

Supplementary Information Description

We provide the maps of [Figure 2](#) as .kml layers that can be opened in Google Earth (Pro), together with additional layers for aiding use and interpretation. We also provide a .kml layer with the arid zone desert dune inventory. All files need to be placed together in the same folder for opening in Google Earth (the .kml layers require access to the .png images). Google Earth layers were created using the Google Earth Toolbox for Matlab^{S1}.

Filename	Description
GE_HadGEM3_gridLines.kml	A projection of the N216 grid lines over the globe, defining the HadGEM3 grid cells used in all analysis
GE_HadGEM3_gridCell_ID.kml	Indicates the row and column numbers of the grid cell in its NW corner
GE_DP_changeMap.kml	Map of predicted changes in DP, colour ranges identical to Figure 2a
GE_DPdiff.png	Image used in [GE_DP_changeMap.kml]
GE_DP_info.kml	Indicates DP values as “DP: Current-Value \pm Future-Change ($\pm\%$)”, for each arid zone grid cell
GE_RDP_changeMap.kml	Map of predicted changes in RDP, colour ranges identical to Figure 2b
GE_RDPdiff.png	Image used in [GE_RDP_changeMap.kml]
GE_RDP_info.kml	Indicates RDP values as “RDP: Current-Value \pm Future-Change ($\pm\%$)”, for each arid zone grid cell
GE_Ratio_changeMap.kml	Map of predicted changes in RDP/DP, colour ranges identical to Figure 2c
GE_Ratiodiff.png	Image used in [GE_Ratio_changeMap.kml]
GE_Ratio_info.kml	Indicates RDP/DP values as “Ratio: Current-Value \pm Future-Change”, for each arid zone grid cell
GE_RDDir_changeMap.kml	Map of predicted changes in RDDir, colour ranges identical to Figure 2d
GE_RDDirdiff.png	Image used in [GE_RDDir_changeMap.kml]
GE_RDDir_info.kml	Indicates RDDir values as “RDDir: Current-Value \pm Future-Change” in geographical compass degrees, for each arid zone grid cell
GE_DesertDunes.kml	Indicates presence of four main types of desert dunes: Barchan (B), Transverse-crescentic (T), Linear-seif (L), and Star (S) dunes, and their estimated extent: localised pockets (<10%), sparse (~30%), partial (~50%), and full (>80%) coverage, for each arid zone grid cell

S1. Scott lee Davis (2022). Google Earth Toolbox

(<https://www.mathworks.com/matlabcentral/fileexchange/12954-google-earth-toolbox>), MATLAB Central File Exchange.