

## Beach Nourishment and its Consequences

Agus Trianto\*

Department of Marine Science, Diponegoro University, S.H. Tembalang, Semarang 50275, Central Java, Indonesia

### DESCRIPTION

Beach nourishment is the adding of dregs onto or directly adjacent to an eroding beach. This "delicate underlying" reaction permits sand to move and move with waves and flows. A wide, nourished beach system retains wave energy, safeguards upland regions from flooding, and mitigates erosion. Beach nourishment additionally called as beach re-nourishment, beach replenishment, or sand replenishment.

The first nourishment project in the U.S. was developed at Coney Island, New York in 1922-1923. Before the 1970s, nourishment included straightforwardly placing sand on the beach and ridges. From that point forward more shore face nourishments have been completed, which depend on the forces of the wind, waves and tides to additionally distribute the sand along the shore and onto the sea shores and ridges. The number and size of nourishment projects has expanded fundamentally because of population growth and projected relative sea-level rise.

### Significance of beach nourishment

Beach nourishment is the method involved with adding extra silt on beach or close to shore. A more extensive and higher beach can give storm assurance to coastal structures, create new living space, and upgrade the beach for recreation.

A more extensive beach can decrease storm damage to coastal designs by dissipating energy across the surf zone, safeguarding upland structures and infrastructure from storm floods, tsunamis and unusually elevated tides. Beach nourishment is regularly essential for a bigger integrated coastal zone management that focused on beach coastal defense. Nourishment is regularly a repetitive interaction since it does not eliminate the physical forces that cause erosion however basically mitigates their effects.

### Consequences of beach nourishment

- The unexpected input of enormous amounts of sand can kill every animal living near the beach.
- During nourishment, the beach turns into a significant development zone. The large equipment used to truck in and circulate new sand also kills beach animals and upsets disturbs wildlife.
- The new sand may not be a similar grain size or chemical makeup of the regular sand, changing habitat that beach animals depend upon.
- The time required for a beach ecosystem to recuperate from a single beach filling episode is not known, even when fill sand is the right size and type. Repeated or continuous episodes of nourishment can obstruct recuperation of the beach community and ecosystem.
- A few kinds of creatures, for example, sand crabs start their lives as free-floating larvae that float through the sea with the flows, so they can drift from somewhere else and recolonize the beach in a year. However, if the nourishment episode corresponds with this occasion, the population won't get an opportunity to start repopulating the beach until the next year.
- Beach animals that carry their young in pockets (instead of producing free-floating young), like amphipods and isopods, depend totally upon resident populations for recuperation. These creatures might need human support to get back to a beach impacted by nourishment.
- The grain size of the introduced sand can impact how quick it erodes, prompting changes in beach shape.
- The additional sand is frequently mined from places submerged or in riverbeds. Mining can modify those environments and make that restricted asset unavailable for future ventures.

**Correspondence to:** Agus Trianto, Department of Marine Science, Diponegoro University, S.H. Tembalang, Semarang 50275, Central Java, Indonesia, E-mail: agus.triantoundip@gmail.com

**Received:** December 06, 2021; **Accepted:** December 20, 2021; **Published:** December 27, 2021

**Citation:** Trianto A (2021) Beach Nourishment and its Consequences. J Coast Zone Manag. S7:002.

**Copyright:** © 2021 Trianto A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.