

Title: Where European Union, South and East Asian countries stands in terms of legislative framework for environmental protection challenges from electronics industry

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Abstract: South and East Asia are among the most populous regions over the globe. South Asia ranks first while East Asia ranks second in terms of world population. In this modern age where use of technology is not an option but a necessity for every individual, with such a huge population one could sense that there is a massive demand of electronics in both regions. The electronics categories range from mobile phone, television sets, refrigerators, air conditioners, cameras, printers, computers and dozens of others consumer electronics. Almost all these electronic equipment's at some level contains materials which are threat to the human health and environment, this threat is not just restricted to the finished electronic product but can also be traced at the manufacturing level. The aim of this study is an in-depth investigation of national environmental legislation of representative countries from both regions in the context whether the country is manufacturing the electronics, or if it's importing the used and end of life electronics. How effective the legislation is to ensure the environmental protection and prevent hazardous materials release to the environment from electronics. This study demonstrates that there is lack of legislation framework and research activities in the field related to the toxic substances release from electronics industry. Further research is needed for sustainable electronics manufacturing/recycling to shapeup future environmental protection policies in the South and East Asian region. Sustainable electronics manufacturing, and proper end of life disposal of electronics are already having a positive impact in European Union and other developed countries.

Key Words: Sustainable electronics, electronics legislation, toxic substances, electronics recycling.