

STUDY ON BAMBOO COMPOSITES AS COMPONENTS OF HOUSING SYSTEM FOR DISASTER PRONE AREAS

AMITAVA SIL

Scientist, IPIRTI, Field Station Kolkata, Biren Roy Road (West) Sarsuna, Kolkata, India

ABSTRACT

Among destructive and terrifying natural calamities, earthquake can causes immense damage to the buildings and structures. As the occurrence of the above natural calamities is unpredictable, there is an ardent need to design and construct the buildings and structures to reduce the damages, thus saving precious human lives. Thus for the development of prefabricated construction technique for disaster prone areas, the selection of the construction materials has a great influence on prefabrication technique. From the comparison of various construction materials conventionally used, bamboo-based composite are one kind of prefabrication materials with great utilization potential. A number of wood substitute have been developed through the efforts of institution like IPIRTI and these are gradually being adopted in the housing and building construction. The article discusses in brief the properties and application of bamboo composite in building and construction which can be constructed quite quickly for immediate and long term rehabilitation for post disaster relief. Moreover these types of demand driven projects on pre-fabricated houses with the involvement of stake holders can go a long way in developing innovative bamboo composites houses meeting quality and wider acceptance by the users thus contributing to the growth of knowledge based business in India.

KEYWORDS: Bamboo Composites Prefabricated, Disaster Prone, Rehabilitation