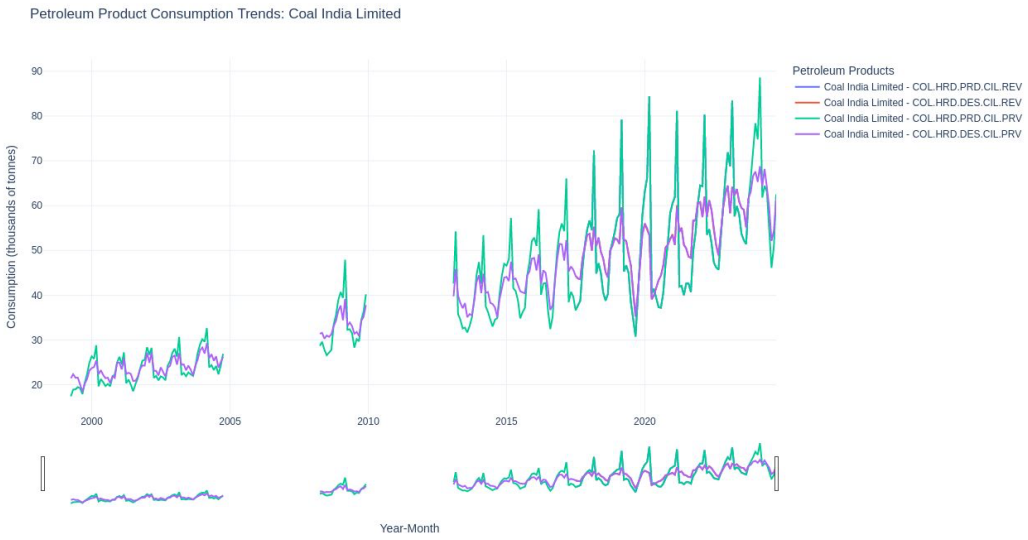
ONYX

COAL MINE ANALYSIS REPORT

Confidential Report

1. Introduction



This report analyzes the petroleum product consumption trends of Coal India Limited (CIL) from 2000 to 2023. The analysis focuses on identifying key patterns and fluctuations in consumption over time, providing insights into CIL's operational dynamics. The data reveals significant variations in petroleum product usage.

The graph illustrates the consumption of petroleum products by CIL, distinguishing between revised and provisional data for production (PRD) and dispatch (DES). From 2000 to 2010, consumption remained relatively stable, fluctuating between 20,000 and 30,000 tonnes. A notable increase is observed from 2010 onwards, with consumption reaching its peak around 2020. The revised data consistently shows slightly higher consumption than the provisional data, indicating a general upward trend. Fluctuations throughout the period likely reflect seasonal variations and operational changes within CIL. The differences between revised and provisional data suggest ongoing refinement in data collection and reporting processes within the company. Further analysis will delve into potential influencing factors for these trends.

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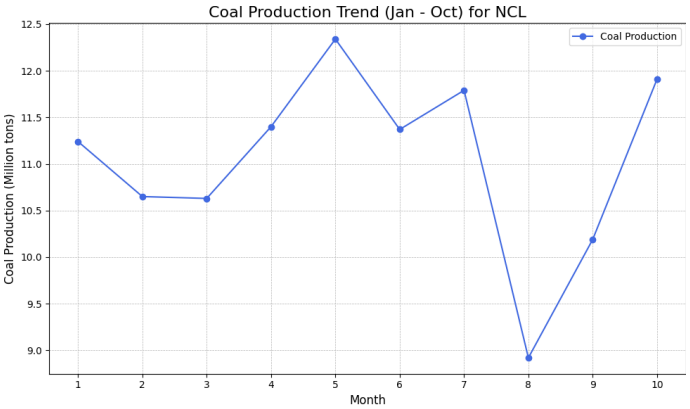
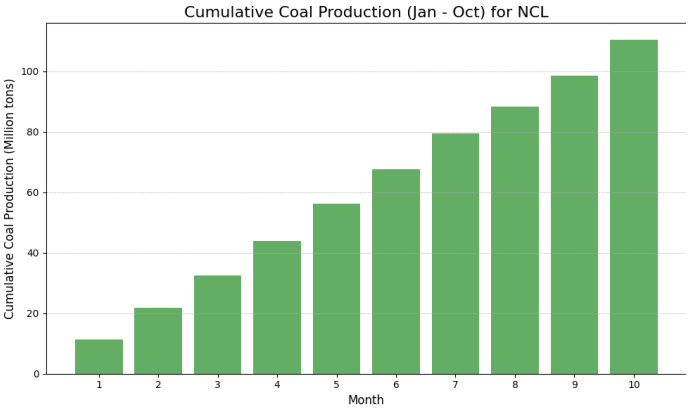
2. Coal Production





Total Coal Production of NCL in 2024: 110.44 Million tons

Number of Mines in NCL: 10

Northern Coalfields Limited (NCL) is a major coal mining subsidiary of Coal India Limited, established to contribute significantly to India's energy needs. Its primary role is the extraction and supply of coal, primarily non-coking coal, to various power plants and industries. NCL's average annual production fluctuates but typically exceeds 100 million tonnes, showcasing its substantial contribution to national coal output. Its operations are concentrated primarily in the Singrauli coalfields of Madhya Pradesh and parts of Uttar Pradesh, making it a crucial player in the central Indian coal belt.

NCL's monthly production figures exhibit seasonal variations, influenced by factors such as monsoons and demand fluctuations. A detailed monthly production analysis would require specific data, but generally, higher production is observed during drier months, with a possible dip during the monsoon season. The company's distribution network encompasses power plants and industries across several states, primarily in central and northern India, ensuring the consistent supply of coal to meet the nation's energy demands. NCL consistently strives to improve efficiency and productivity to maintain its position as a key player in the Indian coal sector.

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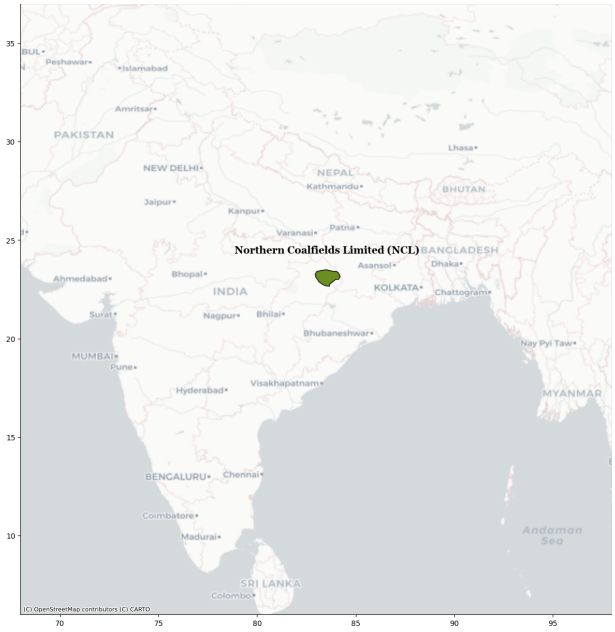
3. Coal Production



Carbon Credits NCL earned in 2024: 160358.88

Carbon offset NCL in 2024: 12148 Trees

Our carbon footprint analysis reveals a total of 160,358.88 carbon credits generated. To offset this substantial emission, an estimated 12,148 trees are required. This translates to approximately 13.24 carbon credits per tree, suggesting an average carbon sequestration capacity of that magnitude per tree over its lifespan. This calculation assumes a standardized carbon sequestration rate for the specific tree species considered. Further analysis is needed to determine the accuracy, considering variations in tree growth rates due to climate, soil conditions, and species. The relatively high number of trees needed highlights the significant impact of the emissions in question. A more detailed species-specific breakdown would improve accuracy. Investigating alternative carbon offsetting methods could provide additional mitigation strategies. Reforestation projects, with their inherent ecological benefits, remain a vital approach. Future emission reduction strategies must prioritize minimizing carbon generation at the source. Continued monitoring and adjustments are crucial for effective carbon offsetting. A comprehensive sustainability plan, including both offsetting and reduction, is recommended.