

Supplementary

Table S1. Experts rating of the threats to the oases.

Expert	1	2	3	4	5	6	7	8	9	10	Sum
Threats											
Water	5	4	5	5	5	5	5	4	5	4	47
Urban expansion	2	5	3	2	2	4	4	5	4	3	34
Soil	4	2	4	4	4	3	2	2	1	5	31
Palm diseases	3	3	2	3	3	2	3	3	3	2	27
Legal framework	1	1	1	1	1	1	1	1	2	1	11

Table S2. Fundamental scale in AHP (Saaty, 1980).

The intensity of importance on absolute scale	Definition	Explanation
1	Equal importance	Two activities equally to the objective
3	Moderate importance of one over other	Experience and judgment strongly favor one activity over another.
5	Essential or strong importance	Experience and judgment strongly favor one activity over another.
7	Extreme importance	Activity is strongly favored, and its dominance is demonstrated in practice.
9	Extreme importance	The evidence favoring one activity over another is of the highest possible order of affirmation.
2, 4, 6, 8	Intermediate values between the two adjacent values	When compromise needed

Table S3. Confusion matrix for LULC classification.

1972	Built-up	Grass	Date Palm	Desert	Highland	Total		
Built-up	55	1	0	0	2	58		
Grass	2	47	0	1	0	50		
Date Palm	0	0	49	1	0	50		
Desert	1	2	1	52	1	57	PA	0.94
Highland	0	0	0	0	50	50	Kappa	0.85
Total	58	50	50	54	53	265		
PA	0.95	0.94	0.98	0.96	1			
UA	0.95	0.94	0.98	0.96	1			

1984	Built-up	Grass	Date Palm	Desert	Highland	Total		
Built-up	56	1	0	0	1	58		
Grass	2	48	0	0	0	50		
Date Palm	0	0	50	0	0	50		
Desert	1	1	1	53	0	56	PA	0.95
Highland	0	0	0	0	50	50	Kappa	0.91
Total	59	50	51	53	51	264		
PA	0.93	0.96	1	0.96	1			
UA	0.94	0.96	1	0.96	1			

1993	Built-up	Grass	Date Palm	Desert	Highland	Total		
Built-up	56	1	0	0	2	59		
Grass	2	47	0	1	0	50		
Date Palm	0	0	50	0	0	50		
Desert	1	2	1	52	1	57	PA	0.94
Highland	0	0	0	0	50	50	Kappa	0.90
Total	59	50	51	53	53	266		
PA	0.95	0.94	1	0.93	0.94			
UA	0.94	0.96	1	0.93	0.9			

2003	Built-up	Grass	Date Palm	Desert	Highland	Total		
Built-up	54	2	0	0	2	58		
Grass	3	45	0	2	0	50		
Date Palm	0	0	48	2	0	50		
Desert	1	1	1	51	2	56	PA	0.93
Highland	0	0	0	0	49	49	Kappa	0.88
Total	58	48	49	55	53	263		
PA	0.9	0.9	0.96	0.94	0.98			
UA	0.92	0.88	0.94	0.93	0.94			

2013	Built-up	Vegetation	Date Palm	Desert	Highland	Total		
Built-up	56	0	0	0	1	57		
Grass	2	48	0	0	0	50		
Date Palm	0	0	50	0	0	50		
Desert	1	1	1	52	0	55	PA	0.97
Highland	0	0	0	0	50	50	Kappa	0.93
Total	59	49	51	52	51	262		
PA	0.97	0.96	1	0.96	1			
UA	0.98	0.96	1	0.96	1			

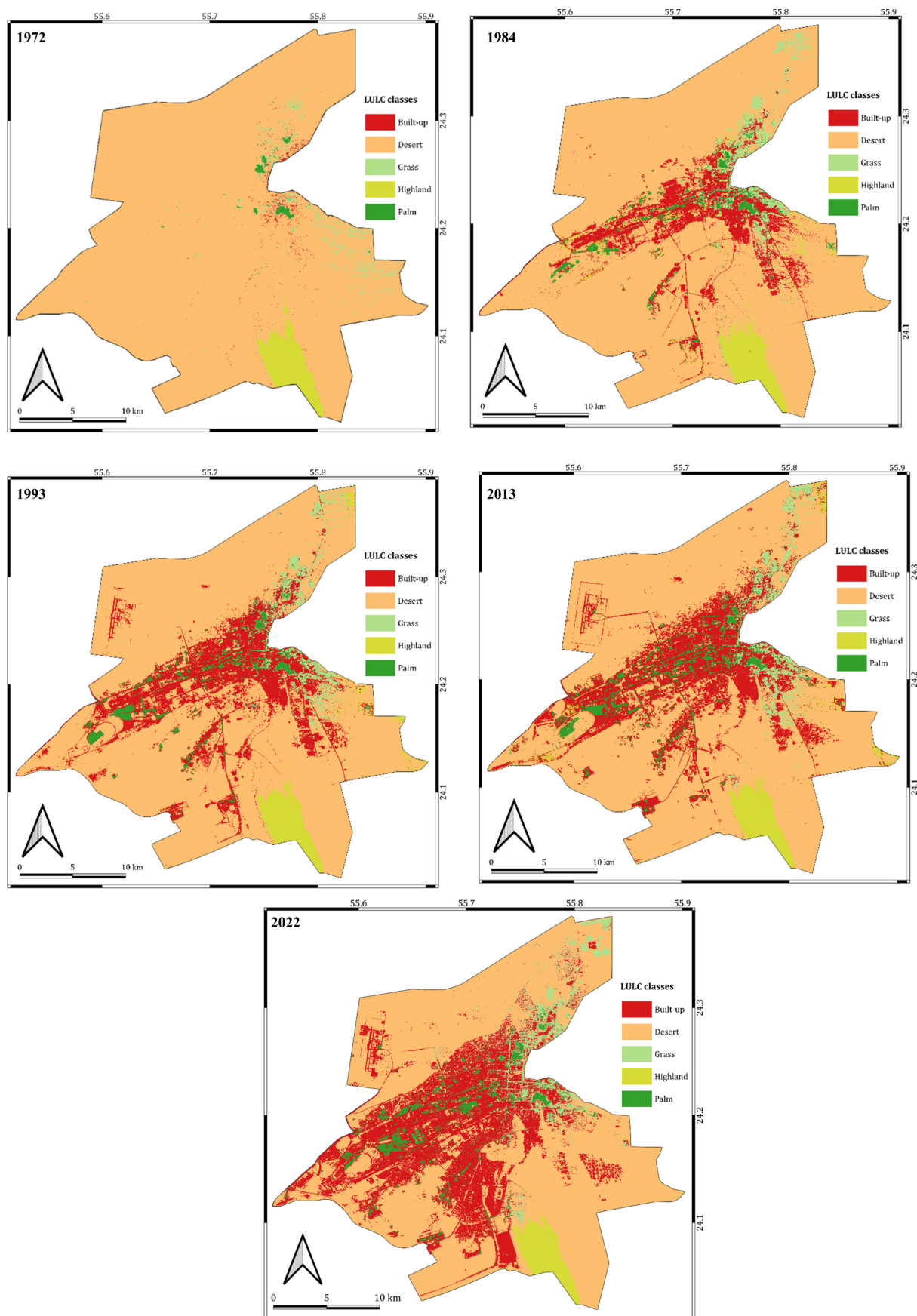


Figure S1. Land use and land cover of Al Ain.