

***DEMAND, AVAILABILITY AND  
MARKET OPPORTUNITIES  
FOR COPPER IN INDIA***

by

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# **INDIAN COPPER INDUSTRY**

## ***BACKGROUND***

- Long history of over 7,000 - 10,000 years
- Challenges from alternate metals and materials
- Challenges from new technologies
- Changes in life-style
- Evolution of newer products and amenities
- Liberalisation & Globalisation



# ***HISTORICAL BACKGROUND***

## ***Pre-Independence Era***

### **COPPER PRODUCTION**

1920's : Mining & Smelting started at Ghatsila by Cordoba Copper Co. ( later renamed as Indian Copper Complex ).

1928 : ICC commenced production of Fire Refined Copper (8000 tpa capacity)

### **FABRICATION CAPACITY**

- Traditional small scale units making utensils, artwares and hardwares
- Captive units (1920's) to cater to defence and Railway Workshops

### **CONSUMPTION**

- No precise data available
- Only 25,000 tonnes in 1948



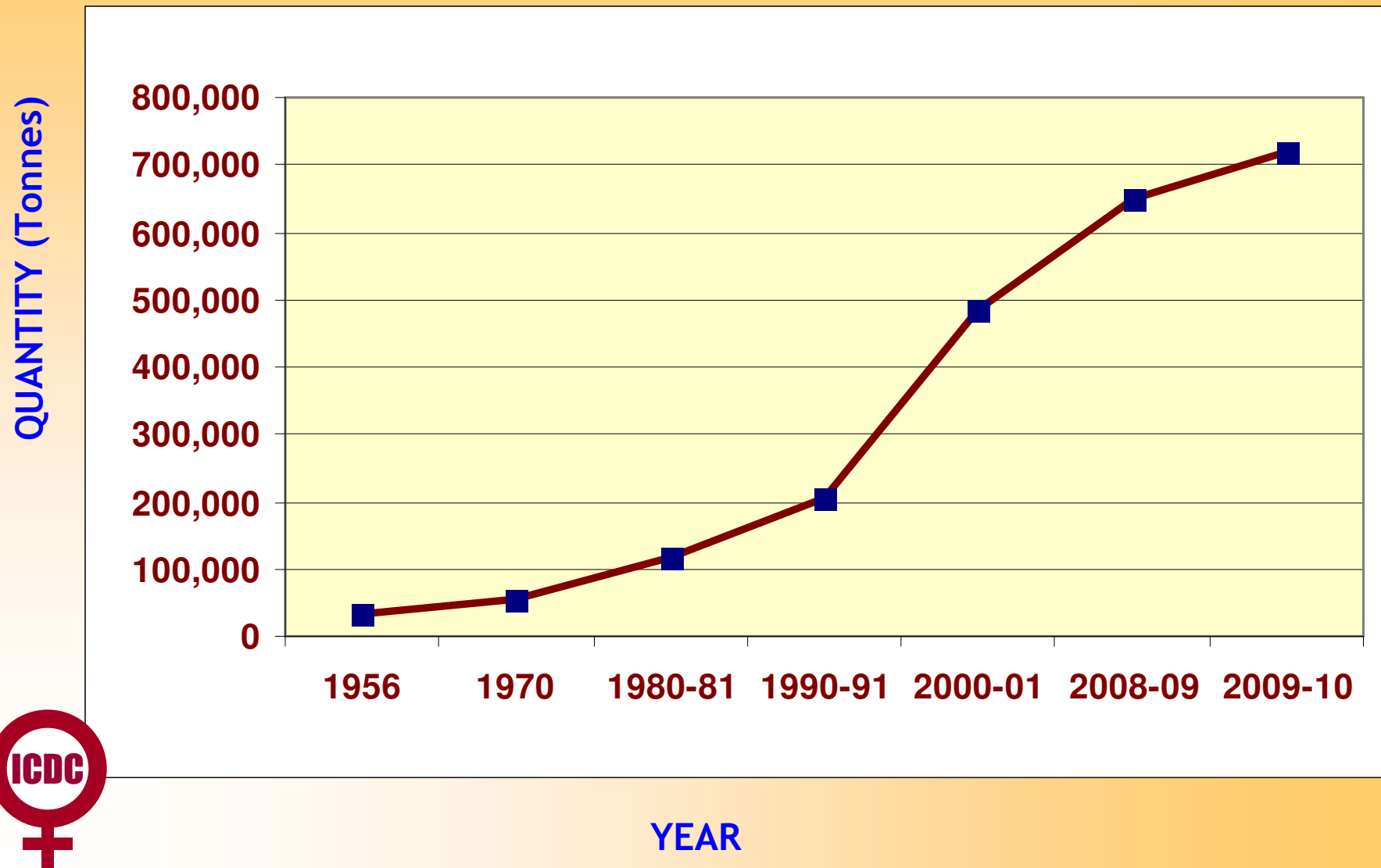
# ESTIMATED TOTAL COPPER CONSUMPTION\*

<u>Year</u>	<u>Quantity (tonnes)</u>
1956	33,800
1970	55,000
1980-81	117,363
1990-91	207,170
2000-01	484,000
2008-09	650,000
2009-10	> 720,000

\* Total consumption of copper include Primary Refined Copper (Cathode + CCR + Wire Bars) + Imported Copper & Copper Alloy Semis + Secondary Copper (including scrap)



# TOTAL COPPER CONSUMPTION

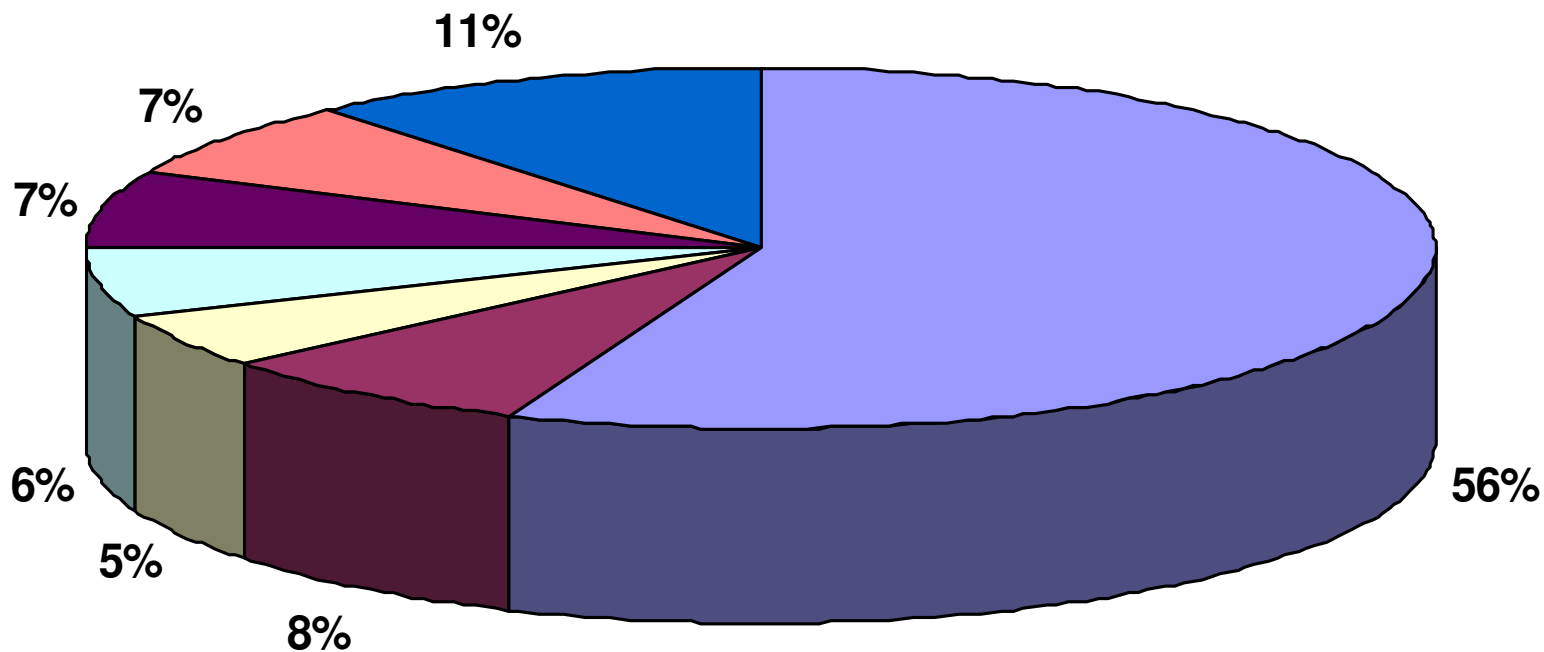


# ***MAJOR END USE SECTORS***

- **Electrical, Electronics & Telecom**
- **Transport**
- **Process Industry**
- **General Engineering**
- **Consumer Durables**
- **Building & Construction,  
Handicrafts, etc.**



## ESTIMATED SECTORWISE COPPER CONSUMPTION IN INDIA



Elec & Tel	Transport	Process Ind
General Engg.	Cons. Durable	Bldg & Constn
Others		



# ***REFINED COPPER PRODUCTION CAPACITY***

<u>Year</u>	<u>Quantity (tonnes)</u>
1928	8000
1996-97	47,500
1997-98	247,500
2008-09	997,500



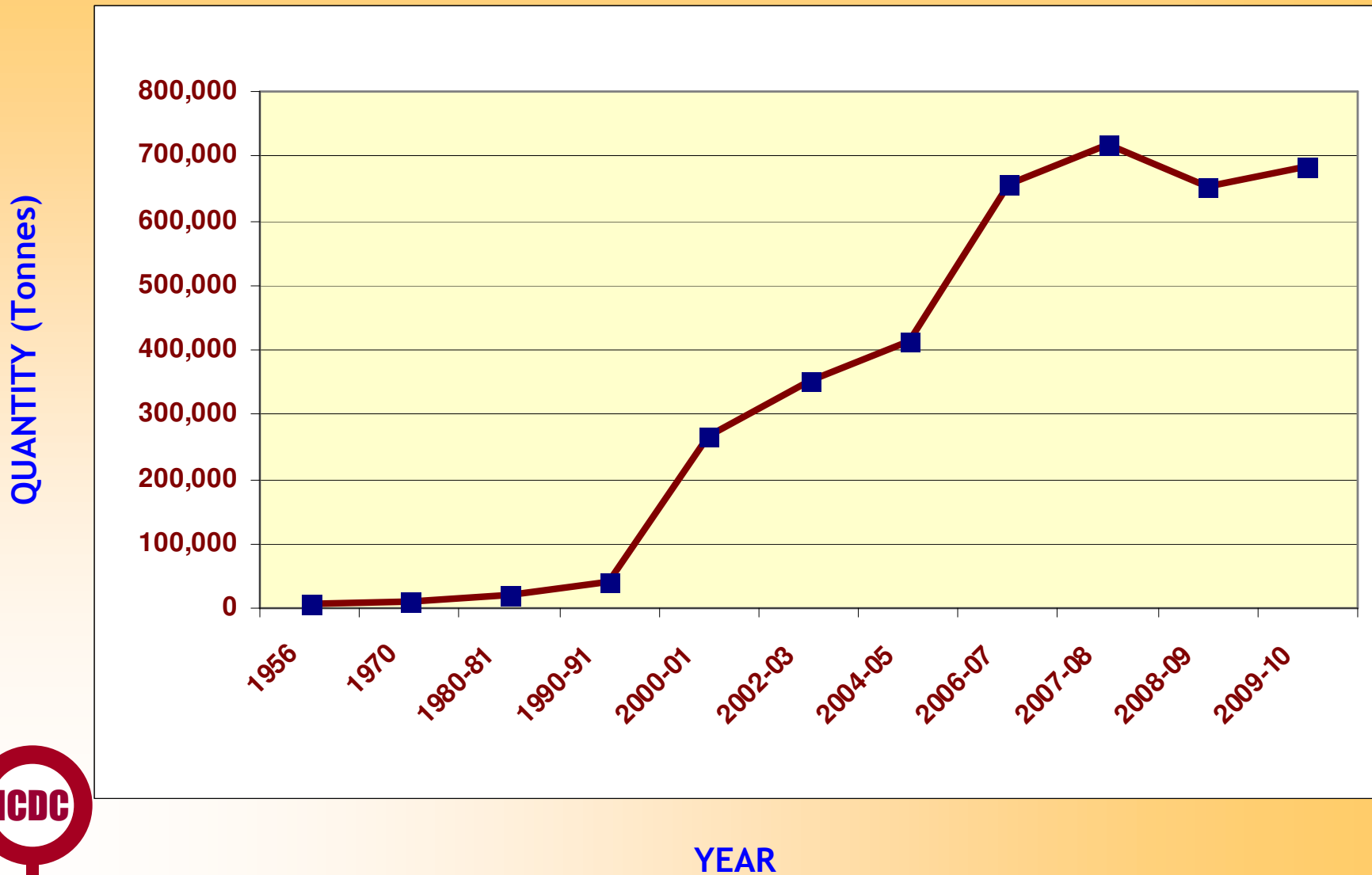


# ***REFINED COPPER PRODUCTION***

<u>Year</u>	<u>Quantity (tonnes)</u>
1956	7,800
1970	9,300
1980-81	21,831
1990-91	40,598
2000-01	265,060
2002-03	351,731
2004-05	415,009
2006-07	657,584
2007-08	717,982
2008-09	651,754
2009-10	684,962



# REFINED COPPER PRODUCTION



# ***GROWTH OF METAL INDUSTRY DEPENDS ON***

- **Availability of Raw Material – ore, power, etc.**
- **Indigenous processing capacity**
- **Domestic market**



# ***COPPER ORE AVAILABILITY***

- **M/s. Sterlite & Birla Copper have acquired mines overseas**
- **M/s. HCL also have new initiatives**
  - **Developing new mine, increasing existing mine capacity to ramp up present 3.5 MT capacity to 12.5 MT by 2017**
  - **Also exploring assets in overseas**



# **ACHIVEMENTS OF FABRICATING INDUSTRIES**

**Adoption of latest technologies —**

- **Continuous strip casting line**
- **CCR wire rod mills**
- **High speed wire drawing machines**
- **Cluster rolling mills**
- **Continuous pickling lines**
- **Continuous annealing lines**
- **Conform**

**and**

**Improved quality assurance through**

- **Updated testing facilities**
- **ISO accreditation**
- **Effort to export**



# ***MARKET GROWTH OPPORTUNITIES***

**High to Very High**



# KEY DRIVERS FOR DEMAND GROWTH

- **Copper is indispensable for many end use sectors which are on fast growth track**
- **Infrastructure development is Govt.'s priority**
- **Increased quality consciousness**
- **Improved life style**
- **Growing domestic market extending to rural areas**
- **Newer opportunities**



# **EXISTING MARKET - WITH HIGH GROWTH POTENTIAL**

- **Electrical**
- **Transport**
- **General Engineering**
- **Consumer Durables**



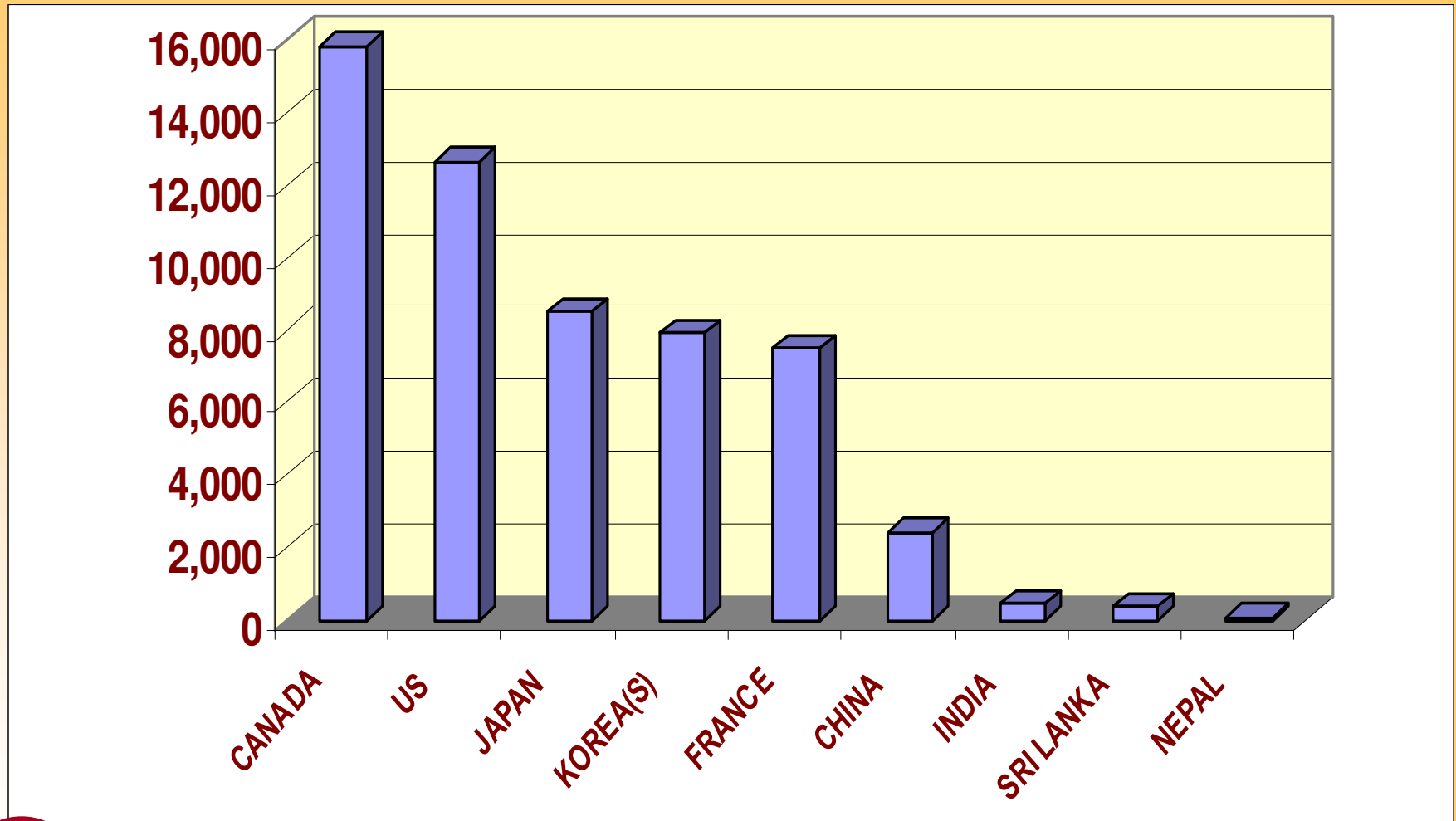


# ELECTRICAL

- **Very low per capita electricity consumption**
- **Addition to generation capacity**
- **Thrust on improved Power Quality by better Transmission, Distribution & Utilization System**
- **Copper is reliable and safe**



# ELECTRICITY CONSUMPTION PER CAPITA (kwh/Year)



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# TRANSPORT

- **Railways**

- Track electrification
- Higher capacity loco
- Underground / overhead services
- AC coaches
- Improved signaling system

- **Automobile**

- Auto electricals
- Increased production



## ***RELATIVELY NEW MARKET***

- **Water & Gas pipe line**
- **Solar water heater**
- **Interior products**



# FUTURE POSSIBILITIES

- **Fire sprinkler system**
- **Desalination**
- **Anti-microbial property based application**
- **Reverse substitution – viz. sugar mill tubes, coinage, etc.**



# ***EXPORT STATUS***

- **Refined copper and CCR rod being exported regularly**
- **Some semis manufacturers have also established export market**

**&**

- **Many are looking for opportunities**



Thank You

