

# THE GREEN CULTURE OF ISLAM

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# SELECTIVE PLANT MATERIALS FOR MANGROVE ECOSYSTEM

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## ABSTRACT

In recent years, there has been a growing concern over the survival of mangrove species and their habitats either worldwide or in Malaysia context. The damaging effect of human activity on mangrove ecosystems has become a growing public concern, particularly the rapid pace at which species have disappeared, a consequence of the accelerated spread of humans into more habitats and introduction of toxic chemicals into the environment. Therefore this study aimed to introduce mangrove species as potential landscape plant materials either as aesthetic values or functional purposes in order to raise public concern about preservation and conservation of mangrove habitat. 32 mangrove species consist from the family of Acanthaceae, Avicenniaceae, Rhizophoraceae, Combretaceae, **Arecaceae**, Sonneratiaceae, Euphorbiaceae, Malvaceae and Meliaceae have been observed and there were 14 species act as the aquatic nurseries, 21 species act as the shoreline stabilizer and 14 species act as protector of the mangrove ecosystem water quality.

**Keywords:** mangrove, landscape ecology, landscape aesthetic value, landscape plant material

## INTRODUCTION

Loss of mangroves has been significant in recent decades worldwide and in Malaysia for the past five decades mangrove forest are declined by 30% from 800 000 ha to 575 000 ha. Mangrove ecosystems are threatened by direct impacts such as cutting and pollution, as well as from hidden impacts such as changes in inland freshwater management. Mangroves are often regarded as unpleasant environments with little intrinsic value. Mangroves perform valued regional and site-specific functions. Mangrove loss will increase the threat to human safety and shoreline development from coastal hazards such as erosion, flooding, storm waves and tsunami. Reduced mangrove area will also reduce coastal water quality, reduce biodiversity, eliminate fish and crustacean nursery habitat, adversely affect adjacent coastal habitats, and eliminate a major resource for human communities that rely on mangroves for numerous products and services. Mangrove destruction can also release large quantities of stored carbon and exacerbate global warming and other climate change trends. Climate change components that affect mangroves include changes in sea-level, high water events, storminess, precipitation, temperature, atmospheric CO<sub>2</sub> concentration, ocean circulation patterns, health of functionally linked neighboring ecosystems, as well as human responses to climate change (Gilman *et al.*, 2008). Of all the outcomes from changes in the atmosphere's