

Kibria, Abu SMG¹, Alison M. Behie¹, Robert Costanza², Colin Groves¹

¹School of Archaeology and Anthropology, The Australian National University, Australia

²Crawford School of Public Policy, The Australian National University, Australia

Potentials of ecosystem services for improving human wellbeing around Sundarbans mangrove forest, Bangladesh

Keywords: mangrove forest, ecosystem services, human wellbeing

Abstract:

This study presents the influence of Ecosystem Services (ESS) on human wellbeing including basic materials of life, health and sanitation, security, freedom of choice, and social relation. ESS contributed significantly in availability and cleanliness of non-drinking water. Food sufficiency was significantly decreased with the increase in amount of ESS collection. Under the category of 'freedom of choice' ESS is likely to significantly improve the capacity of the people to maintain social freedom, despite the significant increase in level of obstruction to livelihood. Higher amount of ESS extraction tends to significantly weaken the collectors physically. Mental health variables including self-esteem significantly decreased and anger level showed significant increase with the increased amount of ESS collection. Ability to secure some money in case of emergency was tend to significantly increased due to higher level of ESS extraction. ESS collection is likely to increase social cohesion significantly by increased level of ESS extraction. Composite wellbeing demonstrates that only physical health and economic security would significantly improve with the increase in ESS collection. Our research suggests sole dependency on the ESS from forest ecosystems, per se, is not enough to ensure greater wellbeing as well as sustainable conservation. Other development programs for water, food, health, education, and psychological and social improvement are essential to incorporate to the conservation efforts.