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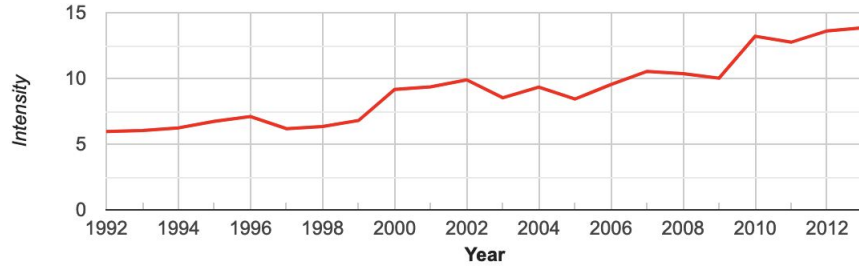
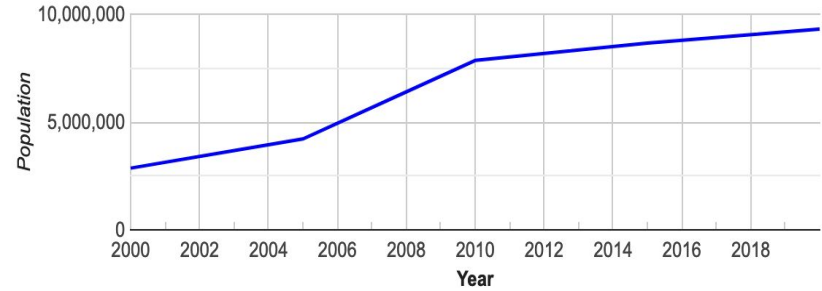
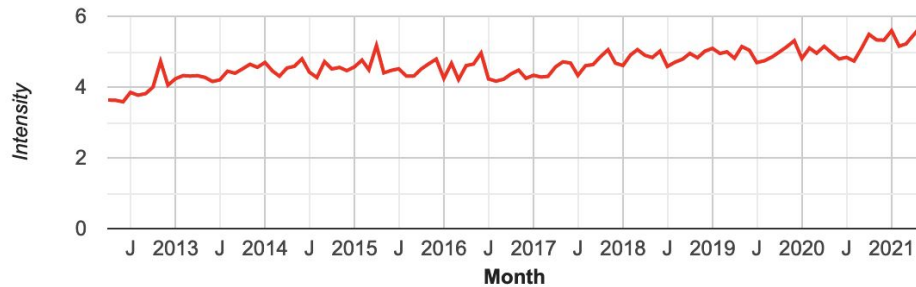
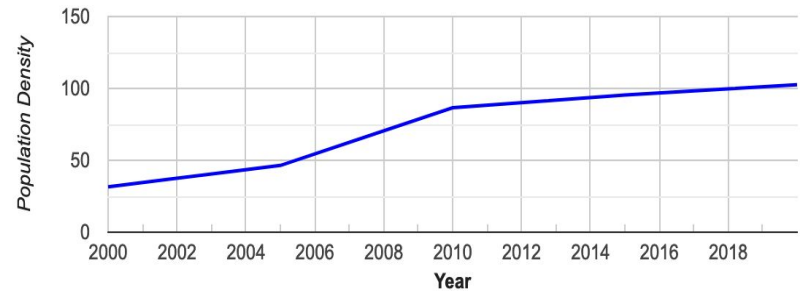
Mapping Urban Dynamics in Dubai using Night Lights Seen From Space

Aneri Patel
6th February 2022





Night Light Radiance and Population Change Over Time

DMSP Night Light Radiance**Population****VIIRS Night Light Radiance****Population Density (per km2)**

Defense Meteorological Satellite Program (DMSP) Operational Linear Scanner (OLS)

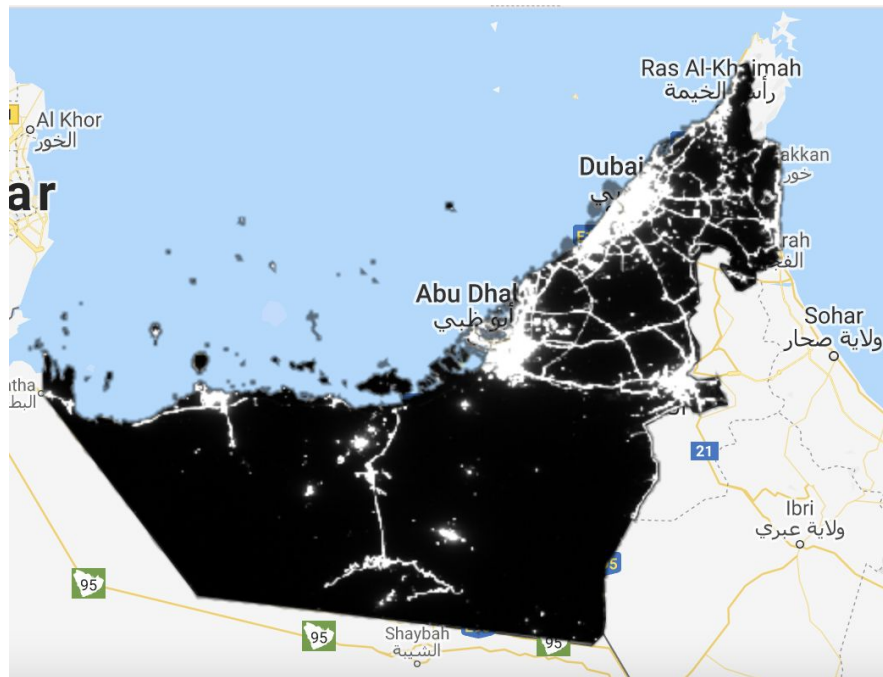


DMSP - 1993

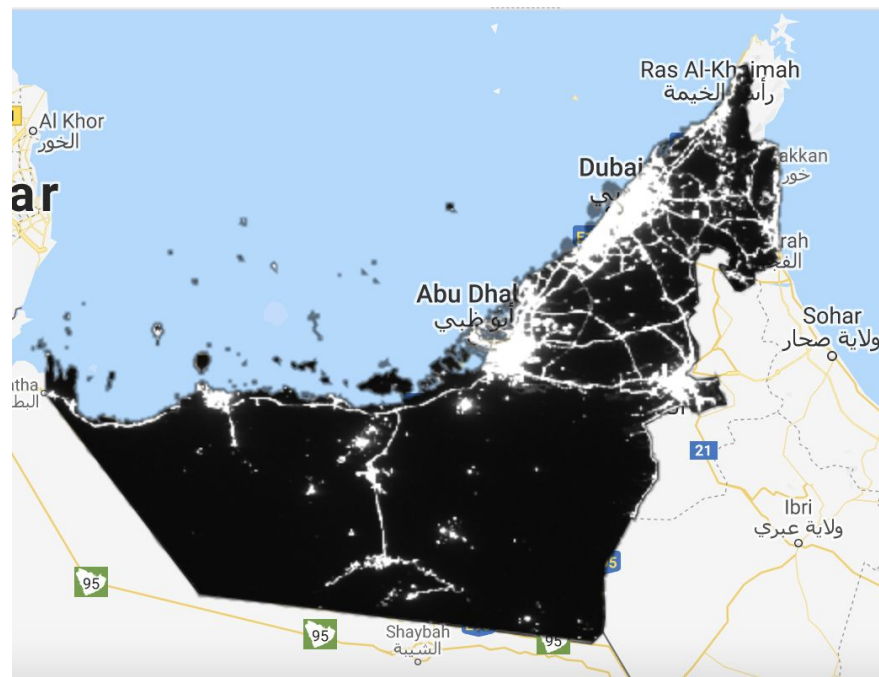


DMSP - 2012

Suomi National Polar Orbiting Partnership (NPP) Visible Infrared Imaging Radiometer Suite

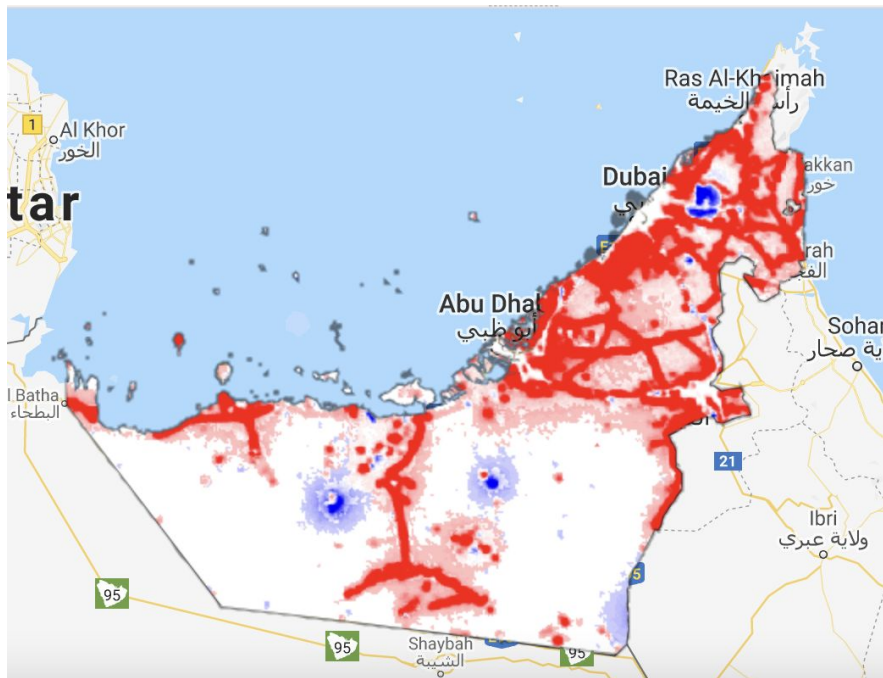


VIIRS - 2013

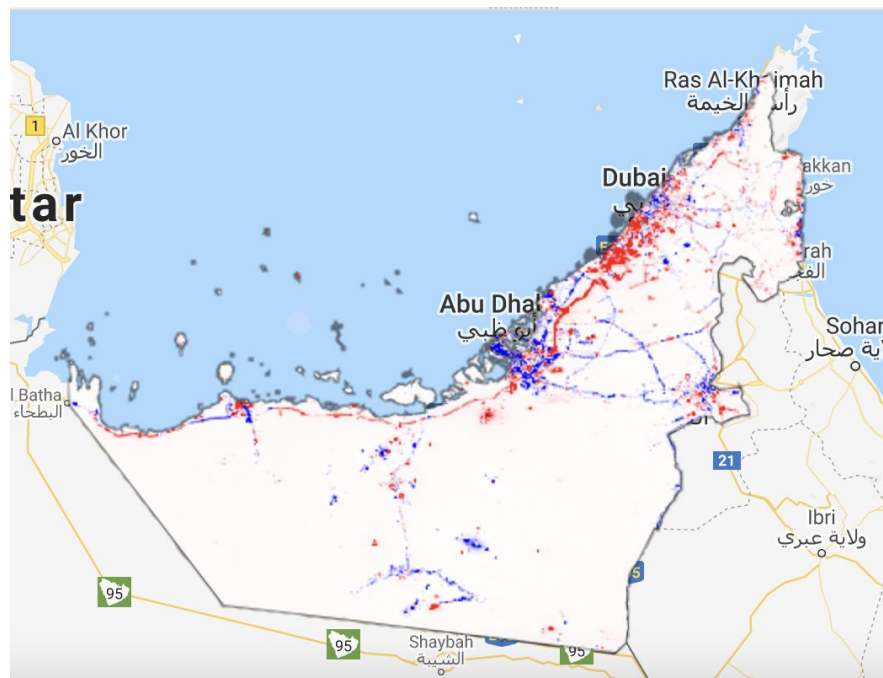


VIIRS - 2017

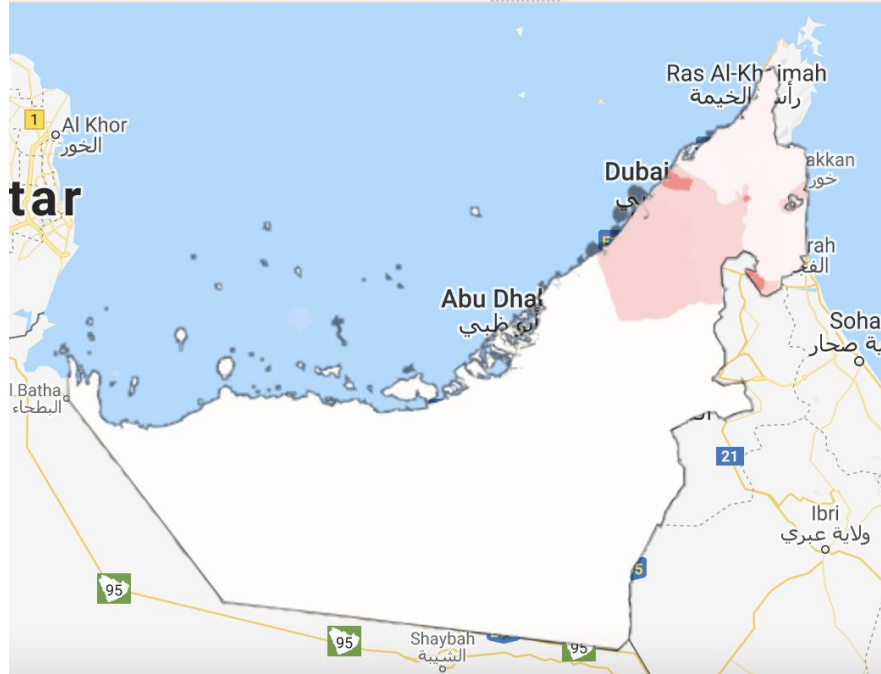
Defense Meteorological Satellite Program (DMSP) Operational Linear Scanner (OLS)



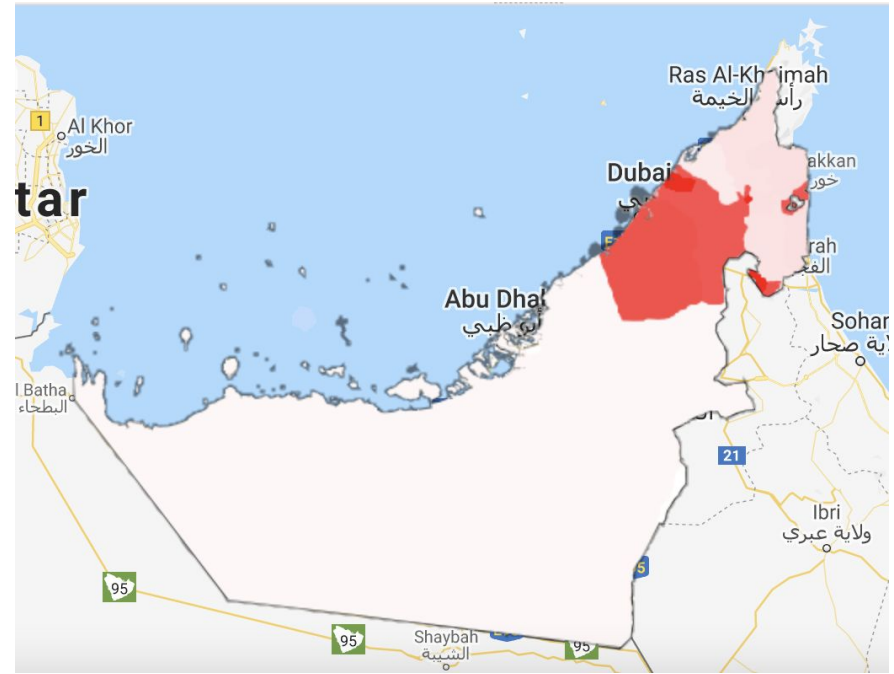
DMSP change from 1993 to 2012



VIIRS change from 2013 to 2017

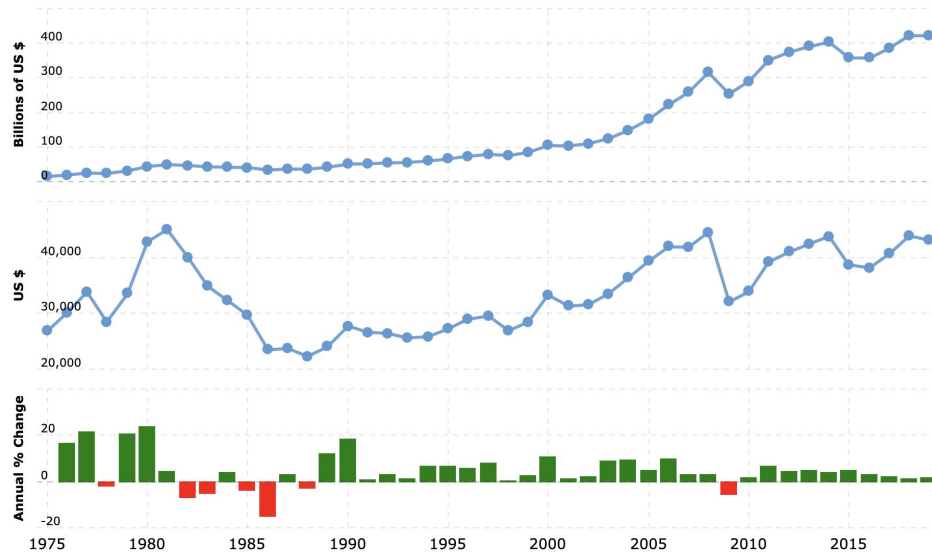


Population - 2000



Population - 2020

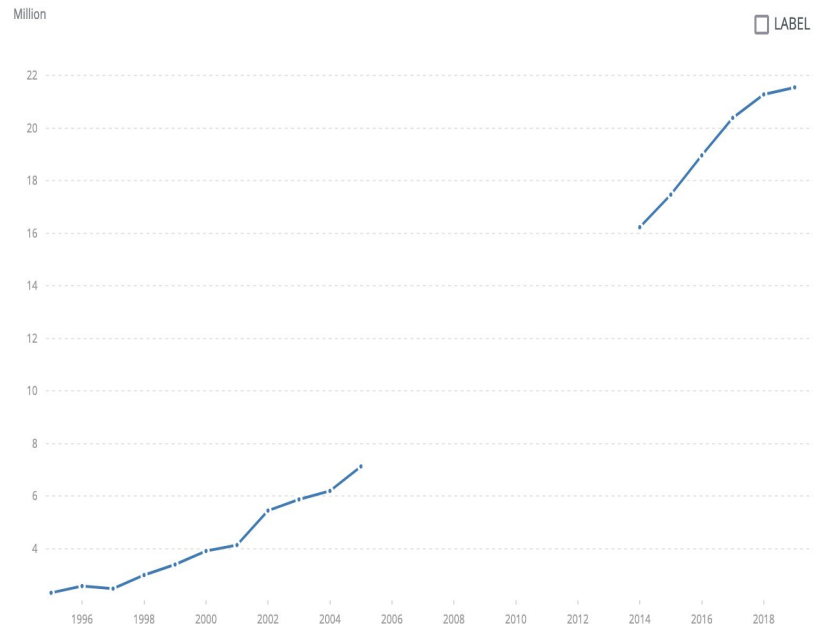
UAE Economy (GDP)



<https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=AE>

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UAE Tourism (Number of Arrivals)



<https://data.worldbank.org/indicator/ST.INT.ARVL?end=2019&locations=AE&start=1995&view=chart>



- The UAE economy was fueled by **oil** and has been steadily shifting to tourism.
- The UAE has made a conducive environment for conducting **business** and attracting tourists from all over the world leading to massive influx of immigrants leading to population growth.
- UAE has been injecting huge funds in **tourism** and real estate projects, especially in Abu Dhabi and Dubai. Al Saadiyat Island in Abu Dhabi and Burj Khalifa in Dubai, the tallest tower in the world, world central near “Jebel Ali” are a point in case of the milestones that have given the UAE its high profile of a global tourist destination.
- Over the last two decades, the UAE has also **relaxed strict laws** to attract more tourists.
- Similar trends in population growth are expected to follow in the UAE as the government introduces **golden visas** and other schemes to attract residents.
- **Job opportunities** attract workers from nearby countries like India, Bangladesh, Pakistan, and Nepal.