



Orissa - Gearing up to attract global investors

- By Dilip Kumar Jha

Today, Orissa with an expected investment proposal of over Rs.1000 billion is one of the most favoured destinations for investments which came into limelight after recent findings of geologists of vast natural resources in several parts. This is one of the country's richest states in mineral resources. The mineral belt is spread over in an area more than 6000 sq. km. The chief minerals found in the state are: iron, coal, bauxite, manganese, nickel, chromite, lime stone dolomite, graphite, decorative stones, beach sand, china clay, tin ore etc.

In the mid-90s, Orissa witnessed a similar rush of investment proposals like today. About a dozen steel projects were then lined up —Tata Steel and Larsen & Toubro at Gopalpur, and Swaraj Paul's Kalinga Steel at Duburi were two of them. But they fizzled out due to lack of supporting infrastructure and logistic facilities. In the last attempt, the state failed to attract

investors because of inadequate power supply and direct resistance from the government and local inhabitants. Today, the revised mines allotment policy helps providing a different picture altogether. If all steel plants under various stages of implementation come through in the next couple of years, then the total supply of the country will outstrip demand and then India will see itself as a major steel exporter to the world. Today, India is exporting approximately 4-million tons of steel mainly to China. By the end of 2006-07, at least seven mini-steel plants will go for trial production. Currently, Orissa enjoys a different fate altogether with a total of 205 projects worth Rs.1122.61 billion in various stages of planning and implementation.

Leading steel producers of the country have already initiated work to find a place in the investors' list of the state. Now, leading multinationals including Posco and BHP have already

approached the state government in order to make a dent into it with a proposed investment plans either independently or in association with their domestic facilitator. The recently made trade policy restricts some traders to own captive mines but the giants have no problem. The companies will only be eligible for the mines after they spend 25 per cent of the project cost and the mining lease will be given after they spent 50 per cent of the total project cost. The state's revenue from mines at Rs.5.50 billion shot up by 25 per cent in the year 2003-04 (April to March) which touched Rs.6.19 billion in the same comparison this fiscal. The state has already promoted single window clearing system which has received overwhelming response from investors.

Mining perspectives in the state

The landmass constituting the state of Orissa covers an area of

1,55,707 sq. kms. About 80% of the state's landmass is underlain by pre-cambrian rocks, the oldest rocks in the earth's crust. The remaining area is composed of rocks belonging to Gondwanas, Quarternary and Recent formations. The geological set up of the state is not only favourable for discovery of wide variety of valuable ores and minerals but there is distinct possibility of substantial increase in the resources also.

The iron ore deposits of the state of Orissa occur in 5 distinct geographic zones, namely – Bonai-Keonjhar, Gandhamardhan, Tomka-Daitari, Gorumahisani-Badampahar and Hirapur.

The parent rocks of the iron deposits are Banded Iron Formation (BIF) and more precisely the Banded Hematite Jasper (BHJ) or Banded Hematite Quartzite (BHQ) & Ferruginous shales. The iron bands are also represented by magnetite, martite, goethite, maghetite in Orissa.

The first systematic exploration of an Iron ore deposit was carried out in 1954 by Indian Bureau of Mines in Barsua, now being worked by Steel Authority of India Limited – the leading state owned steel producer in the country - for supply of ore to Rourkela Steel Plant.

The eastern limb features Thakurani, Joda East, Joribahal, Jiling-Longalata, Jajang and Malangtole deposits. The western limb features Kiriburu, Bolani, Kalta, Barsua and Khadadhar group of deposits. Gandhamardhan and Tomka-Daitari lie in widely separated towards south-east, the intervening areas occupied by Metabasic lavas, Granaites and Clastic Quartzite. Gorumahisani-

Badampahar deposits are associates with Banded Hematite/ Magnetite Grunerite and BHJ.

Mineral rich districts

The state of Orissa has profound deposits of ores and minerals in mines at several locations. They include bauxite, iron, chromite, manganese, lead, nickel, coal and graphite. These



ores and minerals upon weathering release heavy metals such as aluminium, chromium, cadmium, iron, lead, manganese, nickel and zinc. As the Chief Minister of Orissa says "Investors are attracted because of rich potential of mineral resources".

The districts of Bolangir, Kalahandi and Koraput have bauxite covering an area of 9152 hacters (ha). The districts of Jajpur, Keonjhar, Mayurbhanj and Sundargarh having 3567 million tonnes (MT) of iron ores are extended over an area of 24149 ha. These ores are having 45 to 67% of iron. The districts of Jajpur, Dhenkanal and Keonjhar have deposits of 183 MT. of chromite ores occupying an area of 9197 ha. These ores contain about 45 to 54% chromium contaminants. The districts of Bolangir, Keonjhar, Koraput,

Mayurbhanj and Sundargarh have 50 MT. Of manganese ores covering an area of 10,605 ha. The district of Sundargarh has 500 ha. of lead mines. Nickel ores, containing 0.7 to 0.98% of this metal are present in the districts of Jajpur and Dhenkanal. Coal, an important mineral of Orissa, is present in the districts of Dhenkanal and Sambalpur occupying an area of 11,726 ha. Coal contains the heavy metals like zinc, cadmium, lead and nickel in minute quantity.

Graphite

The main problem in exploration of graphite in Orissa is identification of target areas because the mineralised belt is vast, about 6000 sq. km. The major graphite zone of Orissa is coincident with the migmatized Quatzgarned sillimanite graphite schists of Khondalite suit and its contact with medium

grained granite genesis. The important graphite belts of Orissa are Sargipalli, (Bargad, Bolangir and Kalahandi district) Titilagarh belt (Bolangir and Kalahandi district) Tumudi Bandh belt (Phulbani, Rayagada and Gajapati district) Dandatopa belt (Dhenkanal and Angul district).

Chromite

Deposits of chromite in Boula-Nuasahi area of Keonjhar district was discovered in 1942 and mining started from 1943. The area around Nuasahi lies at the south-eastern fringe of Boula state forest and is connected to South Eastern Railways and National Highway - 5 (NH-5) at Bhadrak town an all weather 45 km long metal road passing through Bidhyadharpur barrage and Aggarpada. About 70 km south-west of Boula-

Nuasahi lies the chromite deposits of Sukinda ultramafic belt of Jajpur-Dhenkanal district. The state is placed at an enviable position in having over 90% of the total reserves of chromite in the country.

Coal

Out of 57 Gondwana and 14 Tertiary coalfields considered for the national inventory of the coal, Orissa state has only two – in fact geologically only one and half coal fields. Yet its share in the reserve so far established in the country amounts to 23.6%. The famous coal bearing basins are Ib-River coalfields and Talcher coalfields and as a sequel to which these coalfields have been added advantage of being accorded most favoured coalfields status by nature as far as quarriable potentiality is concerned. A substantial quarriable reserve has been located in northern part of Ib-River coal field (Gopalpur area) and towards its south-eastern extremity in Khinda-Talabira area. Occurrence of coal has also been reported from Ranigang Formation of Ib-River coalfield very recently. The importance of Orissa coalfields is further enhanced due to their proximity to the east coast.

Gondwana Coals occur in India mainly along the three master Gondwana basins, viz. Damodar Valley, Sone-Mahanadi Valley and Gondwana Valley. Coalfields of Orissa constitute the southern part of the Sone-Mahanadi Valley basin. Except the Ib-River coalfield and Talcher coalfield, there are four more Gondwana basins in Orissa i.e. Athagarh basin, Gaisilat basin, Athamalik basin and Katranjia basin.

Mineral wealth

Orissa ranks first in the subcontinent for its reserves in bauxite, chromite, graphite,

in the mainly Adivasi inhabited uplands of Orissa.

Pouring steel projects

In the last one-year, about 40 proposals poured in for setting up steel plants in the state. They include a projected 44 - million ton capacity build-up, at a massive investment of around Rs.1080 billion as against the total capacity of the country at 34 million ton. The proposed capacity looks mind-boggling. Investments by major and semi-major steel producers are given in table 1 and 2:

Mineral wealth in the state

Mineral	Reserves (mn tons)	% India's Reserves	Rank in India
Chromite	183	98.4	1
Bauxite	1.626	69.7	1
Graphite	1.5	32.6	1
Manganese ore	49	31.8	1
Limestone	1032	1.36	'-
Dolomite	563	12.2	1
Quartzite	-	-	1
Pyrophyllite	-	-	1
Fireclay	88	12.5	2
Quartz	15	1.9	4
Coal	51,571	24.37	4
Iron ore	3,567	26.50	5

manganese ore, to name just a few. Most notably, 70% of India's bauxite reserves, 1.6 billion tons, are found

Of the total proposed plants, five major national and international players alone are pumping in Rs.954 billion to build

Table 1 : Proposals with the government

Company	Capacity (mm tons)	Investment (Rs bn)	Location	Power plant
Bhushan Steel and Strips	Backward integration	30	Dhenkanal district	110 MW captive power plant using waste-heat and rejected coal as raw material
Tata Steel	6	154	Duburi	
Jindal Stainless Steel		8.5		Captive power plant of two modules of 125 MW each
Posco + BHP Billiton	10	390		
Vedanta Group	5	125		
Essar Steel	4	100		
Murugappa Group	2.5	60		
Mitsui & Co.	5	12.5		

32.5 million ton steel making capacities. The Australian BHP-Billiton, the world's largest mining company, has tied up with Korean steel major Posco to invest Rs.390 billion for a 10 million ton capacity. The Tata group's Tata Steel will put up six million ton at an investment of Rs.154 billion, Anil Agarwal's Vedanta Group — five million ton Rs.125 billion, the Ruia's Essar Steel — four million ton Rs.100 billion and Murugappa group's TI Cycles will invest Rs.60 billion for a 2.5 million ton capacity. There's also

Patnaik, the chairman and managing director of Industrial Promotion and Investment Corporation of Orissa (IPICOL) said that she receives at least one proposal a day. Only six out of the 40 proposals received recently are mega ventures backed by big houses.

The Orissa government has already signed 27 memorandums of understanding (MoUs) over the last one year for medium size projects, with a combined capacity of 31 million tons at a projected investment of Rs.155 billion. Of this, Rs.5 billion investment

has already been committed by the promoters of four projects — Aarti Steel (0.5 million ton), Bhusan Steel and Strips (1.2 million tons), SCAW Industries (0.25 million ton) and SMC Power Generation (0.25 million ton).

As far as the matter for capacity building in terms of raw material linkage and infrastructure facilities goes the state is geared up for

ton of steel production results in three tons of raw material movement. So, a 40 million ton capacity will require almost 160 million tons of raw material and finished goods movement.

Then, the production of one ton of steel requires 100,000 cubic litre of water per day, 800 units of power, 1.6 ton of coal, 600 kg of coke and 1.6 ton of iron ore. To transport raw material, a one km rail line or a one km four-lane road costs about Rs.40 million. And the construction of a 20 million ton handling capacity port means an investment of about Rs.20 billion. The Chief Minister of Orissa — the state known for poverty — looked confident by saying that his government and investors will work unitedly to fight the infrastructure inadequacy and develop it to the international level.

It also means developing marshalling yards by the railways, build truck terminals and construct delivery channels for water and power supply at various locations where steel projects are coming up. But the Industrial Infrastructure Development Corporation (IIDCO) authorities are quite optimistic.

At present, the total railway route length is 2496 kms. and the No. of railway stations are 316 in Orissa. During the last 4 years, 52 bridges have been completed and 800 km. of State roads have been improved under Rural Infrastructure Development Fund (RIDF), Central Road Fund (CRF), Revised Long-Term Action Plan (RLTAP) and other State Plan Schemes.

While road transport communication system does play an important role in opening up rural and interior areas, an efficient and extensive rail communication system

Table 2: New proposals (medium and small sized) signed by the government

Company	Capacity (million tons)	Investment (mn)
OCL India	0.25	2042.1
AML Steel and Power	0.275	2086.7
Maheswari Ispat	0.25	2100.0
Monnet Ispat	0.25	2810.9
Aryan Ispat & Power (P)	0.30	3931.4
Action Ispat & Power	0.25	2700.0
Agrim Steel Industries	0.357	5017.3
Sree Metaliks	0.25	1904.4
MAL Industries	0.27	3352.5
MSP Metaliks	0.26	2605.9
Aarti Steel	0.50	
SCAW Industries	0.25	'-
SMC Power Generation	0.25	'-

talk of the \$6 billion Japanese conglomerate, Mitsui & Co considering a 5 million ton steel plant with estimated investments of Rs.125 billion.

Other resources

There are abundant water resources, surplus availability of power, a reasonably good road and rail network, an existing port facility at Paradip, two more new ports coming up at Gopalpur and Dhamra. Priyabrata

luring national as well international investors. As Priyabrata Pattnaik says, "The proposed 40 million ton steel capacity will require about 1,600 million tons of iron ore over the next 25 years. Orissa has more than double that quantity of ore in reserve."

Infrastructure yet to gear up

One can doubt Orissa's capacity to meet infrastructure challenges. A rough estimate shows, that one million

stimulates the infrastructure and industrial development. Orissa at present has very inadequate facilities in this regard. The state is gearing up to meet the rising demand of road and rail. As against the India average of 18.4 kms. of railway track per 1000 sq. kms., Orissa has got only 14.88 kms. Besides the two railway trunk routes passing through Orissa, do not connect many of the important industrially developing areas of the state. But, the government and private companies are all set to take initiative to connect all industrially developed regions through sub-way and inter connecting links. Under Pradhan Mantri Gram Sadak Yojana, 2055 km. of all weather-roads have already been constructed to provide connectivity to unconnected habitations. With

NABARD assistance, 107 bridges have been completed on rural roads.

By 1961, the state was having 47,575 kms. of road network and this increased to 52,757 kms. during 1971 and 143,245 kms. during 1980-81. At present it is recorded as 191,109 kms. The road density of Orissa is 91.99 kms. per 100 sq. kms. of area in 1981 as compared to 33.79 kms. in 1971 and 21.41 kms. in 1961. At present, it is recorded as 141 kms. per 100 sq. kms. of area. There are six NHs running through the state connecting the state capitals and other places. The total length of the NHs inside the state is 1677 kms.

Despite having such huge rail and road connections, the state is yet to pick up in infrastructure as required by the industrial houses.

Conclusion

In Orissa, structural adjustments made at the behest of the World Bank are transforming this 'Under-Developed State' into an 'Investors' Paradise', where export is the main goal. Privatisation of the energy sector, coupled with the devaluation of the Rupee, central government earmarking Orissa as a priority investment area, particularly for heavy industry, and the considerable subsidies and incentives, is creating a surge of interest, particularly from multinationals in the mineral wealth of Orissa. Hence, Orissa has succeeded in attracting metal kings towards itself for profiteering.

□□□