

A REVIEW ON THE POTENTIAL, PRODUCTION, TRADE AND OTHER RELEVANT DETAILS ALONG WITH RECOMMENDATIONS /VIEWS FOR BAN ON THE ASBESTOS MINERAL IN PAKISTAN

Arshia Fatima¹, Nazar-ul-Islam², Nimat Ullah Khattak³, Maria Yaqoob⁴ and Atif Ali⁵

^{1, 2, 4, 5}Geological Survey of Pakistan (GSP)

*³National Centre of Excellence in Geology (NCEG), University of Peshawar
arshia.fatima.980@gmail.com*

Abstract

Asbestos is a generic name given to six fibrous minerals that have been used in manufacturing a number of commercial products. It is an industry term rather than a mineralogical term that is applied to specific fibrous mineral particles that possess high tensile strengths, large length to width ratios, flexibility and resistance to chemical and thermal degradation. The asbestos deposits found in Khyber Pakhtunkhwa (KPK) are located at Alpurai Prang Ghar, Qila, NewiKili, Kuchian, Bucha, Danish Kool, AnmbarKot, Hero Shah and BehramDheri district Charsadda and at Boya, Khost Valley in Waziristan. The prominent localities in Balochistan are Zabar Creek area 8 to 10 Km North of Muslimbagh. Mining is carried out by primitive methods such as blasting and hammering and results in waste upto 65%.The asbestos of Mohmmmand, Malakand, South Waziristan agencies, district Charsadda and Swat are classified to host chrysotile, antigorite and tremolite. Almost 90% of the discovered deposits in KPK are in production. Asbestos is also imported as raw and in the form of scraps of old ships (asbestos sheet) from Canada, USA, Europe and South Africa. The imported asbestos varieties include chrysotile and anthophyllite. In Pakistan, asbestos containing products including electric heaters, drainage, sewerage and insulation pipes, furniture (tables, beds) and doors. Pakistanasbestos consumption in year 2000-2004 was estimated to be increased from 1,590 to 9170 tonnes in a short span of two years .Asbestos alternate substitutes are available but it involves high cost, additional manufacturing cost, product design cost and product manufacturing. When asbestos fibers become airborne and are inhaled, they are so small that the lungs cannot expel them. Major diseases caused by asbestos include asbestosis, mesotheliomaand cancer of the larynx. So far 1,500 cases of general incidence and cohort cases of mesothelioma were reported during1992-2004, that figure had risen to 6,000 during 2007 in Khyber Pakhtunkhwa. In Pakistan, no protective and precautionary measures were adopted during all types of mining, milling, cutting, product manufacturing and use of asbestos, asbestosiform talc. Seventy percent of mines now producing asbestos in Pakistan became operational between 2000-2007; there were no standards or regulations to protect the mine labor. Measurements taken during 2005 showed colossal airborne asbestos levels at the mine itself and extensive contamination of mine worker clothes and groundwater. The innocent people are highly exposed to huge amount of respirable asbestos and are at risk to various fatal diseases. Unmechanised mining, milling and industrial processes adopted for the recovery of asbestos and product manufacturing is the main factor responsible for the unsustainable management of the mineral resources in Khyber Paktunkhwa. Government should take steps for regulating/ban of asbestos and create awareness among masses.