

Abstract

Natural fiber composites (NFC) have recently emphasized to be potential alternatives for traditional composites in several industrial applications. Such composites show wide desired properties and advantages over traditional ones such as light weights, high specific properties, low cost, ease of manufacturing, recyclability, and degradability characteristics. The final product features of such composites depend on the integrated characteristics of both matrix and fillers properties. Selecting an appropriate natural fiber type to form an NFC is affected by several factors and criteria. Till now, natural fibers are evaluated regarding limited number of criteria. Results demonstrate that better evaluation of natural fibers regarding wide range of criteria will lead to better decisions regarding selecting the suitable NFC for industrial applications and enhance achieving better performance. Such evaluations should consider combined economic and environmental characteristics as well as technical ones. New potential fiber types can be discovered and utilized through better evaluations using combined desired criteria.