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LOWERING THE ECONOMIC AND ENVIRONMENTAL IMPACTS OF THE SINGLE USE PERSONAL PROTECTIVE MATERIALS

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Abstract

Personal protective equipment has been widely used by individuals to fight COVID-19 outbreaks. This has caused a substantial increase in solid waste generation rates resulting from a single use of these materials and puts economic pressure on families and governments. However, finding sustainable and affordable alternatives to the basic materials used is essential in strengthening the protection of societies during epidemics or any similar conditions in the future, as well as strengthening the economy of societies by establishing self-employment and reducing expenditures on consumables. This study provides an assessment of sustainable alternatives to personal protective materials and tools. The assessment has been conducted in two areas in Jordan, which also include refugee camps, through an online questionnaire and an interview with representatives. The results revealed that hand/surface hygiene and PPE were not easily accessible during lockdowns and were expensive due to problems in the supply chain. 80% of the individuals were suffering from the inability to purchase the supplies, especially the families with daily income. It has been proved that basic materials such as masks and hand hygiene can be locally produced and reused. There has been a recommendation (82% of respondents) to perform training to the communities in the production of basic materials such as hygienic and protection materials and provide communities with essential raw materials for production.

Key words: Covid-19, PPE, protective measures, solid waste, sustainable materials

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