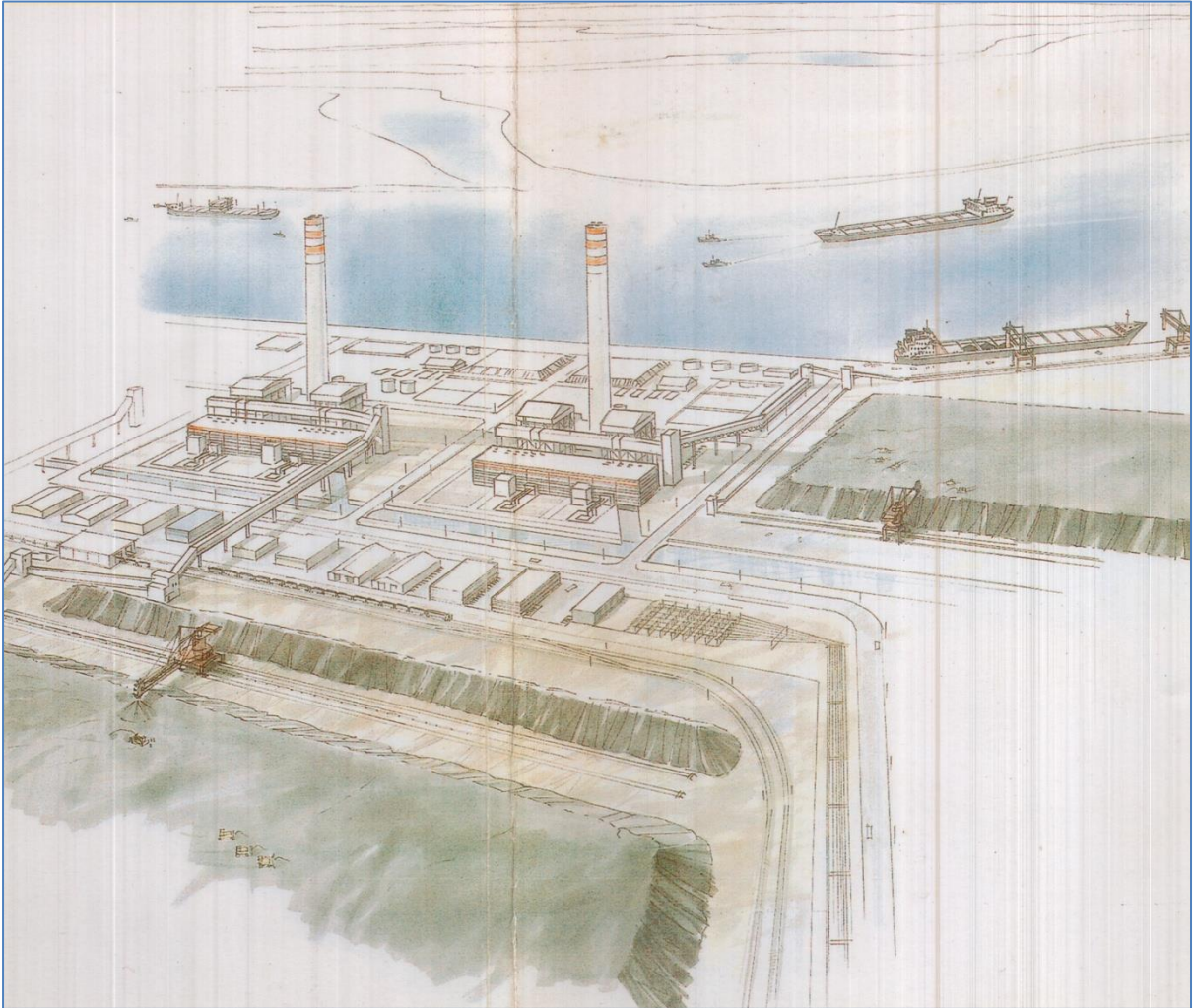


INFORMATION MEMORANDUM

2X660 MW IMPORTED/THAR COAL POWER PROJECTS AT KETI BANDER



**SINDH COAL AUTHORITY
ENERGY DEPARTMENT
GOVERNMENT OF SINDH
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THE LAND AND THE GOVERNMENT

Pakistan, a land of many splendors and opportunities, the repository of a unique blend of history and culture from the East and the west, the cradle of one of the oldest civilizations which developed around the Indus Valley. It is the ninth most popular country of the world with 132.35 million tough, conscientious, hard working people, wishing and striving hard to enter into the 21st century as equal partners in the community of developed nations. It is located between 23 and 37 degrees latitude north and 61 and 76 degrees longitude east. Flanked by Iran and land-locked Afghanistan in the west and the Central Asian Republics and China in the north, Pakistan can rightly boast of having a significant location advantages with a vast only partially tapped market of 200 million people. The affluent Gulf States are just across the Arabian Sea to the south and provide an additional opportunity of a high consumption market.

The geographical location, with one of the highest peaks of the world in the north and vast plains in the south, offers an unusual diversity of temperatures ranging from sub-zero levels on the mountains in winter to scorching heat in the plains in summer, providing friendly habitat to exquisite range of flora and fauna and a large variety of agricultural crops used for both foods and raw material for industries. Pakistan spread over a land mass of 796,095 square kilometers has vast, relatively cheap land for setting-up industries. The average office occupation cost in the prime business districts of the big cities is less than US\$ 10 per sq.ft. per year, much lower than other countries of the region.

Pakistan is a federation of four provinces, and has a parliamentary form of Government with a multi-party system. The Federal parliament is a bicameral legislature, the lower house, the National Assembly, is elected on adult franchise basis, and the upper house-the Senate, is elected by the provincial legislatures. The Federal seat of the Government is at one of the most modern and scenic cities, in Asia-Islamabad. The provinces, the Punjab, Sindh, North West Frontier, and Balochistan, have unicameral legislature with seats of government at Lahore, Karachi, Peshawar and Quetta respectively.

GOVERNMENTS FAVOURABLE POLICIES

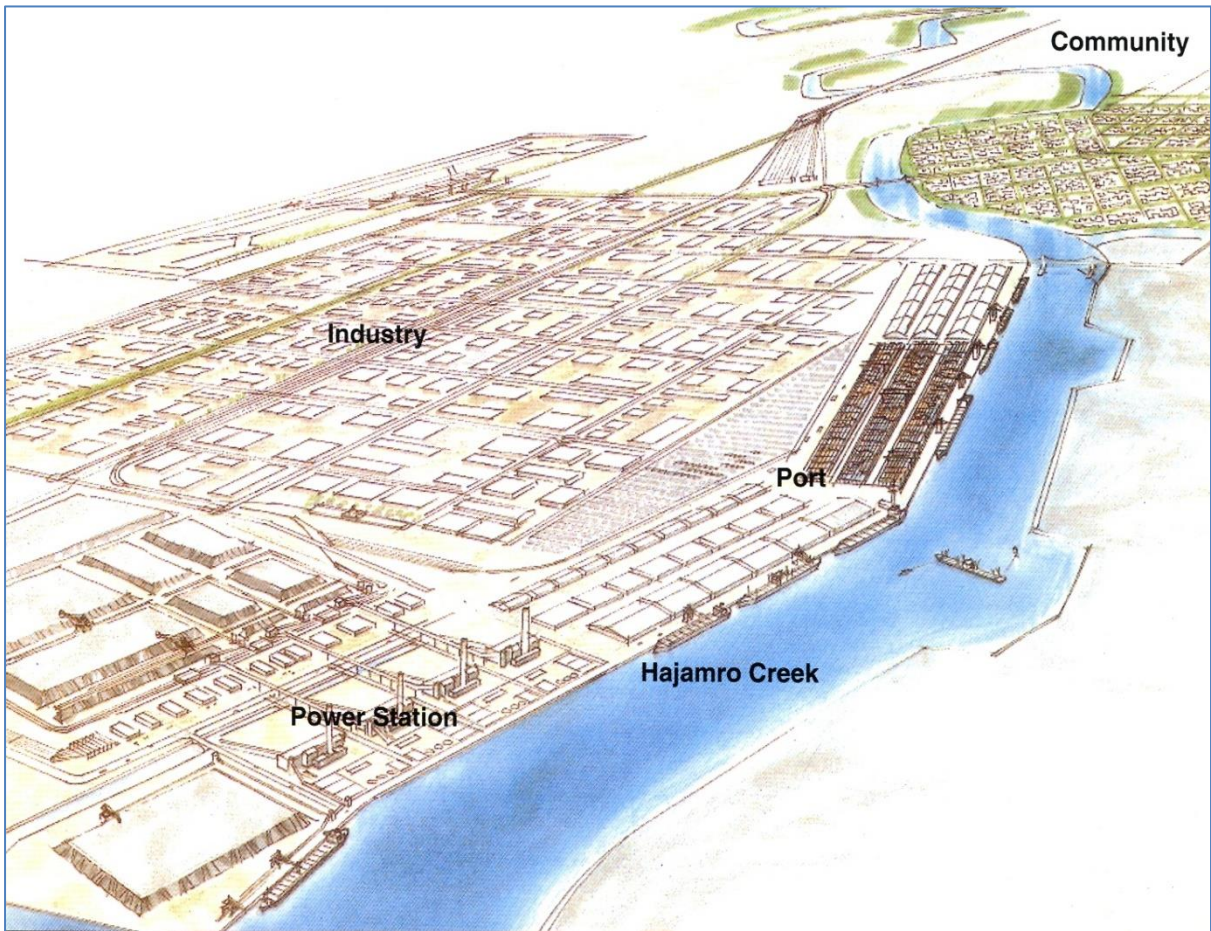
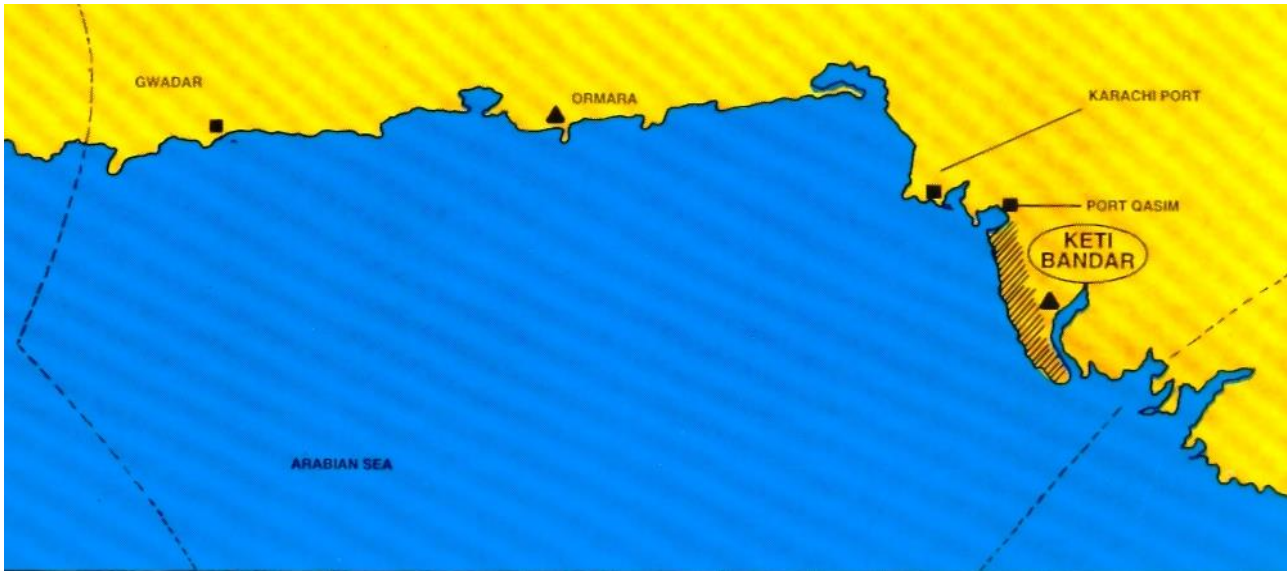
The Government of Pakistan has liberalized its policies in order to promote foreign investment and trade in the country.

- Completely deregulated, liberalized economy based on market forces;
- Free movement and exchange of foreign currencies;
- Foreigners have free access to Pakistan's capital markets, and there are no restrictions on the repatriation of principal, investment dividends, and profits;
- No limits on the equity share held by foreigners in companies and no special requirement for entering into a joint venture with Pakistan;
- No restriction on borrowing provided that government guarantees are not sought; and
- Statutory provisions guard against any other action that may be deemed to the disadvantages of investor. The Government has supported the legislation with bilateral treaties with most of its major trading partners.

SKILLED LABOUR

Pakistan's labour force has a reputation for being one of the most hard-working in the world. Pakistani labour is also one of the most inexpensive and offers very high return on investment. A large percentage of the labour force is skilled, both at home through a network of training institutes, and also, employment in the Middle East and studying in the developed countries.

- 36 million labour force adaptable, well motivated and disciplined, with many highly skilled, available at an average monthly salary of US\$ 150.
- A large corp of experienced managers, engineers, computer scientist, bankers and financiers with skilled gained in Pakistan, the Middle East and elsewhere.



PORT INFRASTRUCTURE IN PAKISTAN:

Pakistan, at present has two major ports, Karachi Port and Port Mohammad Bin Qasim. Karachi and Port Qasim are only 45 km apart and the dredged channels impose limits on the size of vessels that can use the port. There is need for a third port to meet the challenge of increasing seaborne trade.

COAST LINE OF PAKISTAN

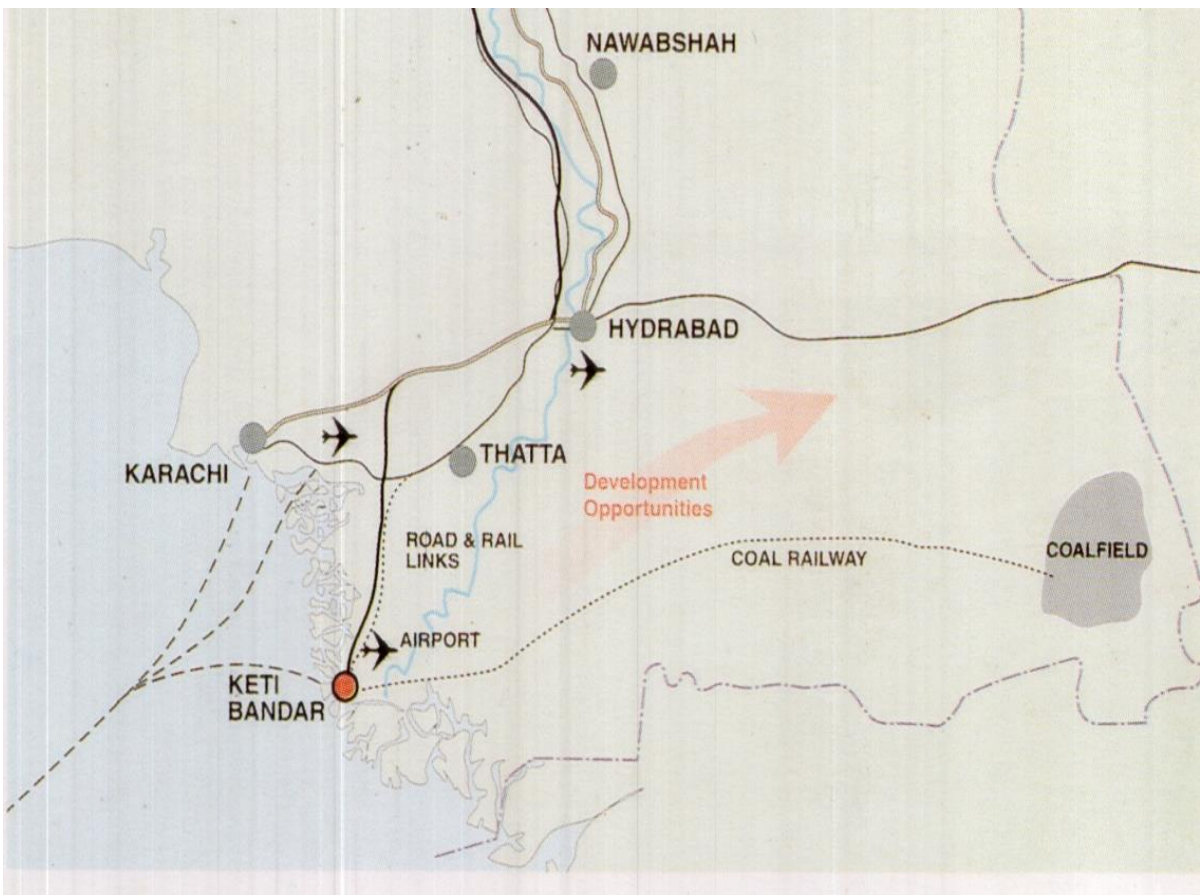
The coastline of Pakistan is about 800 km long stretching from Jiwani on the Pakistan Iranian border on the western limit of the Balochistan Coast and ending at the Sir Creek, which form the Pakistan Indian border on the Sindh Coast in the south-east. The coastline fronts, the Arabian Sea and is adjacent to the strait of Hormuz and international shipping routes serving the Arabian Gulf region. The existing ports of Karachi and Bin Qasim are located on the Sindh Coast.

ROAD AND RAIL LINK

Fuel for all the Ketu Bandar Power Station units will be in the form of imported and locally derived coal. The first two units will run on imported coal and about 4 million tonnes will need to be delivered and unloaded annually at the Ketu Bandar Deep Water Port, probably in mainly Panamax (60,000 tonnes DWT) class vessels. The subsequent 6X660 MW Power Units will be fuelled by lignite coal from the as yet undeveloped Thar Coal Deposits, situated near Islamkot in eastern Sindh. These six units will require a total of about 24 million tonnes of coal per year which will need to be transported the 200 miles from Islamkot to Ketu Bandar.

Pakistan, due to its geographical location, provides the shortest routes from Central Asian Republics (CARs) to its ports located on the Arabian Sea. With the breakup of former Soviet Union, the Central Asian Republics of Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan are facing acute problems for export and import, because they have no outlet for exporting their surplus items to the countries of the Middle East, South Asia and the Asia Pacific region. The nearest sea ports for CARs are either in Pakistan or in Iran. However, the routes passing through Pakistan are comparatively shorter and thus more attractive for most of the potential transit trade. Government of Pakistan is spending over US\$ 1 billion on the Karachi-Lahore-Peshawar-Torkham road turning it into a dual carriageway. Karachi-Khuzdar-Quetta-Chaman highway (N-25) provides the shortest link from Central Asian Republics of Turkmenistan and Uzbekistan to the port of Karachi. The Karakoram Highway (KKH) (N-35), which links Pakistan with China is another link to Central Asia. An agreement among China, Pakistan, Kazakhstan and Kyrgyzstan has been finalized for transit traffic through KKH.

.The shortest and most appropriate link to Central Asia is to extend Pakistan railway network to connect with the rail network of Central Asian Republics by providing a rail link 800 KM in length from Chamman (Pakistan) to Kushka (Turkmenistan) via



Kandhar and Heart in Afghanistan. The CARs have an integrated railway network which is further connected to the Russian Federation and is being extended from Kazakhstan to China. Once the proposed rail link is constructed, it will provide transportation facilities not only to the Central Asian Republics, but also to the Russian Federation and China.

EXISTING CARGO HANDLING AT KARACHI PORT			
CARGO	IMPORTS In tonnes	EXPORTS In tonnes	TOTAL ,000 tonnes
CONTAINERS	258 TEU	252 TEU	
LOOSE GENERAL CARGO	1,349	85	510 TEU
BAGGED GENERAL CARGO	128	702	1,434
DRY BULK CARGO	1,797	20	830
LIQUID BULK	11,585	1,764	1,817

EXISTING CARGO HANDLING AT PORT QASIM			
CARGO	IMPORTS In tonnes	EXPORTS In tonnes	TOTAL ,000 tonnes
DRY BULK CARGO	1,686	-	1,686
DRY BULK CARGO IOCB	3,039	-	3,039
BAGGED GENERAL CARGO	142	427	569
LOOSE GENERAL CARGO	28	-	28
LIQUID BULK	1,871	248	2,119

SEABORNE TRADE FORECASTS PAKISTAN (1000 TONNES)					
CARGO	1995	2000	2005	2010	2015
DRY BULK (DIRTY)	1466	1703	2019	2432	2963
DRY BULK (CLEAN)	3287	4820	6523	8394	10457
GENERAL CARGO	1520	1122	887	790	807
RICE	1149	1251	1339	1594	1829
SUGAR	277	629	1125	1790	2641
CONTAINER	5966	8130	10420	13045	16099
IRON ORE/COAL	3315	3997	4696	5359	6040
OIL PRODUCTS	11454	15266	21129	29882	42422
EDIBLE OILS	2849	3798	4919	6219	7701
OTHER CHEMICALS	180	209	242	261	326
TOTAL	31463	40925	53299	69766	91285

WHY KETI BUNDAR?

Keti Bundar, situated some 90 km from Karachi and with proposed approach channel designed for 70,000DWT vessels, responds to the existing deficiencies of the existing ports. Keti Bundar lies in the predominantly agricultural Thatta District of southern Sindh. There is little industrial activity in the south east with most manufacturing and extraction located around Karachi and to the north. The Thatta District has seen rapid population growth since independence, but lack of employment opportunities has forced many of the economically active to migrate to cities, especially Karachi.

There is clearly a need to develop an industrial base in the district in order to generate employment opportunities and to stem the flow of migration to Karachi. The Deep water port and industrial development will provide the basis for industrialization of the southern Sindh. The port will facilitate the export of cash crops, garments and, increasingly, through the development of rail, road and river connections, the port will also handle imports for Pakistan as well as the Central Asian States.

The planned port, stretching along the northern bank of the hajamro Creek, has four components-a bulk liquid handling facility, a coal off loading jetty, main 14-berth port extending from the Power Station to the confluence of the Hajamro and Tursian Creeks, and finally the fishing port lying opposite the residential quarters.

The interested investors can propose their own design of the port based on the anticipated market requirement and pertinent technical factors.

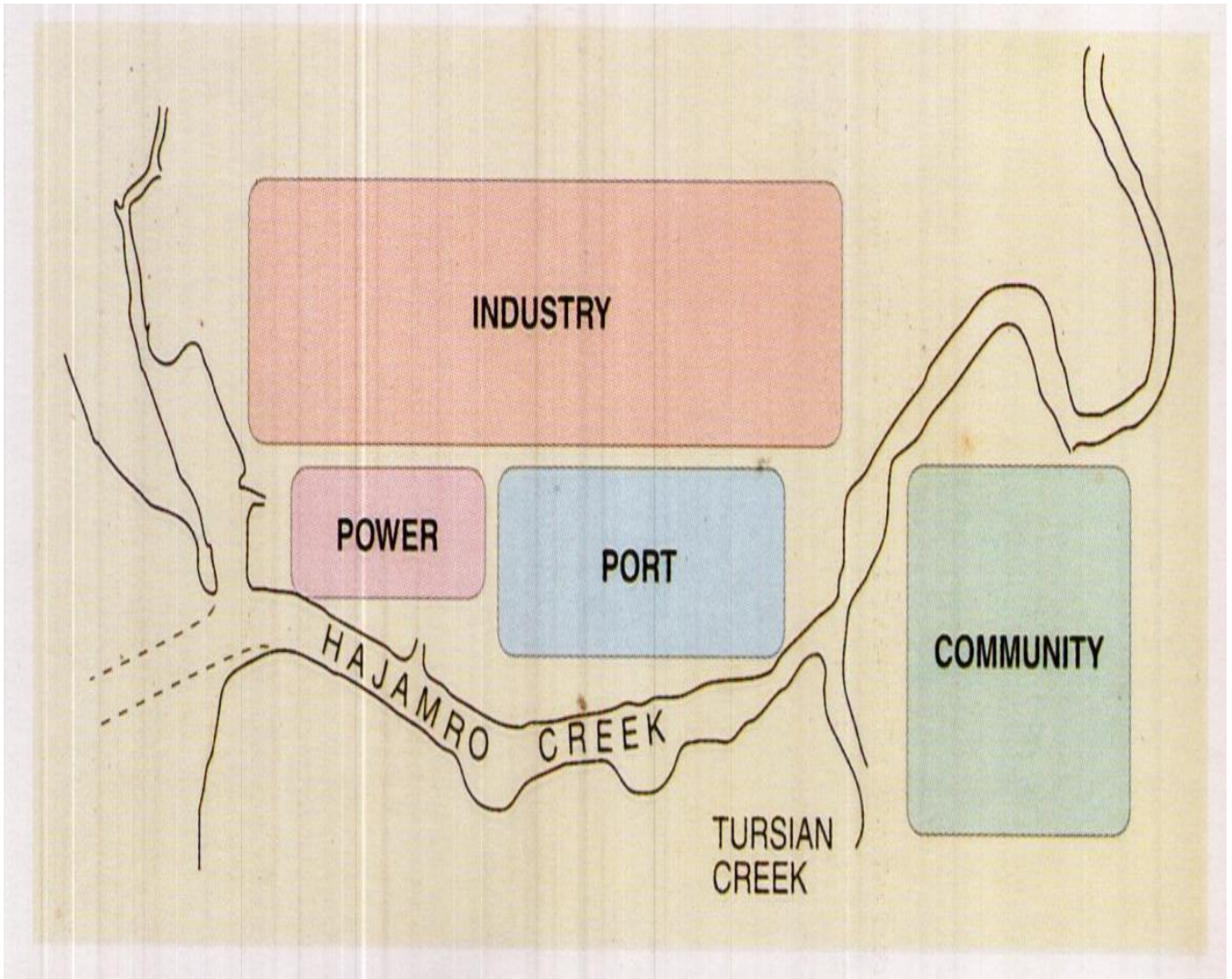


LOCATION AND OTHER CHARACTERISTICS OF KETI BANDAR	
LOCATION	: LOWER INDUS DELTAIC CREEKS
DISTANCE FROM KARACHI	: 150 KM
DISTANCE FROM THATTA	: 125 KM
POPULATION	: 15,000
MAJOR ECONOMIC ACTIVITY	: FISHING
PRESENT FISH CATCH	: 40,000 TONS
TEMPERATURE	: MAX. 40°C, MIN. 19°C
ANNUAL RAINFALL	: 150-250 MM.
HUMIDITY	: 75%
FLOODS	: POSSIBILITY

INFRASTRUCTURE / AVAILABILITY	
ROAD LINK	- AVAILABILITY FROM NATIONAL HIGHWAY - 80 KM DOUBLE-LANE ROAD FROM KARACHI TO GHARO; 70 KM SINGLE-LANE ROAD FROM GHARO TO KETI BANDAR BEING UPGRADED BY NHA
RAIL LINK	- AVAILABLE FROM JUNG SHAHI - APPROX.DISTANCE 90 KM
AIR LINK	- THROUGH KARACHI & SUKKUR AIRPORTS
RIVER NAVIGATION	- POSSIBLE FROM PORT QASIM THROUGH CANALS
ELECTRICITY	- AVAILABLE
WATER	- AVAILABLE THROUGH RIVER INDUS (APPROX. TAKE OFF PT. 45 KM)
TELEPHONE LINK	- AVAILABLE NEARBY
GAS	- AVAILABLE NEARBY

**CLIMATOLOGICAL DATA
KETI BANDAR DEEP SEA PORT
DESIGN PARAMETERS**

1. SITE	RECLAMATION REQUIRED AT ABOUT 4.9 M ABOVE CD
2. WIND	PREDOMINANT WIND SW TO W
3. CYCLONES	FREQUENCY ONE/YEAR, HURRICANE WAVES OF HT. 22 FT. WITH 11 SEC. PERIOD GENERATED FROM 1993 CYCLONES IN OFF SHORE
4. WAVES	DEEP WATER WAVE HT. 6M T=10.5 SEC FOR ONE DAY IN A YEAR NEAR SHORE WAVE HT. AT CREEK ENTERANCE 4.2 M T=10.5 SEC.
5. TIDES	DESIGN TIDAL LEVEL 3.1 W MSL = 1.8 M MLLW = 0.4 M
6. CURRENTS	STORN EBB CURRENTS 1.6M/SEC. SCOURING EFFECT TO BE CONSIDERED
7. SEA-BED MATERIAL	MILD & SILT
8. COASTAL MATERIAL	SANDY
9. SUSPENDED LOAD	CREEK ENTRANCE 700 PPM IN SW MONSOON 300 PPM IN NE MONSOON INSIDE CREEK 2500 PPM IN SW MONSOON 300 PPM IN NE MONSOON EFFECT TO BE CONSIDERED IN MAINTENANCE DREDGING
10. FLOODS	FREQUENCY 6-10 YEARS
11. SEISMIC	SEISMIC COEFF. G/10 TO G/15



DEVELOPMENT PLANS OF POWER PLANTS

Energy plays a vital role in any country's development and it has been realised that consumption of electricity and the GNP of any country goes hand in hand. The power generating facilities at Keti Bandar are fundamental to the successful development of the port and the industrial base as well as the Sindh region as a whole. A significant factor in the power system in Pakistan are power losses, estimated at anywhere from 25% to 35%. The development of the power plant in this region is a key factor in providing electricity for adjacent infrastructure and will also help to increase efficiency by minimising at least some of the losses.

The Government of Sindh is undertaking development of a power station project with an ultimate capacity of 1320 MW together with the dredging of an approach channel and construction of an off-loading facility for imported coal.

SPECIAL INDUSTRIAL ZONE

With a view to accelerating the pace of industrial investment, increasing the quantum of exports, ensuring the transfer of technology and creating additional employment opportunities in the country, it has been decided to establish twelve Special Industrial Zones in different parts of the country. One such zone is being located at Keti Bandar. This zone will be fully equipped with the requisite infrastructure.

Initially, the Special Industrial Zone will attract primarily warehousing and storage activities. However, with the establishment of good communication links and a suitable local labour force, assembly and basic manufacturing activities will be attracted to the area. Once the area is established as a significant Industrial location, its continued development will depend on attracting higher value added industries that will generate even higher returns for the region and Pakistan as a whole.

Keti Bandar, lying on the coast and within reasonable distance of transport infrastructure and coal fields, will provide a zone for the industrial base for the southern Sindh and, at the same time, offer port facilities for the expansion of foreign trade for Pakistan.

State of Energy in Pakistan

The Pakistan's energy sector faces a number of critical challenges: (i) an energy and power resource deficit with power shortages reaching 25% of peak demand in summer FY13; (ii) 13% of households in Pakistan lack access to electricity (19% in rural areas which represent 2/3's of Pakistan's population; (iii) a lack of long-term energy balance with declining gas supplies leading to greater dependency on imported oil; (iv) a financial deficit; (v) low generation efficiency - gas and oil fired thermal power generation plants are operating at significantly low efficiency and transmission and distribution losses are at a quarter of generated electricity; and (vi) rising energy costs, exacerbated by the high dependence on imported oil in Pakistan's energy mix, particularly in power generation, have adversely impacted the poor and the country's industrial competitiveness.

Strategy. The Government of Pakistan's (GOP) energy sector development strategy aims to enhance energy supply sustainably – for growth and expanded access - while reducing the dependence on imported oil. Policy measures include (a) enabling a financial recovery, especially in the power sector; (b) implementing a social protection program to assist the poor in receiving a minimum amount of affordable energy; (c) streamlining GoP's institutional set-up in the energy sector to increase decision-making efficiency; and (d) increasing private sector participation including through public-private partnerships (PPPs).

Future Scenarios. The Government estimates that energy demand will continue to grow during the next two decades, with Pakistan requiring an estimated additional 35,000 MW of power generation capacity by 2020. Based on the analysis, the expected new power generation build-out will be about 7,700 MW¹ of additional capacity by 2020, leaving a gap of over 27,000 MW. The GoP expects a significant demand-supply gap to remain in the short-medium term, even after the concerted demand-side management, and the expanded deployment of lower-carbon energy resources such as indigenous hydropower, natural gas, and renewable. Likely scenarios of energy sector development are as follows:

- The Government is pursuing policy to replace Oil with Indigenous/imported Coal in power generation. This would provide fuel security, foreign exchange savings, adequate power and greater viability for Coal Projects. The dried lignite from Thar, after briquetting, can be transported and utilized by retrofitted Thermal Power Plants in the country. It is estimated that USD 7-8 bn could be saved annually if the existing Thermal power plants were converted from Furnace Oil to Coal. There is a capacity of 2967 MW in GENCOs and 2150 MW in Independent Power Plants (IPPs) which can be converted to Coal (Total 5117 MW) with a cost of USD 1.5-2.0 bn. Initially these power plants can use imported coal. However, the conversion be designed having compatibility with Thar coal. It will provide added incentive to investors in Thar coal mining.

- The highest priority is being given to improving the efficiency of the electricity supply; and also to implement conservation measures. Installed generation capacity was 19,566 MW in June, 2008², and current transmission and distribution losses (technical and non-technical) are estimated at about 25% of total generated power.
- Pakistan's hydroelectric potential is estimated at 40,000MW, out of which the economic hydroelectric potential is around 20,000MW. However, production is seasonal (Pakistan's current installed hydropower capacity of 6,400MW falls to less than 2,000MW during the 4-5 months of winter when water flows are minimal) and best suited to meeting peak-time demand, with base demand best met by thermal power sources (and in some cases by large storage hydro). Indicated hydropower installed capacity could rise by 10,000MW by 2030³. However, given the long lead times and high costs the GoP will seek to complement new hydropower projects with other energy sources, particularly to meet base load needs.
- The supply of natural gas for power generation is declining, and there is little or no natural gas supplied for power generation during the 3-month winter period. Proven reserves have increased modestly from 26TCF in 2000 to 30TCF in 2007. Production has remained flat over the past 3 years, while demand in non-power sectors has grown. New gas discoveries are expected to only partially compensate for depleting supply.
- Pakistan's wind potential is estimated at 9,700MW; however, like hydro power it is less reliable for base load needs and more suitable for peak loads. The wind power will complement an expanded base-load electricity system but is not an acceptable substitute for base-load itself.

Coal – A New Endeavor for Pakistan

Within Pakistan's energy portfolio, natural gas and oil dominate (at least 1/3 of power is based on imported oil). Pakistan's coal resource potential is estimated to be around 185 billion tonnes, with present production of only 5 million metric tons per year, mostly for local industrial use. About 175 billion tons are located in Sindh province at Thar—one of the largest single coal deposits in the world, yet to be exploited. The coal quality is "lignite" a fossil fuel with a heating value 5,700-7,300 Btu/lb. Thus, the development of indigenous coal resources for large-scale base load power generation would be new to Pakistan.

GOVERNMENT COMMITMENT TO ATTRACT PRIVATE INVESTMENT IN COAL

Government is promoting the coordinated development of the coal industry and related industries. Government of Sindh & Pakistan is committed towards provision of an enabling environment that can ensure availability of safety-valves against investment risks, provision of tenure security and evolving an “integrated link” of mining with power generation. To achieve this Government of Sindh & Pakistan focuses on strengthening institutional structure, developing physical infrastructure & implementing investor friendly policy & regulatory mechanism.

Government will ensure that social safeguards are in place for communities and citizens impacted by coal and related development. Government has established a predictable and enforceable legal and regulatory framework to support sector operations.

INSTITUTIONAL FRAMEWORK SUPPORTING DEVELOPMENT OF COAL

Institutional arrangements that support power operations are federally administered while institutional arrangements that support Coal operations are provincially administered. Since, large-scale coal mining or related coal-fired power generation is new to this country, the Government of Pakistan and Government of Sindh have taken important measures to promote federal-provincial government synergies.

Institutions

The regulatory and institutional frameworks for the mining and energy sector in Pakistan are clearly defined. The current legal framework of the mining sector in Pakistan consists of three generation of documents, conceived under different circumstances. Solid minerals (including coal and coal bed methane) are a provincial subject in Pakistan, while hydrocarbons (mineral oil and gas) within the province or the territorial waters adjacent thereto shall vest jointly and equally in that province & the federal government 4 . The authority responsible for the development of the mining sector is the provincial government, while the large-scale production and distribution of electricity is principally the responsibility of the Federal Government.

Provincial Institutions.

Each province has its own Department of Coal and Energy Development with the mandate to grant mining licenses and leases, collect fees and royalties and monitor activities in the mineral sector. In Sindh, the Energy Department has full regulatory authority for coal. The project implementation, in particular infrastructure development projects in coal areas, is through the Sindh Coal Authority (SCA) working under Energy Department.

Federal Institutions.

The Private Power Infrastructure Board (PPIB) is authorized to promote and facilitate private sector participation in the Pakistan Power Sector. Additionally a number of ministries, departments and agencies are involved in the day to day management and oversight of the energy sector. These are federal agencies including the Ministry of Water and Power (MoWP) which functions as the owner of all public sector assets and utilities, and formulates sector policy and strategy – in consultation with other ministries, notably the Planning Commission, and Ministry of Finance; and the Ministry of Petroleum and Natural Resources (MPNR) fulfills similar functions in the hydrocarbon (oil and natural gas) sector.

Set of Incentives, Concessions and Protections for Development of Indigenous Resources

The following set of incentives, concessions and protections are available to facilitate investors for development of Coal resources of Sindh:-

Special Economic Zone

Keti Bandar and Thar Coalfield is declared as Special Economic Zone, and the projects of development of Keti Bandar and Thar (also including coal mining and power generation) declared as Projects of National Security

Rate of Return

20% (\$ Based) IRR to firms which achieve Financial Close before 31st December 2015 for Mine & Power Plants based on indigenous coal and additional half a percentage IRR i.e. 20.5% IRR for firms which Financial Close by or before 31st December 2014.

Exemptions/concessions

- Zero percent customs duties on import of coal mining equipment and machinery including vehicles for site use.
- Exemption on withholding tax to shareholders on dividend for initial 30 years.
- Exemption on withholding tax on procurement of goods and services during project construction and operations.
- Exemption for 30 years on other levies including special excise duty, federal excise duty, WPPF and WWF.

Protections

Currency Exchange Rate Protection:

- (i) To enable maximum competition from Suppliers and Contractors, the Mining & Independent Power Producers (MIPPs) are protected from the impact of exchange rate variation between US dollars, Euros, Pounds Sterling and Japanese Yen up to Commercial Operation Date (COD).
- (ii) At the COD, the capital cost be fixed in US dollars based on actual currencies of EPC Contract is acceptable to concerned agencies at the time of tariff determination, sources of financing, payments and actual exchange rates against rupee for the four currencies (US dollars, Euro, Pound Sterling and Japanese Yen) on the relevant dates.

- (iii) To broaden the access for debt financing, debt can be obtained by MIPP in US Dollar, Pound Sterling, Euro and Yen. This will receive the same treatment as currently available for US dollar denominated debt.
- (iv) As O&M costs are incurred subsequent to COD, O&M Cost Adjustment will continue to be based on exchange rate variations between Pak Rupee and US dollars.
- (v) The Performance Guarantees to Government of Pakistan and Letter of Credits will be accepted in Euro, Pound Sterling and Yen in addition to US\$.

Return on equity:

The Return on Equity will be allowed in one currency i.e. US dollars. All Return on Equity (for foreign exchange and rupee based equity) be converted to equivalent US dollars amount at reference exchange rate and adjusted for variations in US\$/Rs rates as presently being done for return on foreign component of equity.

In addition to the aforesaid incentives, Coal Based Power Projects and Coal Mining Projects in Sindh shall have the same incentives, concessions, protections and security package as that available to IPPs developed pursuant to Power Generation Policy 2002 (as amended from time to time).

Detailed Description of Thar Area

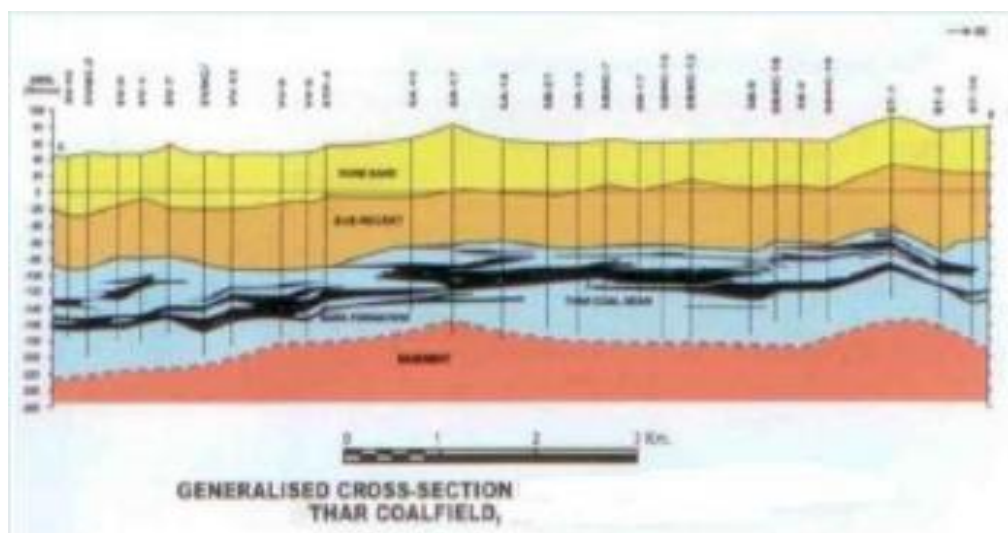
Thar Coal fields are located in Thar Desert area occupying East and Southeastern portion of Sindh Province of Pakistan. Being a desert, the area is extremely dry arid region with very low rainfall and limited water resources. The supply of water for the development of mine, power plant and related domestic complex is vital for successful future operation of facilities. The estimated coal reserves of the Sindh Province is nearly 185 billion tones in mine fields like Thar, Badin, and Thatta-Sonda-Jherrack of which Thar mines possesses one of the biggest Lignite deposits spread over 9100 sq. km in the Tharparkar district.

The investigation drilling in the past revealed that the coal is in-seams with extractable thickness of 22 m at a depth of 110 m up to 200 m. The upper seam layer of coal reserve reportedly contains in-situ water.

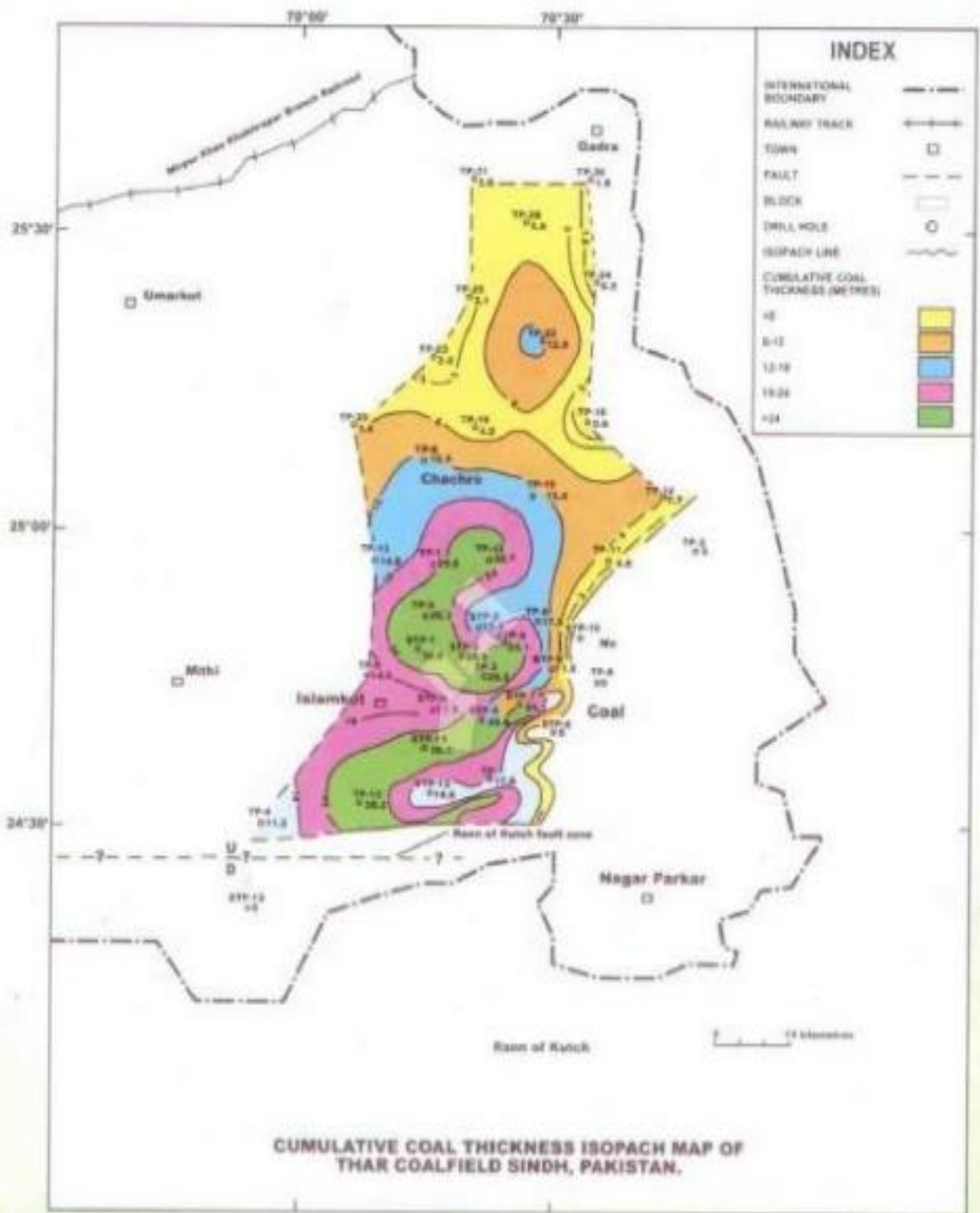
General Geology of Thar

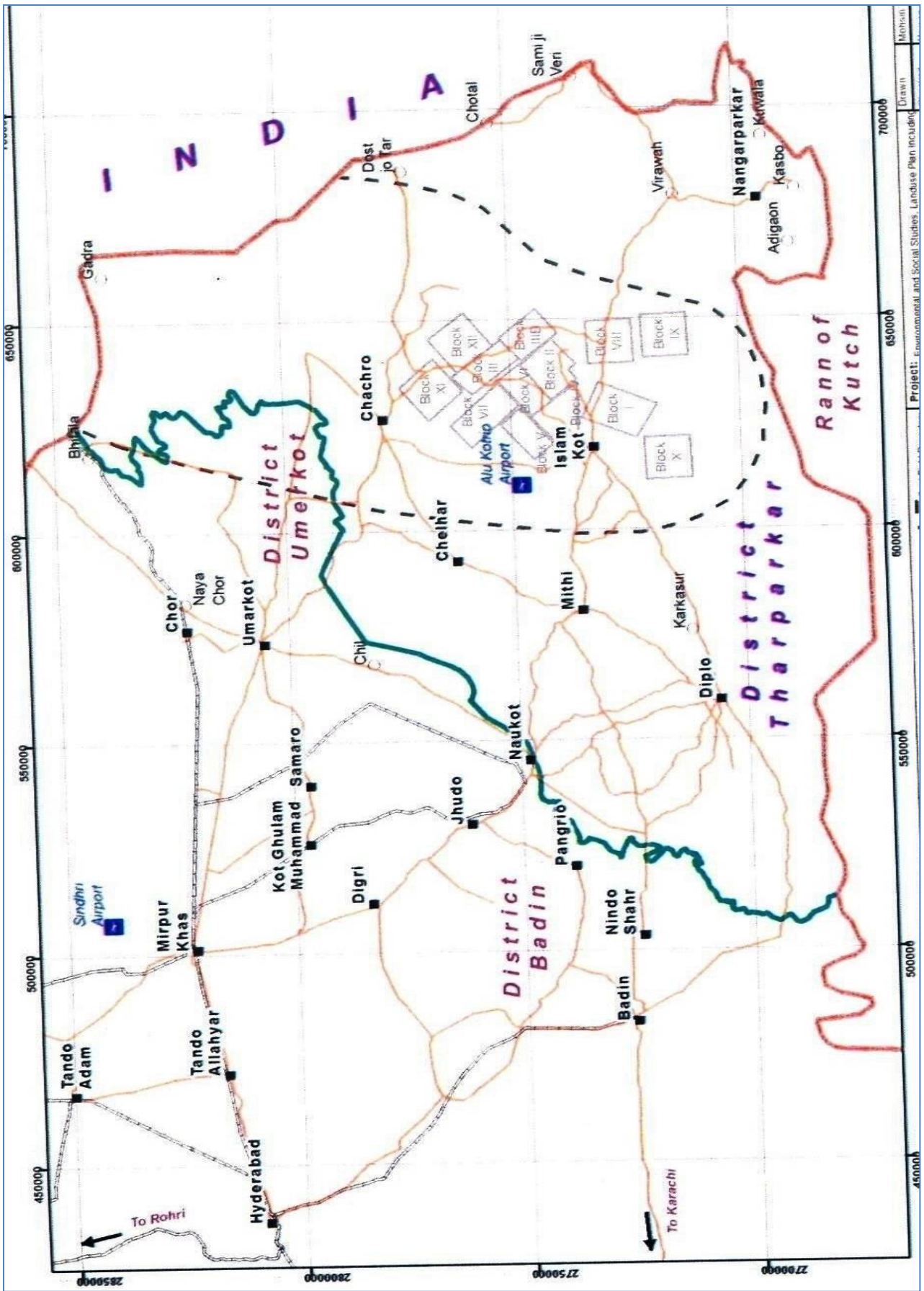
The studies conducted so far, show that the Thar coalfield rests directly on relatively shallow, rifted basement rocks of lat Pre-Cambrian age. The area is completely covered by sand dunes. On the basis of drill hole data, four sub-surface litho-stratigraphic units have been identified. The units are dune sane (recent), Alluvial deposits (sub-recent), Bara formation (Paleocene and Basement Complex (Pre-Cambrian). The Due sand (50-90 meters) comprises sand silt and clay.

Alluvial Deposits (11-127 meters thick) comprise sandstone, siltstone and clay stone. The Bara formation (50-125 meters thick) consists of clay stone, shale, sandstone and coal, whereas, the basement complex comprises mainly of granitic rocks. The drilling data has indicated three aquifers (water-bearing zones) at an average depth of 50, 120 and more than 200 meters.



- Cumulative coal thickness Isopach map of Thar Coalfields





INFRASTRUCTURE AVAILABLE AT THAR

ROAD NETWORK

70 tonnes load carrying capacity metalled road is available up to Coal field area.

COMMUNICATION

Telephone & Internet communication through Optic fiber cable is available up to Thar Coalfield area.

DRINKING WATER

Reverse Osmosis Plants in Thar are available for provision of portable water to residents as well as project staff free of cost.

THAR Lodge

Lodge at Thar with 20-bedded accommodation to facilitate foreign and local investors is available at Islamkot.

RESCUE STATION

Rescue Station in coal mining area at Thar coalfield covering an area of 8,200 sq. ft. has been constructed.

LIBRARY

A Coal library is situated at office of Sindh Coal Authority, Karachi.

INFRASTRUCTURE PLANNED AT THAR

TRANSMISSION LINE

NTDC has completed feasibility study for laying of Transmission Line for evacuation of 10,000 MW from Thar. In the first Phase they have to evacuate 1200 MW.

AIRPORT AT ISLAMKOT

The Civil Aviation Authority is executing the work of construction of Thar Airport at a distance of 8-10 kms from Thar Coalfield which is expected to be operational by December 2014.

PROVISION OF HEAVY ROAD

Sindh Coal Authority is upgrading the road network from Karachi to Islamkot via the two routes i.e. Hyderabad – Mirpurkhas – Naukot - Mithi and Thatta – Badin - Mithi for facilitating transportation of heavy machinery. The works are planned to be at an advanced stage of completion by Dec 2014.

RAILWAY LINK

PRACS has prepared feasibility for broad gauge rail link up to Islamkot.

PROVISION OF WATER

The GoS has planned to construct a water channel to provide 300 Cusecs water to Thar Coalfield. Alternately, the option of provision of treated water from Left Bank Outfall Drain is also being evaluated.

AVAILABILITY OF SKILLED MANPOWER

To cater for the future requirement of skilled manpower in the upcoming projects of large scale surface mining and power generation, up gradation of the existing Polytechnic Institute is being carried out. Currently diploma certification is being awarded at the Institute. Mehran University of Engineering & Technology Jamshoro at Hyderabad Sindh is producing (average) 40 Graduate Mining Engineers every year.

