

Full Length Research Paper

Socio-Economic impact assessment of textile wastes in Arba Minch and Hawassa textile factories

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Abstract

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Environmental pollution due to different types of industries is one of the vital problem presently facing Ethiopia and all over the world. Textile industries are major sources of Environmental pollution. Assessment of socio-economic impact of textile industries is one of the crucial issues. Theoretical data are collected through questionnaires, interviews and observations of workers and Peoples resided near textiles. In addition to the theoretical data indicators of physicochemical pollutants such as color, temperature, conductivity, pH, TDS, TSS, BOD and COD of nearby water bodies are studied. The results showed that effluent is dark colored with alkaline pH. The values of COD (mg/L) for six sample sites were 328, 264, 68, 60,190, and 160 and the value of BOD(mg/L) 120, 90.5, 24, 27, 40.8, and 27.5 respectively. Some are found to be higher than the limits set by WHO (COD 250mg/L) and (BOD 30 mg/L) for the discharged of textile effluents into river. The ratio of BOD:COD is less than 0.5 indicates that effluent contains large proportion of non-biodegradable matter. The residences suffered from bad odor of the textile wastes, they have got asthma, frequent headache, sneezing, and influenza. Animals of the residences that drank waste water and ate the nearby grass become thin and got long lasting sick. Industries under study area emanate effluent containing pollution some of the indicator parameters considerably higher than standards stipulated by Central Pollution Control Board (CPCB) and WHO. Based on the high levels of the above parameters, it can be suggested that regular monitory of pollutants in the textile effluent are necessary to ensure proper discharge of these effluents into receiving river. It is therefore, concluded that textile effluents are highly polluted hence negatively affect the socio-economic development hence appropriate treatment of must be made to render the wastewater suitable for residences and the receiving water bodies.

Keywords: Socioeconomic impact, Textile waste, physicochemical, waste water

INTRODUCTION

Environmental pollution due to different types of industries is one of the vital problem presently facing Ethiopia and all over the world. Textile industries are major sources of Environmental pollution (Ghoreishi and Haghighi, 2003). Textile industries consume large quantities of water and generate waste water in proportionate order. Moreover dyes used in textile industry are important sources of environmental pollution which poses serious problems because of its strong color, high COD, BOD and low biodegradability (Shen *et*

al.,2006). The water consumption and waste water generation from textile industry depends upon the processing operations employed during the conversion of fiber to textile fabric (Noorjahan, 2011).

Textile industry is one of the important and largest industrial sector in Ethiopia and important for the economic growth also. The climatic condition is suitable for production of raw cotton. This is typically suitable for the textile processing and ultimately for the growth of textile industries. The growth of textile industry is also due to availability of cheap labor from nearby area, due these government gives great attention for the expansion of textile industry. There are around 35 medium and large scale textile industries in Ethiopia, most are large scales.

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