Environmental Engineering and Management Journal

November 2016, Vol.15, No. 11, 2375-2382 http://omicron.ch.tuiasi.ro/EEMJ/



"Gheorghe Asachi" Technical University of Iasi, Romania



CONVERGENCE OF HUMAN POPULATIONS IN CHINA: IMPACT ON SUSTAINABLE DEVELOPMENT

Xin Wang¹, Yunqi Wang², Chenguang Xu³, Li Chen⁴, Suoyan Guo⁵

 ¹College of Economics & Management, Beijing Forestry University, No. 35, Qinhuadong Road, Haidian District, Beijing, 100083, P. R. China
²College of Soil and Water Conservation, Beijing Forestry University, No. 35, Qinhuadong Road, Haidian District, Beijing, 100083, China
³North China Institute of Water Conservancy and Hydroelectric Power, Zhengzhou 450011, P.R. China
⁴Water and Soil Conservation Institute of Yan'an City, Yan'an, Shaanxi, 716000, P. R. China
⁵ Monitoring Center of Soil and Water Conservation, Ministry of Water Resources, No. 2, Baiguang Road, Xicheng District, Beijing, 100053 P. R. China

Abstract

Convergence, that is the concentration of human populations into small areas, has been common throughout history. However, convergence has now reached historically unprecedented levels. Historically, convergence has tended to increase the long-term risk to humanity caused by many factors, including the associated environmental damage. Large cities appear to be at greater risk of unforeseen disasters, and may even collapse when some maximum sustainable size is exceeded. Based on a review of published papers, we discuss the historical and future safety of China's major cities and civilization in the context of the increasing environmental risks created by convergence. This may help the public, scientists, and politicians to better understand the gap between social institutions and the scientific knowledge and technology that sustainable development currently jeopardizes large cities, especially when their managers fail to take appropriate measures to protect the environment that sustains the city. To achieve safe and sustainable urban development, China's government must find ways to improve social and cultural institutions that promote environmental conservation, and it must encourage socioeconomic development in under-developed rural regions to reduce some of the pressures leading to urbanization.

Key words: environmental degradation, environmental risk, human convergence, social institutions, sustainable development

Received: September, 2012; Revised final: June, 2013; Accepted: June, 2013

^{*}Author to whom all correspondence should be addressed: e-mail: wangyunqi@bjfu.edu.cn; Phone: 86-10-6233-7038; Fax: 86-10-6233-7674