

# PPP in Coal: Firing the Growth Engine

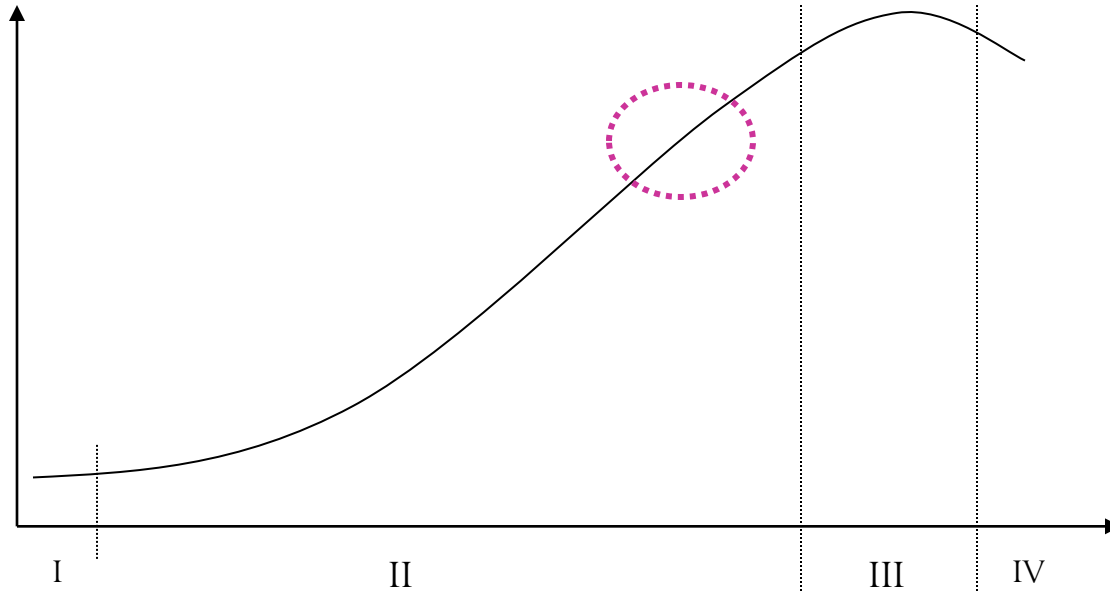


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a'XYKno Natural Resources & Energy Group

# Industry Life Cycle



## KEY CHARACTERISTICS

- Active Private participation
- Strong regulatory framework
- Highly competitive, consolidated market

### START UP

- High demand, growing supplies
- Entry barriers
- Lack of investor friendly regulations, tax laws etc
- High cost structures

### GROWTH

- Technological breakthroughs
- Economies of Scale
- Higher profitability
- Higher efficiencies
- Competition gears up

### MATURITY

- High demand, matching supplies
- Highly competitive
- Consolidation
- Newer markets
- Up –stream, down stream Integration

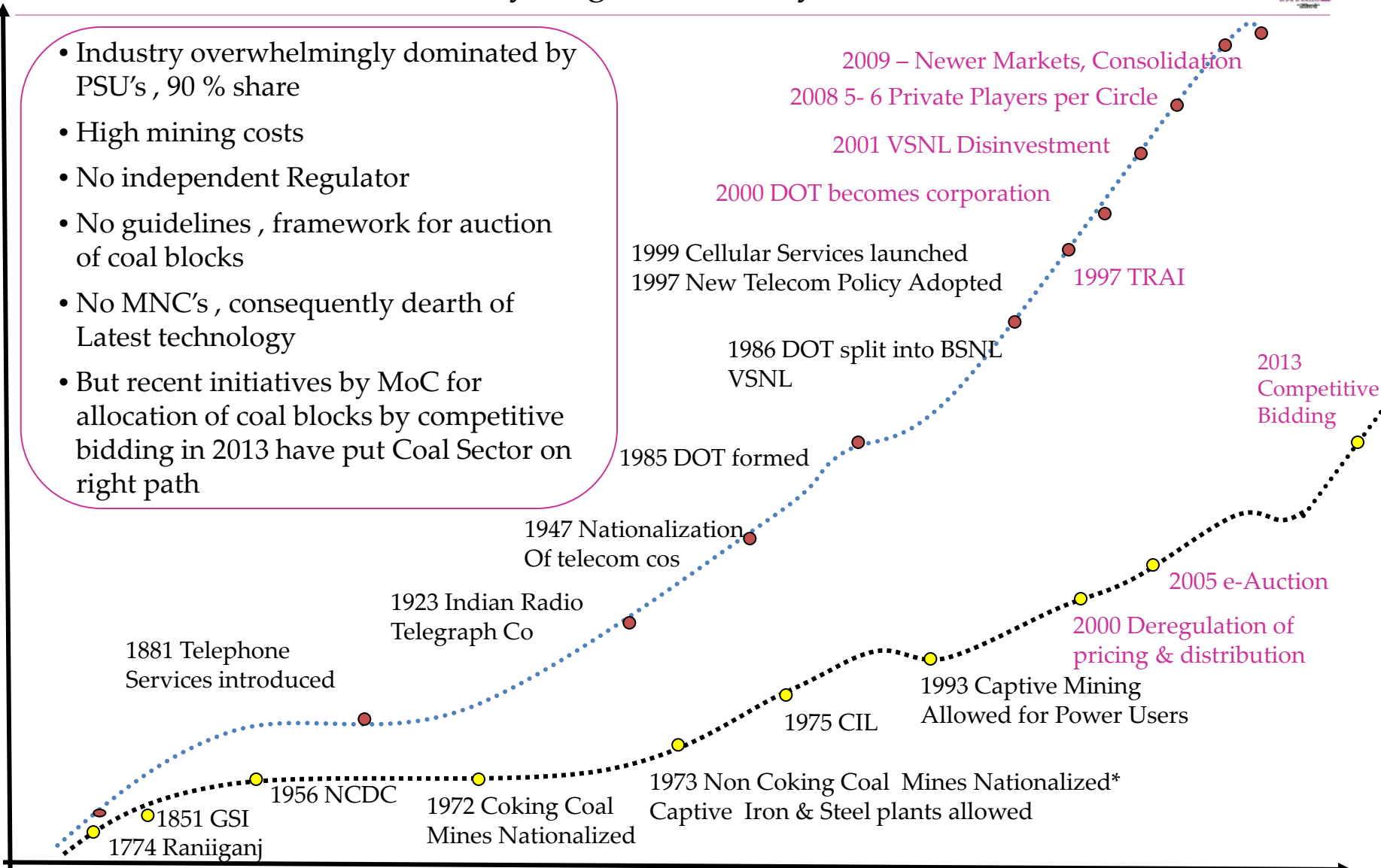
### DECLINE

- Low demand, diminishing supplies
- Barriers to exit
- Declining profits
- Environmental concerns

# Indian Coal Sector Still at Early Stage: After 250 yrs?



- Industry overwhelmingly dominated by PSU's , 90 % share
- High mining costs
- No independent Regulator
- No guidelines , framework for auction of coal blocks
- No MNC's , consequently dearth of Latest technology
- But recent initiatives by MoC for allocation of coal blocks by competitive bidding in 2013 have put Coal Sector on right path

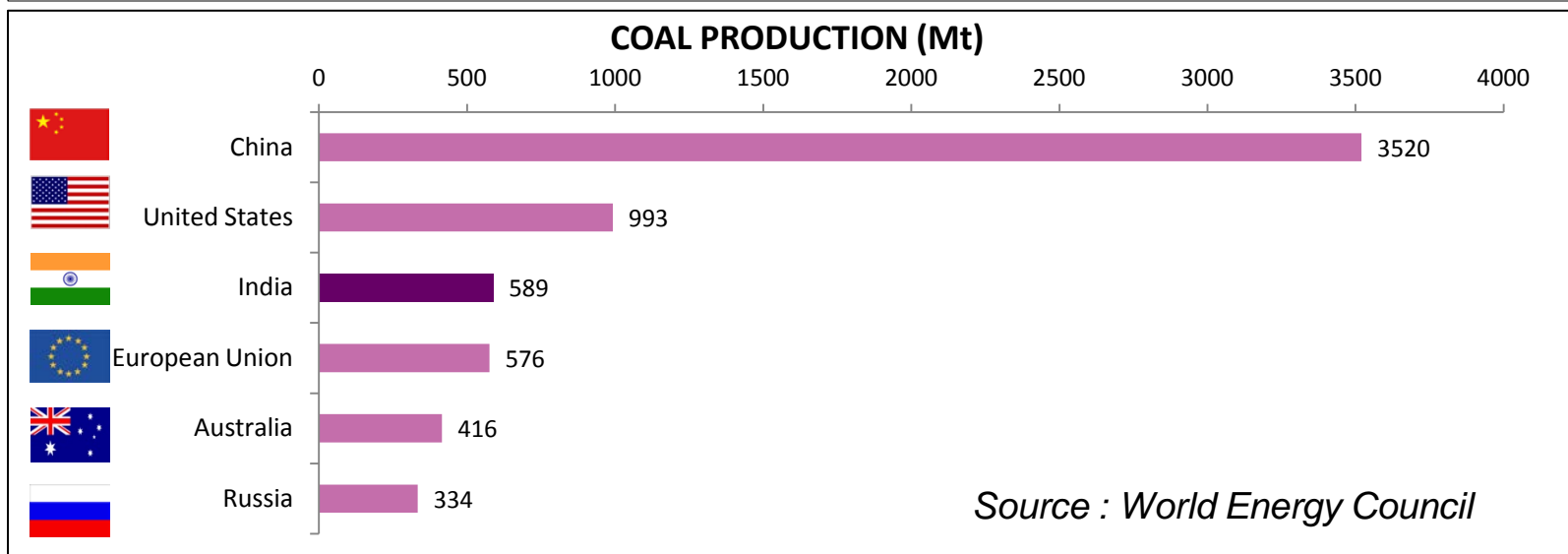
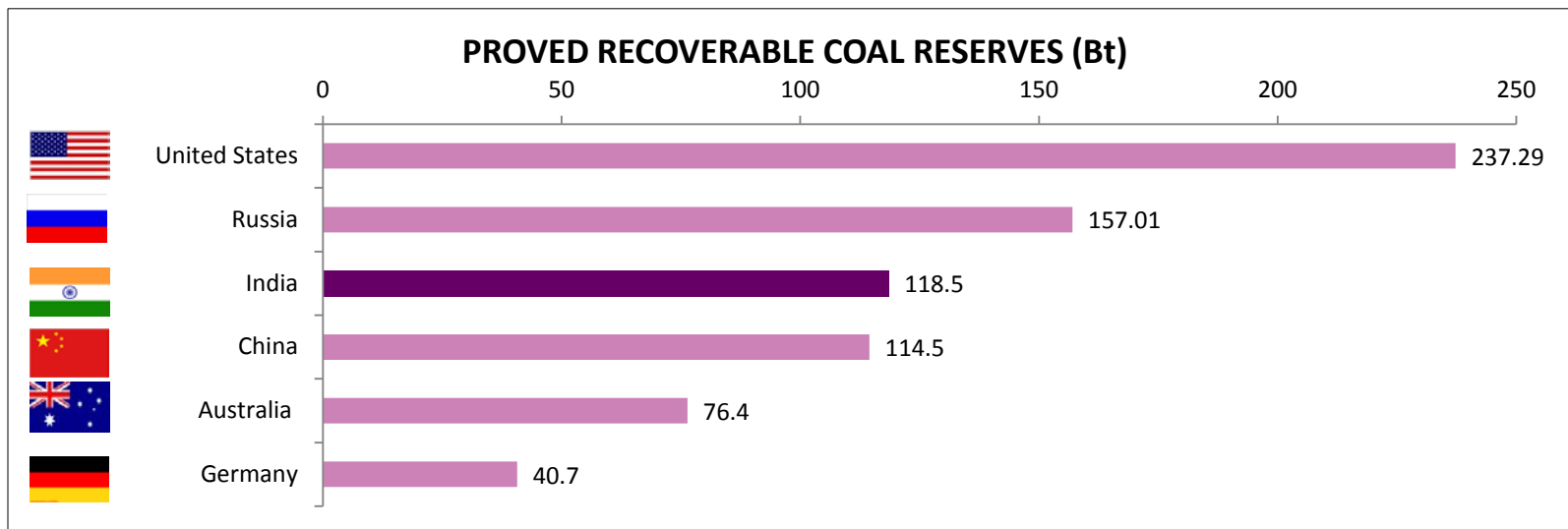


Source: a'XYKno Research

Telecom ..... Coal Mining .....

Sectors like Telecom have made far more growth than the Coal Sector over much shorter span of time

# Coal Reserves vis-a-vis Production of Top Six Nations

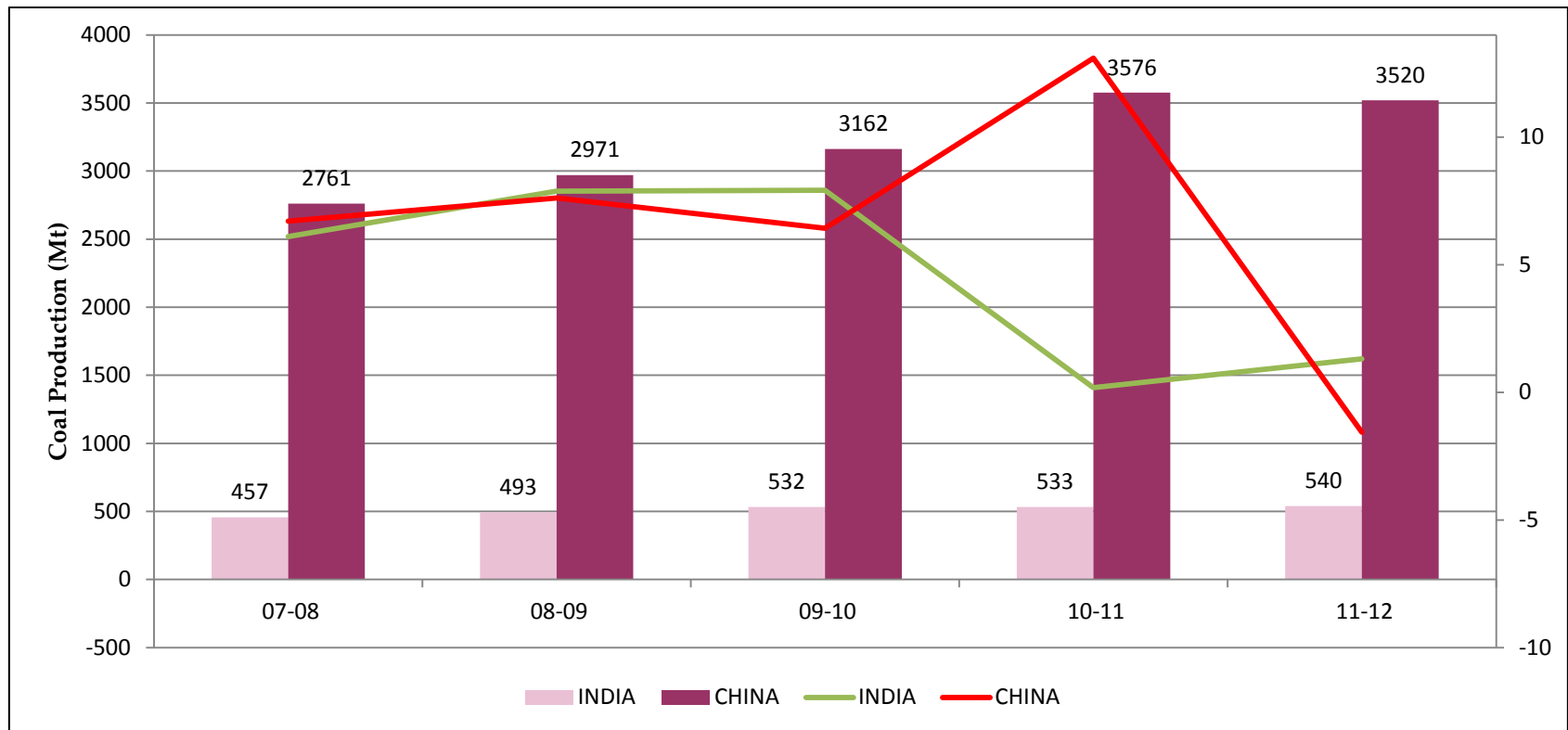


With only 114.5 Bt of Coal Reserves, China produces 6 times more coal than India.

# India vis-à-vis China

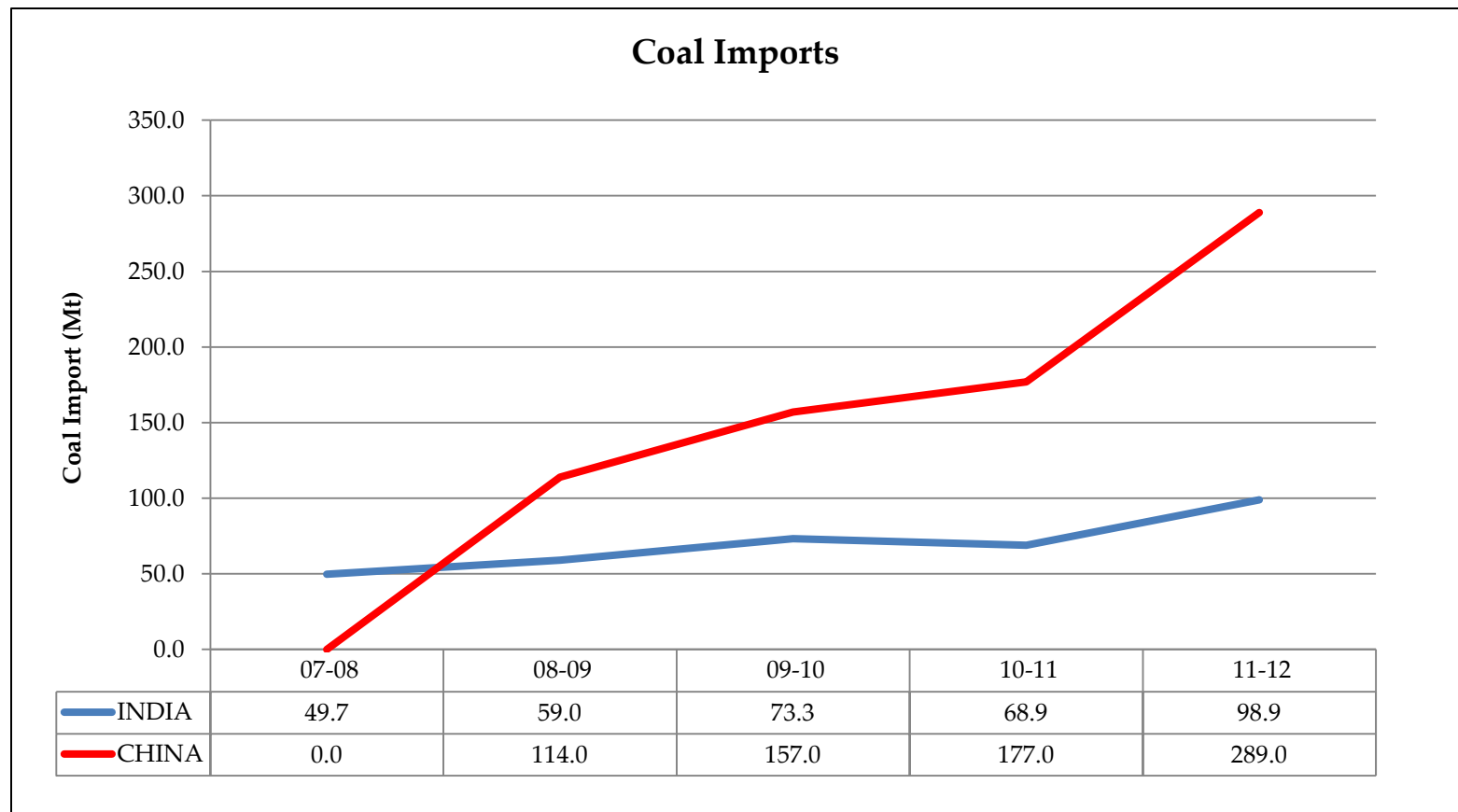


- China's proven coal reserves, as in 2011, are placed at around 114.5 BT (World Energy Council), as compared to 118 BT of India (GSI).
- Where as the coal production in China during 2011 was 3520 MT as compared to 540 MT of India ( about 6.5 times ).



China produces 6 times more coal than India, annually inspite of having lesser coal reserves.

- Despite of such a high level of coal production and its growth, China is turning into a major importer of coal.
- This could be a part of its strategy to conserve its own coal resources.



China inspite of being the World's Largest Coal Producer, imported 289 MT of Coal in 2011-12 which is three times more than India..

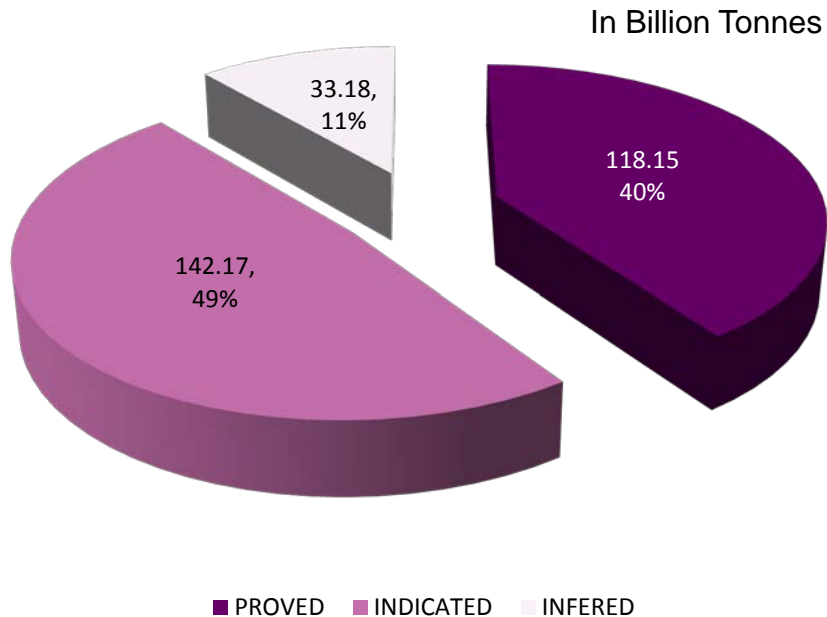
The *Indian Classification system* is primarily based on geological evaluations without assessing the quality, or extractability of deposits, which may be constraint due to surface, geo-technical and economic considerations.

In India, terms such as '*Resources*' and '*Reserves*' are often misused, with *Geological Resources* being treated as '*Reserves*'.

In contrast, the United Nations Framework Classification (UNFC, 2004) denotes reserves as the part of the remaining resources that is economically mineable, technically extractable, and geologically proven.

Thus, there is considerable uncertainty about the actual amount of proven coal reserves in India.

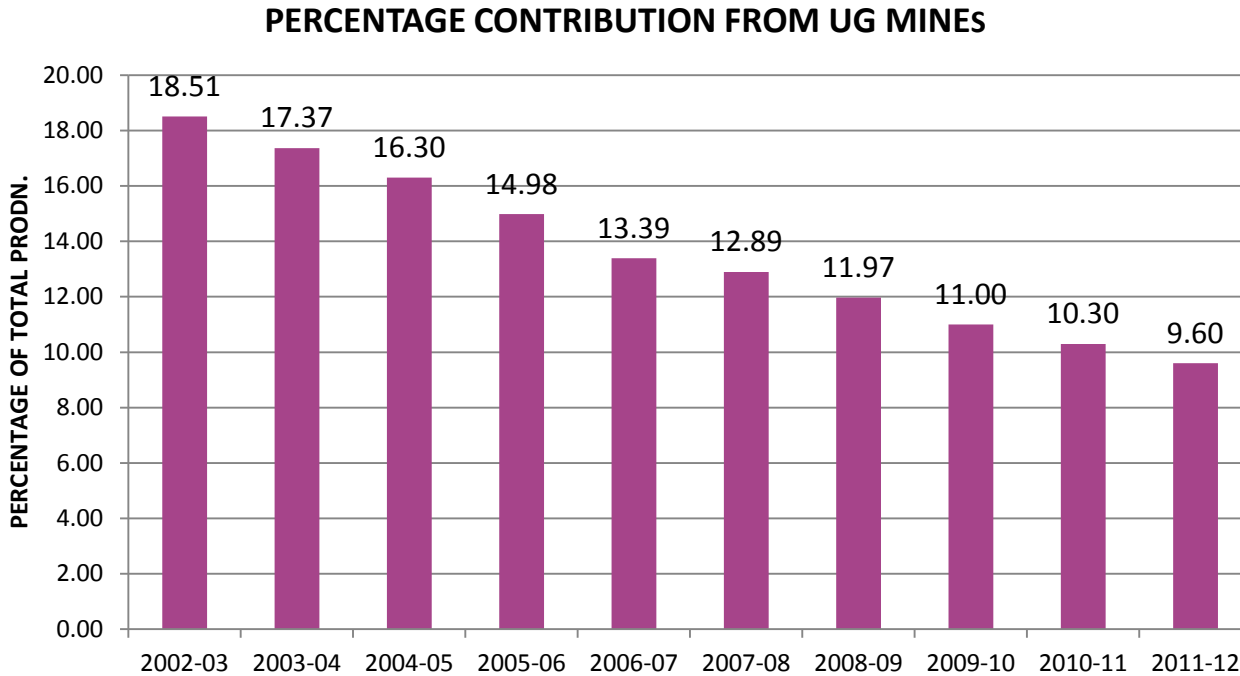
**GEOLOGICAL RESERVES**  
(As on 1st April 2012 )



Source – Indian Bureau of Mines

India has 118.15 Bt of Proven Coal Reserves but these need to confirm to UNFC Standards

# Declining Production from U/G Mines: A worrying factor!



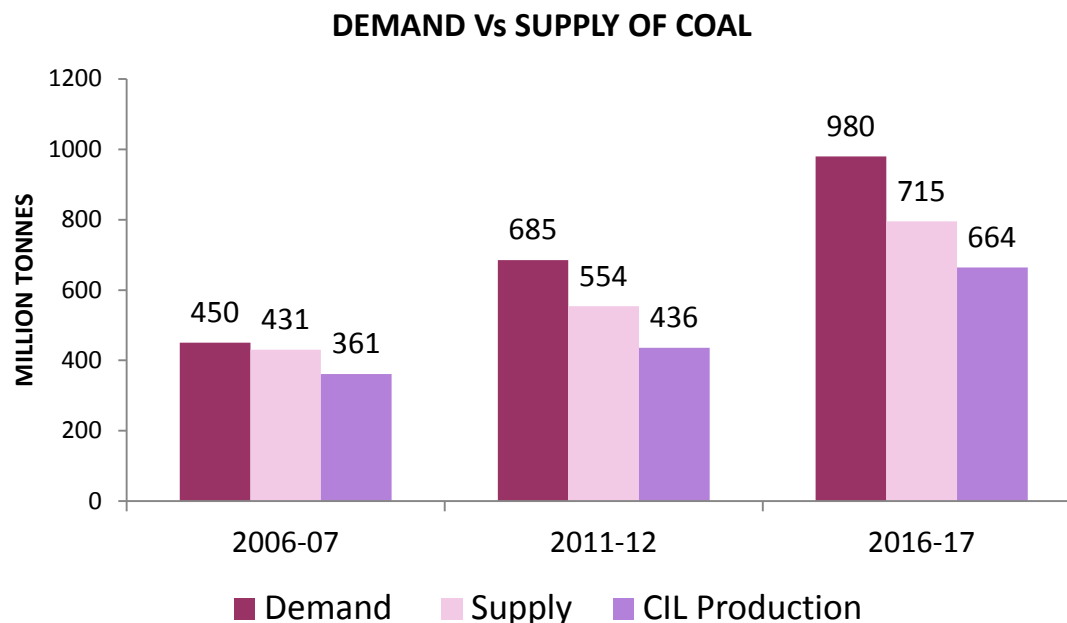
Despite Exploration, Development & Sale of coal in India being completely under the control of the Indian Government, through the Ministry of Coal, no importance has been given for development of UG mines, which are still in the primitive stage, and their contribution is declining on YoY basis.

With our Open Cast Reserves likely to be exhausted in the near future, India will have to take drastic measures to ramp up production from U/G Mines if it is to match its coal demand

**Almost 90% of India's Coal Production comes from Open Cast Mines and a mere 10% from Underground Mines.**



- The Demand of coal is increasing at a much higher rate ( around 8.5 % ) against growth in Indian Economy ( around 6.5 % ). India will have to import 265 MT by 2017 as per projections of the Working Group of XIIth Five Year Plan to meet its Coal demand.
- The expected contribution from Captive Blocks has failed to come.



The demand supply gap is likely to shoot upto 265 MT by 2017, the terminal year of XIIth Five Year Plan

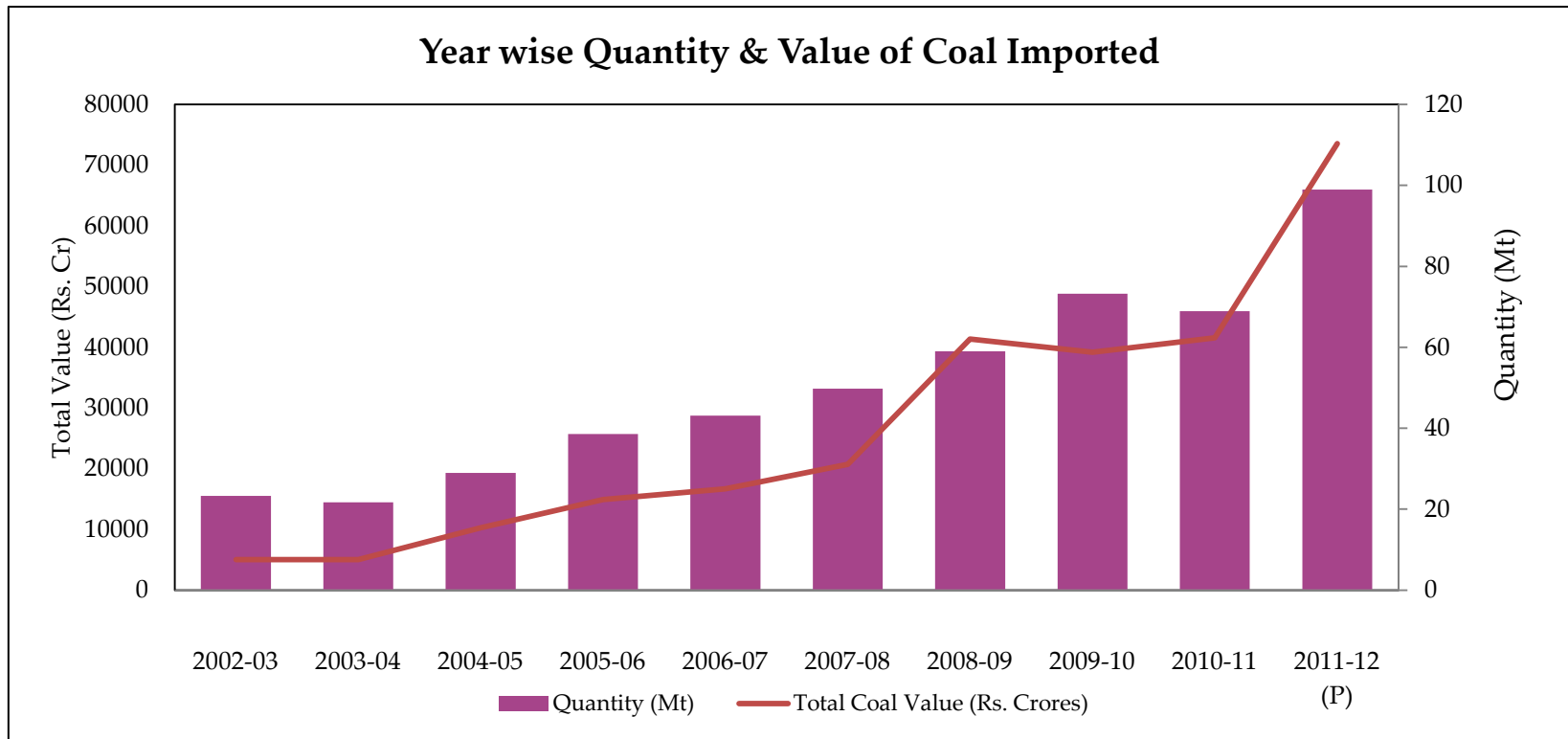
The growth of domestic coal production is severely constraint by :

- Inability of Mine Operators to timely acquire Land due to inflexibility in Govt. policies
- Problems in resolving R& R issues with locals
- Delays in Environment and Forest Clearances
- Lack of co-ordination between various authorities for development of matching infrastructure
- Inertia & scare of trying best & improved technologies available globally.
- Reluctance of Independent Power Producers / Consumers to sign long term off take agreements for sustainable supply of coal from mine operators.

**Govt. of India will have to take immediate steps to address the above issues if we have to increase Coal production.**

# Growing Dependence on Imported Coal

- Despite of having huge coal reserves, India has been forced to turn into a major importer of coal for minimizing the increasing gap between Demand & Supply.
- Both, increased quantity of imported coal and its increasing landed per Tonne Cost in India, is causing heavy burden on the Exchequer on year to year basis .



India imported Coal worth around ₹ 70,000 Cr in 2011-12 (more than CIL's turn-over) which is likely to increase manifold by 2017, if Coal production is not ramped up.

- Public Private Partnership (PPP) & Private Participation can be one of the potential answers for ramping up coal production in the
- The Government of India describes PPP as –
  - “ A partnership between a Public Sector entity (sponsoring authority) and a Private Sector entity (a legal entity in which 51% or more equity is with the private partners), for the creation and / or management of infrastructure, for public purpose for a specified period of time (concession period), on commercial terms and in which the private partner has been procured through a transparent and open procurement system. “

**Public Private Partnership (PPP) can be one of the answers to ramp up Coal Production in India**

- a'XYKno Capital Services Ltd., a leading consulting powerhouse in the Natural Resource & Energy Sector, pioneered the PPP model in India for the fast track development of coal blocks way back in 2007. The same is now being benchmarked by MoC
- a'XYKno has successfully structured and implemented under PPP Framework, more than 15 coal blocks so far, allotted through the Govt. Dispensation route to various State Govt. Mining Undertakings and Power utilities.
- The projects were structured within the existing regulatory framework & directives of MoC, Government of India, which stipulates:

*“ Detailed Exploration & Coal mining shall be carried out by the State Government Undertaking (coal block allocatee) or a separate company created with the participation of the State Government Undertaking (coal block allocatee) provided that the separate created company is Government Company eligible to do coal mining as per the provision of the Coal Mines Nationalisation Act, 1973.”*

- Have created value-propositions for the Government as well as the private entrepreneur
- Ensured fast tracking of coal block development.

**a'XYKno Capital Services has been a pioneer in successfully implementing the PPP model for fast-track development of Coal Blocks**

- Pre-feasibility / Detailed feasibility study of the coal block is the starting point.
- A structure / model based on the study is constructed to suit the Sponsor and the Developer
- Detailed mine valuation, running multiple scenarios and option analysis of the project is run to demonstrate adequate risk-reward and structuring a robust bid.
- Selection of a Strategic Partner through a fair and transparent bidding process.

**A Systematic Approach is required for Conducting PPP transactions successfully.**

- A common misconception that PPP model & MDO Route is similar.
- PPP is based on the principles of ownership and equal participation, but should not be mistaken for privatization as the Government still retains majority control on the equity ownership (generally 51% share) in the JV Company formed.
- MDO has to undertake mining of coal on a fixed cost per tonne mining fees covering all activities of mine development till loading of coal in the wagons, and is more a mode of private participation.

The scope of work of the MDO covers issues like preparation of Mining Plan, obtaining Statutory Clearances, Land acquisition, R & R etc.

The MDO works like a contractor, and may be penalized for shortfall in production.

Thus there is very little incentive for the MDO since there is no ownership involved.

- The PPP route creates a larger sense of commitment for the private partner since he owns a stake in the company. This results in fast track development of the coal block.

**PPP envisages development of coal blocks on the principles of ownership and equal participation unlike the MDO who works like a contractor with no incentive**

- The PPP route is particularly effective for those Govt. companies which are cash starved and do not have financial strength to develop the coal blocks.
- The PPP model, if implemented judiciously, can result in windfall gains for both the State Govt. Mining & Power companies, since the private player upfronts equity besides financial investments required for the development of the coal block.

For successful implementation through MDO route, there must some incentive for the MDO. We present two Caselets based on:

- PPP mode*
- MDO mode, with incentive.*

PPP model has proved very successful for Cash Starved Govt. Companies while MDO route with incentive in the form of Power can attract big Corporate Houses. Both models have been implemented successfully by a"XYKno.



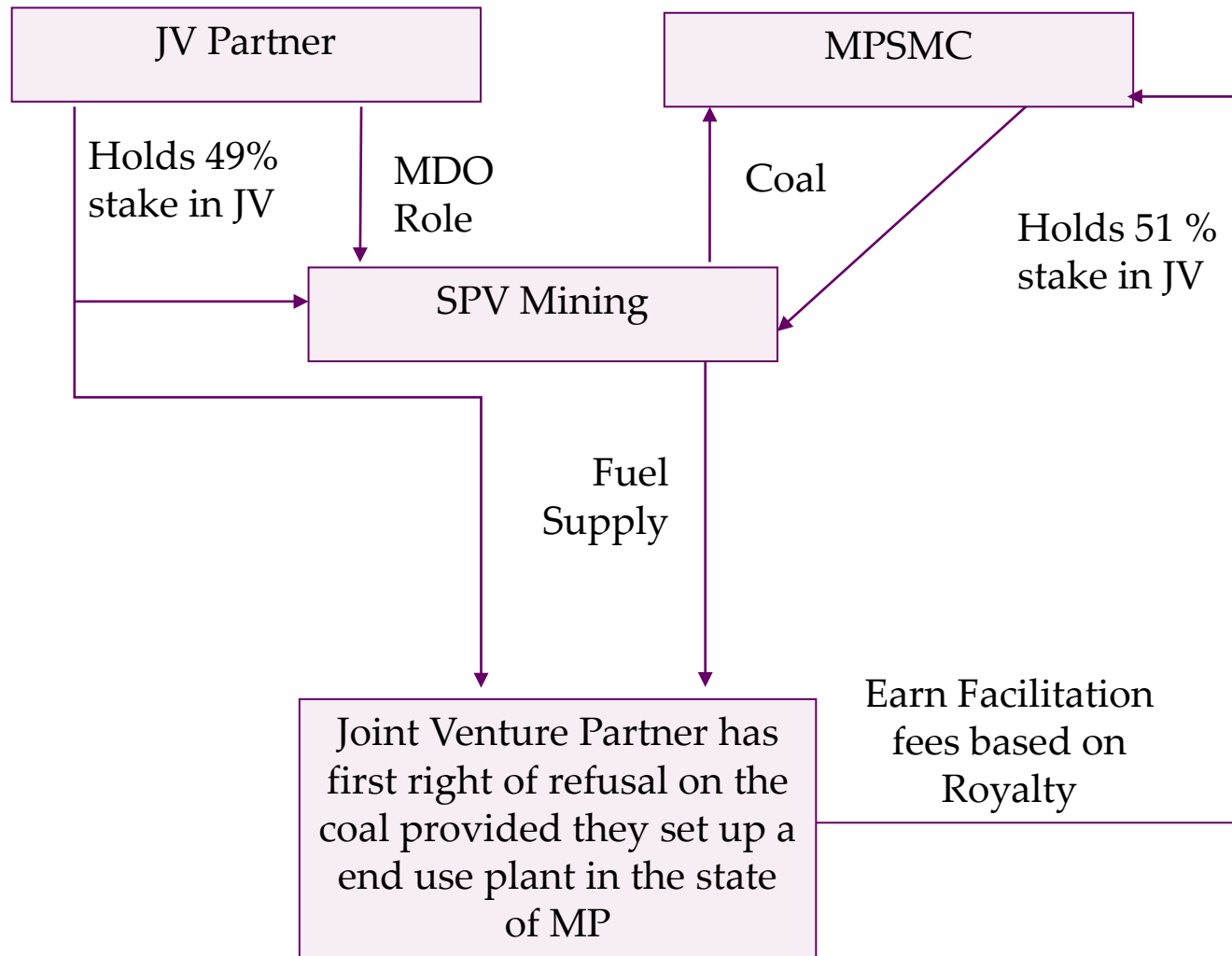
# Suggested Model on PPP route: Madhya Pradesh State Mining Corporation (MPSMC)



- Madhya Pradesh State Mining Corporation (MPSMC) is an enterprise owned and controlled by Government of Madhya Pradesh engaged in the exploitation of different minerals.
- The model was developed within the PPP framework for the six coal blocks allocated to MPSMC by MoC through the Government Dispensation Route.
- The bidding parameter fixed here was a percentage over the royalty of grade D coal
- The bidding was a huge success with more than 232 bids sold and 152 bids submitted with global and Indian players joining-in
- The successful bidder was the one who quoted the highest amount over the royalty of coal specified.
- The successful bidder (H-1) will form a Joint Venture Company (JVC) with MPSMC holding 49% stake while MPSMC will hold 51% share thus retaining its majority stake in the JVC. The qualified bidder (JV partner) forms a SPV for mining and supply of coal to the JVC. The JV partner has the first right on refusal of coal provided he sets up an end use plant in the state of Madhya Pradesh

**Robust Model innovated first time by aXYKno which brought 250+ global and Indian players, and Fin Min and Planning Commission is putting up a paper on the same lines.**

# Suggested Model on PPP route: Madhya Pradesh State Mining Corporation (MPSMC)



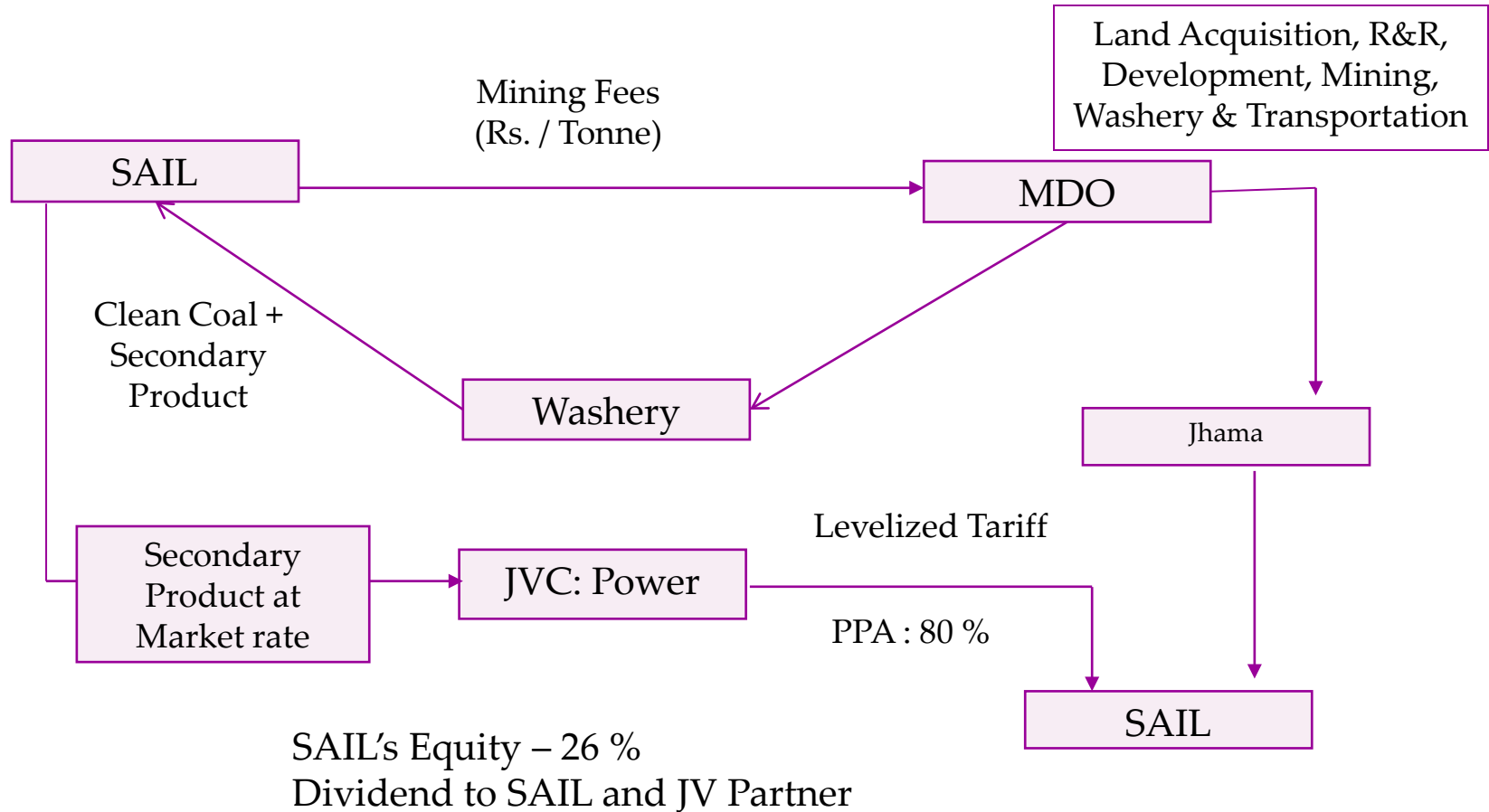
SAIL is a Maharatna PSU and the leading steel maker in the country.

- Three attempts made by SAIL for selection of MDO their Tasra Coal block, Jharia coal field, could not succeed due to inherent Land acquisition and R&R problems
- The challenge was to develop a successful model for development for the block which would not fail for the fourth time.
- It was felt that unless an incentive was given to the developer no financially sound party would participate. It was therefore decided that to make the Model successful, incentive in the form of power generation from rejects would be offered to the MDO with majority stake in the Power JVC with SAIL.
- The scope of work of the MDO was to develop and mine coal on mining fees per tonne of coal extracted. The MDO would also set up a washery and the clean and secondary product would be handed over to SAIL.
- SAIL would set up a JVC for power from the secondary product with the MDO. 80 % of the power would be sold through a PPA to SAIL while the balance power would be sold on merchant basis as per regulatory norms with SAIL having first right of refusal.
- The bidding process has been successfully concluded, with global and Indian players evincing strong interest

**To attract Financially and Technically sound MDO, incentive in some form has to be provided to involve commitment**

# Suggested Model on MDO Route - Steel Authority of India

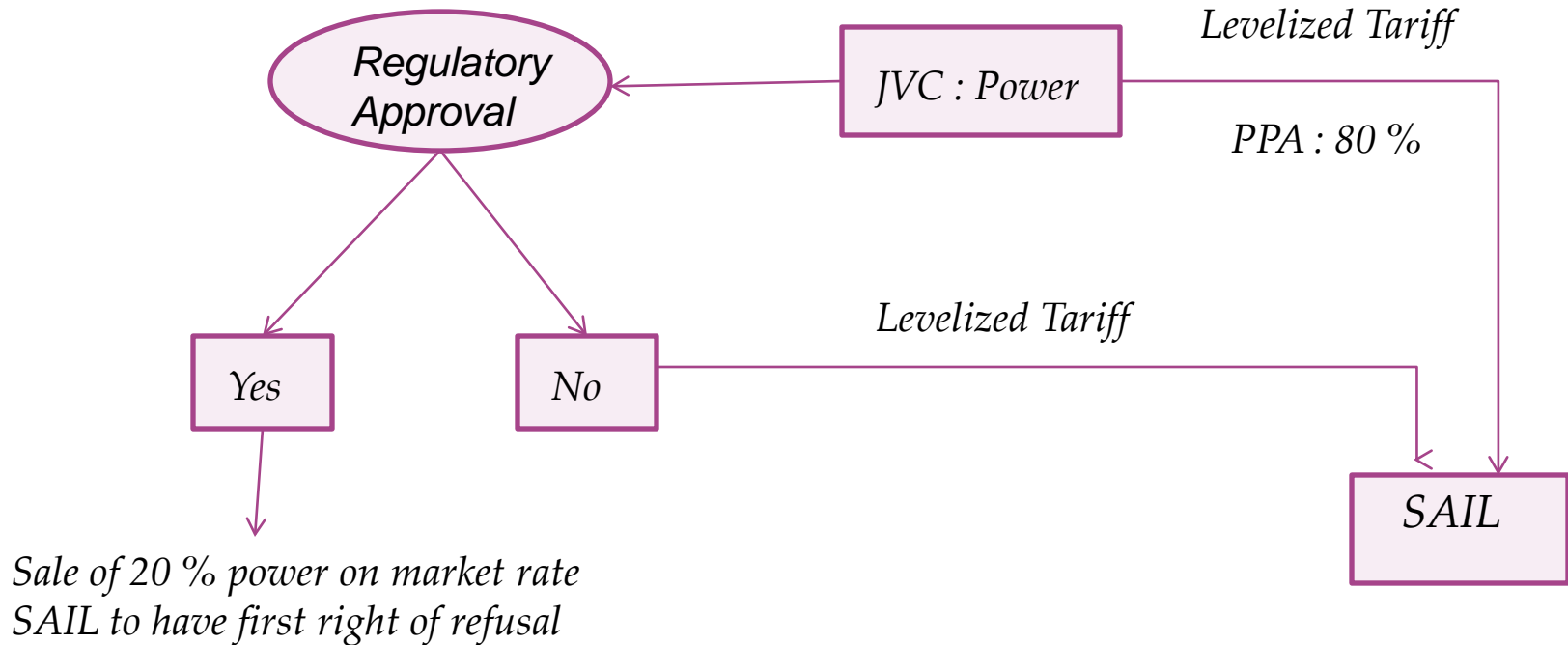
- Tasra Coking Coal Block, Jharia CF.



\* Model Structure continued in next slide

aXYKno's innovative model has brought best global players on the table for fast-track development.

\* Model Structure continued from previous slide



**Model with Power from Secondary Products of Washery , as Incentive.**

- It can be seen from the above case studies that the PPP / MDO route has helped in fast track development of the coal blocks. These models have brought huge financial gains to these companies. On commencement of mining from these coal blocks around 25 million tonnes of coal is expected to be produced annually.
- PPP model & more private participation is one of the key potential solutions for fast track development of Coal Blocks.
- This would facilitate large private sector investments in coal mining sector.
- However it has to be implemented in its true spirit for desired results as partnership in ownership is a must.
- The Govt. of India, has in the 2013 Budget announced that it will allow private firms to mine coal along with CIL under PPP initiatives. However if the ownership of identified mines (including coal that would be mined) is solely that of CIL and the private operator would only be paid a fees, then this violates the spirit of PPP where two entities work as partners with joint ownership.
- If not, then this indeed, is a very positive initiative taken by the Govt. & shows its seriousness to increase production of coal in the country. The implementation of PPP on a large scale will give a much needed fillip to the Indian coal sector.

**PPP seems the way ahead for fast-track development of Coal Blocks in India.**

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