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AN ANALYTICAL STUDY OF THE IMPLEMENTATION OF SUSTAINABILITY PRINCIPLES IN SELECTING BUILDING MATERIALS IN SAUDI ARABIA

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ABSTRACT

In the last few decades, raw materials consumption and production has risen dramatically due to the rapid growth of world population and global energy consumption. Furthermore, construction materials generate huge amounts of waste annually all around the world and consume large amounts of embodied energy. There has been recently considerable economic growth in Saudi Arabia due to strong oil prices and ongoing reforms. So, there is a need to use natural resources in an efficient manner and provide a better environmental, social and economic life. This paper aims to explore the current practice of selecting sustainable building materials in Saudi Design/Consultant offices and investigate the main obstacles facing Designers and Engineers when selecting sustainable building materials. To perform this task, a series of interviews was conducted and a questionnaire survey was distributed to a representative sample of Architects/Engineers working in different private and public organizations in the Eastern Province of Saudi Arabia. Data analysis revealed that there is a lack of the awareness in selecting sustainable building materials. It also emphasized the absolute responsibility of owners in the selection process. Results also revealed that most agreed barrier facing Designers and Engineers is that clients do not care about demanding sustainable building materials. Finally, this paper puts forward a set of recommendations in order to incorporate sustainability principles in selecting building materials in Saudi Arabia.

KEYWORDS: *Raw Materials Consumption and Production, Building Materials*

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