# **Executive Summary**

## State Party

Kingdom of Saudi Arabia

#### Regions

Riyadh Region Najran Region

# Name of the Property

'Uruq Bani Ma'arid

## Geographic Coordinates of the Nominated Property

The table below includes the main identification coordinates of the nominated property in Degrees, Minutes, and Seconds (DMS) to the nearest second:

No	Location/Point	Coordinates (DMS)
1-	Centre Point	45°35'54"E 19°21'50"N
2-	Northeast corner	45°58'50"E 19°56'42"N
3-	Northwest corner	45°11'11"E 19°49'27"N
4-	Southeast corner	45°58'50"E 19°2'24"N
5-	Southern point	45°24'30"E 18°32'26"N
6-	Main Management Station	45°8'17"E 19°7'41"N

## Textual Description of the Boundary

The Nominated Property fully coincides with 'Uruq Bani Ma'arid Protected Area, at 12,765 km².

The 'Uruq Bani Ma'arid (UBM) nominated property is situated along the western edge of Ar-Rub' Al-Khali, the only major sand desert in tropical Asia and the largest continuous sand seas on Earth.

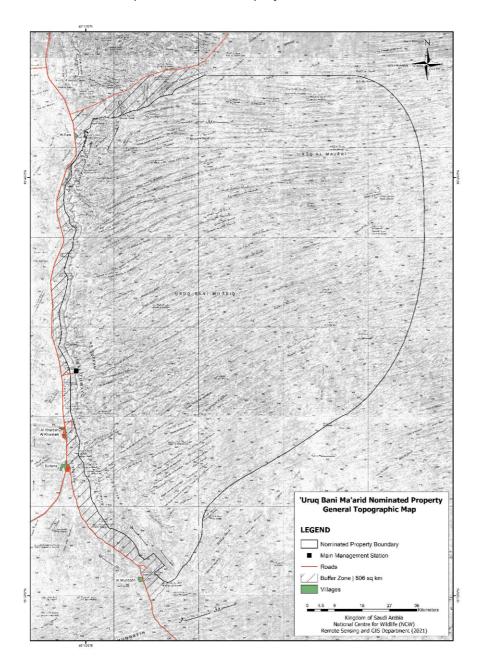
The western boundary of the 'Uruq Bani Ma'arid nominated property runs southward from Al Faw to Al-Maqta' ash-Shamali east of the settlement of Al-Mundafin; the boundary is at a distance of approximately one kilometer west of the lower edge of the Tuwayq escarpment, except within the archaeological site of Al Faw where the base of the escarpment itself at Khashm Qaryah is the boundary, and likewise at Al-Maqta' ash-Shamali.

The eastern boundary runs NNE from Al-Maqta' ash-Shamali to skirt to the west of 'Uruq Qusar Shidad, then runs ENE parallel with the longitudinal dunes through Lat. 19° 00.00'N Long. 45°55.00'E., then curves northward through Lat. 19° 30.00'N Long. 45° 58.00'E., continues northward and curves northwest to Lat. 19° 57.00'N Long. 46° 10.00'E.

The northern boundary runs due west from this point along Lat. 19° 57.00'N to Long. 45° 31.00'E., then runs WSW along the base of the longitudinal sand dunes of Ar-Rub' al-Khali and the buttes of Fardat Qaryah, to the base of the escarpment at Khashm Qaryah.

The western boundary is well defined by the lower edge of the escarpment, but other boundaries are less well defined; some are known by local landmarks and named interdune corridors.

The outer boundary is demarcated by means of concrete stelae, which are posted at intervals within view of one another and are supplemented with occasional signs.



# World Heritage Criteria under which property is nominated

- (vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.
- (ix) to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.
- (x) to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.

## Draft Statement of Outstanding Universal Value

#### A. Brief Synthesis

'Uruq Bani Ma'arid at the western edge of Ar-Rub' al-Khali, the Empty Quarter in southern Arabia is renowned as the largest continuous sand sea on Earth. More than any other site, this hyper-arid desert represents the iconic wilderness of Arabia. It is also the only major tropical sand desert of Asia. The nominated property conserves one of the Earth's most spectacular desert landscapes with a wide variety of wildlife habitats. With one of the world's largest longitudinal sand dune systems overlying a dissected limestone plateau, and the southern end of the Tuwayq Escarpment with its vegetated wadis, gravel plains, and interdune corridors, it harbors greater biological diversity than any other part of Ar-Rub' al-Khali and compares favorably with similar hyper-arid environments across the globe. No other World Heritage Site has attributes comparable to those of the nominated property.

The gradient of natural habitats embraced within the nominated property forms the building blocks of a functioning ecological network of patterns and processes supporting the survival and viability of key plant and animal species of global importance, specifically those representing successful cases of reintroduction after decades of extinction in the wild. The area exemplifies an outstanding case where a vast representation of the evolving Ar-Rub' al-Khali national ecoregion is interwoven with the older Tuwayq Escarpment national ecoregion in an interpenetrating configuration, at the edge of one of the world's most arid deserts. Where the dynamic sand dunes witness the process of species adaptation to extreme physical environments, the more stable escarpment provides the sporadic refuge needed for the survival of these species to continue free ranging in natural habitats.

'Uruq Bani Ma'arid is the last place where Arabian Oryx were observed in the wild, and it is now the focus of an intensive and successful reintroduction program for Arabian Oryx and other keynote mammals, the Arabian Sand Gazelle, and the Arabian Mountain Gazelle.

#### B. Justification of Criteria

<u>Criterion (vii):</u> 'Uruq Bani Ma'arid is an iconic hyper-arid sand desert representing the largest sand sea on Earth, Ar-Rub' al-Khali, the only tropical sand desert in Asia, and the place where the sands meet the escarpment forming an extraordinary spectrum of juxtaposed contrasts and fusions of forms and colors. It is an ecological refuge for iconic wildlife of the desert, and the only place on earth where the Arabian Oryx roams freely in its natural habitat, the place where the last record of the Arabian Oryx was made before its extinction from the wild, and the destination for its reintroduction to its natural habitats.

The nominated property offers a world-class panorama of the windblown sands of the Ar-Rub' al-Khali desert, with some of the world's highest longitudinal dune fields, inter-dunal corridors, eastward-flowing high vegetation wadis, the Tuwayq Escarpment engulfed by

westward flowing sands, and low sand plains to the west of the escarpment. A wide spectrum of color harmonies derives from the resonance of contrasting hues of the sand grains in the ripples that cover the dunes. A true portrait of the desert where the light-colored Arabian Oryx (or *wudayhi*, meaning clear in Arabic) are conspicuous against their darker backgrounds.

<u>Criterion (ix):</u> The nominated property, an Important Plant Area, is a site for plant conservation, with locally endemic, near endemic, regionally endemic and/or regional range-restricted taxa. This includes one endemic plant variety, *Ziziphus spina-christi var. divaricata*, four species endemic to the Arabian Peninsula: *Limeum arabicum, Calligonum crinitum* ssp. arabicum, *Cornulaca arabica*, and *Tribulus macropterus* var. arabicus, and nine species restricted to the Arabian Peninsula and East Africa: *Senegalia hamulosa*, *Commiphora myrrha, Indigofera spinosa, Iphiona scabra, Morettia parviflora, Moringa peregrina, Pulicaria jaubertii, Pulicaria schimperi,* and *Stipagrostis drarii*. With 118 plant species recorded, the flora of the nominated property is exceptionally rich, the richest known area of Ar-Rub' al-Khali.

The nominated property is the home of the only free-ranging population of the iconic Arabian Oryx in the world, with evidence for the species' ability to adapt to rising temperatures associated with climate change. The Arabian Sand Gazelle is adapted to even greater extremes of temperature and drought.

The varied physiography of the site provides an ecological refuge to Arabian Oryx, Arabian Sand and Arabian Mountain Gazelles during extremely dry summers and conditions are likely to worsen as a result of climate change. The area also hosts five reptile species endemic to Arabia: Scincus mitranus, Trigonodactylus arabicus, Stenodactylus slevini, Acanthodactylus opheodurus, and Acanthodactylus schmidti.

<u>Criterion (x):</u> 'Uruq Bani Ma'arid embraces a spectrum of large-scale natural habitats critical for the survival of key species: The area comprises a representation of five national subsets of the global ecoregions that occur in the country: The Ar-Rub' al-Khali Sands, Tuwayq Escarpment, Inland Wadis, Central Sand Plains, and Inland Sabkhas, each with their characteristic physical constructs and biodiversity. The area hosts 118 species of plants, 23 mammals, 104 birds, 18 reptiles, and more than 382 invertebrates. Several plant species are of global or regional importance, including 30 threatened species. Two plant species, *Tribulus macropterus* var. *arabicus* and *Cyperus macrorrhizus*, are forage favored by Arabian Oryx. The drought-adapted sedge *C. macrorrhizus* is an important biomass producer. *Calligonum crinitum* ssp. *arabicum* occupies the unstable sand habitats on dune crests.

'Uruq Bani Ma'arid hosts numerous threatened species and species of conservation significance. The Arabian Oryx, Arabian Sand and Mountain Gazelles are of global

importance. Species of regional significance include the Arabian Wild Cat, Arabian Sand Cat, Honey Badger, Arabian Hare, and Pygmy Gerbil.

Among birds, the Lappet-faced Vulture, Egyptian Vulture, Houbara Bustard, and Pallid Harrier are of global conservation significance. Reptiles include *Uromastyx aegyptia* (VU), which is of global significance, and five regionally endemic species: *Scincus mitranus*, *Trigonodactylus arabicus*, *Stenodactylus slevini*, *Acanthodactylus opheodurus*, and *Acanthodactylus schmidti*. Among the invertebrates, three species are possibly new to science, 21 are regionally endemic, four are threatened, and another four are important components of the food web.

### C. Statement of Integrity

The nominated property covers 12,765km² and coincides with the 'Uruq Bani Ma'arid Protected Area, which is of sufficient size for the conservation objectives and the viability of reintroduced flagship species, such as the Arabian Oryx, Arabian Sand and Mountain Gazelles. The boundaries are in line with the site's Outstanding Universal Value. The configuration of 'Uruq Bani Ma'arid, combining sand dune systems with an escarpment and incised plateau creates an exceptional "edge effect" for the survival of wildlife in a hyperarid environment.

Integrity is easily maintained due to the site's remoteness and long distance from major developments. Infrastructure development, including roads, was coordinated with the establishment of the protected area. A rugged terrain and harsh climate have deterred permanent human residence and large-scale resource use. The nominated property is excluded from oil and gas exploration and extraction, which is confirmed by Royal endorsement.

Camel grazing and illegal wildlife hunting, usually occurring in the sustainable resource use zone, are the main activities of concern. They are both adequately addressed by the management team.

A buffer zone protects the nominated property against environmental degradation from nearby development activities. Requirements of environmental audit, rehabilitation of former quarry sites, and needs to monitor private farms in the vicinity of the protected area receive adequate attention.

## D. Requirements for Protection and Management

In 1996, 'Uruq Bani Ma'arid was designated a protected area by Royal Decree and it enjoys the highest level of protection at the national level. The nominated property is entirely state-owned with no private lands or land claims within its boundaries. It is adequately protected by national legislation. The main legislative framework is the national environmental

protection law of 2020, which represents a legal umbrella. It is executed through several bylaws, including an updated protected areas bylaw, ratified by the Government in September 2021, which is the main legislative instrument pertaining to protected areas. The National Centre for Wildlife (NCW) is the national authority in charge of proposing, managing, and supervising protected areas.

Other legislative frameworks regulate human activities primarily outside protected areas, including the national wildlife hunting regulation, wood cutting regulation, environmental violations and penalties regulation, environmental licensing for the construction and operation of development activities regulation, and the environmental rehabilitation and degraded and polluted sites regulation.

A three-year management plan (2021 – 2023) has been prepared with the vision to nominate 'Uruq Bani Ma'arid for World Heritage status. It will guide the site's transition from a national protected area to a globally recognized World Heritage Site. Implementation started in 2021 and all required human, financial, and logistical resources have been allocated, along with national and international technical expertise.

In 2021, an updated zoning plan was developed, representing a ten-year conservation vision for the protected area as a potential natural World Heritage Site. It will ensure the highest of level of integrity and effective long-term protection of the site's natural values and attributes. The plan divides the nominated property into four distinctive zones balancing conservation and sustainable development objectives: 54% were assigned to a wilderness zone, 2% to a nature-culture ecotourism zone, 44% to a sustainable resources use zone, and <.05% to the general use zone, in addition to a buffer zone of 808 km<sup>2</sup>.

On-site management is guaranteed by 141 well-trained, experienced and dedicated staff members, including 3 Managers, 33 Senior Rangers and 82 rangers, who are adequately equipped. Sustainable funding is provided by the Government. In conclusion, long-term protection and management sustaining the nominated property's potential Outstanding Universal Values are adequately taken care of.

# Name and Contact Information of Official Local Institution

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