

Improving the effectiveness and impacts of coastal restoration projects

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The ocean is the largest ecosystem on our planet, regulating change and variability in the climate system and supporting the global economy, nutrition, health and wellbeing, water supply and energy. Coastal habitats are continually stressed by human-caused threats such as coastal development, dredging, dams, coastal engineering and modification (Dahl 2011). This leads to biodiversity decline, fishery resource depletion and frequent disasters. Degradation is so severe in most cases that it will not be overcome without active and ecologically appropriate intervention including reduction of these causal factors and reinstatement of indigenous biodiversity. This review presents recent concepts, understanding and experience of the restoration projects. The authors will introduce the general process of the restoration project and emphasize that four aspects are important to improve the effectiveness and impacts of coastal restoration projects, which include: (1) planning, feasibility studies, design engineering, and permitting; (2) implementation and effectiveness monitoring; (3) wildlife monitoring; and (4) public education and social communication. They take the implementation of the wetland restoration project as an example. And also look forward to the challenges that the coastal restoration project may face in the future.

