

11 February, Qatar reached its Overshoot Day

Sentinel-1 CSAR IW acquired on 04 May 2015 from 14:40:35 to 14:41:00 UTC

Sentinel-2 MSI acquired on 25 January 2020 at 07:11:51 UTC

Sentinel-1 CSAR IW acquired on 07 February 2020 from 14:41:10 to 14:41:35 UTC

Author(s): Sentinel Vision team, VisioTerra, France - syp@visioterra.fr

Keyword(s): Urban growth, infrastructures, oil and gas, non-renewable energies, greenhouse gas emissions, environment, artificial islands, desert, Qatar



[2D Layerstack](#)

Fig. 1 - S2 (25.01.2020) - 8,4,3 colour composite - The Pearl and Al Dafna central business district in Doha.

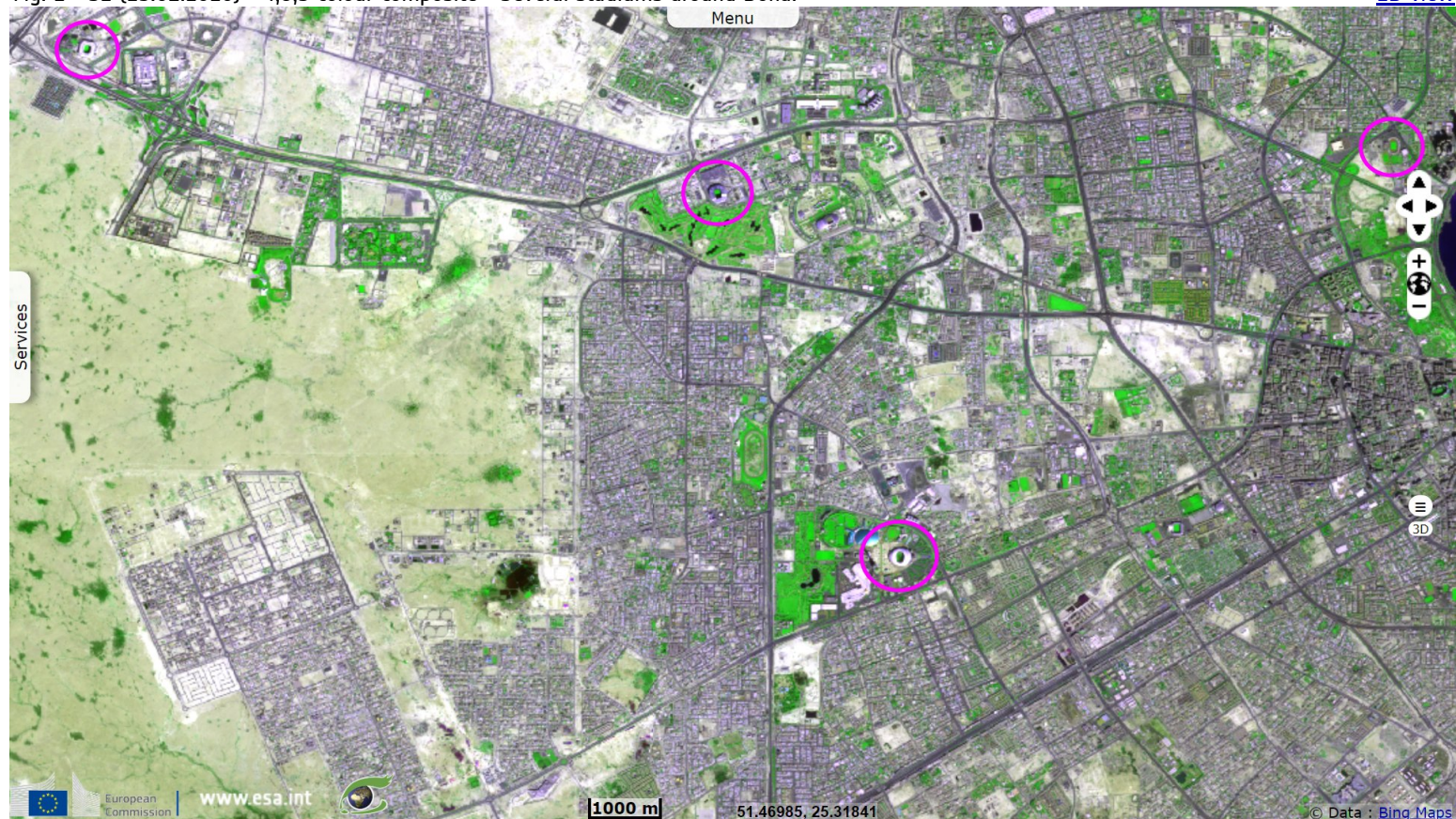
[2D view](#)



Earth Overshoot Day roughly estimates the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year. After this date, people enter an ecological deficit spending toward the environment and future generations. By this metric, if all humanity consumed like people in Qatar, Earth Overshoot Day would fall on 11 February, requiring 9 planets Earth to be sustainable.

Fig. 2 - S2 (25.01.2020) - 4,8,3 colour composite - Several stadiums around Doha.

[2D view](#)



A country of 2.7 millions inhabitants where summer temperatures reach 50°C, Qatar faces several challenges to organise Qatar 2022 FIFA World Cup. 85% of the 600 000 seats will be new, its stadiums will be cooled by 20°C and the competition will be held in winter instead of summer.

Fig. 3 - S1 (07.02.2020) - vv,vh,vv colour composite - Ras Laffan Industrial City

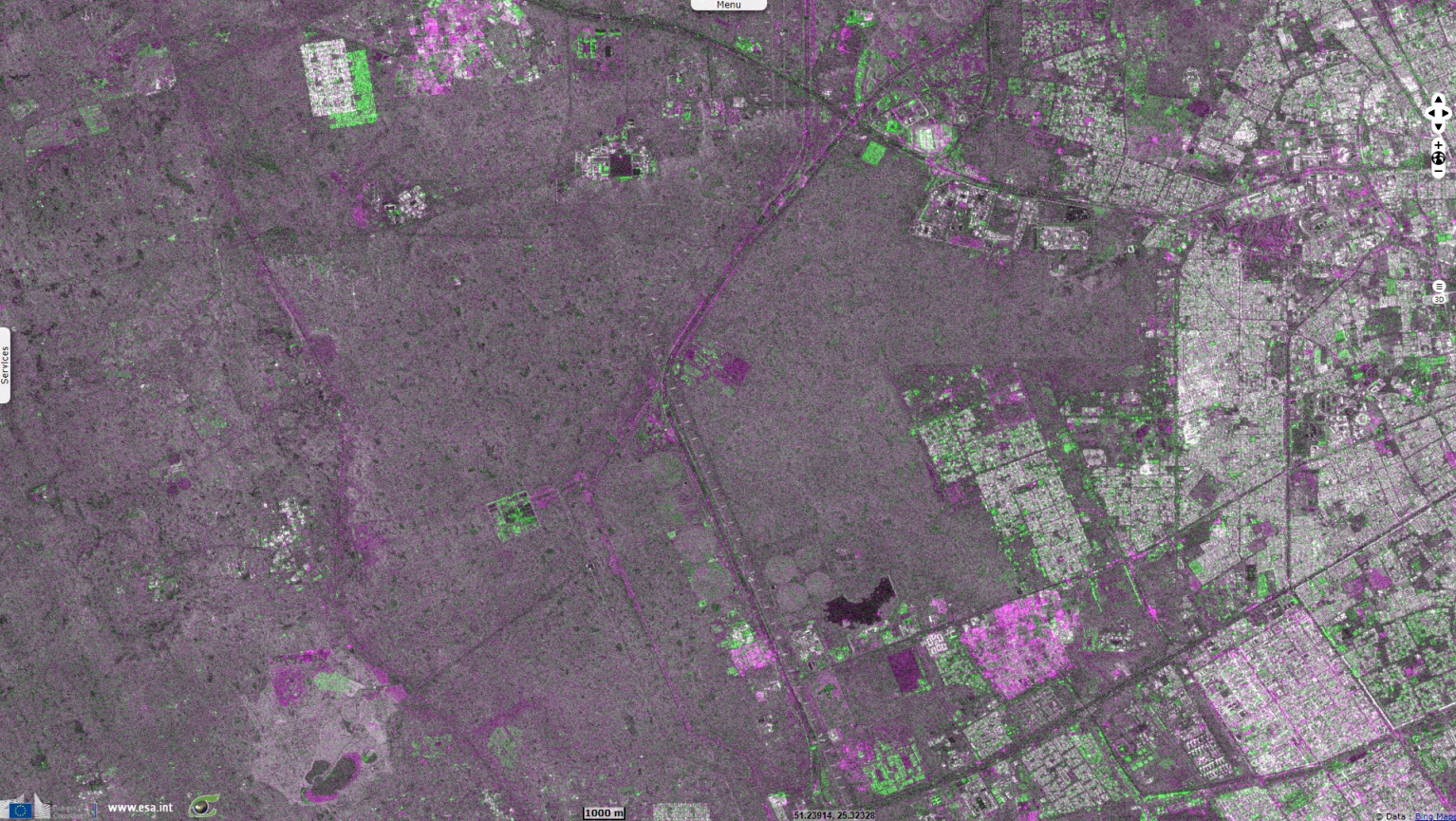
[2D view](#)















Ras Laffan Industrial City encompasses Ras Laffan C 2730 MW power and desalination plant. Ras Laffan Industrial City also encloses Qatar's main site for production of liquefied natural gas (LNG). Its port contains the world's largest LNG export facility, it is also the largest artificial harbour in the world.

While renewables energies made up ~0.3% of Qatar electricity production in 2016, Qatar has a targeted capacity of 200 MW solar power across the country by 2020 and signed for a solar power plant on 19.01.2020 with a 10 km², 700 MW project.

Fig. 4 - S1 - vv 2015, vv 2020, vv 2015 composite - Development of housing & infrastructure further in the Qatari desert (green & magenta). [2D view](#)



*The views expressed herein can in no way be taken to reflect the official opinion of the European Space Agency or the European Union.
Contains modified Copernicus Sentinel data 2019, processed by VisioTerra.*

More on European Commission space:							
More on ESA:				S-1 website	S-2 website	S-3 website	
More on Copernicus program:				SciHub portal	Cophub portal	Inthub portal	Colhub portal
More on VisioTerra:				Sentinel Vision Portal	Envisat+ERS portal	Swarm+GOCE portal	CryoSat portal