

Supplementary materials of

“Quantifying Water Consumption through the Satellite Estimation of Land Use/Land Cover and

Groundwater Storage Changes in a Hyper-Arid Region of Egypt”

AYIHUMAIER HALIPU^{1, *}, Xuechen Wang¹, Erina Iwasaki², Wei Yang^{1,2} and Akihiko Kondoh^{1,3}

¹ Graduate School of Science and Engineering, Chiba University, Chiba 263-8522, Japan; casa6077@chiba-u.jp

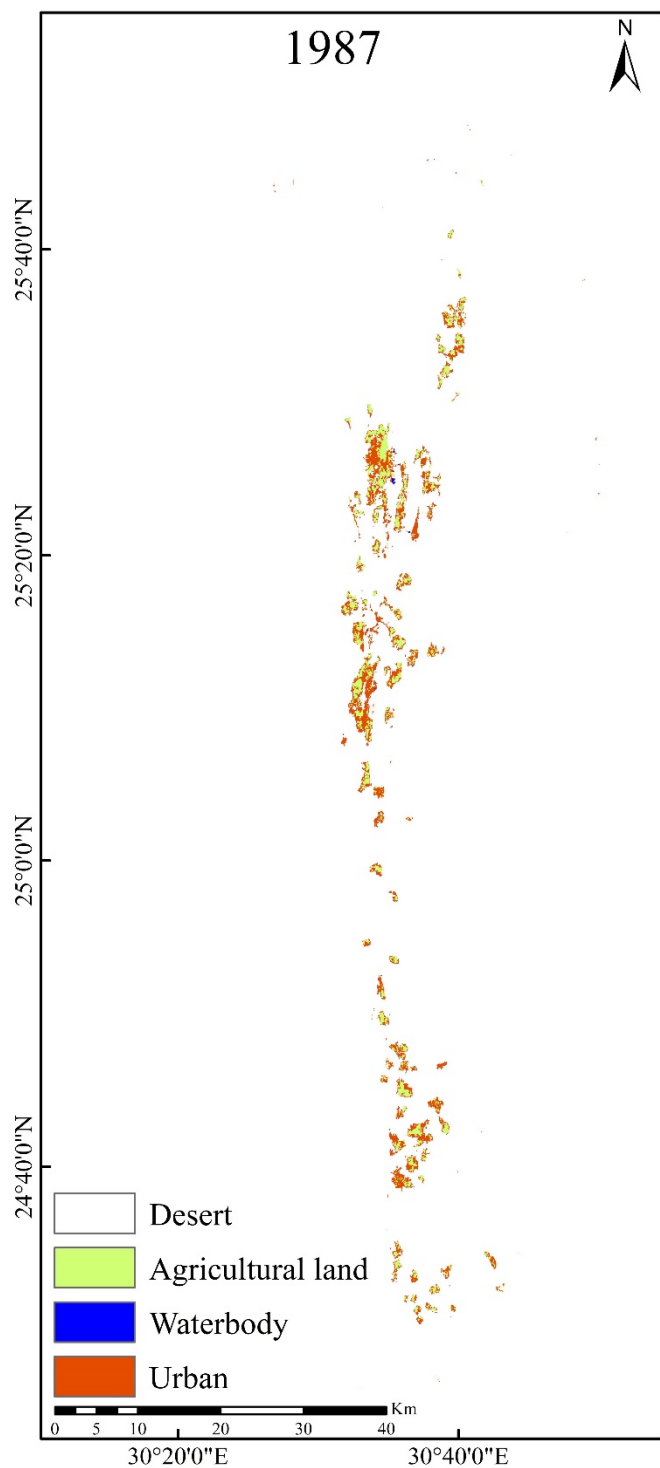
² Faculty of Foreign Studies, Sophia University, Tokyo 102-8554, Japan; iwasaki@sophia.ac.jp

³ Center for Environmental Remote Sensing, Chiba University, Chiba 263-8522, Japan;
yangwei@chiba-u.jp (W.Y.); kondoh@faculty.chiba-u.jp (A.K.)

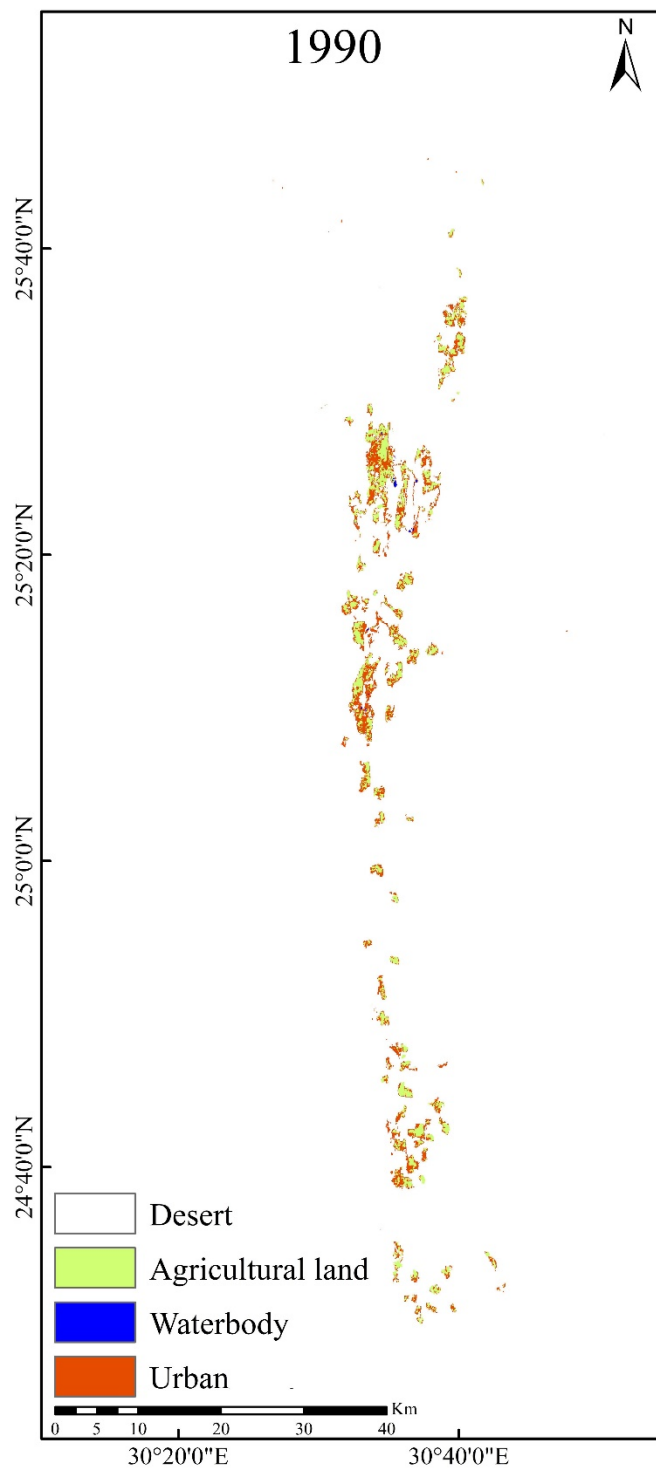
* Correspondence: ayxa6085@chiba-u.jp

In the supplementary materials, we revealed all of the LULC maps constructed using OBIA methods in three oases of New Valley, Egypt.

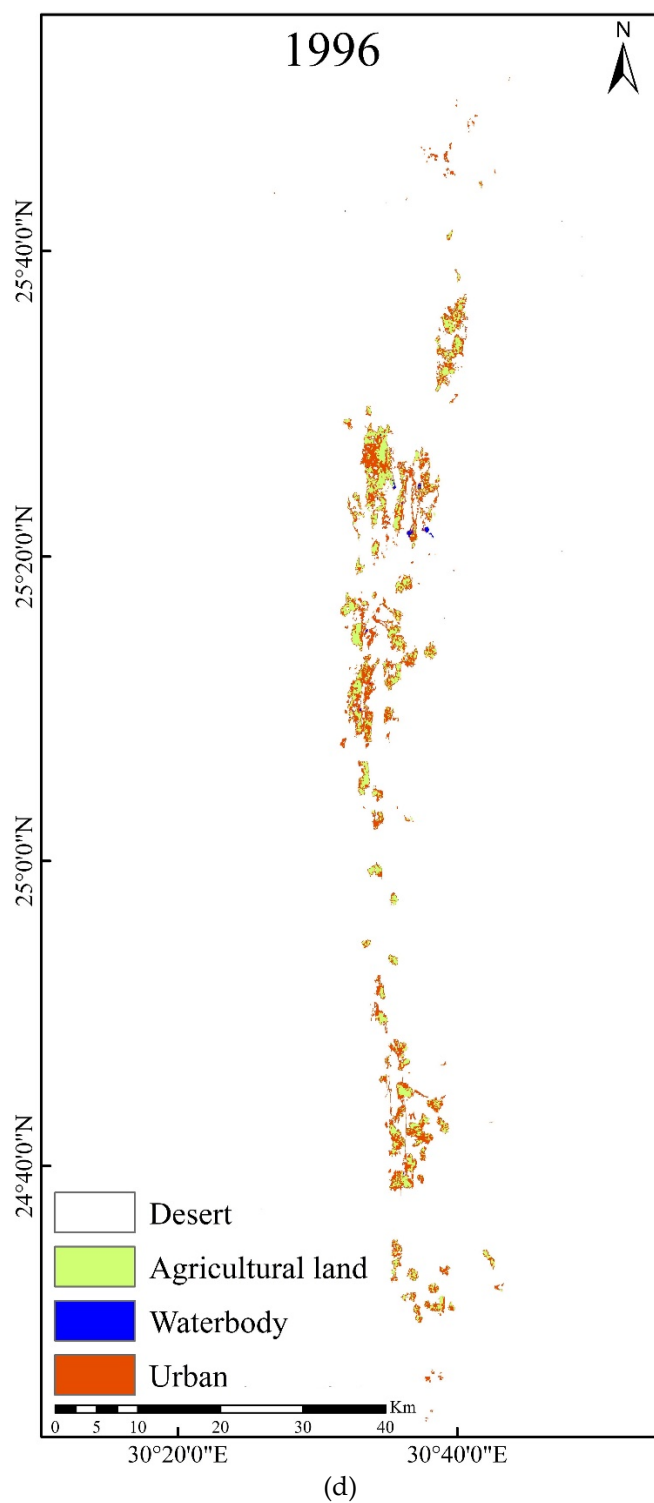
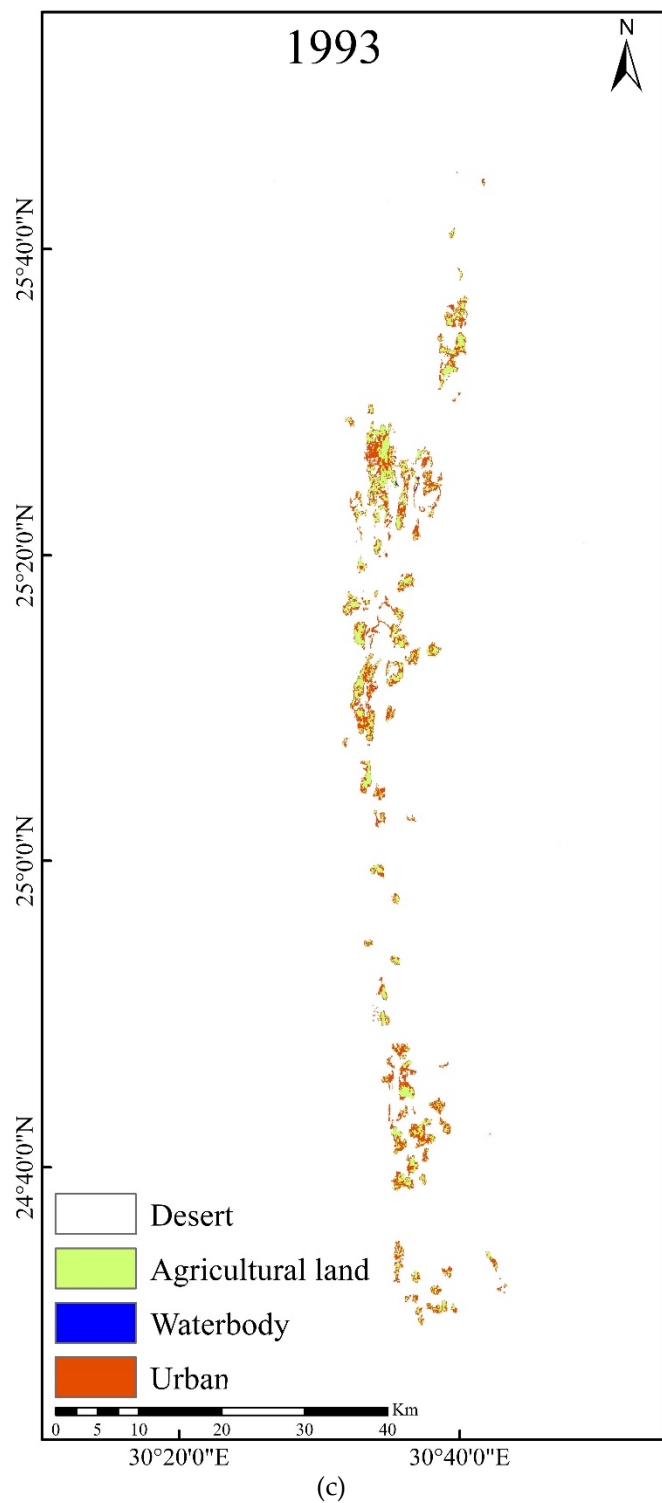
2 Kharga Oasis

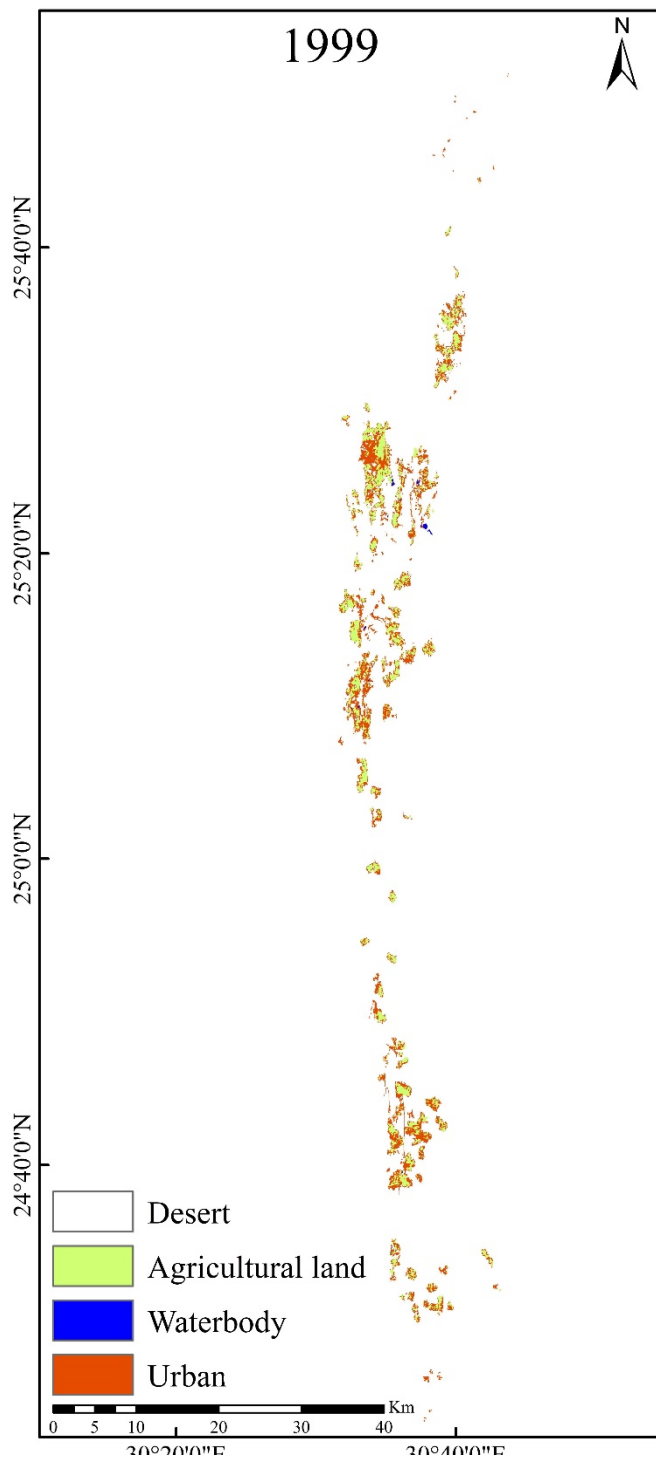


(a)

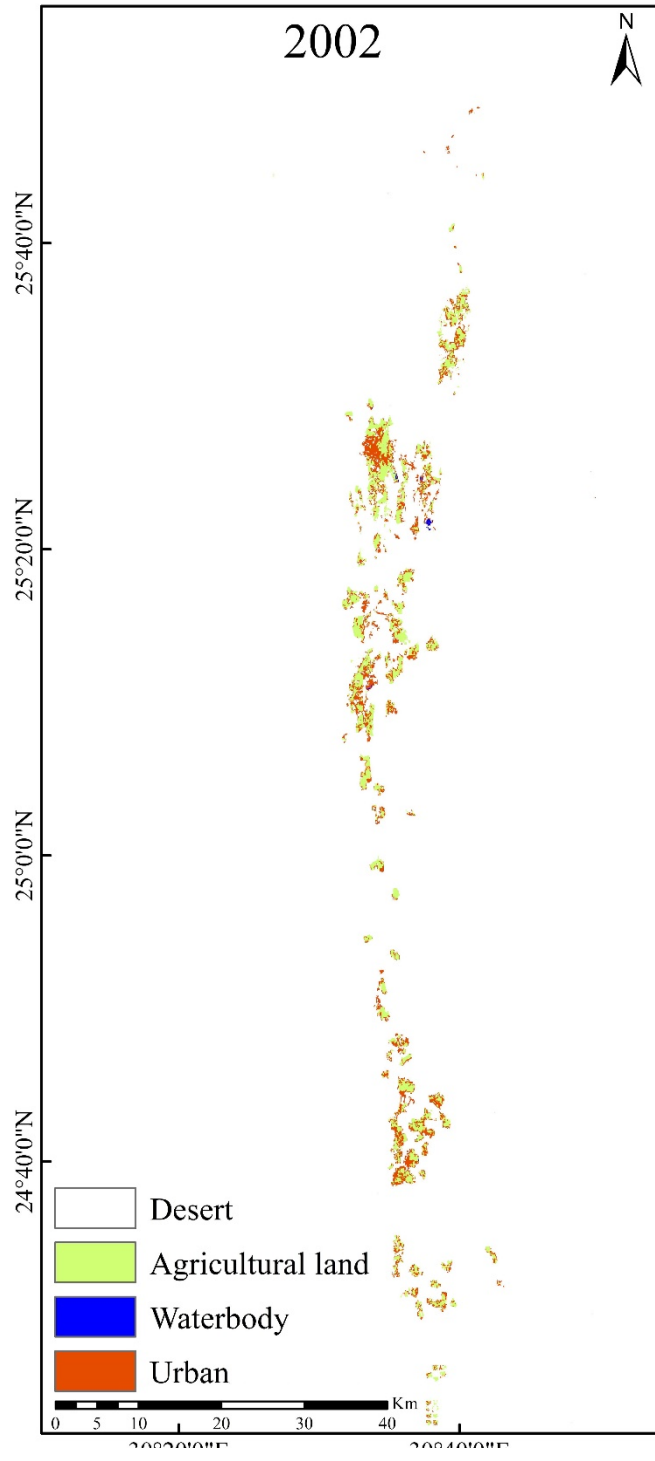


(b)

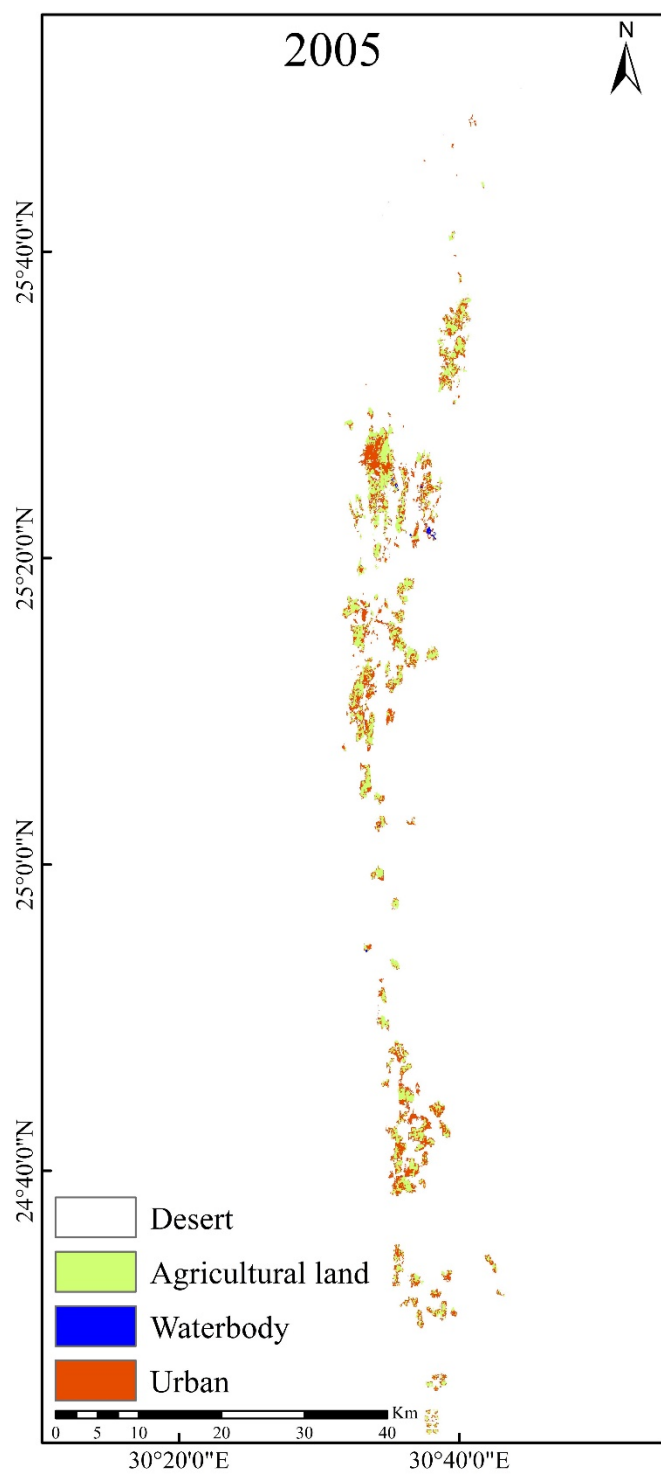




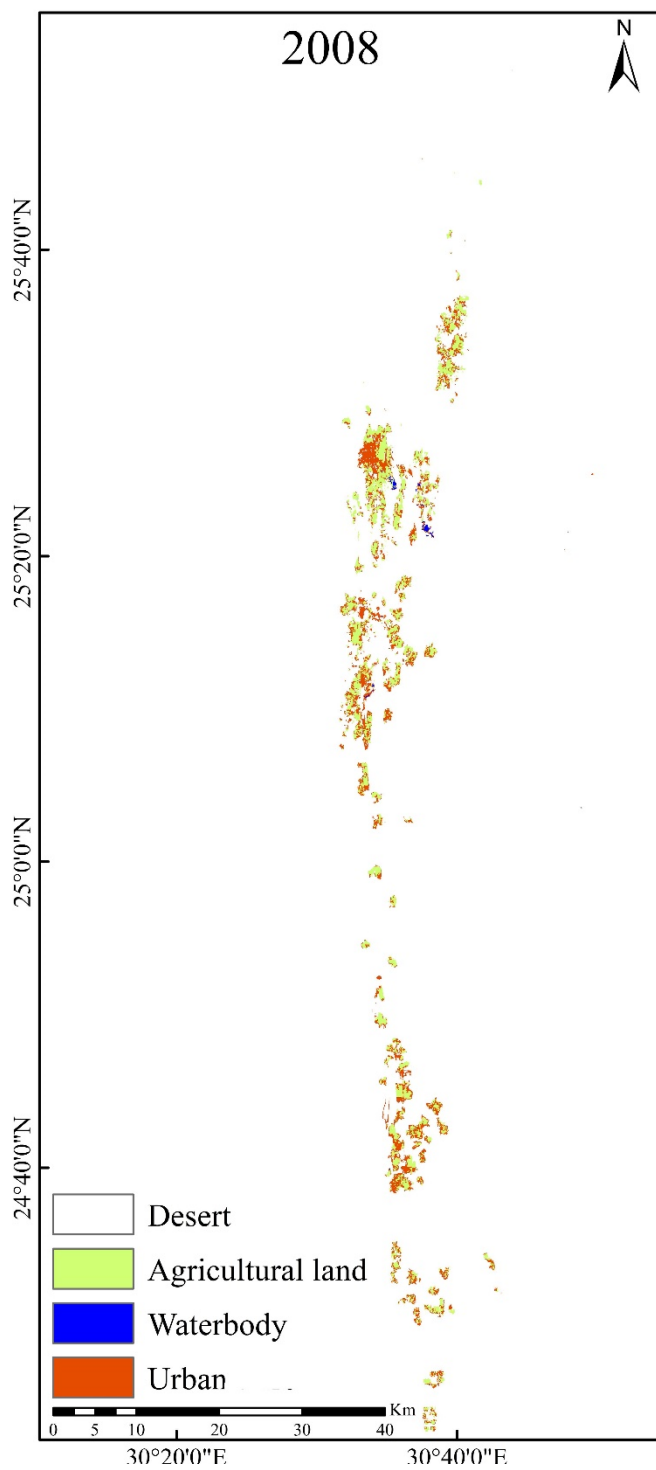
(e)



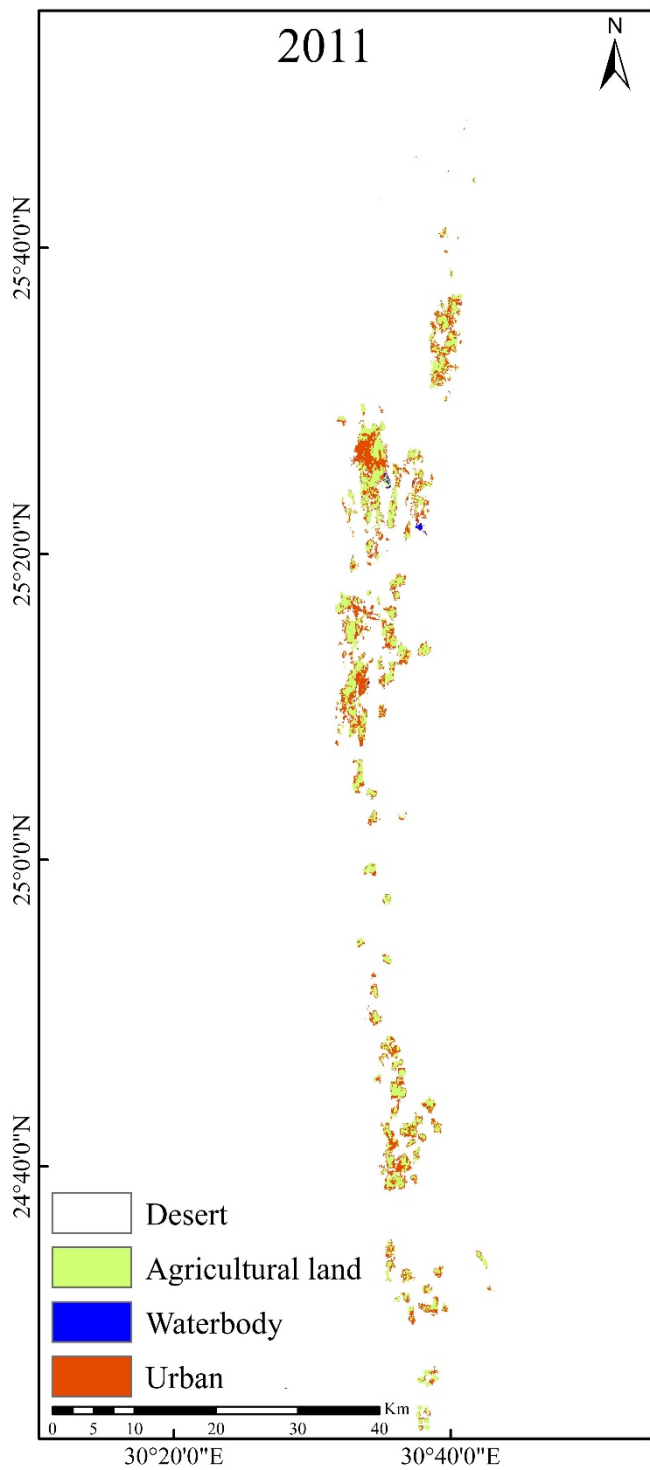
(f)



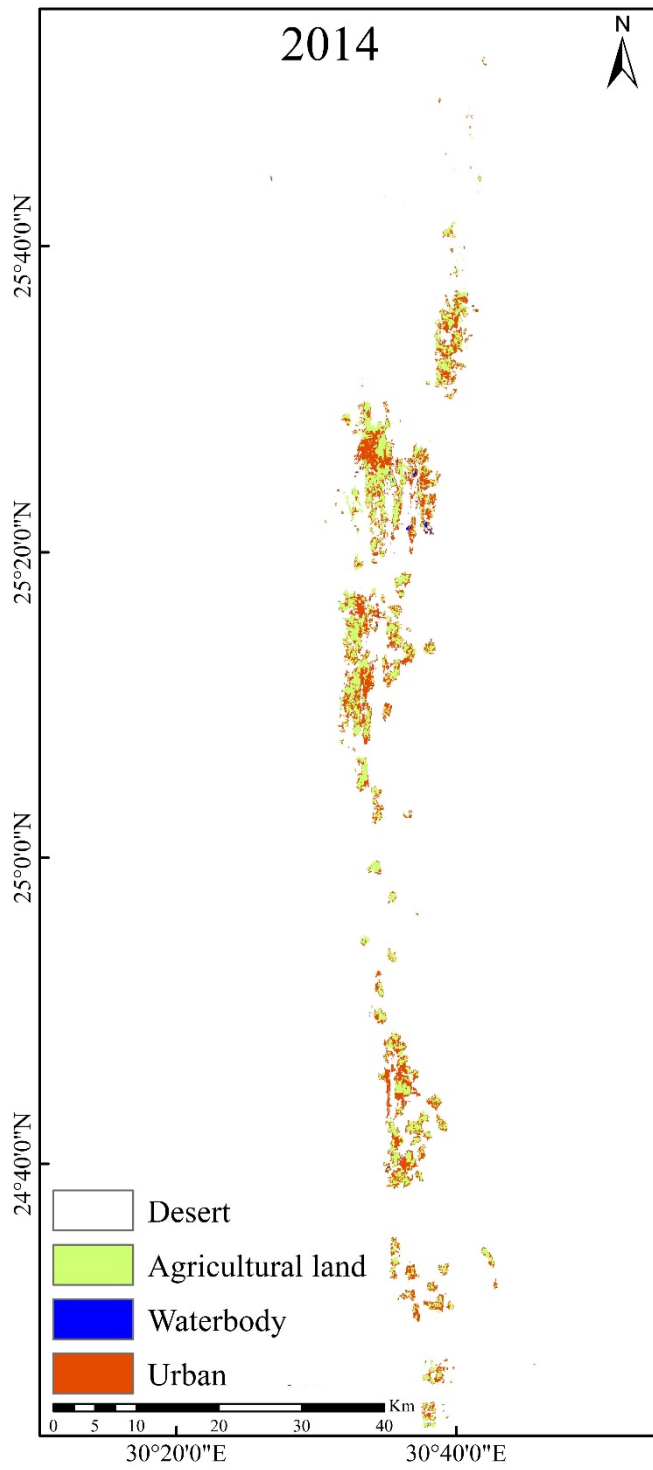
(g)



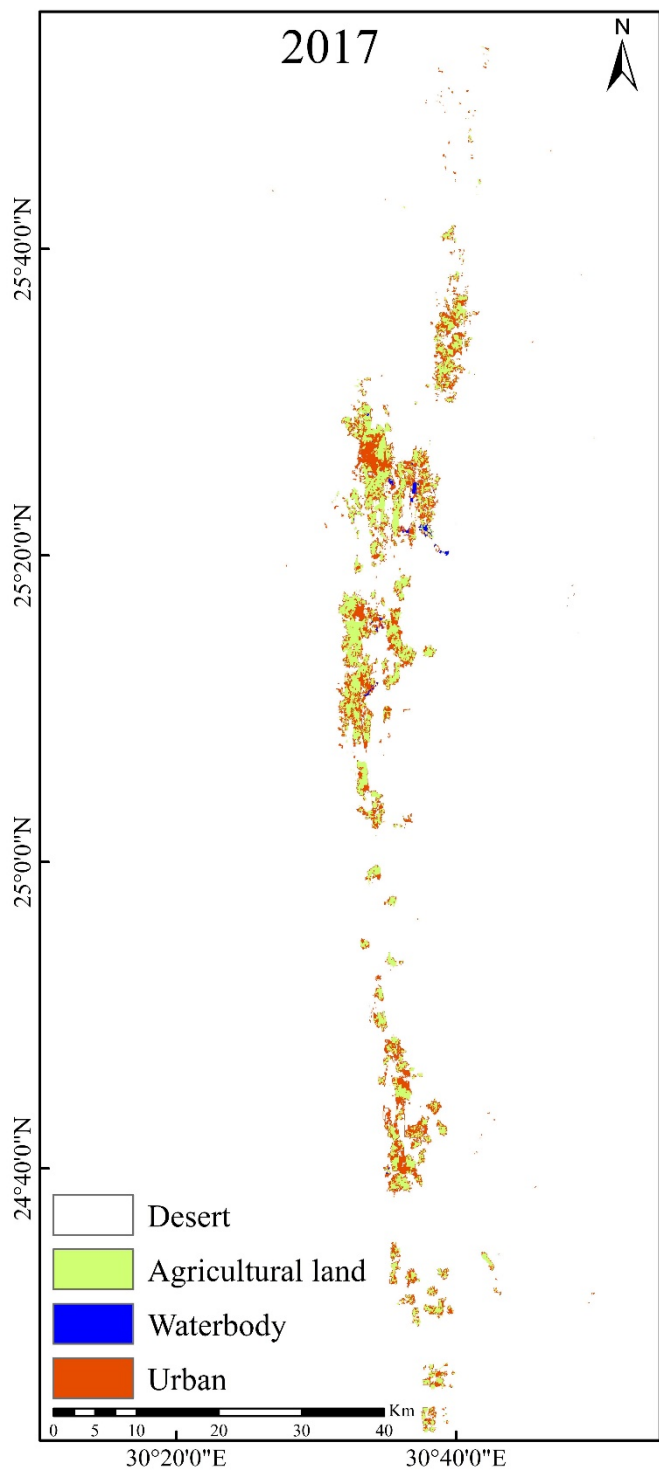
(h)



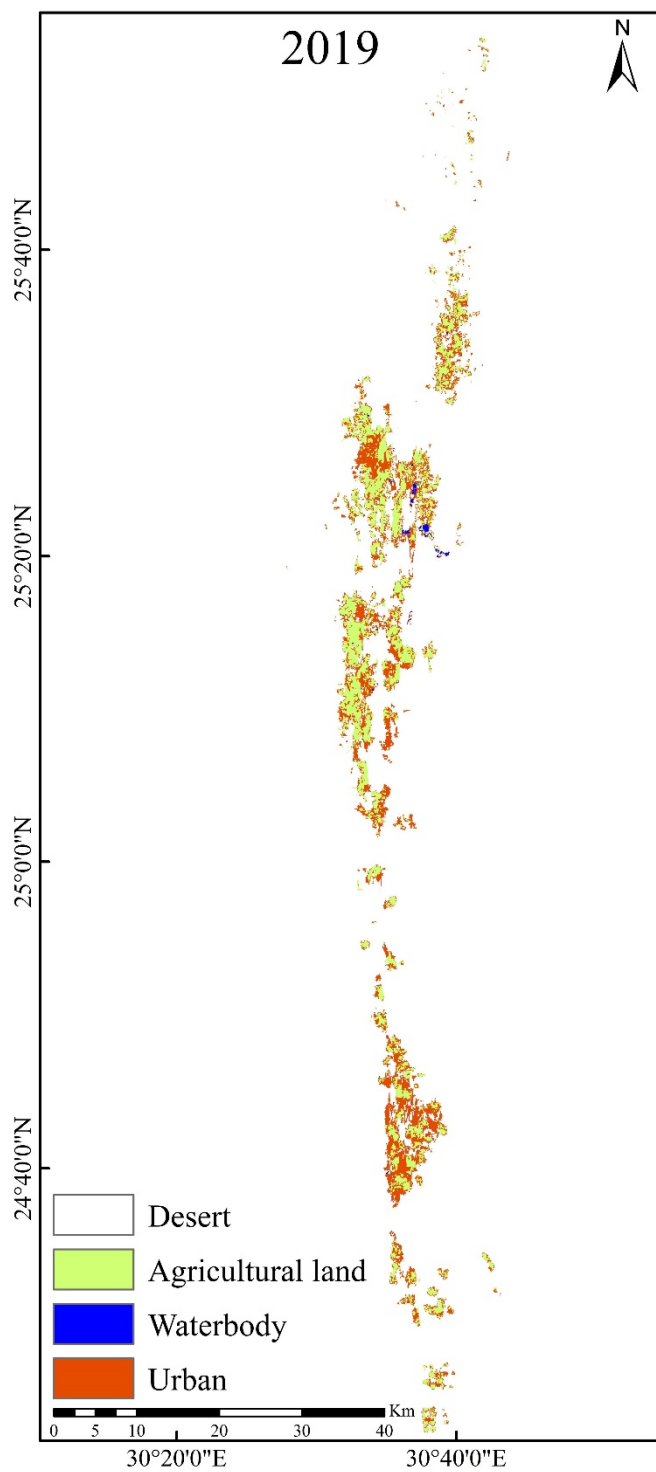
(i)



(j)



(k)



(l)

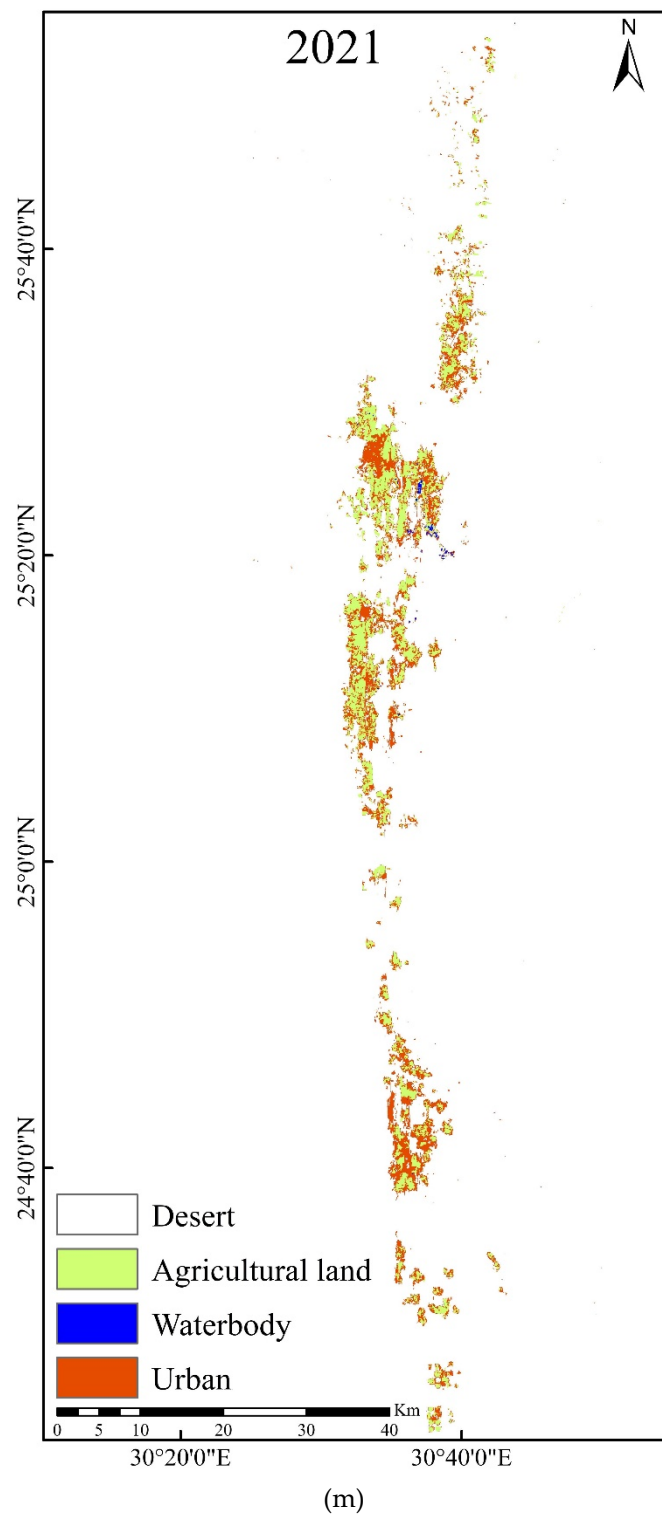


Figure S2. Land use and land cover classification maps of Kharga Oasis from (a) 1987 to (m) 2021