

15 Asbestos

Asbestos is a group of fibrous minerals. The physical properties, besides fibrous characters, such as fineness, flexibility, tensile strength and length of fibres, infusibility, low heat conductivity and high resistance to electricity, sound and corrosion by acids, make asbestos commercially important. Commercial asbestos is classified into two main mineralogical groups: serpentine asbestos or chrysotile asbestos and amphibole asbestos. The latter group includes asbestos minerals, such as, tremolite, actinolite, anthophyllite, amosite and crocidolite. Commercially, chrysotile asbestos is far superior in physical properties and hence more valuable than amphibole asbestos.

India's asbestos requirement is mainly met through imports from Canada, Zimbabwe and Russia.

RESOURCES

As per the UNFC system, total resources (reserves and remaining resources) of asbestos in the country as on 1.4.2005 are placed at 21.7 million tonnes (Table-1). Of these, 6 million tonnes are reserves and 15.7 million tonnes are remaining resources. Out of 6 million tonnes reserves, 2.97 million tonnes are proved reserves and 3.1 million tonnes are probable reserves. Out of the total resources, Rajasthan accounts for

13.2 million tonnes (61%) and Karnataka 8.28 million tonnes (38%). The remaining one percent resources is estimated in Andhra Pradesh, Orissa, Jharkhand and Uttarakhand. Table-2 summarises the mineralogical varieties of asbestos occurring in various parts of the country.

PRODUCTION, STOCKS & PRICES

The production of asbestos at 261 tonnes in 2007-08 decreased by about 33% as compared to that in the previous year. There were 3 reporting mines in both the years. Only the chrysotile variety was produced by the three mines in Cuddapah district of Andhra Pradesh during 2007-08, all of them producing less than 200 tonnes annually.

The entire production of asbestos was from private sector in both the years. Above 64% of the chrysotile variety was the contribution of Padma Minerals (P) Ltd, a principal producer. The remaining production was reported by Baba Minerals Corporation (Tables - 3 to 6).

The mine-head stocks of asbestos at the end of the year were 372 tonnes as against 1992 tonnes at the beginning of the year (Table - 7).

The average daily employment of labour was 62 in 2007-08 as against 99 in the preceding year. The domestic prices of asbestos are furnished in Table - 8.

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**Table - 1 : Reserves/Resources of Asbestos as on 1.4.2005
(By Grades/States)**

Grade/State	Reserves				Remaining resources						Total resources (A+B)	
	Proved STD111	Probable		Total A	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334		Total B
		STD121	STD122		STD221	STD222						
All India : Total	2973825	204992	2861727	6040544	321847	2207339	90687	2489218	10528926	57800	15695817	21736361
By Grades												
Chrysotile	2529	1336	15656	19521	1781	1170	2885	16119	41992	-	63947	83468
Amosite	-	-	-	-	-	-	-	3987	4459680	-	4463667	4463667
Tremolite	27170	42417	83443	153030	8400	49854	-	2426700	1562125	-	4047079	4200109
Chrysotile mixed with others	-	-	-	-	3871	18309	-	-	336	-	22516	22516
Mixed amphibole	2874503	160612	2704952	5740067	305958	2090710	87802	42101	4121718	-	6648289	12388356
Actinolite	-	-	-	-	-	-	-	311	34000	-	34311	34311
Anthophyllite	-	-	-	-	-	-	-	-	20000	-	20000	20000
Unclassified	10000	-	27200	37200	-	10000	-	-	9500	-	19500	56700
Not-known	59623	627	30476	90726	1837	37296	-	-	279574	57800	376507	467233
By States												
Andhra Pradesh	2529	1336	15656	19521	1781	1170	-	-	27085	-	30036	49557
Jharkhand	-	-	-	-	3871	18309	2885	5769	124059	-	154893	154893
Karnataka	-	-	-	-	-	-	-	2441037	5841420	-	8282457	8282457
Orissa	10000	-	27200	37200	-	10000	-	-	9500	-	19500	56700
Rajasthan	2961296	203656	2818871	5983823	316195	2177860	87802	42101	4526861	57800	7208619	13192443
Uttarakhand	-	-	-	-	-	-	-	311	-	-	311	311

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Table - 2 : Occurrences of Asbestos in India

State	District	Mineralogical variety
Andhra Pradesh	Cuddapah	Chrysotile
Jharkhand	Singhbhum	Chrysotile, tremolite, chrysotile mixed with other minerals
Karnataka	Chickmagalur Hassan Mandya Mysore Shimoga	Amosite Anthophyllite Mixed amphibole minerals Chrysotile Amosite
Rajasthan	Ajmer Bhilwara Dungarpur Pali Rajsamand Udaipur	Mixed amphibole minerals -do- -do- Tremolite, Chrysotile Mixed with other amphibole minerals Tremolite, Actinolite and Mixed amphibole minerals Chrysotile, tremolite and Mixed amphibole minerals
Uttarakhand	Chamoli	Others

Table – 3 : Principal Producers of Asbestos, 2007-08

Name & address of producer	Location of mine	
	State	District
Padma Minerals (P) Ltd, 1/5A, Ambikapalli Road, Pulivendla, Distt. Cuddapah – 516 390 Andhra Pradesh.	Andhra Pradesh	Cuddapah
Baba Minerals Pvt Ltd, 1/5A, Ambikapalli Road Pulivendla Post- Pulivendla-516 390 Distt. Cuddapah Andhra Pradesh.	Andhra Pradesh	Cuddapah

**Table - 4 : Production of Asbestos, 2005-06 to 2007-08
(By States)**

(Qty. in tonnes; value in Rs.'000)

State	2005-06		2006-07		2007-08(p)	
	Quantity	Value	Quantity	Value	Quantity	Value
India	2323	19296	390	14921	261	9764
Andhra Pradesh	635	18968	390	14921	261	9764
Rajasthan	1688	328	–	–	–	–

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**Table - 5 : Production of Asbestos, 2006-07 and 2007-08
(By States/Districts/Grades)**

(Qty. in tonnes; value in Rs.'000)

State/District	2006-07				2007-08 (p)					
	No. of mines	Quantity			Value	No. of mines	Quantity			Value
		Chrysotile	Amphibole	Total			Chrysotile	Amphibole	Total	
India	3	390	-	390	14921	3	261	-	261	9764
Private sector	3	390	-	390	14921	3	261	-	261	9764
Andhra Pradesh	3	390	-	390	14921	3	261	-	261	9764
Cuddapah	3	390	-	390	14921	3	261	-	261	9764

**Table - 6 : Mine-head Stocks of Asbestos, 2007-08 (p)
(By States/Grades)**

(In tonnes)

State	At the beginning of the year			At the end of the year		
	Chrysotile	Amphibole	Total	Chrysotile	Amphibole	Total
India	28	1964	1992	20	352	372
Andhra Pradesh	16	-	16	20	-	20
Rajasthan	12	1964	1976	-	352	352

**Table - 7 : Prices of Asbestos, 2005-06 to 2007-08
(Domestic Markets)**

(In Rs. per tonne)

Grade	Market	2005-06	2006-07	2007-08(p)
AA	f.o.r. Pulivendla (Andhra Pradesh)	60000	60000	60000
AAA	f.o.r. Pulivendla (Andhra Pradesh)	53000	60000	60000
A Spl	f.o.r. Pulivendla (Andhra Pradesh)	-	70000	80000
C1B	f.o.r. Pulivendla (Andhra Pradesh)	30000	35000	35000
C1B Spl	f.o.r. Pulivendla (Andhra Pradesh)	32000	35000	35000
D3	f.o.r. Pulivendla (Andhra Pradesh)	20000	20000	25000
D4	f.o.r. Pulivendla (Andhra Pradesh)	14000	16000	20000
AK4	f.o.r. Pulivendla (Andhra Pradesh)	28000	35000	35000
Superlong	f.o.r. Pulivendla (Andhra Pradesh)	-	-	120000

MINING & MILLING

The mines in Rajasthan, producing amphibole variety of asbestos were small opencast workings, operating manually. The mines are now closed.

The usual method of mining chrysotile in Pulivendla tehsil, Cuddapah district, Andhra Pradesh, is by opening an incline along the dip varying from 20° to 25°, keeping the trap as floor and limestone as roof. Two or three such inclines are converted into a regular underground mine by developing levels and winzes connecting them and adopting board-and-pillar system of development. In almost all the mines, operations like blasthole drilling, hoisting, pumping and ventilation are mechanised.

The run-of-mine is subjected to manual sorting of asbestos-bearing rock (ABR). ABR is then hand-combed for chipping off the asbestos-bearing portion in small pieces of about 2.5 cm for producing asbestos concentrates. From ABR, the serpentine is removed as a waste. The asbestos concentrate is fed manually into hopper of a hammer mill. In hammer mill, asbestos and other minerals are separated and then fed to double-deck screen having 10 to 40 mesh sieves. The screening gives three fractions: (a) oversize, (b) middling, and (c) tailing.

Tailing is taken as a waste which generally does not contain appreciable quantity of asbestos. The oversize is recycled in the hammer mill, and the middling fibre is sucked up by a cyclone and collected. There are five processing or milling plants located in Pulivendla area, Andhra Pradesh.

GRADING & MARKETING

Small fibres recovered through milling process account for nearly a two-third production. General grading system adopted frequently is as follows:

Grade	Fibre Size	Method
Grade - As	45 mm and above	Hand-sorted
Grade - A	Between 25 and 45 mm	
Grade - B	Between 12 and 25 mm	
Grade - C	Above 16 mesh	Mill-processed
Grade - D3	24 mesh	
Grade - D4	40 mesh	
Grade - D6	60 mesh	

Producers of amphibole asbestos sell their output as crude or fluff and powder.

CLASSIFICATIONS

Various classifications of chrysotile asbestos followed in India are based, by and large, on fibre length:

- (1) Grade As or 25.4 mm fibres or larger
- A Special -
- As₁ - 25.4 mm and larger fibres but brittle compared to As or A Special
- A - 19.05 to 25.4 mm fibres
- A₁ - 19.05 to 25.4 mm fibres but brittle compared to A
- A₂ - 19.05 to 25.4 mm fibres but brittle compared to A₁
- Grade B - 6.35 to 19.05 mm fibres
- B₁ - 6.35 to 19.05 mm fibres but brittle compared to B
- B₂ - 6.35 to 19.05 mm fibres but brittle compared to B₁
- C - Below 6.35 mm fibres

- (2) Grade A Special - Above 31.5 mm
- A - Between 19 and 31.5 mm
- B - Between 6.3 and 19 mm
- C - Below 6.3 mm including powder
- D - Dust

(3) Quebec standard asbestos testing machine classification of chrysotile asbestos according to groups is given below:

Crude Asbestos

- Group No. 1 Crude No. 1: Consists basically of crude, 3/4 inch and longer staple
- Group No. 2 Crude No. 2: Consists basically of crude, 3/8 to 3/4 inch staple.

Milled Asbestos

Standard designation of grade	Guaranteed minimum spinning test
Group No. 3 (spinning fibres)	
3 D	10.5-3.9-1.3-0.3
3 Z	0-8-6-2
Group No. 4 (shingle fibres)	
4 D	0-7-6-3
4 Z	0-1.5-9.5-5
Group No. 5 (paper fibres)	
5 D	0-0.5-10.5-5
5 R	0-0-10-6
Group No. 6 (waste)	
6 D	0-0-7-9
Group No. 7 (shorts or refuse)	
7 D	0-0-8-11
7W	0-0-0-16
Group No. 7 (floats)*	
7 RF	No test
7 TF	No test

(Contd.)

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(Concl'd.)

Standard designation of grade	Guaranteed minimum spinning test
Group No. 8 (sand and gravel)	
8 S	Less than 50 lb per cu ft loose measure
8 T	Less than 75 lb per cu ft loose measure.
Group No. 9 (gravel and stone)	
9 T	More than 75 lb cu ft loose measure

* The suffix 'F' designates 'floats' in the case of 7R and 7T grades.

**Table - 8 : Reported Consumption of Asbestos
2005-06 to 2007-08
(By Industries)**

Industry	2005-06(R)	2006-07	2007-08(p)
All Industries	104000	104400	100900
Asbestos products	103100(28)	103500(28)	100000(27)
Refractory	100(6)	100(6)	100(6)
Textiles	700(1)	700(1)	700(1)
Others (foundry, paint and paper)	100(8)	100(8)	100(8)

Figures rounded off. Data collected on non-statutory basis. Figures in parentheses denote the number of units in organised sector reporting consumption.

USES

Industrial use of asbestos is linked with the type of asbestos. Chrysotile asbestos, being more fibrous and possessing better tensile strength than amphibole variety, is used in the manufacture of asbestos fabrics, cement sheets, pipes and allied products. It is also used in brake linings, insulation and fireproof clothing. Short fibres are used with cement as binders for manufacturing asbestos-cement products. Amphibole asbestos generally finds use in heat insulation and treatment of acids. Anthophyllite and tremolite fibres, although of good length, are too weak and brittle to be spun. They are therefore used for boiler lagging, hard-setting magnesia composition and as a filler in asbestos paints and various asbestos-moulded articles.

CONSUMPTION

The reported consumption of asbestos in 2007-08 was about 101 thousand tonnes, almost entirely in asbestos-cement and asbestos-based products manufacturing. Minor quantity was utilised for insulation purpose in some industries. The available consumption data relate almost entirely to imported chrysotile asbestos. Reliable data on consumption of amphibole asbestos were not available as the consuming industries were mostly in small-scale sector, producing low-pressure asbestos-cement pipes used in construction industry (Table - 8).

INDUSTRY

The installed capacity of asbestos sheets in the organised sector was not available while that of asbestos-cement pressure pipes was 212,000 tpy. The production of asbestos cement sheets and accessories in 2007-08 was about 2.3 million tonnes and production of asbestos cement pressure pipes was 150 thousand tonnes. The asbestos-cement pressure building pipes and other asbestos-based products like brake linings, clutch facings, ferobestos sheets, textiles, mattresses, joining, limpet sheets, mill boards, moulded thermal insulation articles, asbestos yarn and hydraulic packings, asbestos plugs and fire-resistant cement were manufactured by a number of medium and small units. Presently, there are about 75 plants engaged in the production of asbestos products in the country and these are mainly located in Gujarat, Karnataka, Madhya Pradesh and Andhra Pradesh. Besides, about 114 asbestos cement sheets and pipes units are reported from Rajasthan.

SUBSTITUTION

Material substituted for asbestos include calcium silicate, carbon fibres, fibres of cellulose, ceramic, glass & steel, wollastonite and several organic fibres like aramid, polyethylene, polypropylene and polytetrafluoroethylene. Where reinforcement properties of fibres are not

required, several non-fibrous minerals are also considered for possible substitution. However, no single substitution is found to be as versatile or as cost-effective as asbestos.

ENVIRONMENTAL ISSUES

There has been a concern about the role of asbestos causing lung diseases. Research towards this problem has been hampered by the long period between asbestos exposure and symptoms, known as latency period which can exceed 30 years. Further, difficulty was faced in diagnosing the diseases and due to fragmented medical records. Results obtained so far suggested that chrysotile, most widely used asbestos, was less dangerous than amphibole asbestos minerals. Asbestosis is a chronic affliction resulting from inhalation of asbestos fibres and is commonly seen in workers who have been associated with high levels of asbestos dust. It led to an increase in the amount of fibrous protein in the lung, which ultimately decreased its flexibility and oxygen-absorbing capacity, sometimes leading to death. The incidence of severe asbestosis has been declining for years and should continue to do so because of dust control in the work place.

Mesothelioma, which can be either benign or malignant, is a tumour in tissue that encases the lung. The asbestos problem is almost certainly the wider issue involving all fibrous materials, both natural and man-made. However, a decision to ban asbestos is not simple. Crocidolite and amosite appear to be strongly linked to disease, whereas chrysotile is not. Just as scientific community has begun to grasp the wide diversity of fibrous materials and their effects, the public has come to think of all fibrous materials as highly dangerous as asbestos. This has resulted in clamour for removing asbestos from buildings where it is found in insulation around pipes and in ceiling and floor tiles.

Minerals and chemicals containing 0.1% or more silica are considered as carcinogenic hazard. Therefore, unless processing can reduce the crystalline silica to less than 0.1%, asbestos will come under the regulation similar to US OSHA Hazard Communication Standards. France banned

the production and import of asbestos-based products in 1997, followed by Belgium in 1998. During November 1999, UK prohibited the use, import and manufacture of chrysotile asbestos on the grounds of health risks. On 10 September 1998, the Rotterdam Convention on Prior Informed Consent (PIC) adopted procedure for certain Hazardous Chemicals and Pesticides in international trade by the United Nations and in 2002, a decision was made to initiate the addition of all forms of asbestos except chrysotile to the PIC procedure. Another attempt to bring chrysotile, the most common form of asbestos, under the Prior Informed Consent (PIC) list of the Rotterdam Convention had failed. Parties to this international treaty governing trade in toxic substances met in Geneva during 10 and 13, October 2006. But they could not agree on adding chrysotile to a list of 39 substances about which exporting countries must inform importers before shipping.

The convention is a multilateral agreement that tries to ensure that export of hazardous materials takes place with the knowledge of importing nations.

TRADE POLICY & LEGISLATION

No restrictions have been imposed on exports of asbestos in the amended Foreign Trade Policy, 2004-09 effective from 1 April 2008. As per the new Foreign Trade Policy, asbestos under heading 2524 can be freely imported with the exception of amosite which is restricted. However, the imports of crocidolite, actinolite, anthophyllite, amosite and tremolite are restricted in terms of Interim Prior Informed Consent (PIC) Procedure of Rotterdam Convention for Hazardous Chemicals and Pesticides.

Ministry of Environment and Forest, vide notification dated 13.10.1998, under Sections 3(1) and 6(2) (d) of Environment (Protection) Act, 1986 and Rule 13 of Environment (Protection) Rules, 1986, has prohibited the imports of waste asbestos (dust and fibre), being a hazardous waste detrimental to human health and environment.

WORLD REVIEW

The world resources are believed to be quite large. The world production capacity of chrysotile, crocidolite and amosite asbestos was around 3 million tonnes, 0.2 million tonnes and 0.1 million tonnes, respectively. The world production of asbestos was 2.3 million tonnes in 2007. Russia the leading producer accounted for 40%, followed by China (20%) Kazakhstan (13%), Brazil (11%) and Canada (8%) (Tables - 9 and 10).

Russia was the world's largest asbestos producer of chrysotile asbestos in 2005 and 2006 followed by China, Kazakhstan and Brazil.

**Table - 9 : World Resources of Asbestos
(By Principal Countries)**

Country	Reserve base
World : Total	Large
Brazil	Moderate
Canada	Large
China	Large
Kazakhstan	Large
Russia	Large
USA	Large
Zimbabwe	Moderate
Other countries	Large

Source : Mineral Commodity Summaries, 2008.

**Table - 10 : World Production of Asbestos
(By Principal Countries)**

Country	(In '000 tonnes)		
	2005	2006	2007
World : Total	2200	2300^e	2300
Brazil	236	227	254
Canada (chrysotile) ^e	186	185	185
China ^e	332	458	460 ^e
Kazakhstan	306	315	293 ^e
Russia ^e	925	925	925
Zimbabwe (chrysotile) ^e	122	97 ^e	97 ^e
Other Countries	93	93	86

Source : World Mineral Production, 2003-2007.

FOREIGN TRADE

Exports

Exports of asbestos increased to 3,942 tonnes in 2007-08 from 525 tonnes in the previous year. Out of the total exports in 2007-08, exports of chrysotile asbestos were 23 tonnes while those of other asbestos varieties were 3,919 tonnes. Exports were mainly to UAE, Bhutan, Nepal, Egypt, Thailand and Kenya. Exports of asbestos-cement products increased to 17,432 tonnes in 2007-08 from 7,982 tonnes in the previous year. Exports were mainly to UAE (40%), Nepal (10%), Ghana (9%), Saudi Arabia and South Africa (5% each) (Tables - 11 to 15).

Imports

Imports of asbestos increased to 311,705 tonnes in 2007-08 from 253,382 tonnes in the previous year. In 2007-08, imports of chrysotile asbestos fibre were 41,017 tonnes and those of asbestos (others) 270,688 tonnes. Imports of asbestos were mainly from Russia (42%), Brazil (24%), Canada (16%), Zimbabwe (9%) and Kazakhstan (8%). About 230 tonnes asbestos-cement products were also imported in 2007-08 as against 139 tonnes in the previous year. Imports were mainly from Malaysia, China and Germany (Tables - 16 to 19).

**Table - 11 : Exports of Asbestos : Total
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	525	6262	3942	9035
UAE	-	-	3103	3451
Bhutan	475	5869	600	2451
Egypt	-	-	25	945
Nepal	41	261	161	916
Thailand	-	-	17	660
Kenya	9	132	16	268
Djibouti	-	-	9	222
Georgia	-	-	11	100
Nigeria	-	-	++	21
Congo, People's Rep.	-	-	++	1

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**Table - 12 : Exports of Asbestos (Amphibole)
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs. '000)	Qty. (t)	Value (Rs. '000)
All Countries	1	6	-	-
Nepal	1	6	-	-

**Table - 13 : Exports of Asbestos (Chrysotile)
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	++	3	23	343
Djibouti	-	-	9	222
Nepal	++	3	14	121

**Table - 14 : Exports of Asbestos (Others)
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	524	6253	3919	8692
UAE	-	-	3103	3451
Bhutan	475	5869	600	2451
Egypt	-	-	25	945
Nepal	40	252	147	795
Thailand	-	-	17	660
Kenya	9	132	16	268
Georgia	-	-	11	100
Nigeria	-	-	++	21
Congo, People's Rep.	-	-	++	1

**Table - 15 : Exports of Asbestos Cement Products
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	7982	184758	17432	257883
UAE	1608	22868	7055	72356
Nepal	539	6449	1711	30885
Ghana	13	221	1596	20126
Saudi Arabia	716	8493	891	12022
South Africa	276	3677	864	10612
Qatar	824	10559	745	9694
UK	758	18683	86	8621
Bhutan	588	16873	211	2965
Nigeria	380	19907	1	2
Ethiopia	367	34230	-	-
Other countries	1913	42798	4272	90600

**Table - 16 : Imports of Asbestos : Total
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	253382	5191128	311705	5899442
Russia	95939	1810703	130452	2297976
Brazil	37703	948617	73401	1534312
Canada	50244	1068975	51423	1055176
Zimbabwe	33069	712272	27193	510198
Kazakhstan	26815	459777	23855	404716
South Africa	4512	97162	2544	47297
Poland	2384	42293	441	8363
China	121	5755	409	7568
Mozambique	342	7057	342	6748
Unspecified	-	-	642	12769
Other countries	2253	38517	1003	14319

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**Table - 17 : Imports of Asbestos (Chrysotile)
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	57853	1180477	41017	808922
Brazil	9298	237470	13961	300837
Canada	16131	323641	13993	279990
Russia	20289	382218	9330	158651
Zimbabwe	4342	89035	1533	30413
Kazakhstan	2939	53184	1732	30194
Belgium	764	11747	-	-
Mozambique	270	5149	-	-
Poland	731	12349	-	-
South Africa	2585	56336	-	-
Unspecified	-	-	288	5126
Other countries	504	9348	180	3711

**Table - 18 : Imports of Asbestos (Others)
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	195529	4010651	270688	5090520
Russia	75650	1428485	121122	2139325
Brazil	28405	711147	59440	1233475
Canada	34113	745334	37430	775186
Zimbabwe	28727	623237	25660	479785
Kazakhstan	23876	406593	22123	374522
South Africa	1927	40826	2544	47297
Ukraine	-	-	828	11356
Poland	1653	29944	441	8363
Mozambique	72	1908	342	6748
China	121	5755	249	4171
Other countries	985	17422	509	10292

**Table - 19 : Imports of Asbestos Cement
Products
(By Countries)**

Country	2006-07		2007-08	
	Qty. (t)	Value (Rs.'000)	Qty. (t)	Value (Rs.'000)
All Countries	139	22378	230	27625
Malaysia	30	4030	72	8687
Germany	34	4406	59	7661
China	9	2099	68	6445
UAE	15	3527	17	2243
Thailand	12	1022	11	1735
Philippines	5	715	2	417
USA	19	2097	1	334
Denmark	6	1442	-	-
Japan	3	1206	-	-
Vietnam	1	874	-	-
Other countries	5	960	++	103

FUTURE OUTLOOK

The resources of chrysotile variety of asbestos are very much limited in India. So, there is an urgent need to go for detailed exploration as the internal demand for asbestos in the country cannot be met from indigenous production.