Capital accumulation and the appropriation of land by a few local elites are driving the capitalist transition in the Patkai Hills region. Many of the mining-affected villagers whom I interviewed during fieldwork spoke of the appropriation of massive plots of land for informal coal mining and its effect on the Tangsa's land use and ownership patterns. Mr. M. Longri, who resides at Kharsang town, argues:

> "The large-scale purchases of agricultural fields and forest lands by the wealthier individuals (local elites) from within the community are facilitating the concentration of land ownership into the hands of a few individuals. Besides, the leasing of large-scale lands to outsiders is no less than the permanent purchases by the local elites, as

lands are completely destroyed after the mining activities, which cannot be used for anything for decades to come".

These emerging developments have altered the earlier pattern of landholding in the community, where all individuals previously held some amount of land to sustain themselves before the onset of coal mining operations. It is true that purchase and transactional relations with the land within the community existed before, but their intensity has increased excessively in contemporary times. Especially, the extractive activities have now disrupted the relatively equitable landholding relations within the affected Tangsa community. The extreme concentration of land in the hands of a few local elites is a prime example of the changing land relations, accelerated by the expansion of informal coal operations.

This phenomenon in the region has resulted in a precarious situation, where local elites have controlled the operation of informal mining and captured the community's lands and resources in collaboration with external private players. These influential actors often leverage their social/economic capital, as well as their political power, to do this, as they are from within the community and can easily manipulate and employ different tactics to convince the poor villagers, apart from taking advantage of their situations. Here, the control of the informal coal industry is managed by local elites and other extractive actors, such as private players, on three main fronts. First, they obtain social legitimacy or community consent to undertake coal mining by selling the dream of development. Second, these extractive actors leverage their political connections and socioeconomic influence to overhaul customary laws and government systems, thereby acquiring community resources, such as agricultural lands and forests, for coal mining. Third, they employed regulations within the informal coal industry to maintain control over logistical affairs and economic transactions in the region's extractive economy (see Chapter 3, Section 3.7 for more details).

These characteristics of informal coal operations involving the Tangsa community suggest that customary laws, such as the governance of resources, are not static but are constantly reformed, adjusted, and rearticulated in response to the changing socioeconomic and political aspirations of the community and through the state's interventions. Due to all these factors, as an extensively extractive and exploitative process, the impacts of the informal coal industry on the affected marginalised sections within the Tangsa community in the region have gone far

beyond the developmental aspect. It has disrupted the region's local ecological equilibrium and amplified intra-socioeconomic inequalities, as the extraction primarily focuses on the commercialisation of resources in the interests of influential actors (Changmi, 2024). Here, the community's resources, particularly the land required for coal mines, are often disputed and yet continuously negotiated by multiple actors, such as communities, local elites, state, and non-state actors, in the process of their fights for controlling the extractive economy. In other words, these actors are aggressively pursuing the appropriation of land for coal mining and related activities from the Tangsa villagers. As a result, it is adversely affecting the very foundation of traditional landholding practices, the community resource governance system, and is reshaping the socioecological topographies and development trajectories of the region as a whole.

## 1.3 The Development Aspiration

The Tangsa community has historically relied on a subsistence economy for its primary livelihoods, which include agriculture, hunting, and collecting forest-based products, among other things. Shifting cultivation, also known as jhum cultivation, remains a predominant practice among larger sections of the Tangsa community to this day. However, as the world evolves rapidly and due to its inevitable influences, they have actively sought to transition into more economically viable options and diversify their sources of income. In this direction, given their rich natural resources, the Tangsa community has engaged in extractive industries at different points in time. It began with opening their doors to conventional mineral exploration and extraction, such as oil drilling and other extractive industries, in the late 1960s and 1970s. In the first phase of the wave of ventures, the Kharsang oilfield became operational in 1983. Still, to date, the opportunities from this oil industry for the Tangsa villagers, however, remain limited to a few manual contractual jobs and some corporate social responsibility (CSR) activities, such as health camps, sponsoring sports, and construction of public toilets. In the meantime, revenues/royalties generated from the oil industry flow to state coffers and benefit the corporate houses, but do not translate into better outcomes for the Tangsas.

In the 1970s through 1990s, local communities, including the Tangsas from the Patkai Hills region, tried their hands at the timber industry. However, this venture was halted by a Supreme Court order in the mid-1990s before the larger community could reap any substantial benefits,

while the state government, external private players, and local elites again benefited from it. Both the oil and timber industries were introduced to the Tangsas of the Patkai Hills region with the promise of economic opportunities (jobs and businesses), social upliftment (education and health), and infrastructural development (roads). When the state-corporate model coal industry began in the 2000s in the Kharsang area, it again came with similar promises to the local communities before being banned by the central government. It is under these messy socioeconomic and political trajectories that the development aspiration of the Tangsa community has, over the years, become intertwined with the pursuit of the informal coal industry in the region, although this extractive process has played out in contrast to the desires of the community.

A youth leader from Kharsang town, Mr. L Mossang, told me that, amidst the limited formal economic opportunities, the informal coal mining and related extractive industries have emerged as a vital source of livelihood activities for the Tangsa community. He stated,

> "It is no longer practical for the villagers to continue with Jhum cultivation anymore because productivity is decreasing year by year. Besides, unemployment is increasing massively. Due to these reasons, community people are engaging in informal coal mining and related ventures to gain some economic benefits and sustain themselves. But I do agree that the profits from these activities are to a great extent unequally distributed within the community, and environmental impacts need to be re-examined going forward".

While some members of the Tangsa community now see the informal coal industry in their area as a path to improve their socioeconomic position, especially in the absence of formal state-corporate employment opportunities and an entrepreneurial ecosystem in the region, others view it as a self-destructive time bomb. Given the experiences of the oil and timber industries, a larger section of the community remains sceptical of informal coal operations, even though most of them are involved in it. On the one hand, some sections of the community, like Mr. Mossang, also see the informal coal industry as an economically viable option that will uplift the Tangsas if the present form of exploitative extractive practices is addressed adequately. This is meant to suggest that informal coal mining can be undertaken in less destructive ways compared to the existing method, considering ecological fragility and socioeconomic inequality throughout the entire process. These diverse narratives come from the fact that

different sections of the Tangsa community are experiencing the benefits as well as exploitation differently under the existing extractive development regime in the Patkai Hills region. Furthermore, the promise of better development, particularly economic opportunities (jobs and businesses) and infrastructural facilities, such as proper roads attached to extractive industries, including oil and coal industries, has been a key entry point for the state-corporate entities to penetrate and for the local elites to justify the extractive ventures, like the informal coal industry in the Patkai Hills region.

Within this broader context, the intersection of state-led road interventions and the informal coal industry serves as a vantage point for understanding the region's political economy. This further raises a larger question about whose development has actually been prioritised, and to what extent the local community is granted opportunities for active participation in the process, in a way that benefits them. What kind of existing infrastructural conditions associated with the mega highways and rural roads nurture the extractive industries, including the informal coal operations? How do roads control resources, accessibility, and the flow of commodities?

From various developmental perspectives, numerous scholarly works on the northeastern region of India have time and again highlighted how mega road interventions have primarily been directed at addressing strategic security aspects and facilitating the extractive industries, rather than prioritising the local needs (Arora & Ziipao, 2020; Baruah, 2020; Kikon, 2019; Rahman, 2014; Ziipao, 2020). Here, the inaccessibility of the mega roads (highways) to the larger sections of the local communities, in particular, remains a practical challenge. At the same time, the lack of adequate rural road infrastructure induces the participation of local communities in informal coal operations in the Patkai Hills region, as it limits their capabilities to engage in alternative livelihood activities (For more details, see chapter 2). Mr. L. Longchan, a community elder from Kharsang, contends:

> "The kind of developments that we (Tangsas) seek to achieve at this stage are at our door, but they are not reaching the larger community on the ground. We have massive highways across the region, but village roads connecting those mega roads are in very poor condition. We have a flourishing informal coal industry, yet profits mostly go only into the pockets of the local elites and private players from outside the region".

Over the years, these issues of developmental contractions and challenges have put the Tangsa community into the shadow of poverty and marginalisation, both politically and socioeconomically. Due to this, when the state and private players in the northeast promote centralised mega road infrastructures and extractive industries as interventional tools for pushing development, the local communities, such as Tangsas, often see it with a suspicion of implicit internal colonisation and exploitation. Although the dynamics within the local communities in this regard are changing gradually, these anxieties of being exploited continue to inform the larger development politics in the northeast, including in the Patkai Hills region of Arunachal Pradesh. It is for this reason that the development aspirations of the Tangsa community in relation to their active involvement in the informal coal industry cannot be understood in isolation from the larger socio-political contexts in which they are embedded. Both extractive industries and mega infrastructural interventions represent the dispossessions of the local communities as well as their development aspirations.

Consequently, the entanglement of infrastructures, resources, and community politics in the Patkai Hills region, amidst the aggressive state-led mega road interventions and assertive community involvement in the informal coal industry, has created complex socio-political conditions. The path of development for the Tangsas, and for that matter, the other larger local communities, such as the Tutsa, Nocte, and Wancho of the Patkai Hills, remains politically contentious and ambiguous. For instance, these communities have been demanding the granting of the Patkai Autonomous District Council (Sixth Schedule) from the government due to the lack of development and their desire for self-governance of their natural resources. This prevalent sentiment of the people is that the existing developmental activities do not benefit the larger communities much, despite the Patkai Hills region contributing the highest domestic revenues to the state government. This premise also stems from the fact that the development aspirations of the region's larger local communities, including the Tangsas, are not only about grand infrastructures or merely economic improvements, but also about political recognition, cultural dignity, and an equitable shared future. It is a complex terrain that entails both desire and fear; a desperation for economic well-being and anxiety about losing their resources (like land and forest), and engaging with the state-corporate-led developmental activities, while also feeling threatened by socio-political marginalisation.

## 1.4 Extraction and Community Responses

By and large, the unprecedented advancement of capitalist transition, driven by state extraction and later by neoliberal policies, has added more pressure to using land and other critical resources as commodities across India's regions (Harriss-White & Heyer, 2014). What is happening in the Patkai Hills region in the form of growing extractive industries, coupled with massive mega road infrastructural interventions, is the trickle-down effect of this phenomenon. As discussed in the introductory chapter, India has been grappling with this issue since the early post-colonial era, with the state acquiring a vast tract of land for extractive industries and mega-infrastructural projects like large dams in the name of national development (Baviskar, 1997; Gohain, 2008; Nielsen & Oskarsson, 2016; Roluahpuia, 2018). Consequently, indigenous communities living in resource-rich regions of central and northeastern India have experienced the impacts of this nation-building exercise unevenly in the post-colonial period (Haines, 2022b; Xaxa, 2008). Even today, local communities in these peripheral regions continue to suffer from exploitative and hegemonic capitalist development ideas imposed upon them by the state, the dominant class, and capitalist forces (Kennedy & King, 2013).

Unlike the predominant conventional view of land as a commodity for economic development, the affected communities typically view land as their cultural homeland, closely tied to their identities, livelihoods, and their political rights to govern resources independently (D. Mishra & Nayak, 2020). Within this framework of development, the Tangsa community's response to extractive industries, particularly the informal coal operations in the region, has been internally varied. While some members of the community do not support coal mining due to its adverse socio-ecological impacts, the local elites, in collaboration with external private players, are pushing hard for industries to expand and generate economic profits. Besides, there are many villagers who do not support the informal coal industry but are compelled to embrace it as a source of new economic opportunities due to their poor socioeconomic conditions. This situation is prompted by the absence of meaningful livelihood opportunities for the local communities, as their traditional agri-based activities and allied subsistence economy are declining due to increasing extractive activities in the region over the years. The result of this is an informal coal industry, which is based on capital accumulation, reinforcing extractive practices within the community, anchored by local elites and external private players.

The increasing informal coal mining in the Kharsang area of the Patkai Hills region underscores how capitalist transition and extractive development have aggressively penetrated the Tangsa community. However, this form of extractive transition and economic activities, by design, required a large scale of raw materials and resources to meet the demands of the connected global market (Tsing, 2011). As a result, it led to the severe exploitation of both nature and the dependent communities, specifically the Tangsas in the Patkai Hills region of Arunachal Pradesh. Here, the resources, such as the land and mineral deposits, turned into the raw materials, and the larger Tangsa villagers who own them are exploited by devaluing the price of the land, despite their involvement in the extractive process. In this context, it is seen that larger ordinary villagers are induced into the informal coal operations by the lack of other alternative choices, while the local elites exercise their power and resources to intensify the extractive process, underlining the clear distinctions that lie within the Tangsa community. This phenomenon has not only impacted economic, political, and developmental dimensions, but also is accelerating the unhealthy changes in land relations and unequal social transactions of community resources, which are very concerning. For instance, these processes are creating a new form of intra-social hierarchy between the local elite and the larger, poorer sections of the Tangsa community.

A *Gaon Bura* (a government representative in a village) Mr. L. Longphi, from one of the mining-affected villages, during the interview, expressed his concern about the informal coal industry and priorities of the local elites, who seem more focused on self-profit ventures. He stated:

> "The way our community's local elites have led us into the extreme exploitation of resources in the name of development is not good for the long run. The difference in benefits from mining within the informal coal industry is insanely significant, with the majority of common villagers rarely getting very little to nothing".

This view stems from the fact that larger sections of Tangsa villagers are being excluded from reaping equitable profits from the flourishing informal coal industry in their backyards and from their resources, indicative of the extractive nature of the process. Meanwhile, the local elites often portray the informal coal industry as a community-led enterprise that benefits the larger community, countering the state's monopoly and corporate control over their mineral resources. Here, the local elites argue that the informal coal industry is community-led because

villagers can gain income through leasing or selling their land or by directly participating in mining activities. However, it is the same process which is exacerbating the dispossession of land and resources of the larger community, rather than equitably benefiting them, as stated by Mr. Longphi (Gaon Bura or GB). A closer look at the political economy of the coal industry in the region further revealed that this arises from the exploitative and unequal structural power-dynamics of the informal coal industry, where the nexus among the influential actors of local elites, local government officials, and private players exclude the ordinary villagers from availing benefits (Chapters 3 and 4 will expand on this).

The very fact that the local state agencies have not taken any concrete actions to check the region's expanding informal coal industry itself is an expression of this nexus and the underlying comprehensive neoliberal initiatives promoted by the government through policies, regulations, and deregulations. Within this broader context, it is important to understand that a ban imposed by the central government has taken place in specific circumstances in the Patkai Hills region (for more details, see the introduction chapter, from section 0.8 to 0.10). However, it doesn't amount to stopping extractive development, while the state's policies and actions primarily focus on nurturing the extractive industries in the Patkai Hills region. Consequently, all these factors, coupled with corruption within the local government and the existing socioeconomic conditions, established a conducive environment for the informal coal industry to expand, as this region of Arunachal Pradesh is rich in mineral resources.

## 1.5 Historical Context of Extractive Development in the Patkai Hills

Over the years, the government of Arunachal Pradesh has been aggressively facilitating Public Sector Undertakings (PSUs) and private players to increase the extraction of oil, coal, and other mineral resources in the TLC region since the early 1990s, in the name of bringing development and employment to indigenous communities. However, the state government's strategy has always been to prioritise generating revenue through royalties from the region's resources, not to help local communities. In 1975, a significant discovery of oil was made in the state of Arunachal Pradesh by Oil India Limited (or OIL). Oil drilling began in 1983 at the present-day Kharsang oil field in the Changlang district of eastern Arunachal Pradesh. In 1995, the central government awarded the four consortium companies under a production-sharing contract (PSC) to take over the Kharsang oil field to expand oil and gas operations in Arunachal Pradesh.

The four empowered consortium companies included: Oil India Limited with 40% share, Jubilant Energy Kharsang Limited (25%), GeoPetrol International Inc. (25%), and GeoEnpro Petroleum Limited (10% share) to undertake oil exploration and drilling operations in Arunachal Pradesh.

GeoEnpro Petroleum Limited was designated as the chief operator of the Kharsang Oil Field. According to GeoEnpro Petroleum Ltd.'s website, the consortium inherited 36 oil wells from Oil India Limited in 1995, and as of 2020, it has installed 34 additional development wells across the field sites spreading over an area of approximately 10 square km within the Kharsang area. The Kharsang oil field now boasts of producing 230 kl/day of crude oil, and the quantities of crude oil produced in Arunachal Pradesh are transferred to Digboi Refinery Oil Corporation Ltd, located in Assam, for further processing. The revenues that are generated from crude oil and gas productions are shared among the consortium companies and the state government of Arunachal Pradesh, and the central government in the form of royalties.

The Patkai Hills region has also seen the wave of timber industries through 1970s to 1990s, until it was banned in 1996 by the Supreme Court citing ecological and other related concerns. During these periods, the local community's economic activities were primarily tied to the timber industry and related activities, aside from traditional subsistence livelihoods. As a result, the timber ban had a drastic economic impact on the local communities of the Patkai Hills region, including the Tangsa villagers. In the immediate post-timber era, the government initiated many subsidy schemes to promote settled agriculture and horticulture, such as small tea gardens for the local population in this region, but corruption prevented the benefits from reaching the intended beneficiaries or poor villagers (Wangsu, 2025). Only those with old money accumulated during the timber era, those with political connections, and families with government employees could take advantage of these subsidies. As a result, the larger sections of the local population were forced to return to subsistence-based agriculture, such as Jhum (shifting cultivation), as their primary source of livelihood. Unfortunately, even this subsistence economy was already affected by destructive timber industries, which impacted the region's agricultural output.

At the same time, it was also in the late 1990s and 2000s that coal reserves were discovered in the Patkai Hills region, spanning the three present-day districts. In Tirap and Longding, mining has yet to be approved or begun for ecological and socio-political reasons. However, coal

mining has already started in the Changlang district, particularly in the Kharsang area since 2007. Initially, local communities around Kharsang hesitated to give up their land for coal mining due to past experience with extractive industries, such as the timber and oil industries, which did not benefit them economically. They particularly felt betrayed by the state when timber was banned without taking them on board. However, local communities were yet to recover from the deep livelihood crisis and the drastic socioeconomic shock of the sudden closure of the timber industry. They had difficulty transitioning back to now less productive shifting cultivation, which resulted from extensive deforestation during the timber era as mentioned above. For this reason, local communities reconsidered their stance on coal mining, as they were promised employment, economic opportunities and development in the area by the state and the local political class.

All these things in the Patkai Hills region coincided with the period when the state's extractive development projects intensified in the northeast, in the immediate aftermath of economic liberalisation in the 1990s. Therefore, the development of the Patkai Hills region as a centre of resource extraction in Arunachal Pradesh since the early 1990s is closely connected to the larger extractive economies of northeast India and beyond. While the timber industry has been completely banned and the oil industry's control remains exclusive to the state and big private companies, coal operations in the Patkai Hills region over the years have unfolded as extractive economies in which local communities have also become deeply involved in different ways.

By the late 2000s, coal had become the dominant industry in this region, particularly in the Kharsang area of the Changlang district, which eventually became the epicentre of the coal industry in Arunachal Pradesh. This was also a time when the Northeast was configured in national policies, such as the Look East Policy (now Act East), within the neoliberal framework. Specifically, in 2007, the Namchick-Namphuk Coalfields in the Kharsang area were taken over by the state-led Arunachal Pradesh Mining & Trading Corporation Ltd (APMTCL), with the central government's approval. The APMTCL selected the National Mining Company Limited (NMCL) as the regulating agency to operate the mining activities through a tender. For five years, the APMTCL and NMCL managed mining operations in the region. However, the controversy around coal mining surfaced in 2012. The APMTCL was accused of extending the mining contract to NMCL without the proper procedures after the PLA Project petitioned the Gauhati High Court. In addition to this, unregulated coal mining around the Kharsang area, which was spreading alongside the officially designated coalfields,

became known to the public. Again, the APMTCL and NMCL were held responsible for covering up and facilitating this flourishing, informal mining in the area.

The central home ministry subsequently formed a committee to investigate these matters. After the surprise site visit, the committee confirmed those charges and further revealed the involvement of Naga insurgent armed groups in unregulated coal mining activities, which have funded their active operations in the region. Consequently, all these controversies around coal operations in the Kharsang area led to the complete ban on coal mining in the Patkai Hills region in 2012. However, despite the ban, informal coal mining still continues in the Kharsang area due to the complex socioeconomic situations and nexus among influential entities, such as the local elites, private coal contractors, CSOs, and corrupt government officials.

The subsequent shift from formal coal industry to expansive informal coal operations didn't take long, as the infrastructure and logistical requirements of informal operations already existed alongside the formal industry. For instance, some of my respondents told me that the coal committee, a body which manages and regulates informal coal operations in the Kharsang area, existed as early as 2013. This transformation from formal to informal coal industry remains among the most socioeconomically consequential phenomena that continue to define the contemporary extractive development politics in the Patkai Hills region. In the early 2010s, the coal ban became another major economic setback for the Tangsa community. Many villagers see this as a betrayal by the government, just as in the case of the timber industry. Now, unlike in the case of the timber ban, coal has become not only an economically sensitive issue in the region, but also a politically and culturally crucial matter. Through the push for informal coal operations, the Tangsa community explicitly claims their cultural rights and moral claim over resources, such as land and coal. However, the Tangsa community is also confronting major issues and impacts associated with the informal coal industry on multiple fronts, as discussed in detail in the subsequent chapters of this thesis.

# Chapter 2
# Entangled Road and Coal: Extraction and Infrastructural Intervention in the Patkai Hills Region

## 2.1 Into the Coal Town

When I arrived at the Kharsang area, my primary ethnographic field site, in July 2022, I found Balinong Chariali to be a fascinating place with a bustling and flourishing local market that serves as the central point connecting over 30 different villages around the Kharsang area. Located just 5 km away from Kharsang town, it is also the juncture point where the two National Highways (NH) intersect. At the start of my fieldwork, there were hardly nine functional shops and one rice/tea hotel at this Centre point. However, as I was leaving in September 2023, there were already numerous additional shops and multiple hotels operational, with many more still under construction and being furnished. I was astonished to see the pace of expansion of shops and hotels in both Balinong Chariali and Kharsang towns within a year. I was particularly intrigued by the Balinong Chariali and frequented this place twice or thrice a week throughout my fieldwork, observing its growth and activities firsthand. Understanding this phenomenon on the ground has been a foundation of my fieldwork to capture the region's development and its politics, especially in terms of the nature of road interventions and informal coal operations.

Furthermore, what amazed me most was that, beyond the proliferation of shops, hotels, and the highways passing through it, the two prominent structures in the Balinong Chariali centre were the coke plants, quickly indicating the presence of the coal industry here. These plants are owned by prominent politicians from the Tangsa community and operated by non-local private companies from outside the region. Sometimes, the smoke coming out from those giant plants is so thick that it looks like foggy, gloomy winter days, even on the bright summer days of late July. When these plants are not operational on some days, one can clearly see the injured hills and forests destroyed by the ongoing expansive informal coal mining in the area. Besides, the busy petrol pump station at this junction of Balinong Chariali highlights the significance of the roads passing through this place. On many occasions, this fuel station runs out of petrol and diesel, especially during the peak coal mining season. This is because the miners often buy them in bulk for coal mining and other extractive activities. On regular days, too, people often

face problems with fuel shortages, as many vehicles pass through, and a lot of major road constructions are underway, which require a massive amount of fuel.

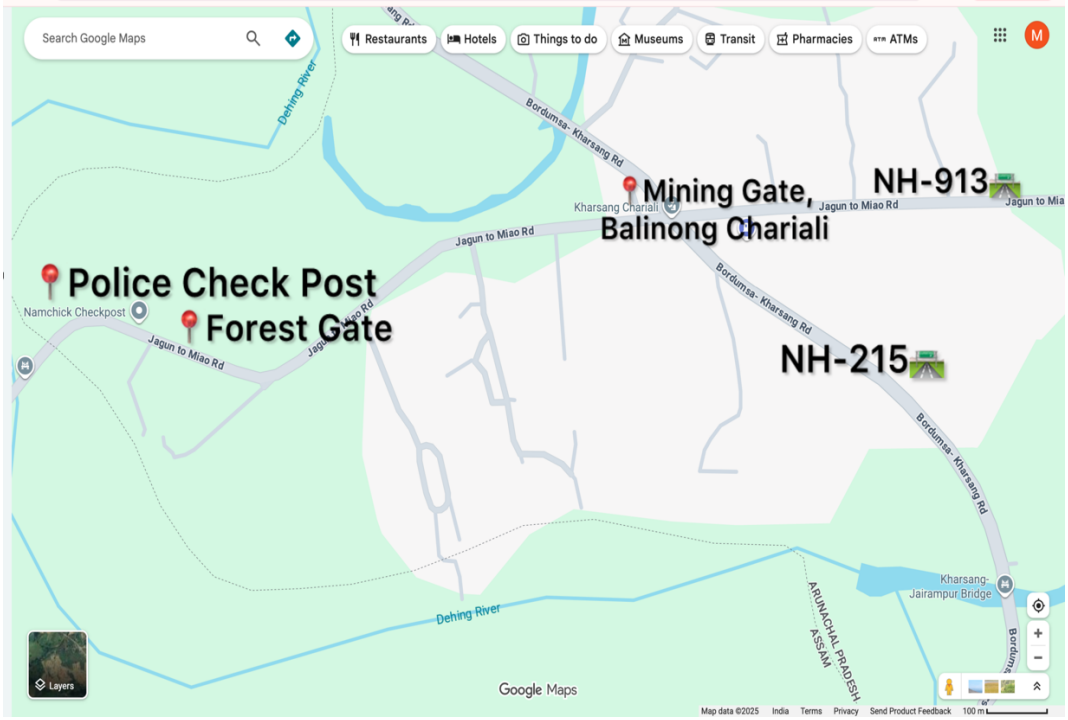
**Fig: 2.1**

**Coke Plant at Balinong Chariali, Kharsang**

In Balinong Chariali, there are three layers of checkpoints within a 200-metre radius. The first is the Namchick Police, which borders Assam. The second is the forest gate located in the middle. The third is the mining gate, which is attached to the Balinong Chariali juncture/centre situated towards the Kharsang side. These gates underscore the highly commoditised as well as the securitised nature of the place. This is a common feature of roads across the three districts of the Patkai Hills region. When one enters the Patkai Hills districts of Tirap, Longding, and Changlang, they can find police checkpoints and forest gates that are typically attached to the Assam border. The police gates perform regular checks and examine the Inner Line Permits (ILP), a pass required for foreigners and Indians from other states to enter Arunachal Pradesh. This ILP was a result of the Bengal Eastern Frontier Regulation of 1873, enacted by the colonial government to regulate the movement of people from outside to protected and restricted areas

inhabited by specific communities in the northeast (Thejalhoukho, 2024). This continuation of ILP highlights the vulnerabilities that persist in regions like the Patkai Hills, particularly in terms of protecting natural resources and safeguarding the rights of local communities.

**Fig: 2.2**




**Credit: Google, 2025 (Map showing Balinong Chariali: police gate, forest gate, mining gate, and National highways)**

The forest gates regulate the flow of commodities, such as timber and coal, as well as the trafficking of wild animals, among other activities. These forest gates are typically located at multiple entry points and significant locations across the three districts of the Patkai Hills, a highly forested region that was the centre of the timber industry in Arunachal Pradesh before the Supreme Court banned it in the mid-1990s. Most of the timber-era forest gates in the Patkai Hills region are still actively operational since illegal timber logging, forest encroachments, and animal trafficking, among others, have continued to persist. In addition, the increasing deforestation in the region due to the emergence of new forms of extractive activities, such as informal coal mining and stone mining, has made the presence of forest gates even more critical in recent times. Furthermore, the Kharsang area and its immediate peripheral areas are ecologically sensitive zones, including Namdapha National Park, the largest national park in the Northeast and third in India in terms of geographical area. Historically, the role of the Forest

Department has played a significant role in the context of the Kharsang area and the Patkai Hills region, in general.

Finally comes the mining gate, controlled by the Department of Geology and Mining, Govt. of Arunachal Pradesh. Mining check gates are primarily concentrated in the Kharsang area and other parts of the Changlang district, as the intensive oil drilling and coal mining activities have yet to start in the Tirap and Longding districts. This department is functional in every district in the state. However, the Geology and Mining Department at Kharsang sub-division is considered one of the most critical units in Arunachal Pradesh. This is because the office of the Assistant Mining Development Officer (AMDO) of the Kharsang has jurisdiction over both the operations of the Kharsang oilfield and the coal industries. The mining gate at the heart of Balinong is the central mining gate that regulates and deals with everyday affairs and commodity transactions in the Kharsanga area. It also plays a crucial role in regulating the informal coal industry by enforcing and monitoring the movement of commodities, such as illegal raw coal and cokes (processed coal), in the region. In short, the mining gate oversees the mobility of mineral and related commodity inflows from and outflows to various locations, including other districts of Arunachal Pradesh and neighbouring states such as Assam and beyond.

**Fig:2.3**

**Checking of coal trucks at the Namchick Forest Gate**

Upon entering the Kharsang area from the bordering Assam town of Jagun, through those three check gates in Balinong Chariali, the road leads straight to the Kharsang-Miao-Vijaynagar frontier highway, which has been recently notified as the NH-913. This road is still being constructed between Miao town and Vijaynagar. It is a 161 km long strategic road that connects Vijaynagar, the last Indian administrative unit under the Maio subdivision along the Indo-Myanmar border. Due to this dimension, the state has heavily invested, and the presence of the military has been very strong since the Patkai Hills region is an insurgency-affected zone. Notably, the Union Ministry of Roads, Transport & Highways (MoRTH) has allocated a considerable amount of Rs. 1,014.59 crores for this road project, the Vijaynagar Highway (Economic Times, 2024). It is now a part of the grand 1400 km Frontier Highway project in Arunachal Pradesh. The centre has allocated 42,000 cores in total for this mega project for the border development of the state in 2024 (Arunachal times, 2025). However, at the time of my fieldwork and until May 2024, and at the time of writing, the compensation for the loss of lands and other assets for the local communities concerning the Frontier Highway road project (Kharsang-Miao-Vijaynagar highway) remains unresolved.

At the heart of Balinong Chariali, this frontier highway is cut across by the NH-215, a chain of roads that is part of the ambitious 16,000 km Trans-Arunachal Highway project that connects the entire state of Arunachal Pradesh. To the northeast of Balinong Chariali, the Trans-Arunachal highway is connected to the historically strategic Stillwell Road at Jairampur, constructed by Allied soldiers between 1942 and 1945 under the leadership of General Joseph Stillwell. This historical road is now designated as the National Highway (NH) 153 on the Indian side. The Stillwell Road stretches from Ledo in Assam through the Patkai Hills region of Arunachal Pradesh and Myanmar and ends at the province of Yunnan in China. It is a part of the 1726 km-long transnational road, which evidently shows that a strategic road existed in this part of the Patkai Hills region even before India's independence, a legacy that the Indian state continues to exhibit in the northeast. The Stillwell Road now not only serves as a militarily significant mega infrastructure, but also as an international strategic economic corridor for the Indian state under the umbrella of the Act East Policy (AEP). And, to the northwest of Balinong Chariali, the road leads to Bordumsa town, which further connects to Namsai, the fast-developing town and educational hub in eastern Arunachal Pradesh.

Contextually speaking, the massive highways, fuel pumps, and big coke plant structures that are visibly appealing and aggressively expanding across the Patkai Hills region are all part of

the state's grand developmental narrative. Moreover, Arunachal Pradesh, being a border geostrategically located state, has received considerable funding for mega infrastructural projects, including highways, relatively compared to other states within the northeast. For instance, in the northeast mega road project, the Special Accelerated Road Development in Northeast East (SARDP), Arunachal Pradesh has the lion's share of about 2319 km under the Arunachal Pradesh package. This has significantly and visibly boosted road connectivity throughout the state, with the Trans-Arunachal Highways and Frontier Highway passing through the heart of Balinong Chariali being the prime examples. The government and media have touted the connectivity aspect of these highways as the road infrastructure revolution in Arunachal Pradesh (Pao, 2023). Here, the state has often presented these mega road interventions in the region as a developmental masterstroke to bring progress to the local communities of the northeast (Ziipao, 2020). However, the fact remains that these mega roads have mostly served as the political instrument of territorial control and facilitators of resource access and dispossession, which is well-documented in the context of the northeast, including Arunachal Pradesh (Arora & Ziipao, 2020; Baruah, 2020a; S. Gohain, 2025a; Rahman, 2014).

One can find that amidst such massive ongoing mega road interventions, the active operations of coke plants and informal coal mining-related activities have become daily affairs in the Kharsang area of the Patkai Hills region, which has made this place what it is. Simply by standing near the road signboards of different routes at the junction in Balinong Chariali, one can quickly establish how well connected this place is to various parts of the region. At that moment, I had no idea that this place (Balinong Chariali) within the Kharsang area would become one of the primary sites of interest for my fieldwork. I stopped at Balinong Chariali because I had to stay with someone I knew, who works with a government department and lives around Namchick gate, before finding my accommodation at Kharsang town. The Namchick gate was barely 200 metres away from the Balinong Chariali and a walkable distance for me. When I set foot on Balinong Chariali for the first time on 19$^{th}$ July 2022, it was dotted with coal mines and coke plants through the mega highways, and it made me realise that I was standing at the door to the Coal Town of Kharsang, the main centre of the extractive industrial hub of Arunachal Pradesh. I still remember, it was drizzling when I started taking a walk, dragging my black trolley towards the place where I would be staying for a while, observing polished mega highways and injured hills on my very first day of the fieldwork.

## 2.2 Through Highways and the Forgotten Rural Roads

The utility of infrastructures, such as roads, tunnels, and bridges, has been generally associated with the idea of development, including how it facilitates the operations of the extractive industries, such as oil and coal mining, as seen in the case of the Kharsang area of the Patkai Hills region. Road infrastructure, in particular, is attached to functionalities that promote communication and connectivity, economic activities, and social relations (Ziipao, 2020). Infrastructures, thus, are material forms that open a door for the possibility of physical networks through which goods, ideas, technologies, and services are traded and exchanged (Larkin, 2013b). For this reason, infrastructure is considered an essential component of progress and modern development (Mrázek, 2002). In the broader Indian context, the expansion of mega infrastructures such as highways, dams, and railways has been considered a marker of modernity and development since the early post-colonial era (Haines, 2022b). It is based on this very idea that the state has continued to portray the tangible accomplishments of mega-road infrastructural projects, such as the Trans-Arunachal and frontier highways, as a symbol of development in Arunachal Pradesh, as they also boost strategic connectivity, tourism, and industrial activities, including oil and coal operations.

Nevertheless, what is clear from my field engagements in the Patkai Hills region is that for the larger sections of the local communities, including the Tangsas, strategic connectivity and economic integration with mainstream regional markets through mega roads has not guaranteed economic upliftment, nor the development that they aspired to achieve. The region's uneven distribution of major roads and inadequate rural infrastructure networks remains one of the primary causes of this. As evidenced by my fieldwork, most villages in the districts of the Patkai Hills region lack access to proper rural roads, healthcare, education, and other basic amenities.

The Patkai Hills region is not entirely new to me, as I belong to the Wancho community from the Longding district, one of the major tribes of the Patkai Hills region. I have visited various places in the Changlang district before. However, this was my first time visiting the Kharsang area, and that too as a researcher. I came to Kharsang two months before I started my official fieldwork, as I wanted to settle in and find accommodation to ensure a smooth transition into my fieldwork from the aftermath of rigorous coursework and a hectic comprehensive exam.

Thus, my ethnographic fieldwork officially began in September, but the first two months were highly fruitful and crucial. In many ways, coming here in advance worked in my favour as I met many locals, made some friends, and explored nearby villages to familiarise myself with the area and people. This later enabled me to connect with a wider group of people in the Kharsang area, through which I developed a larger pool of respondents and gained access to valuable information, road construction sites, coal mining sites, and other crucial places when I began my fieldwork in the subsequent months. In fact, it was during this time that I met Mr. S. Longphi, who remained one of my main collaborators throughout my fieldwork period and whom I now call a friend.

Having grown up in Tirap, originally from Longding, and currently undertaking ethnographic fieldwork in the Changlang district, I strongly feel a deep personal connection to the place and people of the Patkai Hills region. The fieldwork has only reinforced these connections and associations. As I explored more places in this region, I realised that there is still more to learn about our place and people. I came to appreciate and recognise that numerous things and issues need to be discussed and brought to light. In the initial stage of my fieldwork, I also made a scooter trip across the Patkai Hills region and neighbouring eastern parts of Arunachal Pradesh. The road trips were born out of both necessity and an intentional plan for fieldwork. As I settled in Kharsang, I realised that the public transportation was very limited and hiring private vehicles was extremely costly, and I sometimes found it difficult to move around and explore nearby places. This again is attributed to the existing pathetic conditions of the rural link roads connecting the Tangsa villages to Kharsang and the main highways. Because of this, I searched for a second-hand bike or scooter to navigate my logistical needs and daily activities, such as travelling to nearby villages and other field visits. I subsequently borrowed a scooter from my aunt, who lives at Khonsa (the district headquarters of Tirap). This scooter not only catered to my everyday needs, but also helped me make multiple road trips, both solo and with friends, throughout my fieldwork, and gave me a visceral experience of the worst of rural village roads and the best of India's emerging frontier highways in the eastern Arunachal Pradesh.

From a logistical and tourist perspective, the mega highways in Arunachal Pradesh offer beautiful scenic views and make for a great holiday and motorsports adventure destination. I have also been impressed by the well-constructed highways in this part of the state during multiple road trips with different people, which is visibly attractive for tourists and adventurous activities. The government has been aggressively promoting these highways for activities such

as these, as part of the larger development initiatives in the region. In 2021, the state government, for instance, organised a Trans-Arunachal Drive, covering the massive 2,500 km of highways from east to western Arunachal Pradesh, to capitalise and popularise the development of these road infrastructures in the state. No doubt, the tourism sector and its allied industries have, to some extent, benefited from these road infrastructures and related initiatives, leading to an increase in the popularity of Arunachal Pradesh as a tourist destination. The famous tourist events, such as the Ziro Music Festival (ZMF) and Dambuk Orange Festival, have been attributed to improvements in the state's road infrastructure, particularly the Trans-Arunachal highways. An ever-increasing number of *dhabas* (roadside hotels), exotic restaurants, and eco-resorts alongside the highways across the region of Arunachal Pradesh have also been credited to the mega infrastructures, boosting employment and entrepreneurship initiatives among the youths in the state.

**Fig:2.4**

**Village Road of Longsa**

While all those are indeed positive aspects and by-products of the development of mega road infrastructures, it is crucial to note that the state and media have effectively and often presented

only the things that appear on the surface, not the whole realities of the larger sections of the population. There is no doubt that, to some extent, highways have brought strategic connectivity and indirect benefits, but it is also true that it is a one-sided story of road infrastructural intervention in Arunachal Pradesh. As smooth as the Trans-Arunachal highways appear, rural roads in rural Arunachal Pradesh are as rough as one can imagine. A majority of the rural road infrastructure networks connecting villages in the state are in deplorable condition. Thus, the so-called narratives of the road revolution, especially in eastern Arunachal Pradesh, may appear convincing for only those travelling through the Trans-Arunachal highways. While the Trans-Arunachal highways primarily focus on connecting chain district headquarters, the border/frontier highways are dedicated to addressing the strategic logistical and military needs. Here, the poor conditions of rural roads not only mean that mega roads (highways) become inaccessible to larger local communities, but they also push socioeconomically to the margins, as more than 70 per cent of the population in Arunachal Pradesh, including in the Patkai Hills region, live in villages or rural areas.

Consequently, local communities have barely benefited from the mega road infrastructural interventions in the region. At the same time, the state agencies and corporate actors have been able to materialise the mega highways as the tools of territorial governance, security tools and logistical projects of extractions. This is a serious, contentious issue laced with the questions of resource extraction and community assertions, which anchor the larger development politics in the northeast. This is particularly relevant to developmental issues in the Patkai Hills region of Arunachal Pradesh in relation to the interplay of road infrastructures and extractive industries, such as oil and coal operations. The interplay of these two sectors of infrastructures and extractive industries has significant implications for local communities and development trajectories at large. Within this framework of development, the physical infrastructures, such as roads and bridges, play a critical role in determining the functioning of industrial activities, such as coal mining. As such, the nature of existing road infrastructural networks has profound logistical and socioeconomic implications which shape the economy and operation of the informal coal operations and related extractive activities in the Patkai Hills region. This pattern is similarly seen in the case of Assam, Meghalaya, and Nagaland, where the roads are often built to provide access to resource-rich areas of oil and coal (Baruah, 2020a; Dutta, 2022; Kikon, 2019a; McDuie-Ra & Kikon, 2016c). However, the nature of extractive economies, infrastructural networks and socio-political dynamics of development politics per se in the Patkai Hills region remains qualitatively different from those of the other northeastern states.

## 2.3 The Political Economy of Mega-Projects

In the northeast, as observed in the context of the Patkai Hills region, scholars have long argued that mega-roads infrastructures, such as highways, have primarily focused on addressing national security, territorial control, and facilitating the logistical needs of the extractive industries (Arora & Ziipao, 2020; Baruah, 2020a; McDuie-RA, 2008; Rahman, 2014). On a macro level, this phenomenon underscores the region's prevalent volatile nature of geopolitical dimension and increasing economic interests of the state in exploiting the resources, which continue to play a significant role in shaping the nature of mega road infrastructural interventions. For instance, the Frontier Highways in Arunachal Pradesh and the India-Myanmar-Thailand Trilateral (IMT) Highway project have both been initiated in response to China's Road and Belt Initiative. Even India's Look East Policy (now Act East Policy) mainly focuses on neutralising China's economic domination and expanding economic interests in the immediate neighbouring Southeast Asian countries rather than addressing the requirements of the local communities (Haokip, 2015). Within this broader political economy of development, the mega projects in the northeast have come primarily in the form of infrastructural interventions (like the highways, bridges, and large dams) and extractive industries, such as oilfields and large-scale coal operations.

In the Indian context, the development project is commonly termed 'mega' when it is worth or involves over a hundred crores and has regional/national significance in terms of national security or revenue generation for the state. The government's investments in building rural roads, schools, and health centres, among others, are considered regular/minor development projects, often carried out by the local government. The value of the regular projects can vary from minor irrigation projects worth a few thousand to lakhs and crores worth of school building renovation and a multi-crore village road construction projects. Similar to the mega projects, the funding source for these regular developmental projects can be from the state or the central government. However, the difference between a regular and a mega project can be seen in terms of the scale of funding and objectives attached to them. For example, regular projects are usually intended to address the specific requirements of a particular village or group of villages within a block or district. What I found in the Kharsang area is that the deficit of minor rural infrastructures has remained a recurring contentious developmental debate in the region. The imbalanced minor physical infrastructures, particularly rural road networks,

here, are closely tied to the extractive practices within the Tangsa community, such as illegal timber logging and informal coal mining. This is because the absence of basic physical infrastructures prevented villagers from building market linkages and creating alternative enterprises.

**Fig: 2.5**

**Scorpio and a Military truck along the Namsai-Tezu NH-52**

The mega infrastructure is usually defined as the 'project of national importance'. It is often pushed to address the macro-level needs of a particular district, state, and nation in relation to economic promotions and geostrategic security concerns. The state of Arunachal Pradesh is the highest receiver of funding from the central government within the northeastern states for mega infrastructural development initiatives, particularly, the dams and highways. In fact, Arunachal Pradesh has signed the highest number of memoranda of understanding (MoUs) for hydropower projects in India so far (D. K. Mishra, 2019). With the approval of 1400 km long Frontier Highways worth 42,000 cores in 2004 by the centre, Arunachal Pradesh now also boasts of having the longest international border highways in the entire country. However,

these mega projects have also created various socio-economic issues and political resistance from the local communities on the ground. The ongoing protest by the Adi community against the Siang Upper Multi-Purpose Hydropower Project, over concerns about displacements, environmental impacts and downstream implications, is an example (The Arunachal Times, 2025b). This proposed mega project is set to become India's largest hydroelectric dam, with an 11,000 MW capacity.

Unlike the opposition against the large dams, the mega highways have received relatively widespread support from the local communities across Arunachal Pradesh. This dynamic arises from the fact that most local communities see the coming of highways as potential routes for their economic activities, although their village roads connecting with those highways remain in poor condition, as mentioned above. Apart from this, some villages and a few urban centres across the districts have directly benefited from the highways in terms of increased accessibility and expanded economic activities. These are, however, limited to a very small number of villages and urban centres through which the highways pass and are connected. Besides, the acceptance of the highways has also been attributed to the fact that destruction caused by the mega roads is often not concentrated in the same area, as in the case of large dams, which overexploit and appropriate the resources of specific communities of particular places. However, there have been issues of compensation delays, poorly executed quality of construction, and corruption, among others, when it comes to the construction of mega roads. The nature of these cases varies from district to district, and these have been handled locally.

The other mega-project sector in Arunachal Pradesh has come in the form of extractive industries, particularly oil and coal. These industries currently provide the highest direct domestic revenues to the state government. In contrast to the mega infrastructural interventions, the oil and coal industries are not evenly spread across all the districts of Arunachal Pradesh. It is specifically concentrated in the Kharsang area and neighbouring areas under the Changlang district of the Patkai Hills region as of 2025. Similar to the case of a large dam, the extractive industries, both oil and coal, have been politically charged issues in the Patkai Hills region, given the fact that local communities, like the Tangsas, continue to claim their ownership over mineral resources against a monopoly and complete control by the state-corporate nexus. The tensions between the local communities, private companies and government continue to emerge from time to time. For instance, Geo-Enpro Petroleum Ltd, a private oil company in Kharsang, abruptly terminated 19 local employees without prior notice, citing severe financial

constraints amidst the nationwide lockdown due to the COVID-19 pandemic in June 2020. They were reinstated after a prolonged protest by local civil society organisations (CSOs) such as All Changlang District Students' Union (ACDSU), All Tangsa Students' Union, Tangsa Youth Association (TYA), and Kharsang Circle Unemployed Youth Association (KCUYA).

It is under these circumstances that the mega projects are aggressively penetrating the region and its local communities, characterised by national security and state-corporate-led capitalist growth interests. The intersection of this phenomenon with assertive communities and micro-level dynamics produces locally-embedded intra-power dynamics and diverse experiences for the region's communities. The interplay of road interventions and extractive industries, in turn, is perpetuating uneven development. As mentioned above, this uneven or exclusionary nature of development is evident in the combination of complex militarised road infrastructures and capitalist extractive industries in the region, which often exclude the local communities, such that rural infrastructures remain in poor conditions. Here, by design and default, the mega-roads, specifically the highways, have contributed, in many ways, to the expansion of extractive industries, such as oil and coal, in the region. Therefore, these two development sectors of extractive industries and road infrastructure are closely tied, wherein they influence each other directly and indirectly on multiple fronts. For example, the mega roads facilitate the cost-effective transportation of commodities, expand the production of extractive industries and trade activities, and promote flows of capital. Similarly, the growing extractive industries necessitate conditions for the construction of more mega highways to address the sector's logistical requirements, a pattern as seen across the northeast, including in the Patkai Hills region.

## 2.4 The Centre-State Dynamics of Development

The generous and continuous massive funding to Arunachal Pradesh by the central government has been attributed to many factors, such as domestic politics and geostrategic considerations, including a direct and sensitive border with China and porous yet economically viable borders with Myanmar and Bhutan (Baruah, 2020). Consequently, it has made Arunachal Pradesh heavily rely on the centre for development funds and other critical resources, which ultimately compelled the political class of the state to compromise on various fronts and act as New Delhi desired. Bath (2014) has referred to this phenomenon as "Ruling Party Syndrome", in which

political parties in Arunachal Pradesh change government according to whoever rules the centre, as the state government is entirely dependent on funding from the union government. Here, it is vital to understand that the decision-making power ultimately lies with the centre concerning mega infrastructural projects, such as the highways and large dams in the state. Besides, the mineral resources such as oil and coal are also partly controlled by the central government. The local government mostly plays the role of mediator between the centre and the project-affected local communities by facilitating the land acquisition process, identifying the project sites and administering the compensation for the beneficiaries, among others. Thus, it is often the case that the people sitting in Delhi significantly influence policy formulation and development planning in Arunachal Pradesh, leaving little room for input from local communities.

This unequal power equation between the state government of Arunachal Pradesh and the centre has been relatively normalised in Arunachal Pradesh, even though implicit friction exists. A prime example of this friction is the persistence of the informal coal mining industry in the Kharsang area of the Patkai Hills region. The central government banned coal mining, and it is the responsibility of the state government to regulate and impose the ban on the ground. However, it remains operational due to the state government's complicity in the extractive process. As evidenced by my field engagements, the local administration doesn't enforce regulations to monitor or check the area's informal coal industry, as it is bringing direct and indirect revenues to the state government and the officials. This informal coal industry is atypical in Arunachal Pradesh; more commonly, both the state government and the centre remain aligned on most issues. For instance, while most of the local communities are opposing the construction of the Siang Upper Mult-Purpose Project (SUMP), a super-larger dam, the state government of Arunachal Pradesh is pushing aggressively to implement it on behalf of the centre, citing it as a "National Project" of strategic significance to counter China's threat (Tandon, 2025; The Hindu, 2025). The same development narratives and logic have also been applied to the region's mega road interventions. In this regard, one of the local youth leaders, Mr. L. Simai, whom I interviewed at Nampong town, affirms:

> "I am not saying that we don't want mega projects and other economic developmental activities in our place, brought to us by the government. Our people are getting indirect and direct benefits from initiatives such as the border highways and other projects. In fact, you're able to come here (Nampong) comfortably because of the good highway

that the government has maintained. But the real point of the matter is that these mega roads are primarily constructed and maintained for the military and the government itself".

Many of my respondents, in alignment with Mr. Simai, argue that the intention and primary purpose of a particular project and policy is something (ulterior motives) that makes them sceptical and suspicious of the state's agenda. This is particularly true when it comes to the mega development projects, such as dams, mineral industries, and highways. It is clearly seen that at the wider level, the perception of the local communities across the Patkai Hills region about development is not confined to the idea of its usage and logistical utilities. This is not meant to say that policies of the state, and for that matter, any developmental projects, are worthwhile or acceptable only if the local communities are the sole beneficiaries. All these expectations and suspicions of the local communities in the Patkai Hills region often stem from the recurring issues, such as displacement, ecological loss, and compensation delays, attached to the mega development projects. In this context, what I found during the fieldwork is that the state has miserably failed to engage with the local communities (beneficiaries) and relevant stakeholders on the ground. Here, the act of generating consensus on policy formulation and implementation, including identifying project sites, policy names, and other feasibility studies, is a highly important aspect that is absent on multiple fronts due to the lack of active community involvement. For instance, during the time of my fieldwork, the geological survey of coal was going on in Kharsang and other nearby areas, but none of the core team members were locals or from the affected Tangsa community. It was only the security team, who were all locals and involved in the survey exercise, but their roles were confined to guiding and taking care of the survey tools and machinery.

This phenomenon suggests the state-corporate model usually views mega-development initiatives, such as mineral industries (coal mining, etc.) and infrastructural projects, like highways, through the lens of generating economic benefits and the execution of the state's governance and territorial control over the people and their place. In this framework of development, the local government of Arunachal Pradesh, as mentioned earlier, often becomes an agent of the centre instead of safeguarding the rights of the local communities and is also highly corrupt, which is hindering the equitable socioeconomic welfare of the local communities, particularly in the three districts of the Patkai Hills region. The state government often facilitate the centre and corporate houses in the implementation of these mega projects,

while continuing to fail in its primary responsibility of strengthening the rural infrastructures and village economy. Given all these accounts, the interplay of existing road infrastructures and informal coal operations serves as an entry point to understand the political economy of development in the region, where road infrastructure operates as an extractive logistical project, while also being a symbol of progress pushed by the state and desired by the local communities.

### 2.4.1 Ground Reality: A Mining-Affected Tangsa Village

The case of Longsa village in the Kharsang area represents how the specific nature of infrastructural conditions can influence the local community to engage in a particular way of economic activities. This is not to claim that the poor conditions of the rural road infrastructures are the only reason for the persistence of informal coal mining in the Kharsang area. Multiple political and other factors are also driving the informal coal industry, which I will discuss in Chapter 3. However, the fact remains that this has considerably pushed the villagers to engage in mining-related activities, as poor rural infrastructures, to a great extent, have limited their capabilities to diversify their livelihood activities. The Longsa village is one of the primary sites where I did my fieldwork, and is just 3 km away from Kharsang town. It is a medium-sized village in the context of the Tangsa community and Arunachal Pradesh, as the density of the state population itself is 17 persons per square km. In a conventional sense, it is a small village with abundant natural resources, such as vast agricultural lands, forests, and mineral reserves of oil and coal. The village was bifurcated as a separate village from sa for administrative reasons and has 46 households (Census, 2011). The Kharsang oilfield and western block of the Namchick-Namphuk coalfield are primarily located in the land of the villagers from Longsa and Longsi. Both these villages are geographically situated between the oilfield and the designated Namchick-Namphuk coalfield (western block).

Even though this village is almost attached to Kharsang town, the infrastructural deficit here is massive. In the last three years, most of the rural infrastructures that have been undertaken at Longsa and neighbouring areas include the construction of a community sanitary complex, Anganwadi centres, RCC slab culverts, and school renovation works. The official record of this is also documented in the government's Geo Tagged Asset Report (2022-2025). On the other hand, the Kharsang-Longsa-GeoEnpro link road has not been repaired for years and is now in deplorable condition. At the time of my fieldwork, it didn’t look like a blacktopped

road anymore. The potholes are as deep as one could imagine, making it extremely risky for the two-wheelers and small vehicles to navigate. The only remaining materials that still made this road look like a road were the stone chips, which are also disappearing fast due to rainwater and heavy mining traffic. Further, the inner roads within the village and the old village road (Longsa-Namchick-Kharsang link road) connecting Longsa to highway NH-215 don't even have signs of stone chips anymore. It has become a fully *kaccha* (mud) road in recent years. However, one can easily get confused that this old road is a black-topping road, as frequent mining activities and coal transportation have covered this road with so much coal that it now appears as a black-topping road due to the black dust of the coal and coke.

**Fig:2.6**

**Storing Coal in the backyard at Longsa village**

In September 2022, the informal coal mining activities in the surrounding areas were already in operation when I was conducting fieldwork there. During the peak coal mining season, one can see open grounds and backyards of many houses filled with heavy trucks and excavators alongside the raw coal extracted from the nearby areas. The village remains dusty and highly polluted throughout the year because of excessive heavy vehicle movements and extreme

extractive activities. The underground water and air pollution remain recurring problems in this village and the surrounding areas (for more details on ecological impacts, see chapter 4, section 4.4 and chapter 5, section 5.5). On rainy days, the entire village area and vehicle roads become very muddy and dangerous to travel. On enquiring, Mr C. Longri, if the coal and vehicles outside their houses belonged to the villagers. He smiled and said,

> "Around 80 per cent of the coal belongs to the coal contractors. And, of course, the vehicles, too, are theirs. Besides, a few of the coal and vehicles also belong to the local contractors. We offer them space to store their coal and park their vehicles. In return, we get some amount".

As mentioned by Mr. Longri, there are passive incomes, such as minor manual work, renting space for storing coal and parking vehicles, among other things, that the villagers of Longsa and the Kharsang area at large earn from the informal coal industry. However, this is a very marginal income for villagers because most coal contractors usually have their own spaces to store their coal and park their vehicles. This is the reality of most of the mining-affected villages, which often serve as a base camp for the coal contractors and migrant workers who work in the coal mines and coke plants.

**Table. 2.1 Household Survey of Longsa Village**

| Indicator | Percentage | No. of Households |
|---|---|---|
| **Households primarily dependent on agriculture** | 75 % | 23 |
| **Households primarily dependent on non-Agriculture** | 25% | 7 |
| **Households that engaged in coal mining and related work** | 100 % | 30 |
| **Households that still actively engaged in coal mining and related activities** | 50 % | 15 |
| **Total household surveyed: 30 Households** | | |

During the household survey at Longsa, I found that almost every household, at one point, has engaged in coal mining-related businesses, either by leasing land, selling land, or extracting coal themselves. The survey also shows that over 50 per cent of the villagers from Longsa still engage directly and indirectly in the informal coal industry. However, the outcome of this very household further shows that the primary livelihood source for over 75 per cent of villagers of Longsa remains agriculture, although many earn side incomes from the informal coal industry. Thus, this case of Longsa clearly indicates that villagers do not benefit much from the blooming informal coal industry despite being situated at the heart of the mining site and sacrificing their resources. Neither have they received good rural infrastructural development as they were promised, underscoring how poor conditions of village roads and unequal informal coal industry reflect the larger political economy of development in the Patkai Hills region, entangled with exploitative resource extractions (coal mining) and uneven infrastructural (road) interventions.

## 2.5 Interplay of Road and Coal

The nature of road infrastructural interventions and extractive industry, particularly the informal coal operations, undoubtedly underscores the Patkai Hills region's different facets of development politics. These critical sectors have been the source of political tensions and socioeconomic exploitation, yet they are also closely attached to the development aspirations of the local communities. Within this context, the road represents the formal state-led development initiatives, and the growing informal coal industry depicts the so-called community-led enterprising activities. It is crucial to note here that the state-led coal industry in the Patkai Hills region was turned into an informal coal industry when the mega-road infrastructures in the entire northeast are taking off aggressively. In fact, the informal coal industry in the Patkai Hills region and the Trans-Arunachal Highways across the state have seen a parallel expansion over the last two decades, as a result of the policy outcomes and development practices on the ground. Evidently, the informal coal industry in the Patkai Hills emerged as a prominent enterprise at a time when the rural road network remains in poor condition and mega-road infrastructure intervention in Arunachal Pradesh is reaching its peak. The Tangsa community here shares complex relationships with the existing state of infrastructural interventions and the growing extractive industries, including informal coal operations in their place.

A community elder, Mr. N. Longphi from one of the villages near Kharsang, drew an interesting analogy about the state of infrastructure and extractive industries in their area. He explained that:

"Highways are primarily used by those who can afford fancy cars for private use and trucks to do business. So, essentially, it is meant for hi-fi people and big private companies. We were told that these highways were constructed for us, but we are not capable of taking advantage of them. As of now, I can only boast that we have highways in our place". He further adds:

> "Likewise, I can only take pride in the fact that our area has an oil industry that generates crores of revenues for the government. However, despite promises made by the government when oil operations began, our community has not seen any substantial benefits from this industry apart from a few casual labourers' jobs. But we have already and still sacrificing our land and resources for both oil and highways".

Another respondent, Mr. L. Tikhak, whom I interviewed at Kharsang town, similarly agrees and asserts:

> "Highways and oil belong to the wealthy members of our community and the powerful actors. As for the informal coal industry, it is accessible to us, just as the rural roads are. However, the problem lies in the fact that both rural roads and coal operations are inadequately maintained and disorganised. Here, too, much like how only the big vehicle can navigate through the pathetic village roads, only the rich and influential individuals can mostly run and get into the informal coal business".

These narratives define road as infrastructure, per se, as a diverse category that facilitates the growth of extractive industries, including the informal coal operations in the Patkai Hills region. As per the official document, between 2014 and 2022, the state government constructed around 137 rural roads under the Pradhan Mantri Gram Sadak Yojana (PMGSY) scheme across 252 border villages in Arunachal Pradesh, covering 2506.06 km. On the ground, however, most of these roads have hardly benefitted the larger local/border communities of Arunachal Pradesh, as the quality of these roads in most cases has been compromised. Furthermore, the maintenance of these rural roads is rarely undertaken. This is true in the Kharsang area, the

epicentre of the informal coal industry in the Patkai Hills region. A majority of villages among the thirty villages that fall under the Kharsang subdivision do not have well-maintained roads, as was evident during my fieldwork there. The local roads connecting interior villages, agricultural fields, and other rural areas are in pathetic conditions, not only in the Kharsang area but across all three districts of the Patkai Hills region. Here, the government usually blames the contractors for corrupt practices and poor-quality work. Contractors, on the other hand, blame the government for the delay in the timely release of funds, the long gestation period for road maintenance funding, and heavy illegal taxes/commissions imposed by multiple insurgent armed groups actively operating in the region. Mr. H. Longri, a local contractor, sums up this situation:

> "The contract work in the TLC region is a compromise work. The poor conditions of the most rural roads speak for themselves. We have to pay unmandated money to armed groups as well as to government officials at multiple levels, in addition to GST and other official expenses. On top of that, the cost of making a particular project is extremely high here, as we import all the raw materials and labourers come from Assam and other places. Frankly, state government officials make more money from developmental projects than many of the contractors. The entire government system here is very corrupt. The officials often blame contractors or insurgent groups for escaping accountability. If the government and political class want to stop insurgent groups' involvement in developmental activities, they can. But they won't because they most benefit from it".

At Kharsang, the presence of heavy vehicles, such as excavators, JCBs, and trucks, during the peak mining season has further exacerbated the existing poor road conditions in the interior mining areas. This, in turn, has directly impacted the community people in nearby Tangsa villages in terms of everyday logistical inconveniences and inaccessibility problems. For instance, the road linking the mining-affected villages of Longsa and Longsi was in very bad and even small vehicles could hardly ply on it. This road is now used by the contractors involved in mining-related businesses, as the Longsa and Longsi are among the hotspots of the informal coal industry in the area. It was surprising to me, given the fact that this same link road also connects the Kharsang Oilfield, operated by the private company (GeoEnpro), to the highway. The villagers of these villages told me during an interaction that the only good thing about the coming of the oil company is the construction of the steel bridge over the Namchik

River between Kharsang town and Longsa, which has considerably reduced the distance from their village to Kharsang town.

The government has already abandoned the old link route, Longsa-Namchick-Kharsang road, which villagers used earlier, and now fully utilises it for coal mining-related activities by the villagers and contractors. Even the steel bridge, which is a part of the new link road that villagers mentioned, is in deteriorating condition, as no maintenance work has been done for a long time. On the other hand, just 5 KM away from those villages, the highway crosses through the heart of Kharsang town, is in excellent shape, and is connected to important towns and other highways in the region. The network of these highways, in general, remains highly functional in this region, facilitating the mobility of commodities, including timber, oil and coal, from the Kharsang area to various parts of the country. Contrarily, the existing poor network of rural roads across the villages in the area is getting worse with every passing day due to the lack of initiatives by stakeholders like the oil company and state to improve or by local elites to advocate for it. This case signifies a layered paradox of the political economy of infrastructural development, wherein the poor road infrastructures in the interior areas in and around the Kharsang have facilitated the blooming of the informal coal industry, while the mega roads take care of the logistical aspects.

Within this broader context of development, the deficit of road infrastructure in the area has served as a de facto platform for operators of the informal coal industry, as this helps them avoid strict regulations by the state administration. Here, the poor road conditions prevent regular patrolling and access for the officials and media to reach the mining sites deep in the hills and forests. It also consequently facilitates them in minimising public scrutiny and outside attention with regard to extractive-related activities in the area. Simultaneously, the presence of highly functional highways in proximity to the coal mining sites further concretised the movements and transportation of coal-related logistic materials and commodities. More importantly, the poor rural infrastructural networks also mean fewer opportunities for the villagers to engage in economically viable alternative businesses and trades, which compelled and entrapped them to be involved in the informal coal operations. Within this frame, it is intriguing to see that no resistance against the mega road projects has been seen in the Patkai Hills, and the growing demand for proper rural roads and other essential services remains an important aspiration of the Tangsas and other local communities in the region. However, the interplay of this phenomenon with an ongoing informal coal operation continues to create the

contestations over control of resources, political rights and the idea of development per se among different actors, such as the communities, state, and non-state actors, like the armed groups.

**Fig:2.7**


**Coal seized by the Changlang administration along the Changlang-Margherita Road)**

## 2.6 What the Road Tells Us

The intersections of uneven infrastructural intervention and resource extraction clearly have a considerable impact on the region's political mobilisations, ecological systems and socioeconomic conditions, as well as the development landscapes of the Patkai Hills region and its communities. The infrastructure, including the road itself, is embedded in the web of power relations and processes of developmental activities (Larkin, 2013b; Uribe, 2017). During my engagement with the Tangsa community, it emerged that a majority of villagers primarily use these highways to travel to Itanagar and Assam for official work, medical emergencies, and other essential personal matters. Most ordinary villagers cannot utilise the highways to their fullest potential since the village-linked roads connecting the highways are not in proper condition. Due to these reasons, a larger population of the Tangsa community have been

marginalised and excluded from availing benefits from road infrastructure such as highways and other well-maintained motorable roads, which are urban-oriented and mainly concentrated in strategic locations as part of the current militarised infrastructural development regime in Arunachal Pradesh and the northeast. It is because of that the development approach adopted by the state has miserably failed to make a positive impact on the ground. This is apparent again, not only in the Kharsang area but across the Patkai Hills region, underscoring the inherent feature of the larger inequitable road infrastructural interventions intersecting with informal coal operations in the region.

In Nampong, an India-Myanmar border town just 41 km away from Kharsang, I encountered widespread discontent among the locals concerning the existing state of rural road infrastructures that connect their villages to towns and highways. The disappointed villagers expressed that proper motorable rural roads are required to undertake various livelihood activities and generate meaningful income. However, the current situation is making many villagers engage in illegal timber businesses and informal coal mining. This new unsustainable development in the Nampong area is visible in the aggressive spreading of an informal coal operation in the surrounding area, which earlier was primarily concentrated in the Kharsang area. The government often labelled these extractive ventures of the Tangsa villagers as illegal activities. However, declaring coal mining illegal is one thing, but overseeing it through a proper state regulatory mechanism on the ground is another, and it is the latter which decides the actual outcomes and activities. For mining to be insignificant, the will of the state remains necessary, especially with regard to initiatives to upgrade the deteriorating existing rural roads, creation of other economic opportunities, and to support sustainable livelihood activities of the local communities. An educated youth, Mr. T. Sena, who runs a small business at the Nampong town, contends:

> "The historic Stilwell road that connects Nampong with the rest of the region now sees fewer tourist motorbikes and vehicles, but the number of army vehicles and commodity trucks carrying timbers and coal has significantly increased in recent years".

The roads, in many ways, tell the stories of local communities, resource extraction, and development, among other things. The Stillwell road pointed out by Mr Sena, for instance, provides insights about the region's history and strategic significance, as well as the current socioeconomic activities surrounding the area, such as tourism-related activities and a shift to

informal coal mining and related extractive practices. Likewise, the inadequate existing rural roads across the Patkai Hills region underline the corrupt practices in the governance system, underdevelopment, and poor socioeconomic status indicators among the local communities, like the Tangsas. Furthermore, the existing networks of mega roads reveal the region's contradictory realities of extractive activities: a massive mining field alongside the highways, showcasing the intensity of the informal coal operations, and a tremendous amount of coal in multiple spots seized by the local administration on roadsides (See Fig.2.7). It is an ironic phenomenon that coal mining fields operate openly, yet the coals are also seized by the state agencies, underscoring the question of management of the selective regulation and deregulation in the region. Regulation refers to the bureaucratic procedures, official rules, licensing, and enforcement guidelines through which the state governs a particular economic activity, while deregulation is the relaxation of state control over economic activities. Selective regulation is the targeted enforcement of bureaucratic rules to permit certain activities to operate.

One of the villagers, Mr. S. Lungphi in Kharsang, who occasionally works in the coal mines, told me that seized coals were just meant to whitewash the mining activities. In his words:

"*Yeh sab dekhawa hai. Government ko kuch problem nahi hai* (All these activities are artificial inspections, government doesn't actually have a problem with the informal coal industry)". The government is also involved in the informal coal mining; otherwise, it would not be possible to operate such a big mining industry which is visible to the naked eye and where hills are dotted with coal mines and coke plants".

These are both intentional and unintentional consequences of the existing road infrastructure in the Patkai Hills region, which continue to inform the socioeconomic activities of local communities, including the Tangsas. Mrs L. Longri, from Longsa village, complained and explained about the infrastructural problems in their area that have an impact on the daily struggles of the villagers. She states:

> "We travel on foot from our village to Kharsang town every Tuesday and Saturday to sell our vegetables and other produce at the hat ( bi-weekly market). Whenever my friends and I hire an Auto or Tata Mobile, our profit margin gets reduced, as vehicle charges are as high as Rs. 300-500 just for 3-5 km. So, we women folk in our village usually avoid hiring vehicles and prefer to go on foot, although it is tiring… I don't

blame the drivers. It is a horrible road condition that is creating high fare prices and all sorts of mobility problems for the villagers on a personal day-to-day basis".

The village of Longsa, from where Mrs. Longri belong, is among the most adversely affected by both oil drilling and coal mining around the Kharsang area, as mentioned above. This phenomenon also shows that women are heavily affected by the intersection of poor rural infrastructure and informal coal mining, beyond the logistical issues and destruction of land and other resources. At one level, they lose access to agricultural fields, forest products, and other subsistence activities, and on the other hand, the men often control mining and coal-related activities, while women have to travel to distant places to sell vegetables, collect firewood, and do other work. This extends to negative socioecological impacts. Here, when land is used for coal mining and related activities, water becomes polluted, forests become harder to access for collecting firewood and vegetables, making gendered subsistence work time-consuming and labour-intensive, and increasing health risks. And the pathetic village roads further trap them in these extractive cycles, which are very difficult to break through.

Within this extractive economy, the informal coal operation is widely gendered in its very foundational structure, given that ownership is traditionally passed through male lineage, and even when women are entitled to land ownership, they own it in relation to men (husband or son). A woman, particularly without a husband and a son, is often not allowed to lease or sell land for mining independently. As per customary law, they are mediated by men, relatives, and elders of a particular clan. This phenomenon highlights gendered relations within the extractive informal coal economy experienced by women through the process of land relationships, decision-making power structures, and a deeply patriarchal clan system. In that way, for Tangsa women, it is not only the direct loss of agricultural land and livelihood disruptions, but they are also experiencing extractive dispossessions through relative exclusion, control over land ownership, and limited authority over land utilisation.

Coming back to the condition of the road that Mrs Longri mentioned, it is the Kharsang-Longsa-GeoEnpro link road, which is a principal lifeline and primary source of connectivity not only for Longsa but also for the surrounding villages, namely Longsa, Dosi Village, and Insa Village. The main highway is just 3-5 km away from the oil drilling and most of the coal mining sites, which makes the logistics of these industries smooth, since the heavy vehicles, such as the oil tankers, big trucks and JCBs used for oil transportation and coal mining-related

work, can navigate this challenging road. However, villagers cannot afford to hire such vehicles for either coal mining or other daily purposes from their villages to Kharsang town and the connected sites of the highways. Due to these reasons, for the poor villagers, undertaking any business is difficult because of the exorbitant transportation charges and other logistic costs incurred due to the bad road conditions in the village areas. Additionally, the potential of horticulture and agricultural produce and other natural resources also remained untapped across the villages in the region due to the lack of basic, proper rural road infrastructure.

In this manner, the poorly constructed links or rural roads across villages, such as the Longsa village in the Kharsang area and other parts of the Patkai Hills region, have limited the community's access to markets and other economic opportunities. This situation further limits the community's access to healthcare facilities, education, and other essential services in nearby towns like Kharsang, Miao, and Jagun, among other places. Compounding all these complex situations put the Tangsa villagers around the Kharsang area into precarious conditions. In particular, the poor road facilities have isolated them from exploring different economic opportunities, compelling many locals to turn to immediate sources of income in their own place. At this juncture, informal coal mining provides them with immediate livelihood opportunities at their door. Resultantly, these circumstances accelerated the participation of locals in the informal coal industry in the Kharsang area. This is how poor road infrastructures contribute to the expansion of the informal coal industry, even more complicating the vulnerability and exploitation of the local populations. This is how entanglements of roads and coal have played out as an extractive development that has had a considerable impact and implications on the Tangsa living around the Kharsang area of the Patkai Hills region.

Structurally, thus, rural poor road infrastructure reproduces spatial marginality, accelerating the exclusion of the place and its people in the Kharsang area, which is again reflected in the high poverty rate among villagers, limited economic opportunities, and the lack of basic facilities, such as health care. Here, economically, the poor roads undermine alternatives, as agricultural produce and subsistence output are mostly perishable and costly to transport to market. This not only makes informal coal mining more profitable than the widely practised Jhum cultivation among the villagers, but also pushes them to lease and sell their land for mining and related extractive activities. In this way, the rural infrastructural deficit entraps the larger Tangsa community within an exploitative economic system by narrowing the available

livelihood choices. Within the context of the already constrained local subsistence-based economy, informal coal mining and related activities not only become an accessible option for survival but also the easiest way for villagers to access the cash economy to meet their day-to-day requirements.

**Fig:2.8**

**Trucks carrying coal through the old link road of Longsa village, Kharsang)**

**Note: The black colour covering the road is coal, not the black-topping of the road.**

Ultimately, those structural exclusions have facilitated the psychological acceptance and social legitimacy of informal mining among poor villagers as a credible route to income, social mobility, and an inevitable livelihood strategy. Further, in the case of the Patkai Hills region, road infrastructure plays a contradictory role. Here, the poor rural roads have clearly deprived local communities, as discussed above, but it is also true that the region's emerging selective highways and uneven road construction have facilitated extractive industries, including informal coal operations. In that sense, some mega roads have supported the expansion of extractive projects rather than promoting development. Besides, some rural roads are often constructed or improved just enough to move coal and logistical needs of the extractive industries. This aspect is significant for understanding the main argument about the interplay between roads and coal in the Pakai Hills region, as it underlines that rural infrastructure in the area is not merely poor or deficient but is often extractively configured and exploitatively structured.

# Chapter 3
# The Politics of Development: Extractive Relations and the Political Economy of the Coal Industry

## 3.1. Fragmented Development

Just ahead of the Kharsang oilfield, near the Longsa village, there are a few mini grocery stores along the Geoenpro road, which stock essential daily-use items and petrol and diesel to cater to the villagers and miners. I have on multiple occasions filled the petrol for my scooter from these shops. Fuel prices here are costlier than the usual market price, yet people buy, as obtaining it at Balining Chariali and Kharsang petrol pumps during the peak coal mining season is often difficult, due to increased demand from big coal contractors during this time. There is also a tiny tea hotel opposite those grocery shops; I survived on tea and snacks from this small hotel when I frequented the nearby villages, coal mines, and coke plants for fieldwork. Whenever I came to eat something there, I would meet a diverse range of customers, including mining workers, contractors, drivers, and villagers. Longsa is one of the most vibrant villages in the Kharsang area during the coal mining season due to the presence of those diverse people. This is where Mr T. Longphi, a coal contractor from a neighbouring village, and I discussed the informal coal industry with him at length and where he emphasised: "Everything here in the Khasang area largely depends on coal. This industry is vital for us to progress economically". Pointing at the boiling teapot over the red-heated coal, he laughed widely and said:

> "Even the tea and *Namkeen* (salty snack) that we are having at the very moment are prepared from coal. Forget about this tea; you see RCC houses and commercial buildings in Kharsang, as well as some of the *pucca* (concrete) houses in this village. They are all mostly constructed from coal money, and this industry is bringing development to our place and our people".

Responding to Mr. Longphi and underlining the development status in the Kharsang area amidst the flourishing coal mining, Mr. N. Longri, one of the villagers sitting alongside us for chai sarcastically intervenes: "*Baiti* (brother in Assamese), Longphi sir, is correct, but it would have been much better if we also see some *pucca* roads in our village as well, just like the RCC

houses". We paused for a few seconds, and Mr Longphi instantly agreed that this road issue required urgent attention while the show (coal mining) must go on. As pointed out by Mr. Longri and Mr. Longphi, the issue of poor rural roads and informal coal mining is frequently linked to broader development politics in the Patkai Hills region, as detailed in Chapter 2. Throughout my fieldwork, I routinely encountered such awkward situations and heated arguments among the villagers, underscoring the diverse narratives and perspectives within the Tangsa community regarding the informal coal industry and the complexities of the region's development trajectories.

**Fig:3.1**

**Under construction Shops in front of a Coke plant at Balinong Chariali, Kharsang**

While some community members, such as Mr. T. Longphi, in the mining-affected villages, view the informal coal industry as an instrument of economic progress, many ordinary villagers affected by mining have admitted to me that they dislike associating the informal coal industry with development, given the adverse socioeconomic and ecological impacts they are experiencing. However, coal operations are so deeply embedded in everyday transactions and the political landscape that it is impossible to ignore the informal coal industry while discussing

developmental activities in the Patkai Hills region. In this regard, Mr. C. Tikhak, a community leader, contends:

> "Look, in places like the Kharsang, you can't talk about development without addressing the issues about the coal mining in the area. Our economic activities are heavily tied to it, and our community politics now revolve around it. The coal reserves in our place could not only provide considerable revenues to the state government but also significantly improve the socioeconomic conditions of our Tangsa community if shared equitably. But the way the existing informal coal operations are functioning is very concerning and not sustainable for our community".

On the ground, many locals echoed Mr. Tikhak's opinion across the mining-affected Tangsa villages. The larger sections of the Tangsa community have not benefited from the coal industry, whether it was when the industry was formally under government control or now, when it is operating informally. This phenomenon has reproduced development debates concerning the region's informal coal industry, which has changed over time, and determines who controls the resources, in what ways, and how it benefits stakeholders in different ways. During the state-led formal operation, the coal industry was centralised and primarily controlled by the state government and an operating private company (Tinsukia-based National Mining Company). The logic of the state government of Arunachal Pradesh was that local communities would be given employment, contracts, and social and physical infrastructure development in exchange for their resources in return for mining. The government portrays the affected Tangsa villages' sacrifice of their resources for the coal industry as heroic, thereby contributing to the economic growth of the Patkai Hills region and the greater good of the entire state of Arunachal Pradesh.

When the informal coal industry emerged in the early 2010s, the state's centralised power and exclusive mining rights were challenged, while the official ban order came into effect only in 2012. The local elites and their external collaborators convinced the villagers that engaging in it would make them rich, and they could use their resources themselves without giving them away to the government. While ownership of mineral resources was perceived as moving back to the local community from state control under the informal industry, it did not translate into an equitable share of benefits among the community, as local elites and their external collaborators (traders and contractors) usually held the upper hand. However, what is common

in both formal and informal settings of the coal operation is that the fight to control resources, namely land and coal, remains constant among multiple actors, including communities, local elites, state and non-state actors, as well as external private players and armed groups. Mr. H. Mossang, a villager, argues:

> "The forests and mineral resources belong to us, because they are there on and in our lands. But it is very unfortunate to see that everyone, like the government, private companies and armed groups, are claiming ownership through different means. And it is even more sad to see that our community leaders are facilitating them".

Clearly, the operation of the informal coal industry in the Patkai Hills region is neither even nor neutral in terms of who controls resources, who benefits from the coal enterprise, and whose voices are counted in the power dynamics of running the larger extractive economy. Here, the operations of the informal coal industry in the Patkai Hills region exemplify the fragmented nature of development politics. For the immediate mining-affected Tangsa villagers, the informal coal industry is tied to their cultural rights over resources and daily livelihood activities. The local elites and private players view it as an investment opportunity to make profits, and the armed groups use this industry as a source of fund mobilisation. On the other hand, the state's position in this regard remains complicated, as it continues to label informal coal mining as an illegal activity, even as the complicity of the local administration is evident. In fact, it's due to the nexus between the administration and other extractive actors that has further created room for non-state influential actors, particularly local elites, to gain more power and control over the informal coal operations. This, in turn, reinforces exploitative power dynamics by providing unreasonably few economic benefits to the villagers, as the local elites act as intermediaries between the Tangsa villagers (such as landowners and small-scale miners) and non-local private contractors operating in regional coal markets to advance their profit-oriented interests.

## 3.2. Locating the Local Elites

As discussed earlier, while the formal coal industry pertained to the state's monopoly, the emergence of the informal coal industry in the Patkai Hills region has been about dominance by the local elites and their external collaborators. Despite the involvement of the larger Tangsa

community in the extractive process, local elites remain the leading actors in facilitating the sustenance of the informal coal industry due to their economic resources, political power, and high social positions within the community. Although they comprise a tiny section of the Tangsa community (less than 10 per cent), they wield disproportionate political power and influence over resource governance, politics, and socioeconomic affairs. This is evident in the current socioeconomic landscape and poor social development status across communities, such as the Wancho, Nocte, and Tangsa of the Patkai Hills region, where a majority of the population lives in poverty (Sharma & Chakraborty, 2016b). Historically, the local elites (community elites) derived their privileges from dominant clan affiliations, the male-led chieftain system, wealth accumulation, and community-ascribed status. However, due to the strong community bonding among villagers based on a subsistence economy, there were minimal socioeconomic inequalities between the elites and other community members as compared to contemporary times. These elites primarily exerted power over socio-political institutions and made decisions concerning land conflicts, agricultural activities, festivals, and other community affairs to maintain social order.

The nature of the local elites within the community (Tangsa and other local communities) has undergone a drastic qualitative change over the years with the advent of modern nation-state governance systems and capital markets. This trend of shifting from a subsistence economy to a capitalist economy is impacting community bonding, which has been observed across communities in the state and the northeast (Harriss-White et al., 2022). The rise of these modern-day local elites in Arunachal Pradesh can be traced back to the late 1950s and 1960s, when state-making in the northeast was at its peak. It began by absorbing community leaders, including *Goan Buras* (GBs) or government representatives, and literate members, who were appointed as government servants, at a time when Arunachal Pradesh was still an administrative unit of Assam, known as the North-Eastern Frontier Agency (NEFA) (Guyot-Réchard, 2013). By the early 1970s, more people had joined government services, and some had also ventured into the business sector. Further, many youths joined the police and armed forces, and some even became contractors, undertaking government projects to build roads, bridges, government office buildings, and staff quarters, among other projects. This led to the creation of a considerable number of wealthy elites, with many locals joining the Agency Council and Pradesh Council during the union territory era. Following the grant of full-fledged statehood to Arunachal Pradesh in 1987, various state government departments were

established, new schemes were introduced, and the number of Legislative Assembly seats increased from 30 to 60.

This development further opened the doors for educated individuals and influential family members to join state services in various departments and for local elites to enter electoral politics in different capacities. Again, it is crucial to note that most educated individuals within the community largely come from the elite families, as they can afford to educate their children in good institutions. Further, around this time, in the late 1970s and 1980s, the timber industry also created a new class of local elites in Arunachal Pradesh (Lainé, 2012b). At that point, the timber industry contributed more than 70 per cent of revenue to the state government of Arunachal Pradesh. The then-undivided Tirap district (Patkai Hills region) and Lohit district were the state's main centres of the timber industry due to the availability of rich natural resources and thick forests. However, the Supreme Court imposed a total ban on the timber industry in 1996, which particularly caused economic shockwaves for the local communities of the Patkai Hills region (Staff, 2012). In the immediate post-timber era, the government initiated numerous subsidy schemes to promote settled agriculture and horticulture, such as small tea gardens for the local population in this region. However, corruption prevented the benefits from reaching the intended beneficiaries. Only a few community individuals with wealth/capital accumulated during the timber era, those with political connections, and families with government employees could take advantage of these subsidies. As a result, the larger sections of the local population were forced to return to subsistence-based agriculture, specifically the Jhum/shifting cultivations, for their primary source of livelihood.

In the late 1990s and early 2000s, coal reserves were discovered in the Patkai Hills region, which spans the three present-day districts of Tirap, Changlang, and Longding. Initially, the local communities, particularly the Tangsas around the Kharsang area, hesitated giving away their land for coal mining due to their adverse experience with extractive industries, such as timber and oil, which had not benefited them. On the other hand, local communities were yet to recover from the socioeconomic shock of the sudden closure of the timber industry. They had difficulty transitioning back to now less productive shifting cultivation, as a consequence of extensive deforestation during the timber era. For this reason, local communities reconsidered their stance on coal mining, as they had been promised employment, economic opportunities, and development in the area by the state and local elites, who were lobbying for it. Again, this promised development was short-lived for the local communities, such as the

Tangsas, as the state-led formal coal industry lasted only a few years, from 2007 to 2012. The central government banned coal mining in the Kharsang area due to corruption within government institutions, involvement of insurgent groups and the expansion of informal/illegal coal mining activities outside designated coalfields (The Economic Times, 2015). Unlike in the case of the timber industry, however, the ban on coal remains ineffective to date due to various factors, detailed and discussed in the subsequent sections.

Through my field engagements among the Tangsas in the Patkai Hills region, I found that the elite formation in contemporary times is attributed to multiple factors, as discussed above, and their roles in the context of the informal coal industry are rooted in a changing institutional-legal framework and continuing customary regimes. Here, the legal aspects, as well as traditional institutions, remain vulnerable to exploitation by those in power, the local elites in the case of the informal coal operations in the Patkai Hills region. This phenomenon is also observed in the case of the informal coal industries in Meghalaya and Nagaland, where the constitutional provisions, as outlined in the Sixth Schedule under Article 371A, is often exploited by local elites by invoking customary rights, and brokering extractive practices with monetary benefits for themselves, rather than for the larger community (Stokke, 2017; The Land Watch, 2025). This is not to say that the continuation of customary laws is inherently harmful, or that the more interference by state law is beneficial to the larger mining-affected communities. The central point here is that the existing legal-institutional framework is insufficient to safeguard the equitable rights of marginalised local communities, such as the Tangsas. It is therefore imperative that reimagining and reinventing customary land regimes and formal institutions take place collaboratively to ensure protection from exploitation by both external forces, such as the state and private players, as well as the internal forces, including local politicians, contractors, and the wealthier local elites.

## 3.3. Community and the Changing Power Dynamics

In the context of the coal politics in the Patkai Hills region, understanding the roles of the local elite class within the community is crucial; it was through their support that the state government was able to operate a formal coal industry. Now, the informal coal industry also continues its operations due to the involvement of the same local elites. This highlights the concentration of political and economic power in the hands of a few local leaders within the

Tangsa community and their reach within the government systems. Furthermore, influential student organisations, such as the All Arunachal Pradesh Students' Union (AAPSU), the All Changlang District Students' Union (ACDSU), and the All Tangsa Students' Union (ATSU), have remained silent regarding the informal coal industry. This is unusual, given their historical records of enthusiasm for advocating and fighting for the local communities concerning socioeconomic injustices, environmental issues, and political matters (Prasad, 2007). Due to these reasons, the local elites and political class have so far been able to push a narrative that the informal coal industry in the Kharsang area is an enterprise designed to uplift the local communities. However, the ground realities suggest that the exploitation of the circumstances of the larger community by local elites is clear, with the complicity of civil society organisations (CSOs) being undeniable.

On multiple occasions, I interacted with leaders of local CSOs and influential student organisations in the Changlang district on issues related to the region's informal coal mining industry. A high-profile student leader (Mr. S. Tikhak), whom I interviewed in Miao town, explicitly contends, "The local elites and political leaders are engaging in this coal business themselves, so it is difficult for the aware and educated youths to organise a forum or protest to check on the exploitation and long-term implications of informal coal mining on the community". At the same time, he also admits that, as an organisation, they also get some funding from the informal coal industry, which is potentially limiting their ability to take a different stand than the elites. This is evident in their positions on a host of issues related to the ongoing local elites-led informal coal industry in the region, which has been controversial and complicated. The union leader further claims that many Tangsa villagers are widely complicit in coal mining, making it difficult for student unions to take any particular stand or protest against it. In fact, this was the typical response of student leaders and members of the local CSOs during my field engagements with them across the region.

On the contrary, a graduate youth (Mr. S. Lungphi) whom I interviewed in Kharsang town asserts that, as a pressure group, student unions and local CSOs in the region have failed to address illegal coal mining in the area. He affirms:

> "The student unions and civil society organisations are about questioning the powerful actors and have a long-term welfare vision for the community welfare. But I don't know whether our unions and CSOs are afraid of powerful actors or are becoming a part of

> those power structures themselves that are exploiting and killing the future of our community. Or maybe both".

The frustration expressed by Mr. S. Lungphi is shared by many of the youth and common villagers. However, it is challenging to openly criticise the region's informal coal industry, as numerous powerful actors, including armed groups, are complicit in it. This does not go unnoticed, as a youth from the Tangsa community, Mr. L. Ronrang, added points about what Mr. Lungphi has said: "Forget about the ordinary villagers, the political power and monetary attractions behind the flourishing informal coal industry are so strong that even the influential pressure groups, such as the ATSU, ACDSU and AAPSU, do not dare to oppose it outrightly". My field engagement further reveals, as pointed out by Mr. Lunphi and Mr. Ronrang, that beyond the fear of repercussions or consequences, local CSOs are also highly invested and interested in reaping economic benefits from informal coal operations. This is also because elections to CSOs involve a considerable amount of money and muscle power, particularly in the case of student unions, such as ATSU, ACDSU, and AAPSU (The Arunachal Times, 2025a). A graduate youth, Ms. S. Mossang, with whom I interacted in Miao town, argues:

> "Almost all student leaders and CSO members are sponsored by some MLAs, ministers, contractors, and aspiring MLA candidates when they contest students' union elections. Additionally, they spent a significant amount of money to secure election to the CSO bodies and students ' unions. This is not even an open secret, but an open reality in our place. Therefore, it is impractical to expect anything good from these student leaders and CSOs members to raise voices against the informal coal industry".

These accounts explicitly highlight the power dynamics and political factors under which the informal coal industry is operating. A closer look at this reveals that there is a pattern of "circular power control", where the local elites, which include a few politicians, contractors, bureaucrats and wealthy individuals from within the community, have command not only in political and economic dimensions, but also in the affairs of which issues are to be suppressed or addressed by the CSOs and pressure groups. This circular nature of power dynamics has emerged in the region due to the extreme control of economic and political spheres by a handful of local elites. For instance, the operation of the informal coal industry is one manifestation of the changing power relations within the Tangas community. Additionally, the persistence of the informal coal industry without any resistance has not only been possible due to the

complicity of these influential actors, such as local elites and their collaborators, including government officials and external private players. However, the smooth functioning of the informal coal operations without opposition is possible because the local elites driving this industry also control the CSOs and pressure groups, including students' unions.

Consequently, the larger sections of the Tangsa community have become clients for the extractive collaboration between influential actors, such as local elites, corrupt officials, and external private players. Sadly, this reality has continued to define the socioeconomic landscape of the Tangsas over the years, as Mr. T. Longphi states:

> "I have leased my land for coal mining this season, but I don't support it. Unscientific mining will not be good for us in the long run. But I don't have many options, as I need money for my child's education and for other expenses. I am going with the flow, and I don't have any power to do much about it (informal coal mining). I am just a common villager, trying to survive".

Many villagers, like Mr Longphi, are aware of the adverse long-term consequences of mining; yet, they often opt to go with the flow and lease land or are compelled to participate as small-time miners (rat-hole miners), as it provides them with a quick income to support their families on a need basis. Some sections of villagers, mostly the local elites involved in mining businesses, however, do not have a problem with mining activities at all, claiming that it is part and parcel of the developmental process. These tensions and diverse voices among community members clearly underline how participation in the extractive process is not uniform, and all members involved cannot be labelled uniformly as extractive actors. Additionally, many villagers entirely reject the idea of informal coal mining as a viable option for their community going forward. However, they often hesitate to express their opinions or oppose mining because of the power held by the local elites, and also, it is their kin, friends, and neighbours who are involved in it due to their socioeconomic circumstances or by choice. In this context, based on field observations in the Kharsang area, apart from uneven power equations at the place as discussed above, it is evident that the continuities of close-knit kinships and community bonding have also facilitated the sustenance of extractive socioeconomic relations within the informal coal industry. The close-knit networks in the Tangsa community, in this case, function as a structural enabler for social legacy and access to labour, as well as land for the expansion of informal coal operations.

Ironically, this exact close-knit nature of relations within the Tangsa community has not resulted in an equitable share of benefits from the ongoing informal coal industry. This is again evidenced by the presence of a select elite, while the larger sections of the Tangsa community remain poor, despite the presence of massive industries, including informal coal operations, in the region. This phenomenon among the Tangsas reiterates and highlights the evolving characteristics of the community's unequal social, economic, and cultural-political structures, which have undergone significant transformations over the years. These changing dynamics within the Tangsa community have come with few opportunities and many challenges, as seen in the case of informal coal operations. After the timber era, the informal coal industry has become the most consequential economic venture in the last three decades. One of the prominent public leaders, Mr. H. Longri, from the Kharsang area argues that if the community cannot take risks, it cannot progress. He contends:

> "I have no objection to informal coal mining because it gives us money. These days, many of our children from a village are studying outside and taking coaching in Itanagar for government job exams, all because of the coal business. Many villagers unnecessarily talk this and that about the coal industry, but they themselves are also surviving because this very industry".

As affirmed by Mr. Longri, in an idealised portrayal, the coal industry enables the Tangsa villagers around the Kharsang area to transition from subsistence livelihood practices to a more viable market economy centred on coal and related extractive industries. However, materialising this on the ground remains enormously complex, as the power dynamics within the community have changed in some aspects and reinscribed in many ways, wherein the local elites set the game's rules. This again is evident in how local elites or wealthier members can appropriate land from poorer villagers in the Tangsa community for coal mining, as well as their ability to influence regulations and deregulations in the operations of the informal coal industry, discussed in Section 3.7 of this chapter. Mr. H. Longri represents the strong voices of the local elites who have immensely benefited from the informal coal operations in the region, while the larger sections of the mining-affected villagers have lost their agricultural lands and other resources in feeding the recklessly expanding informal coal industry in the Kharsang area.

During my visit to Mr. H. Longri's residence for an interview at his village, located on the outskirts of Kharsang, I observed multiple vehicles (pick-up trucks and boleros) covered in mud alongside the excavator (JCB) inside his fenced compound. This is a typical house setting of the local elites in the Kharsang area, especially during the peak coal mining season. I could also see numerous giant plastic fuel barrels and containers near the veranda. It is crucial to note that owning a heavy vehicle, such as an excavator or JCB, is considered a symbol of social prestige in the entire Patkai Hills region, as it signals that one can earn a considerable amount of income by renting it for coal mining and other work within a single season or a short time. And only those who have money can afford to buy it, making it an exclusive club within the community. Here, the case of how owning a JCB is perceived by the people reiterates the larger pattern of changing socioeconomic outlooks among the Tangsa community, and, by extension, across the communities in the Patkai Hills region. Traditionally, the social prestige of an individual or family among the Tangsa community was primarily associated with the magnitude of paddy harvests, the size of their agricultural fields, and the quantity of traditional ornaments they owned, among other factors. These aspects still hold essential places among the communities, but they are now merely symbolic in nature, as material wealth and political power play a crucial role in shaping socioeconomic dynamics within the community over the years. While all these transformations have been inevitable due to market penetration and other factors, they are also closely tied to the changing development aspirations of communities, which aim to improve their living standards and socioeconomic conditions.

## 3.4. Extractive Relations of the Coal Industry

The changing power dynamics within the Tangsa community, emerging socioeconomic conditions, and everyday bureaucratic practices represent a web of extractive relations that have sustained the informal coal operations and related extractive industries in the Patkai Hills region. Within this context, the community's aspiration for economic progress and extractive relations, primarily anchored by local elites, is a phenomenon that invites critical examination. Through the promises of development, they not only manufacture community consent for selling and leasing lands for mining activities but also materialise it as a governance tool to forge alliances with external private players and officials from the administration, thereby maintaining the informal coal industry with an iron hand. Whatever benefits, like the money from leasing land and minor rat-hole mining activities, the larger sections of the Tangsa

community have derived from the ongoing informal coal industry are primarily short-term and transactional in nature, rather than structural. For instance, the prices of land, either for lease or sale, remain stagnant and are mostly settled by the terms set by the buyers (coal contractors). While some sections of the community consider the ability to lease land as a form of benefit, as it can mobilise money, many members also argue that it is a situational transaction induced by the need for survival. In this context, the ability to sell or lease land is an example of the benefits that the informal coal industry offers, but the exploitative low land prices for lease or sale do not appear to be beneficial for most villagers. Here, this is happening because many villagers often sell or lease their land while they are in financial stress, and there is no structural price regulation framework to protect the fair price and rights of the villagers. Mr. C. Changmi, a community member whom I interviewed in Kharsang town, maintains:

> "Our villagers are getting quick money from the coal mining industry through leasing, selling, and involving themselves in mining itself, but these are all short-term businesses. Additionally, it is the wealthier families who can maximise their financial profits, not the poor villagers, as the industry doesn't work on an institutionalised fairness system, but on power and connections. There is no fair floor price for both the land of the villagers and coal of the small-time miners, who cannot sell directly to the main markets outside the Kharsang area".

What Mr. Changmi has highlighted is a common issue and practice within the informal coal operations in the Patkai Hills region, which most villagers have been experiencing. As an informal industry, government price regulation for land remains out of the question. However, the coal committee, which I will discuss in detail in section 3.7 of this chapter, continues to neglect this issue. In contrast, the regulation of the timeline of mining and other crucial aspects, such as the price of transit passes and coal and coke, is regularly undertaken by this same coal committee, which indicates exploitative practices towards the ordinary villagers. In the Kharsang area of the Patkai Hills region's informal coal industry, the relationships between the larger, ordinary villagers and influential actors, like the local elites and big coal contractors, are characterised by such exploitative practices. I have not found any villagers and coal contractors (both local and external) who have agreed to work under a properly defined or royalty system, in which the contractor is bound to pay a fair income share to the landowner, which is based on the business logic of equally distributing the profit margins between the landowner and coal contractor. Over 90 per cent of the coal mining agreements between the

land owners (villagers) and contractors happen through a prepaid system of land lease, in which a particular plot of land is given to a contractor for a specific season, ranging from 6 months to a year and more time period for a certain amount of money (depending on size of the plots) without a clause to pay any further to the land owners. This system primarily benefits the coal contractors most of the time, as villagers often lack the bargaining power to negotiate a fair price and have little support to fall back on.

This uneasy and unequal relationship that the larger sections of the Tangsa community share within the informal coal industry further extends to state agencies, resulting in frequent confrontations. Many of my respondents across the Kharsang area told me that the local administration often favours the influential coal contractors, rather than playing the role of fair referees or even a neutral audience. On the other hand, government officials usually distance themselves from such matters related to the informal coal industry whenever I interviewed and interacted with them. An officer (Mr. R.T.) at the Kharsang subdivision office contends:

> "We (government) are against any individuals and parties involved in the illegal coal industry. We need cooperation from the local communities, as we have limited resources (manpower) to control the mining industry. But villagers do not listen to us, and they are supporting the coal contractors by giving their lands and engaging in the informal coal industry".

Contrary to Mr. R. T. and other government officials, the mining-affected villagers, however, complained that the informal coal industry in the area operates with the involvement of the local administration, which facilitates local elites and private coal contractors in various extractive ventures. Mr C Longchang, a community elder from the mining-affected village, argues:

> "How come a local administration grants a permit for coal *bhattas* (coke plants) to the wealthier community members if they are trying to control the illegal coal mining in the area? The local administration officials benefit from it, so they don't bother to monitor mining activities, except for some *nokali* (fake in Assamese) inspections and occasional patrolling".

These frequent frictions and ongoing confrontations between the administration and locals regarding illegal coal mining activities in the Kharsang area highlight the complicity of multiple actors and the complexities of the informal coal operations in the region. However, it is vital to note that the coal mining here is not about the state versus the community, as it may appear. Neither is it harmoniously undertaken by any singular party. Instead, the informal coal industry is shaped by the interplay of multiple actors, who are differently embedded in the region's larger political economy of development. The Tangsa villagers from across the classes and villages participate in the informal coal industry at different levels. Yet it is also true that the intensity of involvement and profit-making is significantly disproportionate, and the functioning of power dynamics within the coal economy primarily favours the influential extractive actors, such as local elites, state agencies, and non-state actors, including external private players and armed groups. Again, the villagers who lease land and the small-time local miners do not amount to being called extractive actors, as they are primarily mere participants; the economy is controlled by the influential extractive actors, such as the local elites and external coal contractors.

These are hierarchies of power within the informal coal industry, which determine who benefits how much, who the real extractive actors are, and the broader extractive relations of the extractive economy itself in the Patkai Hills region. The local elites and external large contractors clearly are the top extractive actors in the power hierarchy, who actually set the rules and invest heavily in the coal industry. At the second level, government officials, CSO members, and armed groups derive benefits through commissions and taxes, without making monetary investments due to their socio-political positions and powers. At the lowest level of the hierarchy are the Tangsa villagers, who lease or sell their lands for mining, rat-hole miners, the small-time coal contractors, and migrant workers who work in the informal coal operations and related extractive industries in the region.

[4]The rat-hole coal miners I interviewed at Longsa and Longsi villages maintain that they prefer coal mining over continuing unproductive Jhum cultivation, although it is riskier. These miners are among the poorest sections of the Tangsa community. Mr B. Longri, a rat-hole miner, laments: "We cannot afford to rent a JCB (excavator) and fuel to undertake open-cast coal

[4] Rathole mining is a manual excavation method of coal extraction, in which the miners dig deep (4-5 feet), narrow tunnels to get into the coal seams. This method of coal mining is widely undertaken in the northeastern region of India and is particularly associated with the informal operations of coal industries.

mining. Because of this, we are doing manual (rat-hole) mining". The rat-hole miners claim that the local administration is biased against them, while most of the destruction is done by the big players (coal contractors) who undertake open-cast coal mining. Mr L. Lungphi, another manual miner, asserts: "Since we are powerless, they (administration) make us (rat-hole miners) soft targets for environmental destruction and all kinds of illegal activities related to coal mining. If they want to stop informal coal mining, all kinds of mining should be scrutinised strictly, not just focusing on rat-hole mining".

In 2022, the office of the Changlang Deputy Commissioner (DC) constituted the Anti Rat Hole Mining Oversight Committees (ARHMOC) at the sub-subdivisional level to tackle illegal coal mining in the region. This committee comprises the Additional Deputy Commissioners (ADCs), Sub-Divisional Officers (SDOs), Range Forest Officers (RFOs), Assistant Mining Development Officers (AMDOs), and police Officer-In-Charge (OCs) of the concerned administrative units. This committee was tasked with monitoring and controlling illegal coal mining activities, with a focus on addressing the growing issue of rat-hole mining in the region. As noted by manual miners, including Mr. Longri and Mr. Lunphi, the committee has deliberately overlooked open-cast coal mining but has aggressively cracked down on rat-hole mining activities in the Kharsang area to a great extent. An educated youth, Mr. T. Changmi, from the Tangsa community who runs a small business in Kharsang town argues:

> "The ARHMOC is an initiative to protect the informal coal industry, not to stop it. There is always a high risk of accidents in rat-hole mining sites that can expose the entire informal coal industry in the area to the world. That's why the district administration came up with this. The formation of ARHMOC to check rat-hole, which is around barely 5 per cent of mining activities, is the implicit acceptance and normalisation of open-cast coal mining, constituting an estimated 95 per cent of the informal coal industry".

This pattern of aggressive crackdown on manual or rat-hole coal miners has also been seen in Meghalaya, as well, particularly after the incident in 2018, in which 15 miners died after being trapped in the mining holes for over two weeks (The Indian Express, 2025). These kinds of recurring accidents in Assam and Meghalaya continue to attract public outcry and media attention, often criticising the local government and the centre for failing to regulate the informal mining industries. In the context of the Patkai Hills region, such an incident has not

yet occurred, but the state government remains vigilant to prevent any public attention that could potentially arise if rat-hole mining continues to expand. It was in this context that people like Mr Changmi argue that local administration is not concerned about regulating the informal coal industry, but rather, managing the industry so that the informal coal operation is not exposed to public scrutiny. A high-level government officer Mr. H. W., whom I interviewed at Kharsang regarding this matter, maintains that it would be incorrect to disregard the administration's initiative (ARHMOC) as a whole; rather, it is one of the steps towards regulating the entire informal coal industry in the region. He affirms:

> "The informal coal industry is an extremely sensitive issue in our jurisdiction (Kharsang). The administration has instituted ARHMOC as a way to control illegal mining activities in the area. Similarly, we conduct regular checks at the gates and surprise inspections in various locations to regulate the open-cast coal mining. For us, there is no room for favouring open-cast mining. [5]All forms of coal mining activities are illegal as per the order from the centre, and we are there to enforce and check all forms of mining-related activities".

Most of the government officials I interviewed and interacted with maintain a similar position to that expressed by Mr. H.W. Subsequently, in this manner, small players are pushed back and marginalised more within the informal coal industry. Here, this unequal nature of the informal coal industry extends beyond the impact on rat-hole miners. There are sections of local small-time miners who undertake micro-scale open-cast coal mining on their lands. These small miners are Tangsa villagers, slightly better off than the rat-hole miners, whom the big players (who act as mediators) often exploit, as they do not sell their coal directly to end-users or regional markets, as mentioned in the previous section. Many of these small-time miners ventured into mining individually, while others pooled their money or resources with friends and kin to undertake coal mining and related businesses, such as coke plants, in partnerships. This phenomenon reiterates that the close-knit community remains relevant in some form within the Tangsa villagers amidst the socioeconomic transition. However, these partnerships are primarily driven by economic interests rather than a community model of common holding, as evidenced by engagements with the villagers. "Our motivation for entering this (coal)

[5] Open mining is a surface technique of extracting mineral resources, such as coal, by using excavators and explosives. It is known for causing adverse environmental impacts due to massive land degradation and deforestation.

business is for socioeconomic mobility, and we want to diversify our sources of income", said Mr S. Mossang, who has invested around two lakhs in coal mining along with one of his villagers, who is also a relative of his.

In every village around Kharsang and its neighbouring areas, some individuals from ordinary households have become wealthy through coal-related businesses over the last three decades. A few are now big players in the informal coal industry, but such cases are rare, or the numbers are extremely low. This is because the hierarchical power structure, as stated in the above section, within the coal economy in the region is rigid and exploitative, in contrast to the traditional local economy of the Tangsa community. For instance, in the traditional setting, access to resources, such as land, by outsiders was non-existent, which helped the Tangsas maintain equilibrium in landholding within the community for agricultural and other purposes. However, with the introduction of the land leasing system for coal mining led by the coal committee, the local elites and external contractors are appropriating the resources, particularly agricultural lands and forests, which directly impacts the ownership of land holdings among the mining-affected Tangsa villages. Moreover, the traditional power structure of the chief-led village council within the conventional set-up of Tangsas has focused on maintaining social order and community relations. However, it is now built around economic benefits under the state's administrative governance system, with the penetration of state corporations and private capital in the region. This is a stark shift observed in the case of the Tangsa community, which is visibly exacerbated by the operation of the informal coal industry in the region.

## 3.5. Constructing the Social Legitimacy for Extraction

Within the region's informal coal industry, all the businesses of the rat-hole miners and small-time miners are tied to coal prices and other regulations controlled by the coal committee and influential actors, such as the local elites and private coal contractors. The coal/coke prices fluctuate at the local level in response to demand and market conditions in the larger regional markets. This is where the coal committee and large contractors manipulate the prices of coal-related commodities in their favour, often blaming regional market players for fluctuations.

The Coal Committee mentioned here differs from ARHMOC, which has been discussed in detail in the subsequent sections. In this manner, influential players, local elites, and private coal contractors exert control over small players through both indirect lobbying and direct manipulation. This is not limited to the informal coal industry, but applies to the entire extractive industries in the region. At Insa, a village within the Kharsang Coalfield complex, I interviewed Mr L. Longri and two of his business partners, whose coke plant was closed down by the district administration in 2021. Mr. Longri claims:

> "Three of us put together some capital to start the coke plant (coal processing unit). However, before we even earned back the amount we invested, the authorities shut down the plant due to pressure from Geoenpro (an oil company that operates the Kharsang oilfield), claiming it was close to their oil wells. There are other bhattas (Coke plants), too, not very far away from ours, but the company won't complain, as they belong to the powerful owners".

These kinds of instances, such as that of Mr. Longri, again not only highlight the power dynamics that characterise extractive industries in the region, but also unequal extractive relations where powerful entities reap the benefits, and weaker players, such as the small-time and rat-hole miners, are used as scapegoats to keep the businesses going and to continue the agenda of pushing extractive projects, including the informal coal operations. It is, thus, clearly evident that small-time miners and the larger community members, in practice, do not have a significant impact or benefit greatly, but remain active participants. At the same time, the local elites continue to legitimise the informal coal industry in the region as a community-led enterprise, portraying it as a means to alleviate poor socioeconomic conditions. The Tangsa villagers are made to believe that coal mining-related activities are integral to the achievement of their developmental aspirations. These premises of the extractive actors, such as the local elites, resonated to some extent, socially legitimising extractive practices, as an informal coal industry remains operational. In this context, most of the local elites or coal contractors, with whom I interacted and interviewed, do not explicitly accept that they are the primary recipients of the profits from the informal coal industry. Instead, they often present the informal coal operations as a collective enterprise of the Tangsa community, which is expanding legitimately to promote developmental activities. The proponents of the informal coal industry, including the local elites, widely and strongly employed customary entitlements and cultural rights to

justify the operations of the informal coal industry. Mr. P. Mossang, a local coal contractor, argues:

> "The land belongs to us (Tangsas) and the resources in it, be it coal or oil, also belong to us. Therefore, we have the right to monetise it for the welfare of our larger community. Why should we take permission from the centre or state government to use our own resources?... Think logically, how can a government have exclusive rights to decide and monopolise the use of mineral resources, which are rightfully ours?".

I found that this argument was widely accepted across the class, clans, and villages within the Tangsa community. Many of my respondents affirm that the state should not dictate everything and anything as it wishes concerning the uses and nature of resource governance, such as the functioning of oil and coal industries, which are located in the lands of their community. It is within this broader community sentiment and context that the informal coal industry is framed as a cultural right of the Tangsas, which provides a space for the local elites to claim it as a community-led enterprise. This helps the local elites to socially legitimise and present the informal coal industry as a developmental activity for the community's good, rather than private ventures of extracting resources and profit-oriented activities. However, as discussed earlier, this justification cannot be taken at face value, since the local elites, in collaboration with external players, have transformed the cultural collective entitlements of resource governance into a means of personal enrichment and unequal profit-making enterprise. This premise of community development is contrasted by the exploitative process of informal mining, which takes away collectiveness and equality.

Another tool through which local elites and other influential actors promoted informal coal operations and related extractive industries is the narrative of livelihood creation and economic security. It was intriguing to me that despite the visible disproportionate benefits obtained by the local elites and external coal contractors, they are still able to hold legitimacy that the informal coal industry is the source of economic opportunities and livelihoods for the entire community. In the Kharsang area, not all villagers are convinced by this narrative, but it has found enough resonance within the community, as the expansion of the informal coal industry is directly tied to household incomes, running of shops, house rentals, and larger local economies. In light of this, the local elites and supporters within the community argue that the operations of the informal coal industry are the backbone of the local economy and a key factor

in securing livelihoods in the region, as it provides both direct and indirect benefits to the villagers. For instance, some locals in the mining-affected villages were unhappy with the complete coal ban, as it directly impacted and jeopardised their income and livelihood activities. A Tangsa community leader, Mr. P. Rongrang from the Kharsang area, states:

> "When the government came to start the coal industry in our area, we were hesitant. After a long negotiation, we agreed with the government, as they promised to provide us with development. When the government banned the coal industry, they didn't consult with us (the Tangsa community). The government pushed us into this (informal coal mining), so it shouldn't have any problem now with informal coal mining. We cannot simply abandon mining, just because the government calls it an illegal activity, as it is now closely tied to our livelihoods".

To provide a more in-depth context for what villagers like Mr. Rongrang are claiming, when the coal ban was imposed in 2012, many local communities, particularly the Tangsa villagers, were already engaged in the coal mining industry (both formal and informal) and allied extractive industries. It was a time when the Tangsa villagers in the Kharsang area were downsizing their shifting cultivation practices, as many of them had given away their fields to the coal industry. Additionally, agricultural outputs were declining due to the rise in mining and allied extractive activities in the area. Moreover, the ban coincided with the emergence of micro, small, and medium-scale extractive industries, such as brick kilns, tea factories, and other minor mining enterprises, which the state government had promoted since the late 1990s, following the timber ban era. Again, the growth of these small-scale industries was eventually seen as a by-product of the coal industry in the Patkai Hills region by both local communities, including the Tangsas, and the government. To add fuel to this, by the early 2010s, the ever-expanding informal coal operation had already become a primary source of these emerging extractive micro and small enterprises in the region, providing readily available raw coal and processed coal (also known as coke) at affordable prices.

**Fig:3.2**

**Brickkiln site near Ongsa Village, Kharsang, run by a non-local contractor**

Subsequently, the influx of external coal contractors and migrant workforces from within and outside Arunachal Pradesh to work in the flourishing coal mines, coke plants, and small-scale enterprises, such as brick kilns, further created allied economic opportunities in the Kharsang area. These economic activities include rental businesses, hotels, and shops that have emerged aggressively in Kharsang town, Namphai-I and Namphai-II, and Balinong Chariali, among other places in the mining-affected area. Based on these grounds, the local elites and other extractive actors, such as the external private players, have continued to expand the informal coal operation in the Kharsang area. In this context, local elites and extractive actors utilise the notion of development as a means to promote the informal coal industry in the region. They promote the narrative that continuing informal coal mining is essential for the economic prosperity and development of local communities. During the interview at Balinong Chariali, Mr. N. Haidley, a public leader of the Tangsa community, argues:

“The Kharsang area has become an economically vibrant place because of the informal coal industry. It is helping the Tangsa villagers generate income from various avenues, such as rent, small businesses, brick factories, etc, apart from the coal enterprise. If there is no coal industry,

all these expanding businesses will also become inactive. Now, tell me, why wouldn't I support the coal operations in our area?"

Similar to Mr. Haidley, the local elites often associated informal coal operations with generating employment, various economic opportunities and industrial growth and development in the Patkai Hills region. Further, while the local elites continue to present themselves as the provider of employment and livelihood activities, the informal coal industry is positioned as a larger mechanism for the Tangsa community to prosper in the absence of government jobs and formal economic development initiatives. The main point the extractive actors emphasise here is that the informal coal industry fuels economic activities in the region, which in turn will bring prosperity and social infrastructures, such as rural roads, education, and health facilities, among others. However, this web of economic activities has not been translated into a fair sharing of benefits or creation of jobs for the locals from the informal coal industry, and the physical and social infrastructures in the Kharsang area remain in poor condition. In fact, many of my respondents critique this developmental narrative pushed by the local elites, while they are directly and indirectly involved in the informal coal industry, they also live in poverty. Mr. T. Semtang (villager), whom I interviewed at one of the mining-affected villages, maintains:

> "A majority of my villagers barely get any income from coal mining and related extractive activities. We still mainly depend on Jhum cultivation for our livelihoods. Many of us still look forward to receiving rice from our ration cards at the end of the month. Wages through the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme are vital to our income. Only those with lots of money and huge inherited ancestral lands can get incomes from the coal industry, not many of us (villagers)".

These narratives of ordinary villagers, such as that of Mr. Semtang, reveal the inaccessibility of informal coal operations and related extractive industries. Just like in the case of Longsa, as discussed in the previous chapter 2 (section 2.6.1), a majority of the mining-affected villages in the Kharsang area still rely on subsistence activities as their primary source of income. My household surveys in coal mining-affected villages of Longsa, Ongsa, and Injsa explicitly reiterate the fact that over 70 per cent of the households depend on agriculture as their primary livelihood activities, despite the presence of coal mines, coke plants, brick kilns, and an oilfield

surrounding these villages. Many of my respondents from these mining-affected villages and other places complained that working in those extractive industries is difficult and impractical. Apart from the oil company (GeoEnpro), which employs some locals, all the extractive industries, including brick kilns and coal-related activities, operate seasonally and primarily rely on low-paid migrant workers from Assam and Bihar. These developments and a conducive environment for extractive activities have attracted the entry of more external private players in recent years, which in turn is expanding not only the informal coal operations, but also other allied extractive industries, like brick kilns in the Patkai Hills region. At the same time, this development is reciprocating the exclusion of local communities from the cash-rich informal coal industry, which is evident in everyday socioeconomic interactions and bureaucratic practices under the patronage and mediation of the local local elites.

## 3.6. The Emerging Extractive Industries and Exclusion

The local elites' framing of the informality of the coal industry as a form of community autonomy, is set apart from state-corporate control of profit-oriented enterprises; but this framing evidently contrasts with the ground realities in the Patkai Hills region. At the very core, the so-called development activities, including the informal coal industry in the Pakai Hills region, primarily focus on commercialising resources by capitalising on the pervasive poverty and lack of alternative livelihood opportunities for local communities. As a result, informal coal operations continued to expand, and the local elites were able to push through their agendas, leaving the larger Tangsa community to navigate the exploitative developmental activities in the region on their own. Thus, both socioeconomically and ecologically, the informal mining-related activities remain as exploitative and destructive as in the case of the state-corporate coal industry, prompting an urgent need for critical interrogation in relation to the region's broader development politics. A close examination here suggests a pattern of specific sectors that have emerged over the years, in the context of the Patkai Hills region. Since the 1970s, the region has experienced primarily the growth of extractive industries, particularly oil, timber, and coal. Furthermore, the expanding informal coal operation reinforces the development of other allied extractive industrial sectors, including the coke plants, brick kilns, and other minor mining activities. This is because the informal coal operations provide cheap and readily available coal and related commodities for these minor industries to fuel their operational costs, making it feasible for their overall businesses.

**Fig:3.3**


**Kharsang oilfield operated by Oil India Limited and GeoEnpro**

Despite the state government's declaration of the Kharsang area (Balinong) as a Special Economic Zone (SEZ), there are hardly any manufacturing plants or food processing units, except for a few small tea factories, illegal coke plants, and brick kilns within the designated zone. Here, the larger local communities, particularly the Tangsas, widely perceive the weak regulatory mechanisms and loopholes in the bureaucratic practices as an implicit approval by the state government to participate in the informal coal industry. In 2021, the Government of Arunachal Pradesh developed a series of comprehensive policies under the theme "Arunachal Rising," wherein it primarily focuses on attracting investments in hydropower projects and mineral-based industries, such as oil and coal. The state government's promotion of these extractive industries has been chiefly driven by the quest to generate domestic revenues. This is because, since the Union territory era, over 70 per cent of Arunachal Pradesh's state budget comes from the central government (Roy, 2020). This state-centred power dynamics has been discussed in Chapter 2, Section 2.4, in detail.

Furthermore, the reasons for not diversifying extraction projects of coal and oil into industries, such as refinery units, steel plants, and other factories, lie in both the policy level and profit-

calculative approach of the influential actors, including state agencies and external private players involved in the extractive projects. According to historical records, the government in the Patkai Hills region has not shown a serious interest or pursued proper action in establishing downstream and integrated manufacturing units and plants related to the coal and oil industries. At the same time, the state government has continued to aggressively promote oilfields for drilling and coalfields for mining, which provide quick money in royalties from regulating public and private players. The Kharsang oilfield is a living example that has been operational since the 1960s; however, it is only used for drilling, and all the crude oil produced here is transported to the Digboi refinery plant in Assam. It is evident here that since the refineries and other industrial settings are in Assam, drilling for oil, and for that matter, coal mining, present a clear case of extraction without growth of allied industries in the Patkai Hills region.

A public leader, Mr. N. Longphi, who is also a coal contractor from the Tangsa community, told me that the coming of integrated industrial complexes and manufacturing units is something great that the Tangsa community wants to bring about in the Kharsang area.

> "As an insurgency-affected and politically disturbed region, the private companies still hesitate to come and invest. But things are changing now, with the declaration of Balinong as an SEZ and the flourishing of small-scale industries, such as brick kilns, which are positive signs towards achieving that goal".

On the other hand, many community members remain pessimistic about this in the Kharsang area. Mr. S. Longri, who is a postgraduate from the community, argues:

> "If the companies and government agencies can come for oil drilling for decades, they can also come to set up a refinery and manufacturing units here. This clearly shows their intentions and preferences for opting for our place as an extraction ground rather than promoting industrial growth and development. Insurgency problem and political instability factors, which are often cited by the government, companies and community elites, are just excuses".

These ground narratives highlight how the Patkai Hills region has evolved into a mere extractive zone, rather than a space for industrial activities, as often portrayed by local elites and the state. The informal coal operations in the Kharsang area itself provide validation for

this, in which most of the extracted coal goes to depots and processing units at Margherita and other places in Assam and beyond. Furthermore, this phenomenon and the nature of doing business also reveal why external private players are drawn to invest in a specific type of business in the Patkai Hills region. What I gathered from my fieldwork is that external private players typically forge calculated business relationships with the government and individuals before entering the venture, as it involves a considerable amount of investment, procedures, and logistical requirements. Many businessmen, both locals and non-locals, with whom I interacted, maintained that the new components of the industrial policy (2021) of the state government are attractive, but it will take time for manufacturing companies to make their bases here, since there are no legacies of a settled industrial culture, except for extractive-oriented ones, such as timber logging, oil drilling and coal mining. Commenting on the involvement of the external players in the operations of the informal coal industry in the region, Mr. N. Kumar, a non-local coal contractor, whom I interviewed at Kharsang town, said:

> "It is extremely risky to do big businesses, particularly coal mining, as it involves a massive capital investment without a guarantee of making profits. On top of that, coal mining is illegal in the Kharsang area, and the insurgent groups are also active. Yet, outsiders like me come here to undertake coal mining and related businesses, as it can bring huge profits if it works out. Additionally, most coal-related activities are seasonal or semi-seasonal, making them convenient for us. We don't have to be present throughout the year, we don't have to hire regular workers, and we don't have to construct permanent office buildings here. Having said that, at the end of the day, it is a lucrative business, although the risk is too high as I mentioned".

The lucrative aspect in the context of the informal coal industry is the large-scale margins of profits that coal extracted from informal mining can bring to the contractors. The main concerns or risks revealed to me by the contractors are the leasing of lands without a seam of coal. This was shocking to me, as most open-cast mining coal contractors, both locals and non-locals, didn't consider being caught by the administration as a significant risk to their coal businesses, despite operating informally. Furthermore, most external coal contractors, including Mr. N. Kumar, whom I interviewed and interacted with in the Kharsang area, maintained that a significant share of their initial investment funds is allocated to leasing land and hiring excavators (JCBs) and trucks. It is crucial to note that they view excavators and other machinery as temporary and movable assets, which takes away both their logistical

arrangement and psychological burden of looking after them all the time. Typically, contractors either temporarily hire excavators, trucks, and other heavy machinery for the mining season and return them to their facilities/place when the mining season is over, if they own them themselves.

**Fig:3.4**

**Stored coal beside the oil well at Insa village**

In the same manner, they return the lands to the owners, Tangsa villagers, after the lease contract expires, which again is temporary in nature. For these reasons, private players from outside the region usually do not feel rooted or in need of having settled setups. Within the given timeframe of the mining season, they primarily focus on extracting resources as much as possible, rather than building substantial relationships with local communities, such as the Tangsas, or creating employment opportunities due to the nature of how this industry functions. This phenomenon is not limited to the informal coal industry and formal small enterprises, such as brick kilns and stone crushing mills, but is also relevant to any mineral-based sectors, including oil operations at Kharsang. A village elder, Mr. A. Longri from Longsa, asserts:

> "Except for oil wells and related machinery, there are hardly any substantial facilities at the Kharsang oilfield. Drilling for crude oil and various forms of extraction take place in our area, but the main activities, such as refinery work, are conducted at the Digboi

> refinery and other locations. For this reason, we do not have jobs, because our place is just a site to do extraction work in a true sense, not an industrial site as told to us by the government and our public leaders".

Visibly, as pointed out by multiple of my respondents, the making of the Kharsang area and the Patkai Hills region, in general, as the mere extractive site, is reflected in the fact that both the Kharsang oilfield and the region's vast operations of the informal coal industry primarily act as a process of raw mineral extraction. There are some allied industries, as mentioned earlier, such as coke plants, timber mills, small tea factories, and brickfields, but these are not core integrated industrial facilities or downstream industries, like refinery units, which actually create jobs and other economic opportunities for local populations. That's why the nature of extractive industries, particularly the region's oil and informal coal operations, often fails to generate significant local economic value, as more extracted raw resources, such as crude oil and coal, are exported to other places without undergoing processing activities. The results of this in the Kharsang area can be seen in the minimal job opportunities available to Tangsa villagers, as well as the limited allied economic opportunities. This is particularly true in the case of the informal coal industry, where most workers are migrants from outside the region, often working in unhealthy environments.

The industrial settings of both oil wells and coal mines are typically short-term, temporary projects, which have become an obstacle to long-term commitments to physical and social infrastructures, such as village roads, hospitals, and schools. That being so, the positive social impacts of the existing extractive industries are hardly reaching the larger sections of the Tangsa community, while adverse socioecological impacts, such as deforestation, air and water pollution, and the loss of agricultural lands, are borne by all and have intensified significantly. Similarly, the coal and coke produced from informal coal operations across the Patkai Hills region often go to the coal/coke plants, steel factories, and power stations in Margherita, Tinsukia, and other regions within India and other neighbouring countries. It is due to these realities that, despite being declared the industrial hub of the entire state of Arunachal Pradesh, the Kharsang area has remained an extractive frontier with an negligible development spillover amidst the growth and expansion of extractive industries.

## 3.7. Bureaucratic Practices: Regulation within an Unregulated Industry

The emergence of a particular set of extractive industries in the Patkai Hills region provided an insightful perspective on unpacking the diverse interconnected factors responsible for the persistence of the informal coal industry. This materialisation of extractive projects, particularly the operation of the informal coal industry in the region, has been made possible by a sophisticated bureaucratic system within the unregulated coal economy. As observed through my findings, the bureaucratic process of the informal coal industry in the Kharsang area primarily involves negotiations and a profit-sharing model among local elites, the administration, and other extractive actors. It is opposite to the formal setting of procedures, in which accountability and transparent governance are often ignored, and mainly prioritises the mutual benefits system for influential extractive actors, such as local elites. In the formal sector, the government typically oversees bureaucratic procedures and processes, which include handling tenders, approving mining licenses for private entities, and issuing transit passes, among other tasks. These bureaucratic practices comprise a complex web of procedures, rules, and regulations governing economic development, industrialisation, and related activities in a particular place. However, the influence of corporations and market forces on development policies and regulatory frameworks that drive the extractive industries and other sectors is evident across the regions (Jairath, 2021).

When it comes to the informal coal industry in the Patkai Hills region, the role of the government is entirely different. Since it is officially banned, the primary role of the local administration is to enforce the ban order and monitor its implementation. Hence, the government authority does not administer tenders and other procedures, yet there are co plicated and contentious bureaucratic practices around coal. The bureaucratic practices on the ground revealed a stark reality, as is evident in the persistence of the informal coal operation despite the ban. Weak monitoring mechanisms and corruption continue to be associated with the function of local government in relation to the informal coal industry in the Patkai Hills region. For instance, many of my respondents from mining-affected villages argued that the issuance of permits for coke plants and transit passes reveals corruption within the local administration's bureaucratic practices. This awareness about the involvement of government officials and agencies is publicly known throughout the entire region and perceived as a

normalised form of corruption. At Kharsang, Mr. N. Haidley, a youth from the Tangsa community, affirms:

> "Without weak regulations and comprehensive logistics plans coordinated through various institutions and nexus among different actors, such as the local administration, private coal contractors and local elites, it is impossible to operate a massive informal coal industry in the Kharsang area. No one is foolish enough to believe that the local government is not involved in such a big informal coal industry in the Kharsang area".

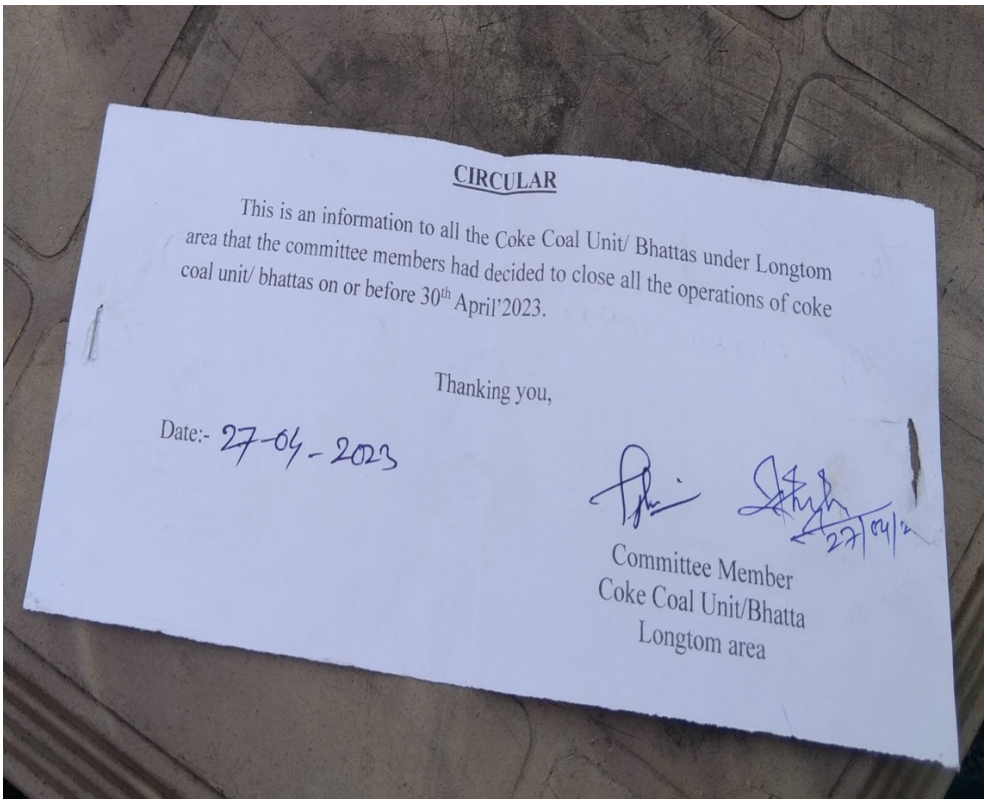
The complexities of informal coal operations, however, are not as simple as a form of institutionalised corruption alone, since the community people themselves continue to assert that informal coal extraction is their right over resources. Thus, it is the shadow economy, where a nexus of local administration and non-state actors, such as communities, external private players, and armed groups, institutionalised extractive practices, characterised by corruption and a weak regulatory legal framework due to the informal functioning of the coal industry. This phenomenon, consequently, renders the bureaucracy within local government and the legal overseeing framework ineffective, creating not only a favourable environment but also an administrative space that allows non-state actors, particularly local elites, to operate the informal coal industry on their own terms and under their own regulations effectively. Here, it is crucial to note that the ineffectiveness within the government system is merely a façade; the primary objective has been to create room or loopholes for the informal coal industry to flourish. The coal committee is one of the outcomes of these loopholes, which has emerged as a shadow institutionalised body within the informal extractive industries in the Kharsang area of the Patkai Hills region.

### 3.7.1 The Coal Committee

This coal committee is an unofficial yet accepted locally constituted coal management body which draws members from influential local elites (coal contractors), the political class (community/village leaders), members of CSOs, and undisclosed representatives from the local administration. Here, the direct involvement of the administration is unofficial, and its participation is a part of the nexus that drives the informal coal operations. Through the coal committee, the extractive forces deploy regulations within the informal coal industry, which

overtake the government and traditional system. It oversees every aspect of the informal coal industry in the entire Kharsang area. Local elites primarily control this coal committee.

**Fig:3.5**




**A coal committee circular to close the operation of coke plants under the Longtom area**

In the public domain, the coal committee maintains its image as a welfare body that promotes small-scale industries and related economic activities in the Kharsang area. In a true sense, it is a well-established body that makes the informal coal operation and other allied extractive industries possible in the region. It determines the prices of raw coal and coke (processed coal). It regulates the timelines for coal mining and related activities, deciding when to initiate coal mining-related activities and when to cease coal extraction operations. This committee also administers the operation of the coke plants within the Kharsang area's jurisdiction. In fact, the power and reach of this coal body are so strong that it determines who can enter the coal mining business from outside the Kharsang area and where the coal can be exported/transported. One community leader (Mr. S. Longri), whom I interviewed, claims:

> "Without the permission of the committee, not even 1 kg of coal can go anywhere outside of the Kharsang area, and if the committee gives a green signal, then a hundred

> tons of coal can also be transported. No one can stop them. This is the reality, the coal committee is powerful, and they decide every decision and aspect of the coal mining industry in the area"

Given the coal committee's powerful composition, it effectively manages the informal coal industry with minimal bureaucratic interference from the local administration or other stakeholders, as noted by the villagers, like Mr. Longri. This phenomenon reflects the region's broader political economy of development, which enables coal contractors and other extractive actors to overrule formal state laws and regulations. From time to time, the local administration inspects coal mining activities and the operations of the coke plants. Officers from both the Kharsang sub-division office and the Assistant Mining Development Office (Department of Mining and Geology) have cited these routine inspections as proof that the state does not support the informal coal industry in the Patkai Hills region. "One of the main reasons we're unable to control the unregulated coal mining activities is the lack of manpower in our department. But we're trying our best to tame it with limited resources", said an officer from the Department of Mining and Geology at Kharsang. On the contrary, the mining-affected villagers claim that occasional patrolling and inspections of the coal mines and coke plants are performed merely to whitewash the public perceptions and for publicity and office records. Mr P. Techi, a villager, maintains:

> "I don't know how the coal contractors usually knew about the routine coal mining and coke plant inspections beforehand. Most coal mines remain inactive, and coke plants are closed until the inspection process is over. This happens all the time, and it is impossible to have a coincidence all the time that coke plants and mining activities in the area are on a day off or rest period whenever the government's team decides to conduct raids or inspections".

As claimed by many villagers, on the ground, those inspections neither disrupt nor affect the usual coal mining and related extractive activities in the Kharsang area, as was evident throughout my fieldwork. Ironically, as already mentioned above, the same government authorities that conduct patrolling and inspections of the coke plants and informal coal mining are the only ones who have granted the licenses to operate the coke plants. As per the official file records of the Department of Mining and Geology (Assistant Mining Development Officer), 64 coke plant license/permit holders are present within the Kharsang subdivision.

However, 70-75 of the coke plants were operational on the ground during my fieldwork under the jurisdiction of the Kharsang administration. These figures of the active coke plants speak volumes about the scale and size of the informal coal industry in the Kharsang area. In fact, due to the hilly topography, one can clearly see the massive deforestation and injured hills caused by coal mining, whichever side one directs one's eyes. On regular days, if one cannot see them, it means one is in Kharsang during the peak season of coal mining, as the smoke released by the vast numbers of coke plants is so thick that it forms dense fog. As evidenced by my fieldwork, which took place over a year, behind those blurry clouds (dense fog), the powerful JCBs/excavators destroy the fields/forests to make money, giant trucks carry away the resources, and the poor villagers remain spectators on their own land. This cycle repeats every year, season after season.

**Fig:3.6**

**Coal mines and coke plant near the Kharsang oilfield**

The Kharsang coal committee derived legitimacy from moral economy and primarily constituted the organised functioning of the informal coal industry in the area. However, it is neither a fully traditional community institution nor a strict localised capitalist enterprise nor a complete syndicate network. The committee exhibits characteristics from each of these in

different ways. It invoked customary rights to claim ownership of coal, maintained underground networks with coal mafias from Assam and other places to smuggle and bypass regulations, and mostly favoured the big players, which ends up accumulating capital for the local capitalist class and excludes larger sections of the Tangsas. In this sense, it is a unique hybrid informal body that mediates informal coal mining operations, mostly controlled by the emergent capitalist class, with the Tangsa community. Therefore, as a hybrid institution within the informal coal economy, it draws on the vocabulary of community rights, as suggested by Lahiri-Dutt's (2017) work on the moral economy of coal. At the same time, the committee functions as a brokerage institution that facilitates and stabilises informal accumulation while often claiming to be working for the collective good of the community. The committee, in this context, also indicates nascent class formation within the informal coal regime in the Patkai Hills region, which is discussed in detail in Chapter 5.

## 3.8. Turning Black Coal to White Money: The Strategies of Revenue Generation

The bureaucratic practices that enable the operation of the informal coal industry in the Kharsang area are deeply embedded in the inner workings of the region's larger political economy of extractive development. The underlying power dynamics within this political economy influenced the varying degrees of profit for different stakeholders. There is a constant implicit tussle among extractive actors to generate more profits through various avenues, even though they maintain extractive relations in the broader scheme to keep the informal coal industry operational, as they are interdependent in multiple ways. These actors, including local elites, external private coal contractors, and the local administration, maintain symbiotic relationships and boundaries within the area's extractive landscape in a way that doesn't disrupt their businesses. The first level of institutional revenue generation occurs through the formal administrative bureaucratic procedures, such as issuing permits for coke plants and transit passes to transport coal and related commodities. This phenomenon again underscores the complexities of the regulated and unregulated nature of the coal industry in the context of the Patkai Hills region.

The unofficial nature of the sector constitutes an element of the unregulated/illegal aspect of informal coal operations. At the same time, the involvement of state agencies in issuing licences

and transit passes underscores the regulated component of the coal industry, blurring the lines between legality and illegality. The local administration usually controls this domain, as it has the authority to give permits and transit passes. However, these revenues accumulated through formal procedures represent only a small portion of the enormous capital generated by the bureaucratic processes and procedures within the informal coal industry. Furthermore, officials at the mining gates, forest gates, and police gates in the entire Kharsang and neighbouring areas collect a substantial amount of money from coal trucks and the transportation of other commodities. My engagements with stakeholders and officials in these gates and surrounding areas reveal that the majority of collected incomes remain off the official records and files. Systematically, these incomes are often distributed among officials posted at the gates and flow up to officials in the top bureaucratic positions and concern top politicians of the concerned areas. An official I interacted with told me that the side incomes of government officials in the region usually come from those gates and other means. He further states:

> "If the side incomes are very low, it dries up at the subdivision-level, if the income touches a lakh in numbers, the matter reaches the district-level administration, and if it is about 10 lakhs and above, then the involvement of the state-level officials is likely to happen. This is not an exact template of how things smoothly work internally within the government system. I am just giving you the rough idea that government officials from bottom to top are aware and involved in the extractive industries, including informal coal operations in the region… Having said all this, it would be wrong to say that all the money generated from side incomes, like from gate collections, goes into the pockets of the government officials, not into the government's account. People have wrong perceptions in our place that all the government officials are corrupt, but this is incorrect".

Whenever I interviewed government officials, including the police, they would often mention that not all officials are corrupt and that not all administrative initiatives are undertaken with corrupt intentions. Intriguingly, their responses concerning the government system, per se, are the ones that opened Pandora's box of the inner workings of the government system about their positions and affairs in relation to the informal coal operations and related extractive industries in the Patkai Hills region. All these ground realities show the multi-layered stages of how the state mechanisms work to generate revenues from the informal economy. Here, the state government doesn't get money directly in the form of royalties from the sale of coal since the

informal industry is deemed “illegal”. However, the state continues to generate revenues, as discussed in the above sections, because the state still controls the crucial aspects of the informal coal industry, namely the logistical infrastructures, like the gates and roads and the power of permits, such as transit passes and licenses to operate coke plants, among others. Thus, just because the government is not directly involved in the mining and sale of coal, it doesn’t make the state innocent regarding the operations of the informal coal industry in the Patkai Hills region.

At the second stage, a significant/larger portion of revenues is generated through institutional bureaucratic procedures, primarily due to regulations within the informal coal industry that have been mandated/formulated by the coal committee. This is a local elite and coal committee-led tactic of revenue generation, which is different from the state’s strategies. Here, the coal committee employs controlled access and regulation approach to generate income within the region's informal coal industry. According to the access control and regulation, private players (individual contractors and companies) from outside the Kharsang area who wish to be involved in the informal coal industry, such as operating coke plants or coal mines, are required to pay commissions and entry fees to the coal committee. During my fieldwork in 2022-2023, the entry fees ranged from Rs. 60,000 to Rs. 100,000, depending on the nature and magnitude of the contracts. This entry fee system enables the coal committee to collect substantial revenues, surpassing the amounts generated from issuing permits for coke plants or transit passes by government agencies. Highlighting these regulations of the coal committee, a small-time coal contractor, Mr. L. Semtang from Kharsang town, claims:

> “As a local, I don’t have to pay an entry fee to do coal-related business, but the charged amount is exceptionally high. Due to this, the private players tend to recover those costs from us (smaller players) by manipulating the coal prices. This is also one of the main reasons why external coal contractors often negotiate with the villagers to lease land at very low prices. The informal coal industry is a closely connected enterprise, wherein decisions by the administration and the coal committee make huge differences to the people who are involved in the industry, whether it is the villagers or the contractors”.

Most community members agreed with the point raised by Mr. Semtang, and claimed that the coal committee had long been ignoring these issues. Over the years, the coal committee of Kharsang has continued to become more powerful both politically and financially. In fact,

whenever I discussed anything related to the coal committee, people often told me sarcastically that the coal committee earns more revenue than the government's Department of Geology and Mining, and they set the rules for the government there (Kharsang area). These narratives stem from the fact that the incomes/revenues collected by the coal committee do not reach the official accounts of the state government, nor are they utilised in the development of the coal mining-affected Tangsa villages. Instead, the committee ensures that this money is distributed to all the involved parties, including committee members, student unions, local CSOs, armed groups, corrupt government officials at the sub-district and district headquarters, and top officials at the state level. In return for these benefits and revenues, extractive actors protect coal contractors and miners, providing them with security and administrative safeguards, including immunity from coal and machinery seizures during raids and throughout the mining season, among other things. It is for this very reason that, as mentioned earlier, most contractors considered the unavailability of the coal seam in the leased plots of land as primary risks, not the logistic or security aspects, despite investing in the informal coal industry.

Furthermore, the external coal contractors often complained that despite paying hefty entry fees to the coal committee, they are made to pay more money at different places to different actors. Mr. L. Gogoi, a contractor from the neighbouring state of Assam, laments: "I paid 70,000 for an entry fee, but apart from this, there are many small expenses that add up to a substantial financial burden again. We pay truck payments at three gates, with some of the proceeds going to the local youth organisation and the village council". On the other hand, the local Tangsa villagers claim that while the entry fees by the coal committee are too much, the payment to youth organisations and village councils is just a mere amount ranging from Rs. 150 to Rs. 200 per truck. Mr. D. Lungphi, a villager elder, maintains:

> "We take minimal amounts from both local and external coal contractors as welfare and pollution taxes. Some contractors often complained about these small things, but they won't tell you about many profitable things they do here, such as the permit manipulations, in which they issued a few transit passes from the administration, but unofficially allowed many more coal trucks of them to pass through gates as part of the nexus, which the coal committee also facilitates at times".

These layers of politics surrounding revenue generation and turning informal coal to white money by various extractive actors do not end here within the context of the informal coal

industry in the Patkai Hills region. The auction system is another highly institutionalised bureaucratic process that generates immense revenue, simultaneously informal and formal in its practices. Mr. D. Simai, a community leader, explains the auction system:

> "As a politically sensitive region, the informal coal industry in the Patkai Hills region sometimes becomes extremely sensitive for different reasons, such as political pressure, unrest and strict regulations at the checkpoints, among others. The coal contractors usually do not take risks in such situations or when transporting too large quantities of coal and coke with just a mere transit pass beyond the border of Arunachal Pradesh. This is when these coal contractors opt for an auction system to legalise illegal coal and coke from the informal industry".

The influential coal contractors, both local and external actors, strategically leveraged their connections within the political circle and with the government to exploit the auction system to their advantage. Here, they join hands with officials and approach the local administration (such as the mining department, sub-division office, and police) to seize their coal/coke. When law enforcement takes over the stock of coke and coal, legalising them happens through an auction system. The auction usually takes place at the sub-division or district level. Here, the auction of the seized coal and coke is often carried out phase-wise with limited quantities in such a way that it doesn't cross the limit that comes under the power of the district administration. This tactic is employed to avoid interference from the judiciary and central government agencies, as the auction of coal/coke exceeding a certain amount (rough estimated 150-200 tons or more at a time) would necessitate the process going to the high court or the coal ministry. Also, the process initiated by the sub-division or district magistrate ensures that coal/coke auctions are sold back to the same individuals or their associates who have surrendered the coal and coke to the local administration at the lowest possible prices.

Upon completion of the auction process, coal and any related commodities are fully legalised with official documents, allowing them to be exported anywhere for sale or other purposes without hindrance. This is how the powerful extractive actors within the pool of contractors find loopholes in the government system and bypass the legal framework of an auction system by manipulating it. Here, a small portion of the money goes into government revenues, but on the bottom line, it significantly facilitates direct and indirect profit margins for coal contractors, the political class, and corrupted government officials. Simultaneously, on many accounts, this

auction tactic deliberately excludes the small-time and medium-level coal contractors. This level of strategy and connections to the government insiders is impossible for all parties involved in the extractive process, except for a few extremely powerful local elites and super-rich external private players. Besides, the other small players are often forced to sell their coal to these bigger players at the cheapest rates when some uncertainties hit the informal industry from time to time. This again underscores a form of uneven internal power equation within the informal coal industry among other parties involved. A local CSO member, Mr. T. Ronrang expressed those dynamics to me during an interview at Balinong Chariali:

> "The big coal contractors and the local administration do abuse the auction system apart from the transit pass. These have now become government-backed tools through which powerful and influential coal contractors can get their business done. When the coal/coke is put up for auction, it becomes an official and exclusive affair, making it difficult for us (CSOs, village councils) to collect taxes or commissions in any form. But we can't say anything, we have to keep maintaining the status quo".

Here, the auction system is visibly exclusively, open only to a select few influential extractive players, such as powerful local elites and big private players, in collaboration with high-ranking government officials. Other smaller coal miners/players, low-ranking government officials, and local CSOS usually do not oppose it, although they are excluded. In some platforms, however, all these players compromised with each other to work together, and in some cases, the avenues, like the auction systems, are exclusive to the most powerful ones. Yet, regardless of how these internal dynamics play out among these players, they still maintain informal extractive relationships and networks, as they also benefit in their own ways. For instance, checkpoints in the region, such as the mining gate, forest gates, and police gates, are not subject to stringent regulations due to a compromised understanding/nexus among the multiple stakeholders. As such, as mentioned above, only a mere transit pass and a challan issued to coal trucks by the local administration or coal committee is enough to pass through these gates with a nominal fee of Rs. 150-200 at each of these gates.

Furthermore, informal checkpoints overlap with these formal gates around the Kharsang area, which the village youth organisations primarily control to collect taxes/commissions from coal trucks. These local organisations also typically charge Rs. 150-200 at each gate, depending on the vehicle size or the location where the coal/coke is transported. These informal checkpoints

are often invisible to the public and outsiders, yet they remain active throughout the coal mining season in the area. I have spent considerable time observing those gates closely during my fieldwork. Every night during the peak coal season, an average of 100 to 200 loaded coal trucks passed through these gates, underscoring the size and extent of the informal coal industry in the Kharsang area. These insights from the field inform the politics of the relationship between the formal and informal aspects of coal operations, which in turn shape the labour and market dynamics and development context of Kharsang. Here, the informalisation of coal extraction is employed to minimise investment funds, labour charges and logistical costs.

This is similar to what Breman (2016) has interpreted in the context of the informal economy as a regime of predatory capitalism, where informality is used as a means to cheapen labour costs, as well as to prevent the workforce from entering the formal sector of employment and securing decent wages. The Patkai Hills region's existing informal coal industry, in practice, represents this phenomenon, underscoring the larger capitalist takeover of the community's resources. However, although the framework of the informality does exhibit similar characteristics, the socioeconomic and political contexts remain qualitatively different from other regions of the country, as also seen in Breman's work on the informal economy in India. Ultimately, what is evident in the context of the informal coal industry in the Patkai Hills region is that the informalisation of the economy, per se, is closely tied to state-corporate-led development. It is inherently embedded in the accumulation process of capitalism and extractive development, manifested in the forms of informal coal operations and related extractive industries, which are controlled by a nexus among the community local elites, external private entities, and the state.

Amidst the diverse perspectives within the Tangsa community, the elite class and sections of the Tangsas sincerely view informal mining as a developmental venture, although it has mostly generated exploitative outcomes for them over the years for various reasons. The first reason identified in the study is the community's material condition. In fact, the Tangsas have agreed to start a formal coal industry and later engaged in informal coal operations, as they are materially interested in improving their living standard and diversifying incomes. However, while some villagers do not support this idea after years of exploitative experiences, some continue to genuinely believe in this. This is because coal mining generates visible, immediate, and economic output. In economically poor regions like the Patkai Hills, tangible economic

benefits from mining and selling/leasing land for mining appear to bring more income to villagers than failing agriculture, which barely sustains them throughout the year. Also, it is for this very reason of relative comparison between an agri-based subsistence economy and cash-rich coal operations that some villagers support mining despite its exploitative outcomes. Many of my respondents argue that mining may not be ideal, but they prefer it to stagnation, indicating that they are aware of the exploitative nature of the informal coal industry and view it in relation to the constrained options available in their area.

Another major reason why sections of the Tangsa community support informal mining lies in their development aspirations and their moral claim to resource ownership. The community believes it is their cultural right to extract coal from their own land, while state and private players can do so. Although the extractive process has largely been uneven, with power and profits consolidated by powerful local elites and their external collaborators, the politics of legitimacy over resources remains relevant and convincing to the larger community. Many villagers, as evidenced by my fieldwork, assert that they support informal mining even when they do not benefit much from the larger cause of their cultural rights and politics. Informal mining gives them a sense of ownership and power over governing their resources as they want, not as the state wants. For many Tangsa villagers, the state appears unreliable, slow, and distant. Therefore, they sincerely believe that community-controlled critical industries, such as informal coal mining, will help them meet immediate livelihood needs and achieve long-term self-driven development. In that sense, for the sections of the Tangasas who support informal mining, it is development because it already provides income to villagers despite its flaws, and it is a locally driven enterprise with great potential. These dimensions make informal coal mining a viable, practical option and an appealing option to the community, despite its exploitative outcomes, rather than continuing to engage in Jhum cultivation and waiting for the promises of future government development.

# Chapter 4
# Emerging Inequality: Land, Local Ecology and Livelihoods

## 4.1 Land Question and the Process of Appropriation

The push for informal coal operations and related extractive industries in the Kharsang area of the Patkai Hills region has significantly impacted the Tangsa community on multiple fronts. One of the significant impacts on the Tangsa community is dispossession from land and consequently, a changed relation to it. As discussed in Chapter 1, the land for the Tangsas is more than a mere commodity; it is attached to their livelihood and to their cultural association with their homeland, and thus a critical part of their identity. However, the expansion of the region's informal coal industry is transforming the land into a highly commoditised resource. Land transactions within the community have historically been practised among the Tangsas, but the intensity in the present times is considerably incomparable. This aspect of the land question is crucial, as it informs us under what circumstances appropriation of resources is taking place and captures how land relations have changed due to the informal coal industry in the region. Many of my respondents revealed that they often lose their lands to the hands of the local elites and external coal contractors without receiving fair prices. This is becoming a significant factor that exacerbates ecologically unhealthy changes and uneven land relations. In this regard, Mr. L. Techi, a community elder, contends:

> "These days, our villagers are losing their lands and forests at the fastest pace on a large scale, mainly because of the coal industry. It is not only our people who are using the lands, but also the non-local coal contractors from outside our place, who can lease lands as much as they can afford. There are no regulations on the limits of how much one can buy or lease land for coal mining, and that's why wealthy individuals from within community and non-local coal contractors keep on buying and leasing lands for coal mining to gain personal profits as much as possible".

**Fig:4.1**


**Open-cast mining site near Insa village, Kharsang**

This picture depicts two excavators/JCBs extracting coal at the open-cast mining site. It illustrates a heavily damaged Jhum agriculture field, indicating the massive loss of surrounding vegetation.

Amidst the expansion of informal coal operations in the Kharsang area, as pointed out by Mr. Techi, the visible shift that has taken place within the Tangsa community is the extreme commodification of land. Here, the commodification of land for accumulating profits from coal extraction has turned the subsistence values of land for Tangsas into a rent resource. For instance, agricultural lands and forests are now being converted into coal mines or pits, which villagers often lease to contractors for a specific period. This shift is apparent in terms of the considerable degradation of the subsistence values of land that the Tangsa community holds socioeconomically and culturally. The Tangsa community has conventionally used the land for forest product collections, vegetable farming, cash crop plantations, and shifting cultivations, thereby serving as a source of their traditional primary livelihood activities. In fact, in the face of reduced household income and limited formal economic opportunities, the Tangsa villagers have typically relied on farming or land-related subsistence activities for food security and basic income generation ventures, such as selling vegetables, collecting forest-based products, and selling fruits, among other things. These subsistence values may not uplift the Tangsas

economically exponentially, yet, it has historically been the backbone of resilience for the local traditional economy and way of living for the community since time immemorial.

During my field engagements across the mining-affected villages around the Kharsang area, many villagers affirmed that the value of their lands is going down instead of increasing with the coming of informal coal operations and related extractive industries in the region. This argument stems from the fact that most lease or sell away their plots of land for a one-time purchase at meagre prices due to their socioeconomic circumstances, which I discuss in detail in the following sections of this chapter. Here, the main point that the villagers are making is about the overall cost and effects analysis of the land, which is turned into coal mines for a specific cash price tag attached to it in relation to the subsistence utilisation of it. This means that a particular plots of land that villagers leased often do not offer enough benefits, in compared to the recurring use of the same plots for subsistence values for over a period time. However, although it is a vital aspect to look at, this is something that villagers do not have the privilege to think about, as the immediate economic needs and urgent situations primarily drive their decisions to lease or sell the land to coal contractors. Mr. L. Ronrang explained this to me during a lengthy discussion at Kharsang town:

> "In a normal situation, the land is used by the villagers throughout the year for various things, such as farming paddy, vegetables and crops for commercial purposes. Even if it is not used for this kind of particular conventional activity, the land still provides firewood, herbs, and wild vegetables to villagers, apart from performing ecological functions. However, coal mining has left a lasting impact on the land, as it is a one-time economic activity, and this land can't be used for 2 to 3 decades for any purposes. So, if we calculate properly, the traditional value of land usage is way more profitable than the one-time economic venture".

The impact of the informal coal industry on land usage among the Tangsas, is drastically accelerating the dispossession of land both quantitatively and qualitatively. Here, the quantitative aspect of land represents appropriation of the physical plots of land by local elites and external coal contractors from villagers, while the qualitative aspect represents the subsistence values associated with those plots of land. This development in the region has increased the dependency of the Tangsa community on external markets and state-led initiatives, like welfare schemes. Moreover, the collateral damage or impact has also been felt

in the cultural-political dimension of the community affairs, as the social relations of the land-holding system and subsistence functions of land are closely intertwined, among the Tangsas. This again brings to light that the meaningful use of land for the community inherently clashes with the capitalist valuation of land, which is characterised by maximised economic profit interests. Also, a shift from a shared community resource to an individually held commodity with profits accruing to a smaller number of individuals. The informal coal industry in the Kahrsang area is thus an expression of this very capitalist valuation. The land becomes, in a broader sense, a rental commodity and a means of capital for the coal contractors to exploit resources, generating economic benefits for a few at the expense of the many.

Apart from becoming a tradable commodity from a community resource, the mechanisms through which lands are transferred for the informal coal industry within the Tangsa community are highly exploitative practices. These exploitative practices and processes strip the villagers of the economic value of their land, which they had aspired to gain after sacrificing the subsistence values attached to it. As discussed in Chapter 3 and earlier sections of this chapter, the land transfer, whether it is leasing or selling, usually takes place on terms set by the buyers, who are primarily local elites and external coal contractors. Due to the lack of bargaining power of the poor villagers, the buyers (contractors) often take advantage and lease land at significantly lower prices. Many of my respondents across the Kharsnag area have termed this practice as a "double exploitation" of the villagers by the local elites and external coal contractors. Here, the agency of long-term continuity subsistence values that come from the land is not only disposed of by short-term economic profits, but also most of the Tangsa villagers are also denied rightful short-term economic profits. The result of this is that the money that villagers get from the land is often not sufficient to reinvest in other viable businesses or alternative livelihood activities. Mr. E. Langching, a community elder, states:

> "Our villagers are losing out rather than benefitting from the expanding coal industry. This industry is supposed to make us richer, but the majority of us (villagers) are getting poorer. The exploitation of the poor villagers in the coal industry is real, and it is without any checks and balances. The root cause of this exploitation within the industry begins with how the transaction of land is conducted. Still, within the informal coal industry, there are no land price regulations that protect the interests of the ordinary villagers, while the rules of prices of coal, coke and logistical aspects are in place as per the regulations of the coal committee".

The absence of regulation for overseeing land prices allows local elites and external coal contractors to lease or buy land from poor villagers at the cheapest rates. The mining-affected Tangsa villagers from the Longsi, Longsa, and Insa remain among the most vulnerable people, who are losing their land and forests at the fastest pace. These villagers noted that the local elite, who control the informal coal operation in the region, have not addressed their grievances so far concerning the regulation of land prices, both for leasing and selling. On the other hand, multiple public leaders and local coal contractors (local elites) argued that by default, the commodification of land and resources is bound to take place if the community want development and economic opportunities. Some of the reasons they often cite for not regulating the land price are the informal nature of the industry and the area's topography, which hinder them from establishing a uniform price for plots of the exact size. Mr. N. Khimhun, coal contractor from a community, also remarks:

> "The coal committee is able to come up with regulations for the price of coal and coke because these commodities are linked to the prices at the larger regional market rates. The committee members do not simply formulate it as they wish. If the coal committee starts to similarly link land price as per the market or government rate in our place, then the villagers will get even lower prices than they are getting now from leasing and selling their lands".

Despite such justification, a majority of the Tangsa community continues to desire an appropriate floor price for land (lease and sell) to prevent what they perceive as an unfair appropriation of land by local elites and external coal contractors. Many of my respondents, in fact, countered different narratives coming from local elites, such as those raised by Mr. Khimhun. The villagers argued that, even if they could logically understand the coal price regulation as being fixed according to the regional market, they did not comprehend the logic behind the coal committee's decision to set specific entry fees for external coal contractors. Mr. L. Rekhung, a community member, asserts: "If the coal committee members can come up with an innovative idea to set entry fees, they can also come up with land floor price regulation". The frustrations and resentments of the larger community towards the coal committee and local elites do not end here. The larger sections of the poor villagers do not like the way the land appropriation process and coal industry, per se, are unequal and pro-influential actors, such as the local elites, external private players, and the state. They are also very concerned about the

changing interpretations and manipulations of customary laws by the local elites by which appropriation of resources is taking place. A community elder, Mr. A. Techi, again reiterates:

> "The local elites have not only taken away the lands from poor villagers but also instrumentalised access to community lands to external coal contractors by overhauling government systems and customary laws. No one is talking about addressing this concerning issue, although it is drastically changing the way lands are being used or expected to be used among our community".

Many villagers in mining-affected areas around Kharsang frequently complain about this exploitative practice and also the difficulty of negotiating higher land prices with local elites and external coal contractors (private players), as highlighted by Mr. Rekhang and Mr. Techi. Mr. Rekhung further argues: "We know that we need to sacrifice something (land) to gain another thing. This is a game of modern development, but the manner in which land and forests are appropriated for coal mining is problematic in multiple ways". A similar phenomenon has also played out in the neighbouring states of Assam, Nagaland, and Meghalaya, where informal coal mining is prevalent, and local elites, along with external private players, enjoy the benefits (Dutta, 2022; Kikon, 2019b; McDuie-Ra & Kikon, 2016b). The local elites, such as Mr. N. Khimhun, nonetheless, continue to defend the informal coal industry, arguing that it is unfair to blame them for all the negative things, while the villagers themselves are giving land and also engaging in the industry. Mr. L. Mossang, a public leader whom I interviewed at Miao town, maintains:

> "Development cannot come by itself without some sacrifices and little inconveniences. Some people just keep complaining! If we want better physical infrastructures, industries, and economic opportunities to come to our place, what is the harm in giving some land for the greater good? Our people need to change their attitudes from being anti-development to pro-development, as we are falling behind other communities in all aspects. The coal industry is an important means for us to progress economically"

These varied narratives coming out from the villagers and local elites underscore the evolving nature of their socioeconomic aspirations over the years, as well as the complex, uneven power dynamics within the Tangsa community. It is true that a massive amount of land has been appropriated for the informal coal industry, made possible through the active participation of

the community. Evidently, thus, the larger Tangsa community is not outrightly against the developmental activities, including the informal coal industry, nor do they deny that they want it. Here, whatever it may be, the cost of such development is mostly borne by the larger Tangsa community. The choice made by villagers is largely under duress and influenced by specific socioeconomic circumstances, shaped by a coercive power structure operating in the Patkai Hills region, while their aspiration for development also plays a significant role, to some extent. Also, at the core of these complexities concerning the informal coal industry lie visible institutional shifts, policies, and practices, such as a weak regulatory framework or state deregulations, which have fuelled the over-commodification of land.

## 4.2 The Unfolding of the Prepaid Land Leasing System

When the central government imposed a ban on coal operations in the Kharsang area in 2012, the informal coal mining immediately started to spread like wildfire across the region. First, this ever-expanding informal coal industry gave rise to the coal committee as an institutional body to oversee the entire operation of the industry (as discussed in Chapter 3, section 3.7). Second, the seasonal land leasing system for both insiders and outsiders (external private players) began as a new way of doing business within the informal coal industry in the Kharsang area, which is now replicated across the mining-affected areas in the Patkai Hills region. Consequently, this land leasing system became one of the most consequential aspects of the extractive business of the informal coal industry, although many villagers engaged in the extractive process in different ways. Some of the villagers became rat-hole miners and small-time open-cast coal miners, while a select few were able to become part of the local elites. However, it is evident from the field that the engagement of the larger poor villagers, small-time open-cast miners, and rat-hole miners in the informal coal economy is deeply unequal, as they are being exploited through the extractive process. Furthermore, though many villagers lease their land to outsiders on a large scale, they do so on the assumption that it is only for a particular season. This phenomenon, however, is changing land relations since the appropriation of resources is not limited to permanent alienation, but also because of the extensive destruction caused by mining activities. Mr. L. Simai, an educated youth from the Tangsa community, with whom I interacted at Jairampur town, where the informal coal mining has become active in recent years, laments:

"Our people are innocent, many are helpless and compelled by their poor conditions, but several of them are ignorant as well. They believe that leasing land for a specific mining season is acceptable, since it does not constitute a permanent sale to the contractors. However, once mining is completed or undertaken on a particular plot of land, the villagers cannot use it for anything useful for at least 25-30 years. If this is not an unfair loss of resources, then what is it? I don't know".

**Fig:4.2**

**Coal mines on the way to Changlang town**

The land leasing system is spreading across the region beyond the Kharsang area, exponentially expediting the growth of the informal coal industry in the Patkai Hills region, given the fact that the leasing system made land readily available and accessible to external players for mining purposes. I frame this system as "prepaid land leasing" to understand the nature of how the community land holding practice is turning into a rentier economy of land commodification. Here, the lease contract requires the contractor to make payment before mining, covering only the land cost, with no royalties or recurring benefits for the landowner

from extracted coal. In some cases, contractors fail to secure coal seams in the plot lease for mining, resulting in complete losses; in most cases, they strike massive profit margins from the coal. In both scenarios, the Tangsa villagers (landowners) incurred losses due to the dispossession of their land at a very low price. At the same time, the coal contractor faces risk only in the first scenario, which also rarely happens, as was evidenced by field narratives and my engagements with the villagers and coal contractors. In the conventional rentier economy, the owner of commodities like land often retains considerable profits, although not equivalent to those of capitalist investors. However, unlike those settings, the prepaid lease system, which operates informally without any regulations or customary mandate, is creating a space for influential actors, such as local elites and external contractors, to over-exploit and appropriate the villagers' land. Mr. L. Youngja, an educated local youth, reiterates this situation during the interview:

> "Powerful individuals, mainly the local elites and coal contractors from outside, often take advantage of the poor economic conditions of the villagers to buy and lease lands, as land transactions within the community and leases to outsiders are unrestricted by the customary laws of our Tangsa community. To make the situation even worse, there are no regulations in any form from the coal committee and village councils concerning overseeing and promoting the fair price of land for the villagers. Due to these reasons, a majority of common villagers who lease or sell their lands to them do not get a good price".

Many of the respondents from the Kharsang area shared the same concern, noted by Mr. Youngja. However, within this informal coal industry, despite its exploitative nature, most villagers opt to lease their lands because it is the easiest and quickest way to make money whenever they need it. Here, apart from viewing leasing as not a permanent alienation, the primary reasons for the larger community to engage in leasing land is high cost and the massive investment required to do core mining-related businesses. This requirement of heavy capital expenditures with significant economic risks excludes the larger sections of the Tangsa community from the main coal businesses, like direct coal mining and running coke plants. Mrs. M. Techi, a resident of Kharsang, told me that leasing of the lands, particularly, enables villagers to meet their daily basic needs during our interaction, while the main coal enterprise remains inaccessible to the poor Tangsa villagers. She maintains:

> "I would prefer to give my land on lease for a specific season rather than permanently selling it, although the leasing system has considerably accelerated the growth of coal mining. This is because we have to educate our children, and we have to survive in the face of the highly demanding cost of living and lifestyles! And common households like my family cannot afford to venture into the main mining business. In this case, what can I do if not leasing land?"

For Mrs. Techi, land leasing is a creative way to engage with the informal coal industry, which urgently needs reforms and corrections. The villagers used to and still hesitate to give away their land permanently for mining. However, they no longer usually hesitate to lease land for mining for a particular season, yet despite reiterating that it is not permanent, others, like Mrs Techi, note that they are forced by circumstance into such leasing. Leasing, then, whether short-term or permanent, is hardly a choice.

These diverse realities of the field highlight the anxieties of exploitation associated with the lease system, while also underscoring the cultural sentiments of community people who remain attached to their land, which still holds symbolic significance. It is in this context that Mrs. Techi constantly stressed that land leasing is temporary, not permanent alienation, but she also acknowledges that exploitation is happening because of her weak political position, social locations and economic situations. Corresponding to Mrs. Techi, multiple respondents in the Kharsang area who have leased and are leasing land similarly expressed their situations, where poor socioeconomic conditions have led them to go for short-term profits. Here, the leasing system is perceived as unfair by the respondents, yet they continue to engage with it as a better alternative to survive or support their households.

Nonetheless, what is now becoming an irreversible problem within the region's informal coal industry as a result of this developing phenomenon has extended beyond the unfair price of land. The business of short-term, quick money (leasing) is now reinforcing not only economic exploitation, but also socioecological marginalisation of the community as a result of exponential easy access to the land at throwaway prices. As discussed earlier, this is directly attributed to the becoming of land as a cheap rental commodity over the years, which has been normalised among the Tangsa community. This is happening to the extent that it is establishing a dependency extractive cycle in some cases, in which, even in the off-mining season, the local elites or external coal contractors give advance cash to the villagers whenever they are in urgent

need of money to lease their lands. This new phenomenon not only keeps the Tangsa poor villagers tied to the extractive cycle of leasing land for informal coal mining, but also keeps the land price lower. A coal contractor, Mr. D. Bora, who is originally from Upper Assam, said:

> "It is true that the land of the Tangsa villagers becoming a leasable property is expanding the coal industry in the region. But this doesn't guarantee a cheap price for us (contractors), as there is some hidden competition among the buyers, making the land price competitive. Apart from this, the leased land also doesn't guarantee the coal inside the plot that we brought (leased) from the villagers. Given all these factors and risks involved, in addition to the fact that we are not taking the land permanently, what we are paying for the land to the villagers is justified".

What Mr. Bora highlighted remains a widespread standpoint of the local elites and external coal contractors involved in the informal coal operation in the Khasang area of the Patkai Hills region. However, as stated by multiple of my respondents, the lease price is low, and they often give away their land not out of preference but out of necessity to address their immediate economic needs. This issue of land leasing is now gradually gaining currency among the Tangsa community, but as of 2023, during my fieldwork no concrete resolution had been passed. In the meantime, the existing land leasing system is allows extractive actors, particularly the local elites and external private players, to determine land use, although, in name, it belongs to the Tangsa villagers. In this regard, Mr. L. Mossang, another coal contractor, a local from the Tangsa community, whom I interviewed near the Insa village at the mining site, states: "It (leasing system) is something that needs to be fixed, but the stakeholders must come together on a same page, which is challenging since we are running an underground informal coal operation." However, many villagers across the region do not buy this kind of point, arguing that the coal committee typically does not involve the larger Tangsa villagers in the decision-making process, particularly when setting the rates of coke and coal, and other critical aspects of the informal coal industry. They repeatedly pointed out that the coal committee deliberately do not standardise or regulate the minimum price floor for the selling and leasing of lands. Mr. S. Lungphi, a villager, asserts:

> "It is not a big deal to fix the minimum price floor for the selling and leasing of land for the coal committee, while we can have price regulations for coal/coke, transit pass and entry fees. I am sure the villagers will come forward happily to support this if they

> decide to regulate the land prices. But they (coal committee members) are not initiating this because they are benefiting from the usual businesses that have been going on now for over a decade".

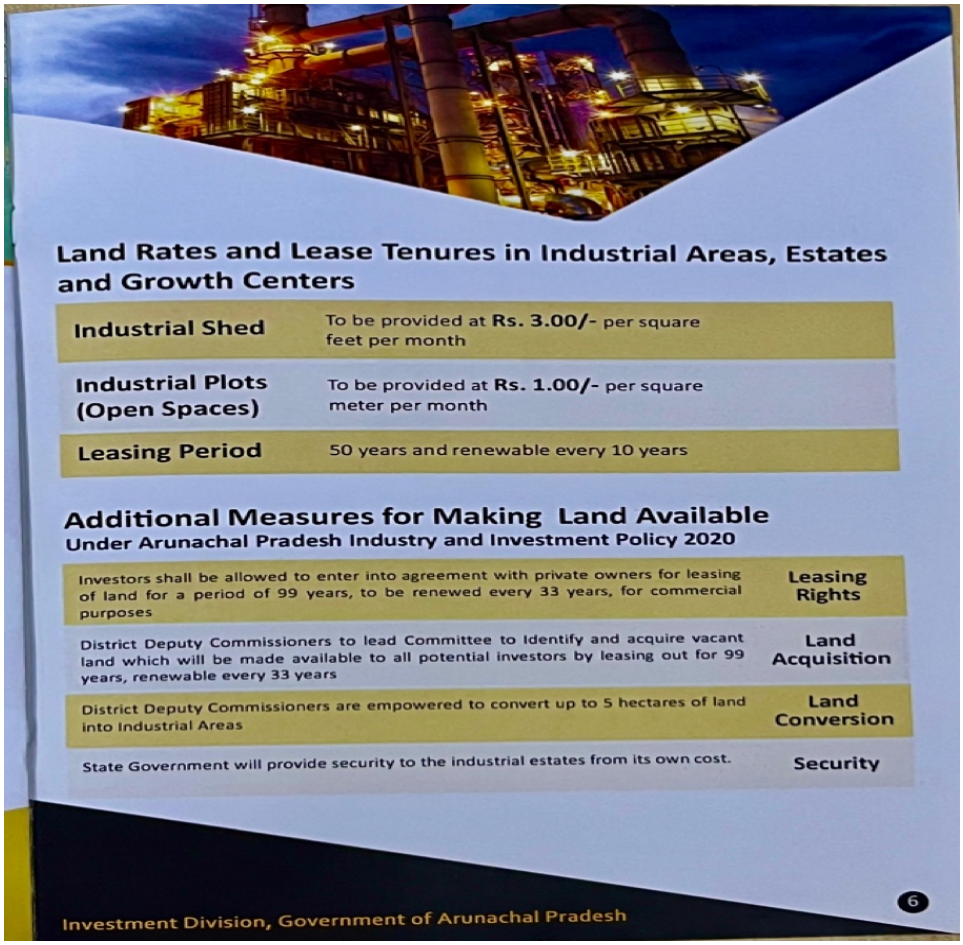
Within this complex power-dynamics and socioeconomic conditions, the prepaid land leasing system for the informal coal industry has emerged in the Patkai Hills region. These developments on the ground have been increasingly diminishing the idea of land as a social/cultural asset among the Tangsa community, underscoring their constraints which compel them to view resources as economically viable commodities. Here, the prepaid land lease serves as a primary entry point for external capital to penetrate the region's informal coal industry, which is a result of both intra-community dynamics and institutionalised economic structures. In a broader sense, the informal coal industry, per se, began as a structural coercion due to the lack of formal economic opportunities and alternative livelihood activities. Simultaneously, the land lease system has emerged as a necessary option in response to the industry's needs, in a way that normalises resource appropriation and economic exploitation of the larger community. However, the larger problem in this land leasing system is that it is not only accelerating the unjust economic exploitation, but it is also adversely impacting landholding within the Tangsa community and unsustainably changing the region's entire socioecological landscapes.

## 4.3 The State's Position

The land leasing and other factors within the informal coal industry in the Patkai Hills region clearly show that it is a community-led, but externally driven enterprise. In particular, the utility of the land is mainly controlled by the private players who take advantage of the lack of regulations and informal negotiation tactics. Within the context of the Patkai Hills region, the local administration consistently seeks to distance itself from informal coal operations, yet continues to profit from mining-related activities, including the issuance of coke plant permits and transit passes, as discussed in Chapter 3. Thus, the state's position concerning the issues of the informal coal industry, the appropriation of land and addressing the ecological problems, has been both contentious and pro-industrial. As evidenced from the previous discussion and my field engagement, the state is not just out of the scene, but is actively complicit in the operation of the informal coal industry in the Patkai Hills region. Many of my respondents

(villagers) claim that the involvement of the state government in the informal coal operation is an open secret in the region. They would often cite examples such as coke plant permits and coal transit passes, which are provided to coal contractors by the local administration. Here, it is also crucial to note that the state's role in the appropriation of land, or for that matter, in the daily operations of the informal coal industry, is not linear. It is reflected in and exerted through multiple forms of market-friendly policies, weak regulatory mechanisms, and deregulations, along with bureaucratic support, such as facilitating the issuance of coke plant permits, transit passes, and the coal auction system, as mentioned by my respondents above.

**Fig:4.3**




**Credit: Investment Division, Government of Arunachal Pradesh (Ar.Pr.).**

**Land rate and lease tenures as per the Ar. Pr. Industrial Policy, 2020**

This photo is an extracted document of the Arunachal Pradesh Industrial Policy, 2020, showing the market-friendly land rates and lease tenure formulated by the Arunachal Pradesh government to attract external investors.

These characteristics of state-led loopholes for extraction continue to contribute to driving the informal coal industry in the Patkai Hills region. In addition to ground-level complicity, state policies generally favoured the growth of extractive industries, including the informal coal industry, directly and indirectly through the policy framework by default and design. For instance, the provisions of the Arunachal Pradesh Industry and Investment Policy 2020 enable investors to enter into agreements with private owners for leasing land for 99 years at a very low cost, with renewals every 33 years, for commercial purposes such as coal and oil extraction. According to the Arunachal Pradesh Industrial Investment Policy 2020, industrial sheds are available to both industrial and private players at a rate of Rs. 3 per square foot per month, while industrial plots (open spaces) are available at Rs. 1 per square meter per month. Additionally, the same policy empowered the District Deputy commissioner-led committee to identify and acquire vacant land, which can be given to the potential investors for 99 years on a lease and be renewable after every 33 years. The District Deputy Commissioner was also given the power to convert up to 5 hectares of land into industrial areas without further verification.

Furthermore, the state government promised to provide security to the industrial estates and private companies at its own expense. This rare component indicates the militarised nature of extractive industrialisation in the region. It is particularly applicable in the context of the Patkai Hills region, as being the epicentre of industries in the entire Arunachal Pradesh, and also due to the involvement of the armed insurgent groups in extractive activities, including oil and the informal coal industry. All these market-friendly policy measures, including the easy and simplified leasing rights, land acquisition, and land conversion, along with the perks of security assurance, clearly underscore the intention and action of the state. It is important to note here that these land rates and other measures fixed by the state government do not apply to the leasing or selling of land in the case of the informal coal industry in the Patkai Hills region. However, this has undoubtedly created favourable conditions for the extractive practices to grow and expand in multiple ways on the ground. Mr. L. Semtang, a villager, illustrates this situation in the Khasang area:

> "While negotiating for leasing or buying the land for coal mining, the contractors would usually compare with the government rates, claiming that they are giving a leasing price much higher to the villagers compared to the mandated government rates. This way,

> the local elites and coal contractors often interpret the formal laws and policies in their favour to exploit the villagers, appropriating their lands at a very cheap price".

These ground realities reflect economic bias in favour of extractive-oriented industries, like oil and coal operations. At the same time, investments in agricultural processing units and manufacturing plants have not seen progress in the region so far, which is the structural outcome of how the policy is designed and directed to nurture extractive industries. As discussed in Chapter 3, for instance, the oil and informal coal operations have made the Patkai Hills region a mere extractive site, not an industrial zone. As a result, the land and other resources of the Tangsa community have become raw materials extracted for processing in Assam and other regions of the country. This is evidently a result of the spillover of the state's larger neoliberal policies, wherein the extraction aspect is gaining prominence over industrial activities, explicitly underscored by the lack of formal job creation and the absence of other economic opportunities in the region. In addition, the continuous and over-appropriation of land for the informal coal industry is destroying the subsistence values, which is furthering the marginalisation of the Tangsa community under the watch of the state. In this regard, an officer, Mr. W.L., whom I interviewed at the Kharsang sub-division office, argues:

> "The purchase or leasing of the land of the villagers by the coal contractors is a mess created by the community itself. We have been trying our best to stop the illegal coal mining, but they don't listen to us (the local administration). The illegal coal industry doesn't come under our administration, so I don't have much to comment on; it's for them to reflect".

Regarding the land price regulations for commercial purposes established under the 2020 Industrial Policy, the same officer and other officials assert that these regulations are crucial for the state's long-term economic development. Throughout my fieldwork, the government officials have often given these kinds of plain answers, mostly blaming the local communities for the expansion of informal coal operations and justifying their position (policies and initiatives) as pro-development for the welfare of the community and the state as a whole. In one instance, I interviewed a higher official at the state secretariat in Itanagar, who plainly rejected the existence of informal coal operations, stating he no longer wishes to discuss the matter. I was surprised by the abrupt discontinuation of that particular interview about the informal coal industry and related issues like the loss of land and local ecology, given the fact

that this very officer was one of the key officials who conducted the inspections to check illegal coal mining in the Kharsang area not very long ago. Those kinds of inspections by state officials, however, have been ineffective on the ground, and many villagers in the region argue that these are all publicity stunts. The state, in this context, clearly plays a paradoxical role in nurturing the informal coal industry, as evidenced by its enabling of open mining activities in the Khasang area without any accountability.

Most of my interviews with state officials were monotonous, abrupt, and limited, as they hesitated to speak freely because informal coal mining is a highly politically sensitive issue in the region. Also, many government officials and officers have refused to speak, and some who granted interviews played it safe and were very cautious about discussing informal coal mining. The government officials' refusal to speak and the open, informal mining suggest that the state is deeply complicit in the operation of the informal coal industry in the Pakai Hills region. Thus, limited voices of the state, per se, are an empirical feature of bureaucratic governance, wherein the state is also deeply involved in the informal extractive economies, the informal coal industry.

On paper, the local administration enforces the ban imposed on coal mining, but in practice, it not only enables but also derives benefits from the informal coal operations. The state's policy, for example, allows capital to come in, and the bureaucratic loopholes within the local administration facilitate the local elites and external private players to use that capital freely to operate the informal coal industry. Here, the state generates revenues from the informal coal operations through bureaucratic processes (permits, transit passes, and auctions) and logistical control (checkpoint charges, etc.), as mentioned earlier. On the other hand, the state continues to deny its complicity, but the revenue collections by local administration and the enabling of a shadow institution, namely the coal committee, demonstrate how the state can govern extractive projects by embedding itself in a parallel power structure. Furthermore, despite the Kharsang area (Balinong) being declared as a Special Economic Zone (SEZ), there are no substantial industrial investments or economic enterprises. Instead, the informal coal operations, which the government has banned, ironically remain a de facto economic driver, which primarily aligns with the extractive interests of the state and influential coal contractors, and not with the development aspiration of the larger Tangsa community.

## 4.4 The Local Ecology and Livelihood Concerns

The unfolding of the lease system, coupled with the state's nurturing of the extractive industries, has not only intensified the expansion of the informal coal mining industry but also brought on far-reaching ecological consequences, leading to the loss of considerable agricultural lands and deforestation. These recurring entangled issues stem from the highly extractive and exploitative nature of the region's so-called development and economic activities, particularly the informal coal operations. Over 95 per cent of the informal coal industry in the Kharsang area is undertaken through open-cast mining, which is both extraordinarily intensive and destructive in nature. As a result, the widespread destruction of fields and forests for coal mining directly impacts the region's larger local ecological landscape, adding more concerns about changing land relations and the livelihood security of the Tangsa community. The emerging shocks, such as the shifts in weather patterns, concentrated rainfall, air and water pollution, and loss of vegetation, among other issues, are some recurring impacts that the Tangsa villagers around the extractive sites are experiencing in the region (Changmi, 2024). Ms. F. Langching, an educated youth from the community, whom I interviewed at Khasang town, states:

> "The most visible impact of the coal mining industry in our place (Khasang area) is ecological destruction. The massive deforestation in the region is visible to our naked eyes; the greenery is disappearing fast in our surroundings. We don't need environmental degrees to see, feel, and understand; it is just too obvious if you go around the Kharsang area. Unfortunately, our government cannot see it, and some sections of our community also overlook it for economic greed".

The weakening nature of the state's monitoring mechanism for environmental protection, combined with a deregulatory approach in the name of promoting economic activities, further creates conditions for coal extraction and allied extractive activities to expand in the region. The ecological toll of the informal coal industry is intensifying in the environmentally sensitive zone as well. Yet, the local elite justifies its operation as an industrial necessity, and things will eventually get better. However, many of my respondents, including Ms. Langching, argue that the ongoing informal mining is causing far more destruction than it is giving benefits, both on the socioeconomic and environmental fronts. On the ground, one of the contested narratives within the Tangsa community was about balancing the cost of development and subsistence

values of the resources, such as the land and forests. It was evident from my field engagement that sustainability and ecological concerns remain sidelined in the region with the operation of the informal coal industry. This, in turn, is accelerating the loss of the region's biodiversity, underlined by the land destruction and reduction in forest cover, and soil degradation, as evidenced by my fieldwork. These are the immediate, tangible ecological impacts that local populations are visibly facing, which are directly perpetuated by the rapid expansion of informal coal mining in the region.

This phenomenon, consequently, destroys and decreases the ecological base of subsistence values of agriculture and forest-based products, among other things. This is where the systemic degradation of the long-term livelihood security of the Tangsa community is entirely jeopardised, as they primarily depend on a subsistence economy, which again works at the mercy of nature. Many villagers, whom I interacted with and interviewed in the mining-affected areas around Kharsang, disclosed that the drastic decline in agricultural and horticultural crops has become more frequent since the expansion of coal mining operations in their area. This is a critical situation for the ordinary Tangsa villagers, as it leaves them economically vulnerable and with limited livelihood options. As a result, this forces them to continue selling and leasing their lands to support their families, again entrapping the villagers in the extractive cycle of the informal coal industry. This also underlines the contradictions of the informal coal industry, where the Tangsa community is stuck in the same extractive venture they sought to use as a means to gain more economic opportunities and diversify their livelihoods. The problems for the villagers further become more long-term when they lease land for mining, extending beyond the immediate impact. Mr. T. Longphi, at Balinong Chariali, states:

> "I gave one of the Jhum fields (agricultural plot) on lease to a coal contractor from Assam two years ago, as I needed money for some urgent personal work. The land is mine now, but it is severely damaged, and I will not be able to cultivate for approximately 25-30 years".

These kinds of emerging realities are amplifying the vulnerability of villagers, like Mr. Longphi. Some of the Tangsa villagers also revealed that the rotational period of *Jhum* cultivation has decreased from 5-6 years, as they have leased and sold some of the *Jhum* fields for coal mining to the contractors. Resultantly, the reduction in the rotational period of Jhum

fields has affected the fertility of the soil, which is also contributing to the decrease in agricultural output. Here, when the rotational period of the *Jhum* cultivation declines, it proportionately reduces the ability of the vegetation to regenerate, which in turn accelerates the drastic soil erosion and drought-like situation of desertification. These ecologically related problems in relation to the informal coal industry are intrinsically linked to the more recent materialist conception of resources in the Patkai Hills region. Within this context, the ecological dimension is overlooked by the inherently exploitative process, which places economic values above nature and the local communities relying on it for socioeconomic security. Shedding light on this, Mr. A. Haidley, who is a student leader in the Kharsang area, affirms: "Our people are blinded by economic greed. I know every one of us is responsible for the current crisis, but the coal committee can at least make sure that mining is not allowed in the water catchment areas and ecologically sensitive zones". This concern, raised by a student leader, was shared by many villagers and most of my educated respondents.

**Fig:4.4**

**Destroyed hills due to mining near the Kharsang oilfield**

This image depicts a destroyed hill and forest resulting from informal coal mining activities near the Kharsang oilfield, highlighting the intensity and severe destruction caused by the ongoing extractive activities in the area.

Nevertheless, my findings from the field indicate that no civil society organisations (CSOs), including students' unions and village councils, have taken concrete steps to address the ecological crisis and its related emerging problems in the region. At the same time, as mentioned in the previous section, the local government has also not taken action in this direction. Since the coal industry in the region is informal, mining and related extractive activities usually do not follow environmental impact assessment, pollution guidelines, or any other government mining regulations. During my fieldwork, I visited multiple Coke plants in the Kharsang area and found that none of them had a standard industrial manual or operating norms. The processing of coke was taking place openly, without any guidelines, while also exposing the workers to extremely high health risks. I also visited the various open-cast mining sites, where I witnessed the mining process and also interacted with the contractors and workers. One of the things that both the contractors and workers have repeatedly highlighted is that they ended up digging or extracting the entire land leased by them from the villagers. They typically show little concern for underground water bodies, catchment areas, and ecologically fragile zones. The contractors and miners are primarily concerned with extracting coal to recover their investments and generate possible profits, as evidenced by my field engagements.

Apart from the profit-making dimension, I found that coal contractors' reasons for blanket extraction or mining without regard for catchment areas and sensitive biodiversity zones are primarily due to a lack of the scientific tools and machines needed to locate coal reserves within a particular plot of land. Due to these reasons, they often extract whatever is possible from the excavators/JCBs. Concerning this, both the contractors and the Tangsa villagers widely agreed upon one thing: The unscientific features of the informal coal operations have proved to be very costly for all the involved parties manifold. Here, extraction by guessing unnecessarily destroyed the land and forests of the Tangsa villagers, while it also incurred massive losses in expenditures, such as excavator rental, labour charges and fuel, among other things, for the contractors. This process, by default, intensifies land degradation and adversely transforms the region's overall ecological landscapes, making natural recovery challenging and also costly to reclaim through human/technological interventions. Both ways, this environmental aspect of

the informal coal industry has, in that way, further evolved into an expensive affair of ecological loss and an economically risky game. A local coal contractor, whom I interviewed, admits:

> "After spending huge money (investment), I can't afford to care whether a particular plot of land is located in the catchment area or an ecologically sensitive zone. Our business runs on luck. We sometimes end up with nothing when we dig the land. Since coal reserves are not available in all lands, we must extract coal from anywhere accessible to us, including land leased to us, to find some. This is the nature of business here, I can't help it."

The ground realities from my field work explicitly underscore the ecological impacts of informal coal operations in the Kharsang area of the Patkai Hills region on the Tangsa community living around the extractive sites. As discussed above, these impacts have affected the villagers in various forms, including deforestation, agricultural land degradation, loss of water catchment areas, and environmental pollution, among other recurring issues, which are disrupting the base of the livelihood pattern of the local community. And this interplay of ecological impacts and livelihood concerns is further deepening the precarious condition and intra-inequality within the Tangsa community. This entrenched precarity and inequality are directly tied to the informal coal operations, producing a long-term set of vulnerabilities for the mining-affected Tangsa community. The combination of these consequences is shaping their daily economic activities and way of living, in a sense of shifting from diverse subsistence occupations to extractive dependence. Here, it is further seen that ecological and livelihood impacts reciprocally reinforce each other, in relation to the intensity of coal mining and related extractive activities in the region.

## 4.5 The Difficult Terrains of Economic Opportunities

The physical consequences of the informal coal industry are evident in the altered ecological landscape, resulting in adverse impacts and implications for the economic well-being of the Tangsa community. Here, the enormous pressure put on the land and other resources of the villagers due to expanding informal coal mining and related extractive activities has played out unevenly, wherein the larger Tangsa community received a bare minimum return compared to the damage incurred. As discussed above, villagers are now grappling with the decreasing

agricultural produce and weakening traditional livelihood security resulting from disturbances in local ecological degradation, which is also accelerating climate variation linked to the increasing extractive activities in the region. In most cases, the burden of these emerging socioecological and economic problems tied to the informal coal operations is often inevitably put on the common villagers. On the other hand, the local elites remain unaffected since they can withstand those problems economically through the profits they made from the extractive businesses in collaboration with the external coal contractors. Given this, the economic opportunities, both subsistence livelihood options and formal income-generating activities, remain extremely limited for the larger Tangsa community. Mr. L. Tikhak, a community elder who resides at Kharsang, states about these realities in the Kharsang area:

> "The coming generation is not interested in agriculture anymore. We can't blame them entirely since the outcomes are not as profitable as they used to be. All thanks to the coal mining and other extractive activities in the region. There are no jobs, nor are traditional agricultural practices economically viable for our community".

**Fig:4.5**

**Coal survey site near Longsi village**

**This picture shows the geological surveyor collecting and arranging samples of coal available at Kharsang**

This issue, highlighted by Mr. Tikhak, goes deeper than just about the impact on agriculture and allied subsistence sectors, which many of my respondents have underlined during field engagement. Many of my respondents reiterate that informal coal mining has led to the loss of agricultural-based activities, and at the same time, has also failed to create mining-related employment and businesses for the Tangsa villagers. During my fieldwork, there were some government-sponsored preliminary mining-related activities, like surveying of coal deposits, taking place across the Kharsang area. A government-approved private company was undertaking the geological survey to identify the magnitude of mineral reserves and types of coal available in the area during my fieldwork. These exploratory activities do not amount to coal mining, so the state government is allowed to undertake them, as they do not fall under the ban clause of the legal framework. There are many formal jobs, such as geologists, surveyors, technicians, machine operators, and security personnel, among others, in this preliminary work as well. However, all these exploratory activities are completely outsourced by the state government to a private company from outside the state, making jobs in this sector inaccessible to the locals.

What I found from my fieldwork is that the only security personnel to guard the machinery at the survey sites were the local youth from nearby Tangsa villages around the Kharsang town. The absence of a single official from the local communities in the technical survey team resulted in negligible employment opportunities for locals in the formal exploratory coal industry sector. Also, those who work as security guards are often paid very little, as they are among the lowest-level jobs in the industry. When I interviewed a security guard at the survey sites, they revealed to me that they (security guards) are paid Rs. 9000 per month, and their working hours typically last for 12 hours a day. Moreover, despite working for a company sponsored by the government, these security guards are often hired informally with the recommendation of local public leaders, such as GBs, panchayat members, and prominent politicians. This became clear when Mr. A. Longri, one of the security guards, disclosed to me that they were not affiliated with the company, unlike the survey team. He maintains: “We are hired as part-time security team. We are not officially affiliated with the company, but we get money regularly, although payment is less”.

A local public leader, whom I interviewed near Namchick gate, clarified that, given the survey is a short-term, exploratory project, there is no question of security guards (locals) being affiliated with the company. However, although it is a short-term project, the fact remains that

even in the formal sector, influential actors, such as local elites and external private companies, often employ informal tactics to reduce labour costs and widen profit margins. This is how the larger Tangsa community is excluded from the economic benefits of a formal setting. This exclusion and exploitation of the community is further deepened within the informal coal industry in the region. Several of my respondents claim that it is challenging for the locals to get jobs, even in the logistical and operational sectors of the informal coal operations and related extractive industries, like the brick kilns and minor mining. Validating this claim, during my fieldwork, I found that over 80 per cent of those who work in informal coal mining and related industries are from outside the Patkai Hills region. Except for a few local pick-up and mini-truck drivers, most of the mining sector workers, including the excavator operators, truck drivers, and labourers at the coke plants, are migrants from other states, particularly Assam and Bihar. A community leader, Mr. S. Longphi from Kharsang, further explains this situation to me during the interview:

> "There are many educational dropouts and unemployed youth in the Kharsang area, but it is difficult to get them engaged in the informal coal industry and related sectors, as the operation of mining-related activities requires skilled individuals who can operate and drive excavators/JCBs, motor graders, and heavy truck drivers. There are other mining-related works in coke plants, but our people usually do not work in these areas because they are poorly paid and involve a lot of risks. In this case, the migrant workers fill these gaps".

Given all these reasons and other factors, the job prospects in the informal coal industry and related mining sectors remain either precarious or inaccessible to the larger Tangsa villagers. This has also been attributed to the lack of access to vocational training institutes and the skilled gap within the community. For instance, the only Industrial Training Institute (ITI) in the Kharsang area, located at Balinong, does not offer any training courses directly relevant to the available jobs in mining-related industries. To a larger extent, the community's perception of this issue is mixed. Many of the community elders would complain that it is an attitude problem of their youth, arguing that they (the youth) are willing to work as waiters and security guards in other cities, and they feel shy to work as drivers, wage labourers and mine workers here. On the other hand, many villagers also argue that the joblessness in the region is a combination of many factors. A local educated youth who is a small-time entrepreneur at Kharsang town maintains:

> “There is no doubt that our people have plenty of attitude problems concerning the work culture and perception, which need to be changed. But the main issue is not this; we have a serious structural problem that needs to be fixed urgently. Many of my villagers and friends from other villages want to work in the mining sector, but they lack the necessary skills to operate sophisticated excavators and heavy trucks. These jobs too are available in marginal quantities. Again, the main point is that there are no jobs in this industry”.

As mentioned above, migrant workers often fill the manpower requirements in the informal coal operations and related extractive industries in the region. Over 95 per cent of the skilled workforce, particularly the JCB (excavator) operators and heavy truck drivers, are non-locals, as per the findings from my fieldwork. Again, over 95 per cent of the non-skilled manual workforce, including workers at the coke plants and labourers at brick kilns, are non-locals, primarily from Assam and Bihar. These migrant workers often come to the Kharsang area to work in the informal coal operations and related extractive activities through middlemen, allowing the local elites and external coal contractors to continuously have an inflow of the reserves of cheap migrant workers to cut down costs of operation and production. Consequently, these migrant workers remain integral and critical parts of the flourishing informal coal industry in the region and do not usually face any resistance from the local community. This is because they operate under the protection of powerful local elites and face high risks, compounded by a lack of skilled youth in the community. Mr. N. Singh, a JCB driver who is working for a local contractor, said when I interviewed him near Longsa village:

> “I get Rs. 20,000 per month along with free ration and accommodation. I can also earn additional income when I'm not on duty. These wages and other perks are better than in other sectors, but the risk in the mining process is really high, especially in hilly areas like the Kharsang ”.

The ground dynamics within the job landscapes, both in the formal settings and the informal coal industry, clearly highlight the challenging terrain of economic opportunities for the larger Tangsa community. Here, while the local villagers are being excluded, the migrant workers remain exploited. Similarly, when the labour cost of migrant workers is deliberately kept cheap, the price of the land of Tangsa villagers, too, remains exploitatively lower with no regulation.

The result is the consolidation of economic power and benefits by the extractive actors, particularly the local elites and external coal contractors, excluding the larger community and migrant workers. These extractive actors do this by informalising labour and processing resources, as it connects them to the broader regional capitalist markets. It works in a way that creates a dependent relationship where the local villagers receive land prices and migrant workers receive wages to survive, but are structurally exploited and subordinated. For migrant workers, it is merely a means to sustain themselves without social security, and for the villagers, it is a tactic for their survival. These realities and challenges underscore the fact that, contrary to claims made by local elites, the region's extractive industries, including informal coal operations, have generated minimal jobs and few economic opportunities, which also remain inaccessible to the larger Tangsa community. Ultimately, for the larger Tangsa villagers, it thus represents a dispossession of their land and resources without development, as illustrated by Michael Levien's work (2018) in the case of Rajasthan. In this context, dispossession functions as a structural logic of capitalist extraction, which encompasses not only the loss of land or resources but also the broader implications of this process on the affected Tangsa community. And, this process is enabled by the state's selective regulations and deregulations, as well as the framing of coercive development as " economic prosperity" by extractive forces.

## 4.6 Transition and the Coping Mechanism

In response to the emerging consequential impacts of the informal coal operations and related extractive activities, the Tangsa community in the Kharsang area of the Patkai Hills region are adopting various coping mechanisms. This transition process, however, is not uniform; the impacts have been differently manifested for different sections of the community. When it comes to economic strategy, the local elites often use money profits from the informal coal operations to enter new economic opportunities and businesses. They are investing in constructing commercial complexes, rentals, and shops at Kharsang and other neighbouring towns, such as Miao and Jairampur, among other places. Some of the contractors I interviewed revealed that they prefer to invest the capital earned from coal in real estate in Kharsang, Miao, Jairampur, and Changlang headquarters, which continue to generate income even when the coal business dries out. They also become a rentier class by hiring out excavators, trucks, and other equipment throughout the year, even during the off-season for coal mining. All these new economic opportunities have further solidified the local capitalist class both socioeconomically

and politically within the community. Furthermore, these local elites largely remain unaffected by the ecological crisis and changing climatic/weather patterns that have adversely affected the region's traditional agricultural landscapes. They are able to make a quick, smooth transition into water rice cultivation, terrace fields, and horticulture, like the small tea garden, among other practices from Jhum cultivation.

On the other hand, the similar transitions at the same pace for the larger sections of the Tangsa community are very challenging. It was evident from my field engagement that, unlike the local elites, the ordinary villagers struggle to diversify their livelihood activities. The making of long-term financial assets, such as commercial complexes or shops, remains beyond their capabilities. Instead, to cope with the immediate impact of mining-driven economic shocks, the poor villagers often end up giving up their ancestral assets, namely the plots of land on lease for coal mining and related activities. Moreover, a majority of the mining-affected Tangsa villagers are unable to even shift from unproductive *Jhum* cultivation to more viable practices, such as to terrace/water rice cultivation and horticulture, as these transitions also require more land and initial capital investments. Although the region's rich natural resources indeed offer tremendous economic opportunities and possibilities to the Tangsa villagers, the lack of social capabilities, combined with the exploitative process, excludes them from reaping the fruits. For instance, the unfair practices within the informal coal operations favoured a few influential stakeholders, reinforcing resource dispossession, socio-ecological crisis and exploitation of the larger Tangsa community. This phenomenon has been reflected in the form of increasing poverty and income disparity within the Tangsa community, which further extends to unequal access to basic proper education, rural roads, and healthcare services in the entire region. Mrs L. Longri, whom I interviewed at Longsa village, affirms:

> "We, the poor villagers, are struggling to meet our basic needs. We cannot even afford to hire a small pickup truck or auto to transport our agricultural produce to sell in Kharsang town, while a handful of local elites own big commercial vehicles, such as JCBs and trucks, through which they earn substantial additional income".

During the course of my fieldwork, like Mrs. Longri, many of the villagers expressed that diversifying their livelihood feels distant and unattainable for them. Given their present situation, they find it highly challenging even to sell their agricultural produce due to inadequate village connectivity (rural roads) and market linkages. Despite these obstacles,

some of the ordinary villagers around the Kharsang area have taken up different coping strategies and mechanisms to navigate the livelihood crisis amid significant socioeconomic transformations in the region. Some of the villagers have embraced entrepreneurship, and a few of them have converted their Jhum fields to commercial cropping, such as planting seasonal vegetable plantations and cash-crop plantations like large cardamom, among others. Additionally, some villagers, especially the women, are engaging in weaving, handicrafts, and micro-enterprises, which have taken good shape in recent years.

Nonetheless, the larger sections of the ordinary villagers within the Tangsa community have not been able to adopt these healthy coping mechanisms due to multi-layered factors. Most of the villagers resorted to unhealthy measures, such as the selling and leasing of land, due to their poor socioeconomic conditions and unpleasant situational circumstances. Some of them opted to undertake small-scale mining, and a few villagers are also engaging in rat-hole mining. However, these poor villagers hardly manage to get viable profits since their extracted coal market valuation is tied to the price set by the coal committee, controlled by the bigger contractors and coke plant owners. In certain instances, the villagers enter into a partnership with the external private contractors for coal mining. Here, too, although there are rare cases where profits are shared equally, the villagers often get less money than they would have got from leasing land directly. This is because the contractor acts as an investor, in which the collaboration typically involves villagers donating their land, while the contractors put in all the money required for the entire process.

Resultantly, due to a lack of economic opportunities and other factors as discussed above, many of the youth from the Tangsa community are increasingly migrating to different cities within the state and other Indian cities to work in private companies and the hospitality sector. This coping strategy is popular among the younger generation, who are again exposed to an exploitative work environment and the harsh reality of racism in the metro cities (Kikon & Karlsson, 2019). In some extremely rare cases, a few of the youth also tend to join the Naga insurgent armed groups, which are actively operational in the region. Mr. Semtang, who is a Gram Panchayat member (GPM) from one of the mining-affected villages, maintains during the interview that even the rampant drug and substance abuse problem among the Tangsa community in the Kharsang area is also partly connected to the failure of the coal mining and related industries to create employment for the youth. He asserts:

> "The coal industry and allied industries in our area directly and indirectly destroyed the agriculture and other subsistence sectors. Therefore, these extractive industries should provide the villagers with jobs and any viable economic opportunities, but unfortunately, it is not happening."

It is, thus, seen that the larger sections of the Tangsa community are further excluded on multiple fronts and have yet to see the economic benefits they had aspired to achieve from developmental activities, including the informal coal industry. The Tangsa community is grappling with social problems as well as new intra-socioeconomic inequalities, rather than making progress towards the path of development. Moreover, the varied and diverse narratives emerging from the field indicate that the Tangsa community is experiencing evolving socioeconomic dynamics, characterised by a complex interplay of multiple factors, further perpetuated by the informal coal industry in the region. Here, the direct impact of the expanding informal coal mining has both disturbed the socio-ecological equilibrium and also attacked the community's natural capital, such as the land, underground water bodies and forests. Resultantly, it affects the productivity of the paddy, fruits, and vegetables of the Tangsa villagers, further marginalising them socioeconomically. This phenomenon, in turn, is weakening the broader livelihood assets of the larger Tangsas, reproducing persistent inequalities in livelihood outcomes and capabilities among different sections of the community to withstand ecological-climate impacts and socioeconomic shocks.

# Chapter 5
# Extractivism in the Periphery

## 5.1. Extractivism as Analytical Frame

From an analytical lens, extractivism represents an economic and political model primarily focused on the extraction of natural resources, and has thus been set in scholarship, within the the larger context of capitalism (Arboleda, 2020; Chagnon et al., 2022b; Gudynas, 2021; Tsing, 2003). This scholarship has conceptualised and applied the term extractivism across diverse regions, facilitating a more nuanced and comprehensive understanding of resource extractions as both processes and practices. This approach enables a critical interrogation of the intra-dynamics within a given socio-political context while also considering the macro-structural forces at play that drive the extractive process (T. P. Clark & Longo, 2022; Tsing, 2011). Here, capturing the macro dynamics with the local context is crucial, as it provides a broader view of the interconnections on the ground in relation to the larger trans-regional political economy of the extractive industries. It allows for examining the inflow of capital from outside, which fuels the extractive process, and who benefits from that locally. In the context of the Patkai Hills region, it facilitates the analysis of how the coal-related commodities from the informal industry are integrated into the mainstream trans-regional markets, among other aspects. Moreover, as a highly commoditised resource, the operation of the coal industry in a particular place and its logistical factors are determined by the nature of state interventions and the larger policies. Similarly, the larger trans-regional markets shape the transactional aspects, such as the prices/rates of coal-related commodities and their profit margins. For all these reasons, I employ extractivism as an analytical frame to interrogate the politics of resource extraction and development intervention in the Patkai Hills region of Arunachal Pradesh.

Theoretically and geographically, the concept of extractivism has traversed the globe, interpreted in line with local contexts, and expanded beyond the sectoral analysis of the extraction of natural resources (Bruna, 2022; Nygren et al., 2022). Today, the scope of extractivism as a concept has broadened to digital and data, finance, and the global economy, among others. Nonetheless, it has primarily served as a critical analytical framework for understanding the politics, processes and practices associated with the extraction of natural resources. This is mainly because extractivism, as an expression of capitalism itself, is manifest

in the form of resource extraction, which is embedded in the larger capitalist structures of development (Ye et al., 2020). While the intensity and nature of these extractive practices can vary qualitatively and quantitatively, depending on the region or context, they remain consistently tied to the capitalist agenda of accumulation. Within this broader context, coal mining as extractivism in the Patkai Hills region manifests as the expression of capitalism, as it embodies the exploitative practices of profit generation by local elites and external coal contractors, characterised by capital accumulation and the pursuit of commodification of community resources, such as the land.

Concepts within social sciences scholarship, notably colonialism and neoliberalism, have also contributed to such an understanding of the manifestation and expansion of global capitalism in the context of resource extraction around the world (Baruah, 2020a; Easton & Gwaindepi, 2021; Harvey, 2007; D. Mishra & Nayak, 2020). The framework of colonialism, for instance, underscores how colonizing countries imposed extractive industries on the formerly colonised countries, responsible for the over-exploitation of resources and accelerating poverty and conflicts in the global south (Omeje, 2008). At the same time, neoliberalism provides insight into how state-led political and economic institutions in specific societies are often directed at furthering the agenda of the capitalist forces (Shah et al., 2018). Here, in practice, the state becomes an external actor, which either imposes development projects that can be extractive on a place and its people or creates a market-friendly environment for private players to extract resources in the name of economic development. This is visible in the uprooting of tribal villages for state-led mineral extractions in central India and development-induced displacements of local communities in the northeast due to mega-projects, such as large dams in the northeastern region (Gohain, 2008; Ray & Chakraborty, 2024; Haines, 2021).

Undoubtedly, these concepts offer valuable analytical perspectives, but they are primarily centred on understanding external forces that plant capitalism within communities or society. As such, these conceptual lenses emphasise the macro-structural aspects of capitalism that are highly essential for comprehending the political economy of the extraction of natural resources in diverse contexts. In the case of colonialism, the key focus is on examining the power dynamics between the affected communities and extractive forces, such as the state, corporations, and foreign powers. On the other hand, neoliberalism emphasises the roles of the state and its regulatory frameworks that facilitate resource extraction in a particular context. Given all these, in the larger scheme, both colonialism and neoliberalism similarly operate as

external actors in terms of working to impose and promote capitalist values through bureaucratic control and extractive activities in the guise of bringing development to the people. Although this analysis of capitalist interventions in relation to resource extraction remains necessary, many intra-community socio-political contexts require a more nuanced understanding that goes beyond this. For instance, in the Patkai Hills region, the capitalist extraction of coal is made possible not only through the state's neoliberal policies but also due to the complex intra-community power equations among the Tangsas on the ground. This case requires a comprehensive analysis of both external elements that inform coal mining and the internal extractive practices within the community that created conditions for capitalist ventures to grow locally.

Here, it is crucial to note that intra-community dynamics, which socially mediate extraction, are still capitalist in nature. This is because extraction practices within the community also reproduce capitalist logics, such as surplus generation and the process of capital accumulation, among others. The phenomenon in the Patkai Hills region shows that the conception of extraction, per se, requires locally rooted contextual analysis. Therefore, it is important to recognise the nature of legal, socioeconomic, and ecological relations that made the extraction possible in the first place. It is true that an extensive informal coal mining operation led by the local elites embodied the very same capitalist values that they claim to oppose. At the same time, it is also a fact that the larger sections of the Tangsa community are engaged in coal extraction to meet their livelihood needs, wherein generating surplus profits for them remains out of question. Thus, the phenomenon of the region’s informal coal mining represents both reinforcement of capitalist production as well as the socially embedded extractive practices within the community. But having said this, the scale of involvement and benefits remains drastically uneven, wherein the larger sections of the community are just mere participants who lease their lands, and local elites emerge as the extractive actors alongside the external coal contractors.

For all these reasons, the politics of informal coal mining in the Patkai Hills region transcends the conventional understanding of inter-structural aspects that emphasise the role of external forces, such as the state, policies, and corporate houses. In my use of extractivism as an analytical frame, I interrogate the variety of extractive processes involved, both internally mediated processes and externally imposed or influenced factors. I am also referring to informal coal mining in the Patkai Hills as extractivism, as it is ecologically destructive and

socioeconomically exploitative, and leaves the majority of the Tangsas worse-off. Here, the instance of informal coal mining as extractivism in the Kharsang area of the Patkai Hills region demonstrates that local communities, particularly the Tangsas, are both actively engaging in and directly affected by the informal coal industry. The Tangsa community in the region have supported informal coal mining as a form of resistance against the state's monopoly and capitalist interests. However, their resistance doesn't constitute an outright rejection or acceptance of conventional capitalist extractivism per se but is largely about internalising the extractive process within the community. The idea of resistance, in this context, is an attempt by the community as a whole to retain its cultural, political, and economic rights over land and what it produces, such as coal, in the case of the Kharsang area. Thus, it necessitates capturing these intricate extractive processes and practices as interconnected phenomena of extractivsim that are both internally created and externally exerted realities.

Within this context, it is also crucial to unpack the distinction between 'extractivism' and 'extraction', and to understand when extraction becomes extractivism, particularly in the context of informal coal mining. Although the terms extraction and extractivism are often used interchangeably, they hold different meanings when applied analytically and theoretically. Extraction is a technical-economic process of physically removing resources, such as coal and oil, from the earth. Extraction in various forms has existed since time immemorial across history and societies, as part of both subsistence and regulated industrial sectors. Thus, all forms of mining, including coal operations, are extraction, but not all extraction qualifies or can be labelled as extractivism.

On the other hand, extractivism represents a broader political-economic regime, characterised by the large-scale extraction of resources, with capital often flowing to external markets while the impacts remain highly localised. In the case of the informal coal regime in the Patkai Hills region, it is not only intensive and external market-centred but also embedded in unequal socioeconomic relationships structured through dispossession and accumulation. This is the point where the informal coal extraction becomes extractivism in the Patka Hills region. Extractivism, as a framework, in this context, does not just demonstrate what is being extracted (extraction), but unpacks how the process of extraction is organised, who controls it, in what ways costs and benefits are distributed, and what the impacts are and what kind of socioeconomic relations are emerging from this.

## 5.2. Coal and the Rise of the Tribal Capitalist Class

Coal mining, by its very nature, is inherently exploitative in multiple ways. It practically and metaphorically epitomises how capitalism greedily commodifies nature. Here, coal is viewed as commodity awaiting extraction, with its value defined solely by its material worth of maximising profits. On the other hand, coal represents more than just the physical extraction of resources for local communities across the regions, as resources like mineral reserves are attached to lands, which define their socioeconomic and cultural-political spheres (Fernandes, 2009). Thus, coal here becomes both a symbolic and material point of contention, where the interests of extractive forces, such as the state and private entities, often clash with environmental concerns and local communities and their concerns at multiple levels (Lahiri-Dutt, 2007). These entities, however, also share similar aspirations in some aspects, such as material interests for development, but in the larger scheme of this, the state and capitalist forces primarily controlled the socioeconomic relations of the process and production. The extractivism frame here allows us to argue that informal and formal ways of resource extraction, for that matter, coal mining, are closely intertwined, underscoring that socially-mediated informal linkages and formal extractive practices co-exist within the capitalist frame of development. The informal interests often overlap with formal extractive interventions, reproducing the other, while it also contradicts or competes with each other's interests in many cases.

The informal coal mining in the Patkai Hills region exemplifies this complex relationship between capitalist interests seeking to extract resources and the cultural claims that local communities have over the resources. This intersection, in turn, makes coal mining a multifaceted issue, where different entities compete and negotiate to advance their respective interests. As such, the government has deemed informal coal mining in Kharsang illegal, claiming mineral resources are the state's property. On the other hand, the Tangsa community disagree with this approach, asserting that every natural resource, including mineral reserves beneath and above their lands, belongs to them. But despite all these contradictions, what ties their interests together is the extractive process of commodifying the resources. Even though the coal operation in the Kharsang area is considered illegal, the government still continue to derive revenues from this industry through various means, such as transit passes and coke plant permits. Similarly, although Tangsas regard coal as their resource, they have consistently

demanded formal approval of coal mining in the region through government investments, with adequate compensation, employment, and other viable economic opportunities. Also, to recognise their rights over the mining and related activities.

These complexities associated with coal mining operations have turned the Kharsang area in the Patkai Hills region into a convergence of extractive ground, where different entities have tied resource extraction differently to the development of the place (region). Initially, the state promoted the coal industry by promising development for the local people. When coal mining transitioned into an informal industry, the Tangsa community justified its ongoing extractive ventures by linking them to their livelihoods. This shift from state-backed capitalist control of the coal industry to community-led informal mining manifests a nuanced expression of locally rooted capitalism. It has become an enterprise that is socially embedded in the region's larger political economy. In other words, it is a phenomenon of extractivism where the Tangsa community embodies the capitalist development aspirations that they also claim to contest.

This extractive process of the framework under which informal coal operation in Kharsang has flourished is made possible with the involvement and interventions from different stakeholders at various levels in multiple ways. These include the policy interventions by the state, the role of civil societies and other non-state actors, socioeconomic conditions, inter and intra-community dynamics, and the political economy of the resource extractions. Together, these factors shape the nature of extractivism, characterised by the appropriation of natural resources for capital accumulation. These elements are fundamental to understanding coal mining in the region as a form of extractivism grounded in the principles of accumulation, monopolisation, and centralisation. Resultantly, the interplay of these elements influences the region's development trajectories. This is why the issue of unregulated coal has become a focal point for contestation and negotiation in the development politics of the Patkai Hills region of Arunachal Pradesh.

As a capital-intensive developmental activity, coal mining played a significant role in the Patkai Hills region, manifesting as an expression of capitalism and perpetuating extractive practices within the community. The extractive practices here in question extend beyond the dimension of economic development. It has also manifested as the social model of extraction with the emergence of unregulated/informal coal mining. In the sense that the mining-affected Tangsa community is actively involved in the extractive process, and the corporate or state agencies

do not solely control it. Here, the Tangas are not only impacted by extraction, but they are also active drivers of the informal coal industry. In this way, the informal coal operation in the Patkai Hills region varies from the conventional economic development model, wherein the state and big corporations often have complete control over the operations of the extractive industries.

Nevertheless, this is not meant to say that the conventional economic development model and social model of the extractive process should be entirely treated separately. This is because both models are different interconnected sides of the same coin, which, in their expressions and practices, remain inherently exploitative and profit-oriented. I primarily deployed this concept (social model) to shed light on the social and political contexts of the place where the extractive process is embedded, rather than trying to create different models. At a deeper level, it is intriguing to see how coal extraction in the region allows room for both informal and formal regulations to coexist. This form of extractivism in the Patkai Hills region is underscored by circumstances within the community, resulting from their aspirations for development and the disproportionate influx of external capital. It is primarily driven by a nexus among the local elites, government officials, armed groups, and private players from outside the region, including coal contractors from various other districts of Arunachal Pradesh and states such as Assam, Bihar, and Uttar Pradesh, among others. This extractive process has resulted in a system where a few powerful local elites emerged as a tribal capitalist class within the Tangsa community, reinforcing the capitalist values of exploitative commodification of resources alongside their external extractive collaborators.

Those capitalist values drastically contrast with how community relations are forged and resource governance is traditionally practised among the Tangsas, as discussed in Chapter 1. The values of collective social welfare and shared labour among the Tangsa community have, over the years, become profit-oriented economic transactional relations based on market logic. Likewise, competitions and self-centred profit-making ventures have gained primacy over communal-centred decision-making and collective social welfare, such as shared labour, among other things. The exploitation of rat-hole and small-time miners by the local elites is an example. More importantly, all the resources, such as the forests, agricultural lands, and even the social relations among the Tangsa community, have been excessively commoditised. The penetration and engineering of these capitalist values have not only changed the socioeconomic interrelations and human-nature relations, but also the intra-community power dynamics. Here, given their social and economic positioning within the community, the local elites maintain

control over the politics, institutions (government agencies, CSOs), and resources (lands) that further facilitate them to use a highly cash-rich informal coal industry for their benefit.

In this manner, informal coal extraction has created a tribal capitalist class in the Patkai Hills region of Arunachal Pradesh. These local elites, who constitute less than 5 per cent of the Tangsa community, are usually politicians, contractors, and individuals with government jobs, among others. They greatly influence everyday transactions in the mining industry and build networks with local government agencies and private players outside the state to advance their interests. For instance, by controlling the coal committee (this committee has been discussed in Chapter 3 in detail), the local elites determine the prices of the coal, coke (processed coal), and transit passes. This is how the local elites control and constrain the informal coal industry. Consequently, they reinvent the entrenched exploitative structure inherent in the capitalist schema in the guise of economic developmental activities, which often lack equitable aspects, thereby reproducing inequalities and extractive practices within the community. Here, the economic value of coal is attached to development by presenting extraction as an economic activity that is inevitable for the improvement of the social conditions of the local communities. That being so, the local elites/tribal capitalist class legitimise their participation in the extractive process. Mr. C. Haidley, a well-known public leader and a contractor, for instance, argues during the interview at Kharsang, “Informal coal industry in the Kharsang area is a backbone of development. A lot of Tangsa villagers are getting incomes and economic opportunities because of this”. On the ground, however, as evidenced from my fieldwork (discussed in the previous chapters), with the help of external collaborators, the local elites like Mr. Haidley, constituting a new emerging tribal capitalist class exclude the larger sections of the people from the monetary benefits generated through informal coal mining and related extractive industries.

## 5.3. Market Inflows and the Making of the Local Capital

The historical underpinning of extractive intervention in the Patkai Hills region of Arunachal Pradesh is closely connected to the emergence of the state’s market-friendly neoliberal policies in contemporary India. The emergence of the local capitalist class has further created favourable conditions for capital to flow into the Patkai Hills region and invest in expanding extractive industries. This capital penetration has transformed this region into an extractive

ground involving multiple actors, including external coal contractors, private companies, and local elites. This is an integral feature of capitalist development in India, characterised by capital concentration, dispossession and the accumulation process (Nair, 2021; Pati, 2022). Coal mining, in particular, is a highly capital-intensive enterprise which usually requires heavy financial/capital investments from state and private corporations. However, in the context of the Patkai Hills region, the capital associated with informal coal mining is both constrained and complicated by processes embedded within the community. A massive part of the capital is also locally controlled and significantly retained within the community, although influences of the external extractive actors or investors remain prominent.

Separating local capital from trans-regional or global capital is complicated within the framework of capitalism. As Tsing's (2011) work comprehensively demonstrates how capital is integrally connected from local to global and vice versa. However, in the context of the Patkai Hills region, I term the capital that is controlled and retained within the community as local capital because it is created through the locally situated extractive process with the involvement of the community people and revolves around them. The local elites often mobilise investments through their inherited wealth or assets ( house and shop rentals or by renting vehicles), bureaucratic procedures, such as entry fees and commissions (see chapter 3 for the details), and collaborating with private coal contractors from outside the region. These income sources, among other things, provide the local elites among the Tangsas access to capital needed for investments in the informal coal industry. Consequently, it allows them to intensify coal mining operations, creating more local capital and related economic activities within the region. It is based on this logic that the local elites often defend the informal coal industry, claiming that it is creating financial capital and economic opportunities for the local communities of the Kharsang area and the entire Patkai Hills Region.

The experience of the Patkai Hills region shows that the local capital often plays the role of mediation between the external transnational commodity flow and the local realities of extraction. However, they operate differently in some aspects. While the external capital relies on global commodity prices and the dynamics of investments by private individuals or companies, the local capital functions through the close-knit relational networks, such as the political patronage, kinship, and socioeconomic stands within the community. In everyday life, this local capital is often romanticised as the economic backbone of the community.

Within this context, it is vital to note that as a locally circulating capital, the wealth and monetary benefits generated and retained from coal and related extractive industries are claimed to circulate within the Tangsa community. In reality, however, the local capital and other benefits from informal coal mining and related extractive industries are primarily controlled by the emerging tribal capitalist class, composed of local elites. The trickle-down effect of the benefits from this local capital generated from coal and related ventures within the larger community remains extremely limited, yet persuasive enough to keep others involved in the extractive process. For instance, in emergencies, villagers can get quick money by borrowing money from the local elites at interest or by selling/leasing their lands for mining. Besides, some small-time miners have managed to become wealthy through this local capital, though such cases were rare. This further facilitates the local capitalist to maintain their control over the local capital and the region's extractive coal operations/enterprises.

To a great extent, the local elites continue to collaborate with external private players from outside the region to strengthen their hegemony over the informal coal industry even more. This is because establishing an expansive extractive industry like an informal coal operation in the Kharsang area of the Patkai Hills region requires both considerable capital and political backup through which one can mobilise a common consensus that the larger community will be ready to become a part of the extractive process. These conditions have created a conducive atmosphere for the inflow of market forces and capital from outside to invest in the informal coal industry in the region. This money, from outside, is used to operate the coal mines and cover related expenses. Here, in the context of the Patkai Hills, the massive capital inflow has mainly come from individual private coal contractors and private companies from within and outside Arunachal Pradesh. Simultaneously, the local capitalist class used their influence in their community to convince the people to participate in the informal coal industry in the guise of engaging in new economic activities. This again set the stage for considerable financial investments from external extractive actors, which is a part of the large trans-regional capital that fuels the coal economy in the entire northeastern region. And it is also with this large capital that the local capital constantly negotiates and interacts to maintain the intensity and growth of extractive industries. This is a phenomenon that Tsing (2011) refers to as the global connection of capital, where both contention and collaboration become part of the extractive process.

In the larger coal market, those trans-regional connections remain highly competitive, sometimes cooperative, but mostly exploitative. On the local level, the competition is more about who can enter the informal coal industry. For instance, the question of which section within the Tangsa community can actually invest in the coal mining and related extractive industries remains a relevant debate in the Kharsang area. At the macro level, it is mainly concerned with controlling the values (like prices) of the coal-related commodities. For example, many of the local contractors I interviewed at Kharsang maintained that the big players at the trans-regional level tend to buy the coal and coke from the Patkai Hills region at the cheapest rate. Mr. K Longphi, a coal contractor (local elite) from the Tangsa community, for instance, contends, "Contractors in Assam often exploit us. They give us lower than the market rates, claiming that coal from the Kharsang area is of inferior quality". This power dynamic offers the upper hand to those bigger players to take advantage of negotiating prices in their favour, as a considerable scale of coal-related commodities from the Patkai Hills are illegally exported/smuggled from the informal coal industry. In this way, the interplay of inflow capital and local capital is deeply intertwined yet implicitly fractured as various actors grapple over controlling the different modes of the extractive process and the economy. Here, the external capital gains access to cheap resources (lands), labour and legitimacy for extraction through the local intermediaries (local elites), while the local capital profits from the linkages to trans-regional markets and inflow of external capital.

Furthermore, the influential local elites from the community adopted various strategies to take control and, for that matter, to translate the informal coal enterprise into local capital as much as they could. The first strategy is the regulation of the inflow of external capital. Here, the local elites use their positions to decide and scrutinise the entry of individuals or companies who want to invest in the informal coal mining industry in the region. The entry fees charged by the Kharsang Coal Committee for external entities (individuals or companies) who wish to join coal mining is an example of a regulation strategy that aims to control the inflow of capital. This aggressive strategy adopted by the local elites excludes and filters out many potential coal contractors who want to enter the informal coal mining industry in the Kharsang area. However, it doesn't affect the external coal contractors or private companies from outside the Patkai Hills region. Instead, it mostly ended up excluding the local communities from within the Patkai Hills region who are not specifically from the Kharsang area, as the entry fee is very costly, varying from Rs. 60,000 to Rs. 100000 as of 2023. This underscores the unequal power equations that the local capitalist class play to monopolise the extractive process within the

region, which is a capitalist value they have adopted in a quest for their self-interest. It is because of these dynamics within the community that only a few individuals are able to become economically wealthy through the informal coal business, despite a massive generation of capital from coal mining in their own place.

In the broader context of the informal coal economy of the Patkai Hills, the community's elites, now part of a capitalist class, remain influential actors, mainly because the state is unable to directly engage in the informal mining sector. Within this context, I am using of term capitalist class to shed light on the emerging class relations among the Tangsas that dictate access to resources, power, and the interaction of this group with larger sections of the community, such as the small-time miners, labourers, and ordinary villagers. The local capitalist class often asserts that the community's resources are threatened by the monopolistic approaches of both the state and private companies; if this continues, development will never truly reach the community. In fact, the informal coal mining in the region has mainly emerged from these very premises. The local elites are able to capitalise on these grounds again to justify the informal coal economy in the region (see chapter 2 for more detail). In practice, however, they control the market of the informal coal industry so that only a few competitors exist within the community. Besides, to maintain its growth and momentum as a profitable enterprise beyond the Patkai Hills, the local capitalist class is bound to compete in the market with coal from similar informal coal industries from Assam, Nagaland, and Meghalaya. Apart from being labelled as inferior quality as mentioned above, the coal-related commodities are forced to be sold at the cheapest possible rate to compete in the trans-regional market, and an inflow of capital becomes necessary to expand the industry.

Consequently, to cope with these challenges, the local capitalists rely on exploiting the Tangsa community, whom they claim to work for their welfare by bringing economic activities (coal and allied extractive industries) to the region. Conceptually, the capitalist class in a conventional setting usually represent the market interests, not the public welfare, by default and design. However, in the case of the Tangsa community, it plays out in a different way, wherein the local capitalists claim to represent the community's interests. The local capitalists often argue that the informal coal industry empowers the Tangsa community to use their resources as they want, without state interference and corporate takeover. Theoretically, they are correct, but in practice, on the ground, it remains distant from what is being claimed or portrayed by the local elites. The larger community is being exploited on multiple fronts, for

instance, in order to sustain their profits and attract capital, the local elites have refrained from regulating the prices of the lands for coal mining so that they can acquire lands at minimal costs. Apart from this, the coal committee has normalised the land leasing system, which allows external private players to lease land from the villagers. While this has helped the coal industry's expansion, they have secured lands from the Tangsa villagers through very low payments due to a lack of regulatory mechanisms. Although all the Tangsa community from within the Kharsang area are permitted to enter the mining industry without entry fees, it is not possible for poor villagers to enter mining ventures, as it requires massive capital to invest. This is how the local capitalist class make local capital by exploiting and excluding the larger local community.

The local capital within the Tangsa community does not really circulate among themselves but only within a small number of the local capitalist class. The floating of local capital from these local capitalists can be seen in the form of local rentier investments and commercial complexes in Kharsang and other nearby towns, such as the Miao and Jairampur, among other places. In addition, the local capitalist class or elites have brought in migrant workers from other states, who are poorly paid, further reducing mining operational costs. Here, although the workers earn more than the minimum wage (Rs. 200 per day) set for unskilled workers as per the Government of Arunachal Pradesh, they are exposed to overtime working hours, health hazards, and risky tasks, as compared to the conventional unskilled daily wage work. This is because the nature of work and tasks in the coal mines, coke plants, and brick kilns demands an intense work culture, and no regulations are in place to safeguard the workers' rights since the larger extractive industries, particularly coal mining-related activities in the region, are operating informally. Here, the workers who work in this industry are both locals and migrants, constantly prone to exploitation, such as overwork, underpayment, and delayed payments due to the absence of formal regulations and labour laws.

Most migrant workers come to the Kharsang area to work in the coal mines, coke plants, brick kilns, and construction of new buildings due to poor economic conditions in their homes. They are primarily from Assam (majorly from Dubri, Barpeta, Lakhimpur, among other districts) and Bihar (Purnea and Katihar, among other districts). They have mainly come to Kharsang through middlemen or external coal contractors from Assam and other parts of the country. This again put them in a precarious situation at multiple levels. In their places, the agents/middlemen take some commissions to arrange jobs for them. At the on-site level, the

coal contractors and employers at brick kilns, as stated above, do not provide legal protections or safe working conditions and sometimes even delay salaries despite excessive hours worked (for more detail, see chapter 3). On a larger structural level and within the extractive industries level, the migrant workers are merely treated as commodities just like the resources of the Tangsa community, which must be utilised to the fullest with minimal investments. Because of all these, the local capitalists and their external collaborators have been able to make capital for themselves from the booming informal coal industry. But clearly, it has happened at the expense of land appropriation from the Tangsa community and rampant labour exploitation of migrant workers, underlining the vulnerabilities they share under the extractive regime in the Patkai Hills region.

## 5.4. Changing Land Relations and the Shadow Economy

Evidently, the informal coal mining in the Patkai Hills region, as extractivism, is driven by increasing labour exploitation and commodification of community resources. The change in land use patterns underscores this, which reflects the altered social and economic relations of production within the region. On the one hand, the local community is deeply involved in the informal coal industry; on the other hand, they often find themselves victimised by this same industry. This duality has significantly anchored the existing social interaction and complicated economic transactions of resources, particularly of lands in the Tangsa villages around the Kharsang area. A prime example of this situation is the increasing concentrations of landownership among a few local capitalists/elites who appropriated lands from the villagers for mining activities, as there is no limit of restriction on land transfer among the community members (for more field details on this, see chapter 3).

Over and above, the local elites also facilitate the external private players to get easy access to the lands of the community through normalising a seasonal leasing system. All these land transactions of leasing for coal mining take place without any limits and regulations, since seasonal leasing is not considered land alienation from the community. This is because the land is not permanently sold, and the villagers get back their land from coal contractors once the leasing period or season is over. However, when the lands/forests are used for coal mining, they no longer remain fit for agricultural activities, which puts the community at a disadvantage in the long run. The villagers are often aware of these long-term consequences, but their

immediate economic needs often overtake their concerns. In some cases, many villagers with money or who aspire to become rich through mining deliberately lease lands or extract coal by themselves on their own lands. The local communities recognise the economic value of resources through which they can change their socioeconomic status. Therefore, they are involved in the mining enterprise, but again, it is difficult for them to control the valuation of their resources under the current extractive regime.

Consequently, the unequal power structure shapes every facet of the informal coal industry, which arises from multiple factors, including the state's policies, trans-regional market competitions, socioeconomic conditions, and power dynamics within the community. The complex intersection of these diverse factors has manifested as the shadow economy in the Patkai Hills region, wherein the local elites, private players, armed groups and corrupted government officials maintain a nexus to sustain the unregulated coal industry. A tangible example of the nexus among extractive actors is the Kharsang Coal Committee that oversees the informal coal industry in the Kharsang area (see chapter 2 for more details on the coal committee). This unofficial committee has been institutionalised to the extent that it works as an extension of the official state agency, regulating/controlling everyday bureaucratic processes and procedures that go into making the informal coal industry. Here, the local elites and private players leverage their political and monetary powers to suppress and bypass formal government regulations. As a result, by design and default, the informal coal mining industry becomes the shadow economy that operates as a formidable de facto enterprise in the region that functions parallel to state authorities.

I am using the term shadow economy, as it operates underground without government regulations and formal systems, such as state taxation and labour laws, among other things. The illegal timber industries and informal coal operations in Assam, Meghalaya, and Nagaland are examples of the shadow economy that have been widely studied in the context of northeast India (Kikon & McDuie-Ra, 2016; Dutta, 2022; Karlsson, 2016). Here, the operation of these extractive industries bypasses the environmental laws, and state officials collude with the local elites and private players. The government regulations concerning licenses and permits for these underground industries are either selectively implemented or overlooked, thereby institutionalising informal bureaucratic processes for conducting businesses. Within this framework, the shadow can be understood as underground economic activities that are undertaken outside government oversight and regulations, by non-state actors which co-exist

alongside the state. Here, the powerful non-state actors, like the local elites, often have the upper hand in consolidating all economic activities and bureaucratic processes concerning the shadow economy.

In the northeast, apart from local elites and private players, the insurgent armed groups have also prominently surfaced as influential entities, who benefited from and perpetuated the shadow economy in the region (Baruah, 2020; Kikon & McDuie-RA, 2021). They remain active and are effectively using the shadow economy as a technology of territorial governance, and a source of revenues through collecting taxes from the informal extractive industries and other developmental projects, among others. In fact, one of the major reasons for totally banning the coal industry in the Patkai Hills was the involvement of the Naga armed groups, such as the NSCN-IM and NSCN-K, in the mining operation. It was confirmed by the centre that these armed groups were generating substantial revenues to fund their activities in the region. Intriguingly, the ban has not been able to stop them from availing benefits through taxes and commissions under the existing extractivism regime. The inner workings of the informal coal industry in the Patkai Hills region, thus, not only exhibit the shadow economy of the extractive enterprises, but also the parallel non-state authority that created conditions or fueled those industries to flourish. Thus, the informal coal industry, in this context, is a complicated dynamic process within a shadow extractive regime involving state institutions and influential non-state entities, such as armed groups, local elites, and external private players.

As an informal economy, everyone is allowed to participate in the coal operations in the Patkai Hills region as per the unsaid social contract and economic logic under this shadow economy. Therefore, in a popular view, what the state and the population of the Tangsa themselves hold is that the informal coal industry in the region is a socially legitimised community-led enterprise. For instance, one of the reasons that the local administration often gives for being lenient on illegal coal mining is that it doesn't want to harm the livelihoods of the local community. On a similar line, many of the mining-affected villagers whom I engaged with during the fieldwork admitted that although they don't support the mining-related activities, they can't oppose openly since it is a close-knit community practice (their kin and friends are involved because of various factors that have been discussed in the previous chapters). The community capitalist class further concretised and pushed this perception, arguing that the informal coal industry is creating the local capital that has benefited the entire Tangsa community. Mr. S. Longphi, a local coal contractor during the interview at Kharsang, for

instance, asserts, “It is because of the informal coal industry that poor villagers are able to get more income these days in our area. Factories, such as the coke plant and brick kilns, are a direct result of this industry, apart from rentals and other small businesses. If you see the larger picture, informal coal industry is helping us (the Tangsa community) to create wealth”.

In practice, whether the popular perception has been widely accepted or not among the larger Tangsa community, the fact remains that the informal coal industry has continued to expand in the region. However, the material access to benefits and economic opportunities from coal mining and related developmental activities in the region within this shadow economy is directly determined by political networking and economic status within the community.

On the governance front, the presence of the shadow economy under the watch of the local administration signifies that the informal coal industry, as a form of extractivism in the Patkai Hills region, has not emerged out of a failure of the government system. It is rather an intentional practice of the state, where the aspect of illegality creates room for the informal and shadow arrangements to emerge. Within this context, it is vital to note that the coal mining ban by the central government is an obstacle to the end goal of the state government to promote extractive industries in the Patkai Hills region to generate domestic revenues. Here, the state government creatively allow the illegal coal industry to grow to achieve its end goals, although the means have now become informal in nature. Pro-market policies (declaration of the Kharsang area as the Special Economic Zone) and deployment of insufficient law enforcement staff on the ground to check mining-related activities are some of the strategies that the state indirectly promotes extractivism in the Patkai Hills. This is clearly a phenomenon of neoliberalising of space, wherein the state actively promotes deregulation and selectively withdraws government regulations to push for extractivism (Peck & Tickell, 2002). Neoliberalising of space, in this context, is the process by which a particular place or region increasingly aligns with market logic, facilitated by the state's selective regulations and deregulations. For instance, land once valued primarily for community commons, agriculture, and subsistence-based activities is now fast turning to rent commodity (sold or leased) for informal coal mining and private accumulation.

This, in turn, has allowed the non-state actors, such as the local elites, armed groups and private players, in the Patkai Hills region, to emerge as influential extractive forces, who can evade government regulations on various fronts both with and without the help of the state institutions. This phenomenon again underscores that the informal coal industry is strategically governed through informal means (non-state actors and institutions), which operate in parallel with the state authority, yet they are intertwined with each other to enable extractivism. One of the central ideas that binds together the informal non-state actors and formal state actors in the context of the Patkai Hills region is that their end objective is rooted in the extractive logic of treating the resources as mere commodities. Consequently, the land became a highly demanding commodity for the extraction of coal in the region, as this industry expanded over the years, unprecedentedly. Given the informal nature of the coal industry, the land transactions take place informally without accountability to formal authorities. Here, the lack of regulations on land transfer facilitates the private coal contractors to informally lease lands at the minimum prices, often lower than the market prices (The field narrative and details on the processes of land appropriation have been discussed in chapter 4).

Besides, the extractive actors (local elites and private coal contractors) influence the entire political economy of the system by using their powers, further promoting a development model that relies on exploiting the larger local communities and their resources. For example, the local elites play a crucial role in overhauling customary laws to appropriate lands from the Tangsa villagers, as there is no limit to land transfers within the community. Compounding of all these factors has an impact on the larger Tangsa community concerning their capabilities to use and retain ownership of lands and other critical resources. Now, the socioeconomic relations around the land have changed drastically because of constant demands for coal mining. Here, these changing land relations have occurred in terms of a shift in the nature of its uses, ownerships and traditional/cultural significance among the Tangsas. Large-scale plots of agricultural land have become coal mines, and a small section of local elites have acquired massive land from the villagers. The land is now increasingly tied to the one-time extractive project (coal mining) for short-term monetary gain, rather than recurring use of it for livelihoods in the form of their traditional agricultural practices.

## 5.5. Informal Mining and the Crisis of Ecological Rifts

The fast-changing land relations among the Tangsa community in the Patkai Hills region reflect the alteration of the metabolic relation of ecology, which is considerably influenced by both a social process and an economic transaction that is deeply rooted in the extractive logic of resource extraction. The metabolic relation, as defined by Foster et al. (2010), refers to the relationship between the culture (human) and nature (ecology). It is characterised by the exchange and transformation of energy and materials between the ecology and society. In other words, the metabolic relation here is a material relation between the community and nature with regard to land utilisation, water, forests, and livelihood activities. In the Kharsang area, unchecked expansion o7f informal coal extraction has destroyed forests, dispossessed land available for agriculture, and polluted underground water, among other impacts. And disruptions of these ecological relations show that nature is not external to the community's socioeconomic life. It directly and indirectly conditions how people maintain their everyday lives, work, and engage in their livelihood activities.

Within this broader context, the metabolic relation manifests in an extractive process in which the lands and forests of the Tangsa community are destroyed to generate economic benefits from coal. Initially, the balanced metabolic relation between the Tangsa community and nature was rooted in their traditional livelihood practices, but the expanding extractive activities, including informal coal mining, have disrupted this over the last three decades. The changing land relations among the Tangsa community around the Kharsang area exemplified this, underlining the unsustainable over-exploitation of community resources and the appropriation of lands by the local elites and private players.

As an informal industry, the extractive activities of mining in the Patkai Hills region are taking place without any environmental regulations. As evidenced from my fieldwork, neither a formal nor a community-based informal environmental impact assessment (EIA) has been done in relation to the expanding coal industry in the region. Furthermore, over 90 per cent of the coal extractions are undertaken through open-cast mining using JCBs (excavators), radically destroying the ecologically sensitive, fragile hills and forests. Resultantly, this ecological rift comes with extractive practices, perpetuating the socioeconomic implications for the affected community. It is a common characteristic across the context of capitalist intervention, yet it

also has localised dynamics, intensities, and implications. Regardless, the ecological and cultural valuation of resources by the community is often undermined by the economic valuation of nature through the social relation of production, controlled by the local capitalist class and external extractive actors (B. Clark & Foster, 2010).

Within the extractivism framework, the excessive destruction of natural resources becomes inevitable, as is visibly demonstrated in the Patkai Hills region. Specifically, the market valuation of natural resources takes precedence over the balanced people-nature relation (see chapter 4 for the field narrative and more details). Here, the capital generation remains the main objective, fundamentally altering the characteristics of the metabolic relation of the Tangsa community and nature. Two contradictory outcomes of the extractivism (informal coal mining) underscore this changing ecological/metabolism rift. The first outcome is coal, as a commodity that primarily benefited the influential actors, such as the local capitalist class and private players, while the larger Tangsa community are exploited economically. The second outcome is the degradation of the local ecology in the form of deforestation, underground water pollution, and climate variability, among other issues, which again mostly impacted the poor Tangsa villagers, not the local elites.

Thus, the larger Tangsa community around the Kharsang area in the Patkai Hills region, in particular, has doubly suffered from ecological degradation because neither the economic output of the extractive process benefited them, nor did the ecological consequences arising from it spare them. For this reason, the ecological rift or ecological degradation resulting from the informal coal industry has not only emerged as an adverse environmental impact, but also as socioecological and economic insecurities. The changes in local climatic conditions, for instance, are decreasing the agricultural production, which has already been affected by limited access to cultivable lands due to the expansion of coal operations. Moreover, once the lands are used for extracting coal, it is not possible to reuse them for decades. Again, since the coal mining operation in the region is informal, there are no scientific pre-mining feasibility guidelines or any post-mining land reclamation projects in place. Due to all these, informal coal mining has been responsible for the aggressive socioecological impacts, pushing the affected Tangsa villagers into vulnerable positions. Here, the subsistence-based livelihood activities, like Jhum cultivations, are becoming less economically viable, as the self-sustaining local ecological landscape in the region per se is under threat from the expanding informal coal industry.

In that manner, the region's subsistence economy has been hit the hardest, particularly the community forests and agricultural sectors. The growth of the coal mining industry has directly and indirectly impacted these sectors. It has directly reduced the forest cover and cultivable agricultural fields. Indirectly, it has adversely affected the normal regeneration of local vegetation and agrarian outputs due to climate change/variability exacerbated by the increasing extractive activities. This is because the aggressive destruction of agricultural fields and forests fuels massive deforestation, environmental problems and degradation of the larger local ecosystem as discussed above. For instance, water contamination, air pollution, and soil degradation are recurring problems faced by villagers around the Kharsang area, which are directly linked to the mining activities in the region. Compounding these factors, in turn, is further accelerating the ongoing crisis of ecological rifts arising from the informal coal industry in the region. The crisis of the ecological rifts created by informal coal mining, thus, is vital to understanding in light of the larger pro-capitalist extractive development model in the Patkai Hills region.

## 5.6. Social Hierarchies and Inequalities

Undeniably, what is going on in the Patkai Hills region in the name of 'development' is highly extractive, wherein the prioritisation of capitalist market values takes precedence over community welfare and ecologically sustainable values. The ecological degradation, as discussed in the above sections, underlines the profit-oriented approach adopted by the state and extractive non-state actors, such as the local capitalist class and private players. These extractive actors usually contend that the commodification of the resources improves the material conditions. For instance, the local capitalist class propagate the emergence of small and medium enterprises, like the brick kilns, tea factories, and minor mining units in the Kharsang area, as a direct by-product of the informal coal industry. However, a closer look at the ground realities reveals that these industries have not been able to generate substantial jobs for the locals (see chapter 2, section 2.5 for details). Furthermore, even the highways that states often boast to portray as development have very limited benefits to the larger Tangsa community, as the rural roads across a majority of villages in the region connecting those highways are in pathetic conditions (as discussed in Chapter 1).

Nonetheless, the state continues to blanketly promote the Patkai Hills region as an industrial hub, which has validated unregulated extractive activities instead of monitoring and regulating them. The region's extractive industries, including oil, timber, and coal, have contributed significantly to the narrative of economic development and prosperity in Arunachal Pradesh. Yet, beneath the narrative of development lies a substantial extraction of natural resources to draw revenues for the state. Furthermore, the state is aware of what is happening here, but chooses to leave it as it is to maintain revenue generation. As a result, it is only intensifying the extractive activities, which are aggressively perpetuating the ecological crisis, as unchecked mining operations expand into the heart of the ecologically sensitive zone of the region. That way, the coal industry is ecologically damaging, but it is economically highly rewarding for non-state actors and the state.

It has consequently exposed the poor villagers to vulnerable situations in their own homeland, leaving them without any agencies to turn to. This also underlines the lack of robust civil society organisations (CSOs) that are able to work at the grassroots level, corruption within local government and poverty in the community. Even the state agencies and civil society organisations (CSOs) here have been co-opted by the local capitalist class, since they controlled the community CSOs and their objectives aligned with the extractive development exercises of the state. Eventually, these exploitative experiences have left the larger local communities on their own devices to face those pressing socio-ecological issues associated with the adverse impacts of coal mining activities. This, in turn, is unprecedentedly marginalising the local communities on multiple fronts, leading to widening intra-inequalities and uneven development across the Patkai Hills region.

## 5.7. The Community at the Crossroad: Debating Development

Contextually speaking, apart from the political factors at play, the local communities have largely become complicit in this informal coal mining due to the prevailing issues of increasing unemployment, poverty, and a lack of alternative livelihood options. These issues represent the recurring complex socioeconomic conditions characterised by inequalities. Within this context, economic activities in any form attract the villagers in the quest to overcome their poor socioeconomic situations. This is where the local elites and other extractive forces have taken advantage of the precarious conditions of the local communities. Vulnerable villagers are

presented with the extraction of resources as the alternative way forward to development and generating viable livelihood opportunities for them. For instance, when coal operations commenced in the early 2000s, the government persuaded the local communities, when mining was legal, to offer their lands for mining by promising them jobs, economic opportunities, and development, such as proper village roads. After that, following the ban imposed on coal mining by the Supreme Court in 2012, the local elites and private players convinced and led the local communities to engage in informal coal mining with the assurance of creating livelihood activities and economic opportunities for the villagers. Yet, those promises in both cases have yet to see the light.

On the other hand, the processes of appropriation/alienation of available resources, such as the forests, common lands, and individual agricultural fields from the local communities, continue to expand for the informal coal industry. Within this industry, the extractive actors operate without any accountability for their exploitative practices, as local communities are also deeply involved, even though they do not benefit much from it. Here, dispossession and appropriation of resources are portrayed as necessary steps for the greater development of the place and its people. However, the notion of this development propagated by the local elites and other extractive actors is manipulative and exploitative. It is exploitative in the sense that the extractive actors have availed benefits exclusively for themselves, while the larger communities, in practice, remain deprived of getting economic benefits from it. It is manipulative because the extractive actors have capitalised on the miseries and development aspirations of the local communities and presented mining as form of community rights over resources, even though it only advances the interests of the local capitalist class.

Additionally, the local capitalist class and other extractive actors have justified the continuation of informal coal mining by claiming that it is the backbone of the region's critical industries, such as brick kilns, small tea factories and other micro-enterprises. This premise pushed by these extractive actors comes from the coincidence of the emergence of other legally approved extractive industries, largely dependent on the readily available, cheap coal and coke from the unregulated coal industry in the Kharsang area. It is a situation where the state and the capitalist forces depend on the illegal coal industry to nurture the legal extractive industries in the Patkai Hills region. Although all these extractive industries, including coal mining, claim to benefit the local community unequivocally, this has not been translated into reality, as discussed in the

previous section. Still, the prevailing socioeconomic vulnerabilities of the local communities associated with informal coal mining remain a matter of concern. It has now evolved into a complex entanglement of socioeconomic, ecological, political and developmental issues. Therefore, this study has explored how the informal coal mining in the Patkai Hills region, which emerged as a cultural claim over resources, is ultimately an extractive enterprise.

# Conclusion

The thesis explores a diverse range of themes across the seven chapters, including the introduction and conclusion. It demonstrates that informal coal mining in the Patkai Hills region is characterised by the emergence of militarised mega road interventions, while existing rural road networks are largely in poor condition. The study explores the specific political and infrastructural circumstances under which the state-corporate formal coal industry has transitioned to informal coal operations, with a focus on highlighting the impacts and implications for the socio-economic conditions of the Tangsa community. It details the nuances of the ground realities faced by Tangsa villagers, who now confront new and growing socioeconomic inequalities and exploitation, even as they aspire to development. Here, the Tangsa community, the state, and non-state actors, such as insurgent armed groups and external private entities, continue to actively contest and negotiate for control over resources.

A key finding of this study reveals that while the formal coal industry was characterised by the state's monopoly, the emergence of the informal coal industry in the Patkai Hills region has been about dominance by the local elites and their external collaborators (private players). The Tangsa community has internalised and embodied extractive practices, while often positioning itself in opposition to the state-corporate model of resource extraction. Within this broader context, the study contributes to the scholarship on extractivism through shifting the analytical lens from external actors to understanding the extractive practices of informal coal mining as an interplay of both external and internal factors . It emphasises that extractive relations are not solely imposed by outside forces and macrostructures, but can also be reproduced from within the community through cultural claims over resources and the capture of power by local elites in collaboration with external actors. Thus, the extractive processes of coal mining are an interconnected phenomenon that is both internally created and externally exerted.

The study further shows that the current informal coal mining among the Tangsa community is enabled by the production of social legitimacy. Drawing strength from customary laws, close-knit kinship relations, and cultural rights over ownership of resources, the influential actors within the community framed informal coal operation as a collective enterprise, which often works politically to justify and socially legitimise mining. This eventually led to the economic control of an industry by a few local elites and external actors, wherein the role of bureaucratic

procedures and processes that underpin the extractive relationships emerges as significant. In this context, the intra-community power dynamics play a significant role and determine the unequal and exploitative features of the coal economy, which has excluded a larger section of the Tangsas, despite the substantial capital it generates from their resources. This is evident in the work of the coal committee, an informal institution responsible for overseeing the entire informal coal industry in the region, which often favours influential actors. It aligned with the state's politics of selective regulations and deregulation to facilitate the informal coal operation, as evidenced by leniency towards mining, the issuance of coke plant permits, and transit passes, among other measures. This discloses how the state plays an active role in the informal coal industry, which it deemed illegal.

Furthermore, the study advances scholarship on the informal coal industry and land questions, demonstrating that such mining fundamentally restructures livelihood practices and land relations within the community. As the land usage shifts from being traditionally embedded in agrarian utilisation to becoming a rent commodity for informal mining use, different sections of the community experience differently in terms of access to economic opportunities and varying degrees of dispossession. This phenomenon significantly exacerbates livelihood insecurities and socioecological implications, placing the entire Tangsa community in a complicated transitional dilemma. There is, therefore, a diversification of livelihood options in the community that has emerged over the years in response to these challenges and changes. However, the study clearly shows that the community does not experience this homogenously, as the local elites continue to control every aspect of the coal operations in the region, while the larger sections of ordinary villagers are left to face exploitation on multiple fronts.

The informal coal mining, as a form of extractivism, thus illustrates that Tangsas are both actively engaged in and directly impacted by the informal coal industry in the region. Through an empirically grounded ethnography, the study demonstrates that informal mining not only reproduces intra-community inequalities but also intensifies them, thereby further reinforcing social hierarchies among the Tangsas. The emergence of a new capitalist class, increasing dispossession, and the concentration of land among a select few local elites are examples of this phenomenon. The Tangsa villagers, who are economically wealthy, now have control over land and, with their political connections, are able to transform the community's claim over coal and other resources into an accumulation of wealth and capital. The study ultimately

reveals that the intra-community unequal relations within the Tangsas concerning informal coal mining are structural, in which some local elites use their privilege to accumulate profits from it, while a larger section of the Tangsa villagers continue to participate in the extractive process for bare survival.

This ethnographic study further demonstrates that development as a project imposed upon communities by the state and capitalist forces is a simplistic understanding of a complex phenomenon. Instead, development is continuously evolving, contested, and negotiated, a construct shaped by the particularities of socioeconomic conditions, historical and political contexts, and the specificities of the place and the people involved in it. Although the imposition of the state-corporate model of extractive industries in the northeast has historically faced resistance, the accounts from the informal coal industry in the Patkai Hills region reveal a phenomenon characterised by the interplay of state-corporate dominance and community-led counter-mobilisation. This interplay, however, serves as an expression of neoliberal development in its propagation and execution, making the informal coal politics regime in the Patkai Hills region extremely complex. In this context, the study offers field-based ethnographic insights from the Patkai Hills region of Arunachal Pradesh, highlighting the contestation over resource control among multiple actors, namely the Tangsa community, the state, and non-state actors such as armed groups and external private players. It reveals how non-state actors often institutionalise informal bodies, such as the coal committee, to control and operate the extractive shadow economies in the region, while also state authorities remain deeply complicit in the process. Here, the study uncovers the intricate layers of intertwined shadow economies, underscoring the everyday impact of armed insurgency, the disproportionate accumulation of wealth by local elites (and external private coal contractors) and apathy exhibited by the state in these instances.

The informal coal operations have both perpetuated socioeconomic exploitation and the political exclusion of the larger Tangsa community in the Patkai Hills region. Therefore, the issues surrounding coal extraction and resource appropriation in the region have remained very sensitive and politically charged topics. In light of this, a key contribution of this study is its conceptual framework of extractivism, which provides insight into the emergence of informal coal mining in the peripheral areas of the Patkai Hills region as a form of extractivism in a highly localised context. This study challenges the popular notion of extractivism as an

externally imposed phenomenon by illustrating how the extractive practices associated with informal coal mining are socially embedded in the region's larger political economy of development. It offers nuanced theoretical insights into how such extractivism has arisen from intra-community inequalities that interact with external extractive forces. Drawing on ethnographic accounts of the Tangsas, the study highlights in what manner any kind of extractivism tends to reinforce extractive practices, uncovering that the community may also embody the capitalist elements and exploitative practices that they claim to counter/oppose. Here, different players within the community are differently positioned; hence, the reactions and participation of people are not uniform in relation to extractive development. In this context, the study foregrounds the theoretical and empirical understanding of the region's informal coal mining as a form of extractivism, as mentioned above, which has created tribal elitism and unequal access to benefits/resources within the Tangsa community despite their involvement in the extractive process.

The study critically examines how the informal coal extraction has shaped the broader development trajectories and their impacts and implications on the larger local communities, particularly the poorer section of the Tangsas. It also explores the rise of the local elites and the capitalist transition within the Tangsa community, which is transforming them socioeconomically, ecologically, and politically. In doing so, the study sets the contextual background that highlights the complex issues of resource extraction, infrastructures, and community politics in relation to the expansion of informal coal mining and the uneven development interventions in the Patkai Hills region of Arunachal Pradesh. Notably, the community seeks to assert its cultural claim over mineral resources in opposition to the state's monopoly and capitalist interests. However, this assertion does not constitute an outright rejection or acceptance of conventional capitalist extractivism per se but is largely about internalising the extractive process within the community. Here, even though the larger sections of Tangsas are involved in the extractive process, local elites remain the leading actors in the sustenance of the informal coal industry, leveraging their economic resources, political power, and high social positions within the community. The study, in this context, presents the ways in which the intra-community and macro power equations play out under the region's layered extractive development, and how it shapes the everyday lives of the affected Tangsa villages.

The Kharsang area of the Paikai Hills region is now dotted with numerous coal mines and coke plants, causing irreversible destruction to the region's ecological landscapes. This transformation has adversely impacted agricultural-based livelihood activities and put the entire Tangsa community into a cycle of poverty and socioeconomic inequalities. The situation has been exacerbated by the unprecedented appropriation of the land and critical resources, such as the villagers ' forests, which are escalating the climate-related vulnerabilities and livelihood crisis stemming from the region's expanding coal mining and related extractive activities. As a result, the Patkai Hills region has become an extractive ground for resource extraction in Arunachal Pradesh, leaving the local communities, particularly the Tangsas, at their own devices to confront those problems without proper support from the state, political class and the local CSOs. It is now evident that the informal coal operations have become an extremely consequential extractive practice characterised by the corruption of enterprises controlled by influential players, such as local elites, external coal contractors, and state officials, effectively excluding the broader Tangsa community. This phenomenon in the Patkai Hills region serves as a clear example of how extractive actors and capitalist values penetrate to commoditise the community's resources, facilitated by the local elites and favourable state policies of selective regulations and deregulation strategies.

The larger sections of the Tangsa community, thus, evidently share an exploitative relationship with the operations of the region's informal coal industry and other extractive industries. For instance, today the Patkai Hills region remains among the most underdeveloped districts in the entire state of Arunachal Pradesh, despite making a considerable contribution to the state government's domestic revenue through extractive industries, including oil, coal, and other allied minor mining activities. Rather than becoming the industrial hub of generating employment and other economic opportunities, the region has turned into a mere extractive site of resource exploitation. The state has inadequately addressed the grievances put forward by the local communities, allowing an entrenched exploitative political and socioeconomic structure to flourish. In fact, it has continued to promote the extractive ventures without establishing the downstream industrial settings or allied manufacturing plants in the Patkai Hills region. Consequently, as mentioned above, the region has turned into an extractive site that primarily acts as a site of the extraction of raw materials for the larger regional and transnational markets. It is, thus, crucial to recognise here that the question of informal coal operations in the Patkai Hills region is not an isolated phenomenon within the Tangsa

community, but is closely connected to the larger pattern of resource politics that has emerged across the northeastern states of the Indian subcontinent. These coal politics represent the entangled challenges of socioeconomic issues, developmental debates, and the manifestations of territorial contestation over resources in the region.

As highlighted by this study, these intertwined issues in the Patkai Hills region necessitate comprehensive policies and approaches in a way that ensures equitable development interventions and empowerment of the affected local communities. The role of the state, as a parental figure (as a government for people), here is significant in collaboratively engaging with the Tangsa community to identify an acceptable common ground for addressing these pressing issues in an inclusive manner. This collaborative engagement is particularly urgent, given that the acceleration of the unsustainable and unequitable practices of informal coal operations is now fast spreading across the Patkai Hills region, which was previously concentrated in the Kharsang area. Places such as Miao, Jairampur, Nampong, and other places in the region have seen exponential growth in the informal mining activities alongside the illegal timber logging in recent years. Thus, this developing scenario in the region warrants further extensive research to deepen the broader understanding of the extractive resource politics and related issues in the entire Patkai Hills region.

Moreover, the state government of Arunachal Pradesh is pushing hard to restart or reoperate the formal coal industry, which is anticipated to officially commence by the start of 2026. The process for this has already begun with the inauguration of Namchick-Namphuk Central Coal Block, Longtom, by the Union Minister of Coal and Mines and the Chief Minister of Arunachal Pradesh on 6$^{th}$ October 2025. Here, it is crucial to note that when the formal coal industry started in 2007, it was operated in a public-private partnership, where the Arunachal Pradesh Mining & Trading Corporation Ltd (APMTCL), acted as the overall in-charge body, and the National Mining Company (NMC), a private company, was a partner, regulatory or operational agency. Essentially, it was the state government's undertaking. This formal coal industry under the state government was shifted to informal coal operations. Now, coal mining is transitioning again to a formal industry, but it is completely commercial in nature and controlled by the private players. The state and union government will only get the royalties from the private companies. At the moment, the Coal Pulz Pvt. Ltd. (CPPL). As per the official estimation, the

Central Coal Block, Longtom, is currently expected to generate over 100 crores of revenue annually to the state government (Northeast Today, 2025).

This development presents an intriguing dimension that could provide valuable insights into the messy politics of mineral resources in the region. It would also be worthwhile to explore the community response and their engagement with a formal commercial coal mining project, considering their existing involvement in the informal coal operations. Additionally, examining the state policy strategies to navigate the rough terrain of informal coal operations in order to reestablish the formal coal industry would be a significant aspect which requires more academic research interventions. In addition, there are other significant areas to consider, including the gendered experience of resource extraction, the relations between armed extremism and coal extractivism, and the comparative study of the Patkai Hills region alongside other northeastern states with regard to the sociological impacts, political contexts, and policy implications of coal mining.

Furthermore, to address the ongoing complex and pressing issues concerning informal coal mining in the Patkai Hills region, the state must intervene with a comprehensive approach that considers ecological, socioeconomic, and socio-political factors. Simply expanding the formal coal industry without addressing the ongoing informal coal operations in the region will make the current situation even worse. Here, rather than simply imposing a ban and notion of illegality, there is a need to reimagine how resources are governed, involving the affected community and all relevant stakeholders in the development process. This policy approach could potentially lead to a broader way of finding solutions, including the possibility of venturing into sustainable coal mining in the long run. More urgently, with the resumption of the formal coal industry, the regulatory framework must be advanced to ensure fair compensation and the equitable distribution of benefits to the affected community from coal mining in the region. Here, the policy objectives should focus on promoting and facilitating alternative livelihoods for the local community to address the region's rising poverty, intra-inequalities, and underdevelopment within the existing extractive economy.

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# List of Figures and Tables

# Abbreviation

| | |
|---|---|
| TLC | Tirap, Longding, and Changlang |
| Ar. Pr. | Arunachal Pradesh |
| NE | Northeast |
| LEP | Look East Policy |
| AEP | Act East Policy |
| NSCN | National Socialist Council of Nagaland |
| APPSU | All Arunachal Pradesh Students' Union |
| ATSU | All Tangsa Students' Union |
| ACDSU | All Changlang District Students' Union |
| TYAAll | Tangsa Students' Union, Tangsa Youth Association |
| KCUYA | Kharsang Circle Unemployed Youth Association |
| CSO | Civil Society Organisation |
| SEZ | Special Economic Zone |
| APMTCL | Arunachal Pradesh Mining & Trading Corporation Ltd |
| NMC | National Mining Company |
| CIL | Coal India Limited |
| OIL Oil | India Limited |
| CPPL | Coal Pulz Pvt. Ltd |
| ARHMOC | Anti-Rat Hole Mining Oversight Committees |
| CC | Coal Committee |
| CCB | Central Coal Block |
| AMDO | Assistant Mining Development Officer |
| NH | National Highway |
| FH | Frontier Highway |
| TAH | Trans-Arunachal Highway |
| IMT | India-Myanmar-Thailand Trilateral |
| PMGSY | Pradhan Mantri Gram Sadak Yojana |
| SARDP | Special Accelerated Road Development in Northeast East |

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