

Interactive comment on “Threshold effects of hazard mitigation in coastal human–environmental systems” by E. D. Lazarus

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Received and published: 1 November 2013

This manuscript contributes a nice addition to the line of analysis initiated earlier by Werner and McNamara for treating the dynamic nature of the coupling between natural and human systems. It applies like the earlier work in situations where the human side of the equation represents an attempt to forestall or parry the otherwise expected course of nature. With the human predilection for doing to nature what humans want regardless of what nature wants, this paper addresses a problem that we can reasonably be sure will recur again and again. The paper is argued closely, with, it appears, good historical background for the kinds of coastal systems treated. It represents a theoretical contribution to the literature on beach dynamics that the author presents appropriately as intended to increase insight rather than to make specific predictions,

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which would be an entirely different game.

Perhaps the author could first clarify the arguments at the end of the paper about the strength of coupling with human dynamics, which to me are confusing. Thus the author uses the example of air conditioning in hot climates to illustrate weakening of the coupling between humans and the environment, since inhabitants can ignore the weather most of the time. But to me that seems like a strong coupling scenario. The humans themselves are decoupled while the air conditioning works, but the reason is that the human-built air conditioning is very responsive to the weather, i.e., strongly coupled. Similarly, in the Netherlands, the uncoupled Dutch can carry on most of the time without having to fight the waves, but the human-built dikes must be very strongly coupled to the North Sea. Is it just the distinction between relatively uncoupled humans and strongly coupled infrastructure that makes the author's point?

With clarification of this point, I recommend publication of this interesting paper.

Interactive comment on Earth Surf. Dynam. Discuss., 1, 503, 2013.

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