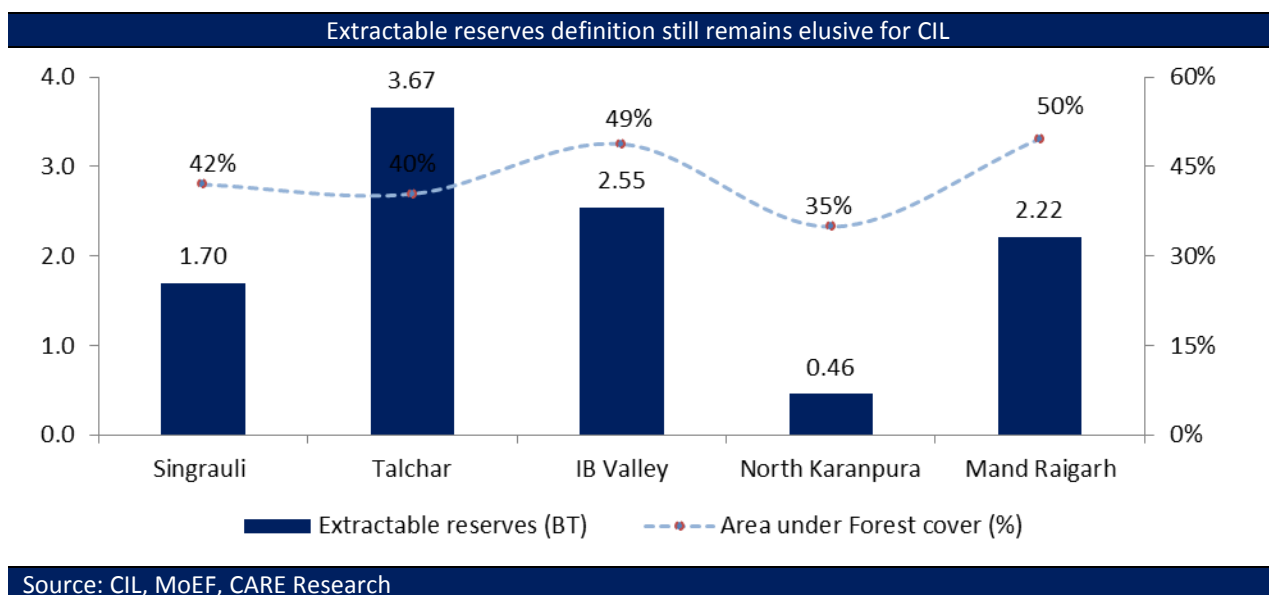


Indian Coal Industry—Policy clarity need of the hour...

CIL aligns to UNFC framework; but ‘extractable reserves’ definition still incomplete

Coal India (CIL) has finally shifted to internationally acclaimed United Nations Framework Classification (UNFC) to accurately estimating the extractable reserves. UNFC lays down a standard procedure for calculating size of reserves and resources based on a three dimensional system with technical feasibility, economic viability and geological estimate. However, **CARE Research** believes that the definition of extractable coal reserves still remains “incomplete” even after CIL’s downgrade of reserves by 16% to 18.2BT in Nov-13 given 1) CIL has still not done a detailed feasibility studies as stated under UNFC standards (i.e. geological studies of infrastructure, meteorology and ecology aspects; mining plans including issues pertaining to methods, recovery, manpower; environmental study including baseline data generation and impact analysis), 2) CMPDIL (exploration subsidiary of CIL) does not have basic geographical data such as forest cover, agricultural land, water bodies and other zones where mining activities are restricted and 3) CIL’s five major coalfields, which account for ~58% of the total extractable reserves, lie in dense forests as shown below:



Policy flip-flop remains a dampener for the coal sector

Over the past one year, various policy measures like coal price pooling, coal banking, etc. have been proposed in order to tide over the coal deficit in the country. However, there have been frequent policy announcements, quick revisions and prolonged dialogues between the ministries leading to a situation of policy flip flops after which certain measures like coal pooling have been put in cold storage. Additionally, there was unacceptability of above mentioned measures by the various stakeholders (state government, end use consumers like power, sponge iron & steel).

The MoC is also toying with an idea of Coal banking, which is a transient arrangement to efficiently use surplus captive coal and reduce coal imports. However, at present CIL is reluctant to be a part of this arrangement due to its inability to give back the banked coal. **CARE Research** believes that Coal banking cannot work given 1) lack of clarity on transfer pricing of surplus coal that can be banked and 2) interim change in notified price of coal (which can affect the economics of the end-user).

Additionally, due to fear of large scale de-allocation of coal blocks allotted during last few years, the captive coal production has stagnated to ~50MT. Further, restriction of linking coal blocks to specific end-use projects has been a roadblock to efficiently utilize surplus coal for any other plants resulting in rising coal imports. This has resulted into excessive strain on the fiscal deficit thereby increasing risk of elevated inflation in the near to medium term.

Thus, **CARE Research** opines that overall policy and regulatory framework needs to be overhauled to give fillip to domestic coal production in the country. **CARE Research** believes that comprehensive policy measures should be taken up immediately such as 1) expediting faster EC/FC by standardizing the procedures and creating a single window system for clearances, 2) evolving fair pricing mechanism for surplus coal from captive mines, 3) reducing concept to commissioning time for coal production from current 10+ years to globally accepted norm of 4-5 years and 4) appointment of independent coal regulatory authority with full autonomy to address appropriate coal pricing and supply in accordance with free market principles.

Indian coal production to reach 690MT/730MT in Base case/Best Case by FY17E

CARE Research expects Indian coal production to reach 690MT for the Base case scenario implying a 5.5% CAGR during FY14-FY17E. The growth in coal production would be contributed by CIL (expected to reach 564MT implying 5.7% CAGR during FY14-FY17E) and 7.0% production CAGR from the captive mines (~69MT in FY17E). **CARE Research's** production estimates from the captive mines take into account incremental

production ramp-up from NTPC captive mines (Pakri-Barwadih) and Reliance Power’s Sasan UMPP mines¹. For CIL, **CARE Research** expects none of three major railway lines² to become fully operational by FY17E given the muted capex incurred by CIL and railways till date and pending environment clearances for these lines.

According to our Base Case assumptions, CIL’s three major subsidiaries namely –SECL, CCL and MCL are estimated to contribute ~65MT i.e. 73% of total incremental production during FY14-17E. The fastest growing subsidiary i.e. MCL is expected to add ~26MT by FY17 primarily through expansion of IB Valley and Talcher coalfields. SECL is likely to contribute incrementally ~17MT during the same period with expansion of Central India and Mand Raigarh coalfields. Further, CCL is likely to ramp up its coal production by ~22MT mainly led by increased production from North Karanpura coalfield.

COAL PRODUCTION SCENARIO- BASE CASE						
Year	FY11	FY12	FY13	FY14E	FY17E	CAGR*
CIL	431.3	435.8	452.2	474.5	563.8	5.7%
SCCL	51.3	52.2	53.1	54.3	57.4	2.0%
Captive+ Others	50.0	52.0	52.4	55.1	68.7	7.0%
Total production	532.7	540.0	557.8	583.9	689.9	5.5%

Source: MoC, CIL, CARE Research Estimates *during FY14-17E

Our calculations for the Best case (~730MT coal production) suggest that two CIL subsidiaries namely MCL and CCL could contribute ~63% of incremental production of ~26.4MT by FY17 (v/s Base case). This is primarily on account of 1) faster than expected development by according FC/EC clearances leading to addition of ~6MT during FY14-17 and 2) recent MoEF relaxation on mine expansion by 50% without need of public hearing leading to faster production growth of ~5MT during the same period and 3) ~4-5MT additional contribution from new mines such as Magadh (approved capacity of ~20MT) and Amrapali (approved capacity of ~12MT) of CCL coming on stream.

COAL PRODUCTION SCENARIO- BEST CASE						
Year	FY11	FY12	FY13	FY14E	FY17E	CAGR
Total CIL	431	436	452	483	590	7.9%
SCCL	51.3	52.2	53.1	54.2	58.6	2.9%
Captive + Others	50.0	52.0	52.4	57.7	81.0	11.8%
Total Coal production	532.7	540.0	557.8	594.5	729.9	7.8%

Source: MoC, CIL, CARE Research Estimates *during FY14-17E

¹ Sasan UMPP has three captive mines i.e. Moher, Moher-Amroli extension and Chhatrasal mines in Singrauli coalfields.

² Tori-Shivpur-Kathotia (CCL); Jharsuguda Sardega (MCL) and Bhupdeopur Korichhapar-Baroud (SECL)

Coal demand/supply CAGR at 5.4/5.9% during FY14-17E in the Base/Best Case

Coal demand is driven primarily by 1) Power and Captive Power Plant (CPP) segment 2) Steel 3) Sponge iron and 4) Cement sector. Power utilities and CPP cumulatively account for 70% of the total coal demand.

CARE Research has built coal supply under two distinct scenarios 1) BEST CASE-(Business as Usual) which estimates coal demand/supply to touch 884/880MT at CAGR of 5.4% each by FY17E. Our BEST CASE (Optimistic scenario) assumes the coal demand/supply is expected increase with revival in the sponge iron and cement sector by FY15/16. Further, with an increase in coal supply due to three coal linkages, which is currently underway is expected to reach to 897MT by ~18MT (v/s Base Case) by FY17E.

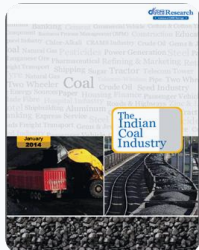
Coal imports to reach 188/168MT under the Base/Best case scenarios by FY17E

India's coal imports are expected to reach ~188MT/168MT under the Base/Best case by FY17E. This would be driven by steadily increasing thermal coal imports in the Base Case (i.e. ~188MT by FY17E) and coal imports peaking at 171MT in the Best Case in FY16E. However, **CARE Research** estimates the coal imports to decline to ~168MT in FY17E due to increased coal dispatch by CIL and higher production from captive coal mines by 12th Plan-end (FY17E) under the Best case.

CARE Research believes that thermal coal imports would increase in the Base Case given 1) CIL's inability to meet the increasing demand of power utilities, 2) no additional domestic linkages to non-power consumers 3) de-allocation of few captive coal blocks and 4) delays in according EC/FC for most of the most of the captive coal blocks. Further, coking coal imports are expected to grow at 5/8% CAGR in the Base/Best case in line with steel capacity addition.

Captive coal blocks de-allocation, capex recovery to remain illusive

Till date, 218 captive coal blocks (GR ~49.3BT) having been allocated, of which 47 coal blocks (GR ~6.7BT) have been de-allocated. A majority of these coal blocks belong to critical sectors like power, sponge iron, steel and cement. While non-production of coal from these blocks (mainly due to delay in EC/FC clearances) was cited as reason to de-allocate these blocks, **CARE Research** believes that de-allocation of coal blocks is likely to hurt domestic coal production in the long run.



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