

Supplementary material to:

Gammage LC, et al. [S Afr J Sci. 2017;113\(5/6\), Art. #2016-0254, 10 pages.](#)

How to cite:

Gammage LC, Jarre A, Mather C. A case study from the southern Cape linefishery 2: Considering one's options when the fish leave [supplementary material]. S Afr J Sci. 2017;113(5/6), Art. #2016-0254, 2 pages. <http://dx.doi.org/10.17159/sajs.2017/20160254/suppl>

Glossary of terms

Adaptation: 'Proactive and anticipatory planning of individual or collective actions based on knowledge or experience of past or anticipated future changes and that will likely result in no regrets or sustainable social-ecological outcomes'^{1(p.5)}.

Coping: 'Passively accepting the consequences of a change or event and thus not changing behaviour to alter outcomes'^{1(p.5)}.

Exposure: 'Degree of climate stress upon a particular unit of analysis; it may be represented as either long-term change in climate conditions or by changes in climate variability including the magnitude and frequency of extreme events'^{2(p.305)}.

Perturbation/shock: 'Major spike in pressure beyond the normal range of variability in which the system operates'^{3(p.8074)}. Important to note that the onset of shocks is intense and dramatic, e.g. violent conflict, 2004 Indian ocean tsunami.

Resilience: 'The amount of change the system can undergo and still retain the same controls on function and structure; the degree to which the system is capable of self-organisation; and, the ability [of the system] to build and increase the capacity for learning and adaptation'^{4(p.5)}.

Reaction: 'Signifies an unplanned response to an event or change'^{1(p.5)}.

Sensitivity: 'Degree to which a system will respond to a change in [a stressor], either positively or negatively'^{2(p.305)}.

Stress/stressor: 'Continuous or slowly increasing pressure, common within the range of normal variability'^{3(p.8074)}. Important to note that stresses tend to be ongoing, e.g. resource declines, temperature increase.

Small-scale fisher: 'Persons who fish to meet food and basic livelihood needs; and are directly involved in harvesting, operate on or near the shore or in coastal water bodies; traditionally operate on/near the fishing grounds and predominantly employ traditional low technology or passive fishing gear, undertake single (24-hour) fishing operations; and subsist from their catch, are engaged in the sale or barter or are involved in commercial activity'^{5(p.iv)}.

Sustainable livelihood: 'A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities, assets and entitlements, whilst not undermining the natural resource base'^{6(p.6)}.

Vulnerability: 'Vulnerability is the degree to which a system, subsystem, or system component is likely to experience harm due to exposure to a hazard, either a perturbation or stress/stressor'^{3(p.8074)}.

References

1. Bennett NJ, Dearden P, Murray G, Kadfak A. The capacity to adapt?: Communities in a changing climate, environment, and economy on the northern Andaman coast of Thailand. *Ecol Soc.* 2014;19(2), Art. #5, 20 pages. <https://doi.org/10.5751/ES-06315-190205>
2. O' Brien K, Leichenko R, Kelkar U, Venema H, Aandahl G, Tompkins H, et al. Mapping vulnerability to multiple stressors: Climate change and globalization in India. *Glob Environ Chang.* 2004;14:303–313. <https://doi.org/10.1016/j.gloenvcha.2004.01.001>
3. Turner B, Kasperson R, Matson PA, McCarthy JJ, Corell RW, Christensen A, et al. A framework for vulnerability analysis in sustainability science. *Proc Natl Acad Sci USA.* 2003;100(14):8074–8079. <https://doi.org/10.1073/pnas.1231335100>
4. Resilience Alliance. Assessing resilience in social-ecological systems: Workbook for practitioners 2.0 [document on the Internet]. c2010 [cited 2016 Nov 24]. Available from: http://www.resalliance.org/files/ResilienceAssessmentV2_2.pdf
5. South African Department of Agriculture, Forestry and Fisheries. Policy for the small scale fisheries no 474 of 2012. *Government Gazette.* 2012 June; p. 1–62.
6. Chambers R, Conway GR. Sustainable rural livelihoods: Practical concepts for the 21st century. *IDS Discuss Pap.* 1992:296.