

Abstract

Taiwan is surrounded by oceans, so that the citizens' daily lives and the industrial activities in coast areas are exposed to and affected by strong winds and dust storms caused by the winter monsoon. Windbreaks present the functions of windproof, dust inhibition, damp-proof, and climate moderation.

However, in recent years, the construction of roads, establishment industrial districts, development of recreation areas, building of wind turbines, and the cultivation of local citizens have greatly changed the width and integrity of tree windbreak belts, and in turn affected their functionality.

Our study focus on Windbreaks right next to the estuary of the Zhoushui River in Taiwan. Through environmental investigations, questionnaire surveys for local citizens, and vegetation surveys, the current functions of windbreaks will be evaluated and impacts of human disturbances on windbreaks will also be identified. The conservation values and management strategies of tree windbreaks will be proposed after all.