Online Supplement 2

FURTHER EXAMPLES OF IMPACTS AND ADAPTATIONS TO CLIMATE CHANGE

(a) Bleaching of a coral reef. Note contrast with healthy reef in background. [Photo taken at Keppel Island, Great Barrier Reef, by “Acropora”, reproduced from Wikipedia under Creative Commons 3.0 license].

(b) Damage caused by tropical cyclones – in this case Cyclone Winston in Fiji, 2016. Note how the community has quickly gathered to repair damage. Compare the undamaged houses at Koroipita in Fig.ES3, which survived intact under the same category 5 Cyclone. [Fiji Government photo].

(c) Salt water flooding surrounds a mwaneaba (meeting house) in Kiribati in October 2009. Note that the “flood waters” include groundwater forced up from underneath. [Photo taken at Tebikenikora Village, South Tarawa by NTNK Video, reproduced with permission.]
Fig. ES2 Some adaptations to current climate extremes

(a) Traditional method for preserving yams (Ipomoea batatas) by keeping them underground; photo shows one brought up for inspection (Teouma, Efate, Vanuatu).

(b) House on stilts in a flood-prone place (Buretu, Rewa Delta, Fiji).

(c) Water storage in a drought-prone place (Bavu village, Western District, Fiji).

(d) “Adapt or perish” – slogan of the [aid-funded] Kiribati Adaptation Project.
Fig. ES3 Some traditional and modern island houses, well adapted to island conditions

a) A traditional house in Kiribati (in foreground). Note its openness to cooling sea breezes and the ease with which the whole house can be picked up and moved to a new location

b) Traditional house of bush materials, easily rebuilt after a disaster (Moturiki, Fiji, 1977)

c) Houses at Koroipita in Fiji, designed by Peter Drysdale, which survived intact under Cyclone Winston. Compare the damaged house in Fig. ES1(b). [photo by courtesy of Dr Mike Gosling]

d) Key detail of Koroipita houses: the strong fastening of the roof. The steel strapping seen here is backed up by roofing screws (not visible in this photo). [photo by courtesy of Dr Mike Gosling]
Fig. ES4 Vulnerability of atolls to sea level rise.
(a) A well in Kiribati, drawing ‘fresh’ water from the underground water lens.
(b) The staple root crop (swamp taro, *pulaka*) is traditionally grown on atolls in pits tapping into the underground water lens. But this pit in Tuvalu has been made unproductive by salt in the water lens [photo: R Thaman].