An epidemiological and environmental survey on occupational health hazards during silk production and processing

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Sericulture, the technique of silk production, is an agro-industry, playing an important role in the rural economy of India especially in drought prone areas like Rayalaseema region of Andhra Pradesh and Karnataka. The different stages in the sericulture program are: growing mulberry plantations, breeding silk moths for egg production, and rearing the worms for cocoon production. The post-cocoon stage involves reeling the silk thread off the cocoons, weaving it, then dyeing and printing it. Areas in sericulture such as grainage, cocoon marketing and also post-cocoon stage generate a great deal of health hazards. The study aimed at to know the level of health problems experienced by the grainage workers, cocoon markets and post cocoon operators. A total of 250 usable responses obtained from the grainage workers, cocoon marketing workers and post cocoon operators from the sericulture concentrated areas of Andhra Pradesh and Karnataka states of India. The study exhibits that more than 85% of the grainage workers and cocoon market workers suffered from coughs, colds, and allergies to dust from the wings of the silkworm. More than 70% workers who involved in post cocoon operations like dyeing, printing, and washing activities suffered from gastrointestinal, eye, skin and nerve problems. From the study, it is clear that Sericulture also involves the use of natural resources and chemicals which can be harmful to the environment and public health. Since, the staff working, in units like Marketing, Grainage and Post cocoon technology areas, are exposed to occupational health hazards. The study proposes recommends to be implemented with government and non governmental agencies for mitigating the health hazards in sericulture industry in developing countries.

Keywords: SERICULTURE, GRAINAGE, allergies, gastrointestinal