

The Geochemical Diseases of China

Sara E. Smith

Quantitative Methods in Rocks and Minerals

Steven Teeter

Summer Ventures in Science and Mathematics

The University of North Carolina at Charlotte

Abstract

China experiences a high incidence of geochemical diseases due its expanding coal mining enterprise, lack of government regulation in industry, numerous impoverished citizens, and its unique geologic foundation. Illnesses that have arisen include cancer, arsenicosis, Keshan disease, Kaschin-Beck disease, iodine deficiency, and fluorosis. These derive from complications with minerals such as carcinogenic chromium, arsenic, selenium, iodine, and fluoride respectively. Many of these problems can be traced back to pollution from factories throughout China, especially coal-burning plants. With China's accelerating economy and demand for fuel it has become of utmost importance that the country remembers to balance financial success with the health of its people. In order to accomplish this, attention needs to be given to identifying sources of pollution and imposing stricter regulations that will help protect the population. In addition, China has the option of switching to alternative energy that present less danger to the environment and human life. Relief from naturally occurring diseases may be provided in the form of more widely accessible healthcare and programs that instruct residents as how to prevent against geochemical illnesses.