

IMPACT OF COVID-19 ON REAL ESTATE PRICES IN RAS AL KHAIMAH

GIS ASSESSMENT

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ABOUT THE SPEAKER



Eng. Aaesha Saif Shehhi is the Director – GIS Center, Ras Al Khaimah Municipality. She is currently leading GIS Center for their ambitious implementation of GIS Road Map and Enterprise GIS in the Emirate of RAK. She is experienced in Urban Planning, Cadastral system, GIS Infrastructure, Building and Engineering along with Survey services. Aaesha holds a Masters Degree in Engineering Project Management from American University of RAK, UAE and a Bachelor of GIS from UAEU. She also has a Diploma in Government Performance Management from Melbourne University and various other certificates in Data, Transformational Leadership, Artificial Intelligence and Smart Governance. Aaesha is honored to join the prestigious UAE Government Leaders Program (Future Leaders category).



ABOUT US

GIS Center, Ras Al Khaimah Municipality

RAK Municipality was established in the year 1959 in the Emirate of Ras Al Khaimah, United Arab Emirates. GIS Center was established in the year 2016 with the following Strategic Objectives :

Strategic Objectives			
Trusted Spatial Information (TSI)	Discoverability, Accessibility and Usability (DAU)	Activated Spatial Community (ASC)	Strategic Location Intelligence (SLI)
1. The GIS Centre is the trusted source of authoritative spatial information for RAK	1. Spatial information is easily found (discoverability)	1. Spatial information and systems are well governed, providing 'fit for purpose' information and solutions	1. Location information informs decision making in RAK Government
2. Spatial information is curated, published, and managed as a shared asset across RAK Government	2. Spatial information is easily shared across agencies (accessibility)	2. Spatial information gaps are addressed and coordinated across RAK government to reduce duplication of effort and costs. Agencies collaborate on whole of government spatial information needs	2. Customers experience and their quality of life are improved by spatial enablement and services which are 'location aware'
3. Data sharing and service level agreements are implemented (including with third party data providers as appropriate)	3. Spatial data is made available in a format and via channels that are easily used by Agencies (accessibility and usability)	3. RAK government agencies hold an appropriate level of spatial maturity	3. Government business systems are innovated through spatially enablement



OUR FOUNDATION

Activating the Mission / Vision

VISION & MISSION

Unleashing the Power of location – Spatially Enabled RAK

DATA

- The GIS Centre is the trusted source of authoritative spatial information
- Spatial information is easily accessible across agencies
- Location information informs decision making

SYSTEMS

- Government business systems are spatially enabled
- Customers experience the benefits of spatial enablement and services are ‘location aware’

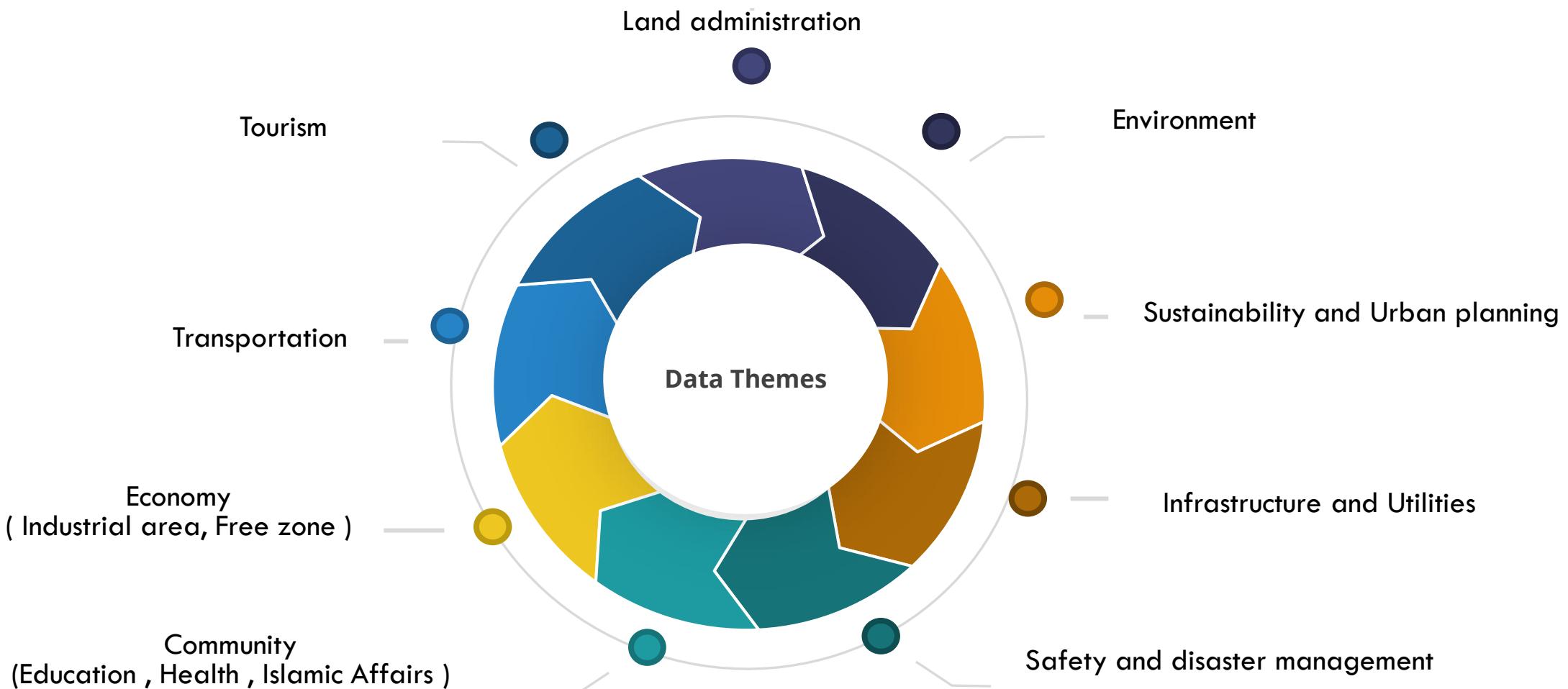
GOVERNANCE

- Information and systems are well governed, providing ‘fit for purpose’ information and systems
- RAK government works collaboratively and cohesively for citizen services and benefit



OUR DATA

Themes





IMPACT OF COVID-19 ON REAL ESTATE PRICES

Scope

- GIS Center, RAK Municipality, in association with Lands Department and Real Estate Department aim to study the consequences of Covid-19 and its related impact on the real estate industry of the Emirate of Ras Al Khaimah
- GIS Center, RAK Municipality offers GIS Expertise, Support and Capabilities for the impact study



IMPACT OF COVID-19 ON REAL ESTATE PRICES

GIS Technologies

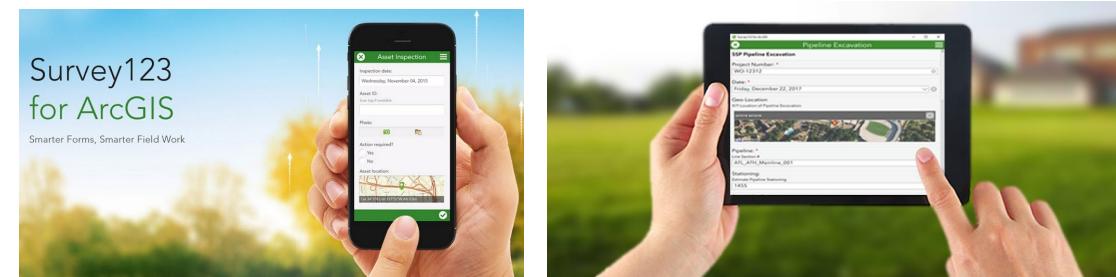
- GIS Center, RAK Municipality has empowered the internal agencies of RAK Municipality to conduct the impact assessment by offering GIS Technologies and Capabilities

- ✓ Data Collection
- ✓ GIS Data Validation
- ✓ GIS – SAP Integration
- ✓ High-quality change detection maps

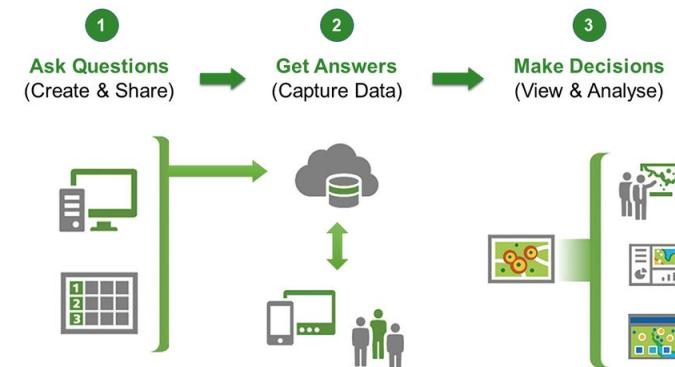
IMPACT OF COVID-19 ON REAL ESTATE PRICES

Data Collection

- Field Data Collection was carried by using Survey123 for ArcGIS



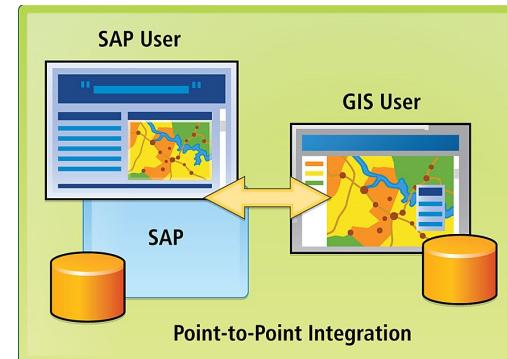
- The data collected was validated and analyzed in ArcMap



IMPACT OF COVID-19 ON REAL ESTATE PRICES

GIS – SAP Integration

- GIS Center has Ras Al Khaimah's first and only ESRI Enterprise GIS
- GIS – SAP Integration helps in dynamic updation of lease transaction and enables display of transaction information on a Parcel level





IMPACT OF COVID-19 ON REAL ESTATE PRICES

Change Detection Maps for Analysis

- High quality change detection maps empower decision-makers to visualize localized impact, potential trends and hotspots and statistical information.
- GIS Center uses
 - ArcPro 2.4
 - ArcMap 10.6.1





IMPACT OF COVID-19 ON REAL ESTATE PRICES

Data for Analysis Parameters

- Collection of Real Estate data for the years 2019 (pre-Covid19) and 2020 (after the onset of the Covid-19 pandemic)
- Analysis is carried out for the two years of data to understand the impact of Covid-19
 - ✓ Field data collected using Survey123 is used to assess the impact on leasing price
 - ✓ Transaction information from SAP is used to assess impact on volume of transactions and occupancy rates

IMPACT OF COVID-19 ON REAL ESTATE PRICES

Data Analysis

- Analysis of data of two years (2019 and 2020) to understand the impact of Covid-19 on Real Estate prices
- Using GIS as a Analysis tool for change detection, impact mapping, data validation and data visualization
- The results will be a key resource in the government's response to Covid-19

RESIDENTIAL LEASING PRICE 2019 VS. 2020

Impact Assessment

- The 2020 map shows impact on leasing price
 - The green color depicts the renewed residential parcels for which the rents have increased
 - The yellow color depicts the new residential tenancy contract transactions in 2020

2019



2020



COMMERCIAL LEASING PRICE 2019 VS. 2020

Impact Assessment

- The 2020 map shows impact on leasing price
 - The green color depicts the renewed commercial parcels for which the rents have increased
 - The yellow color depicts the new commercial tenancy contract transactions in 2020

2019



2020





RESIDENTIAL LEASE TRANSACTIONS 2019 VS. 2020

Impact Assessment

- The 2020 map shows impact on lease transactions
 - The yellow color depicts the residential parcels that have a real estate transaction in the years 2019 and 2020

2019



2020

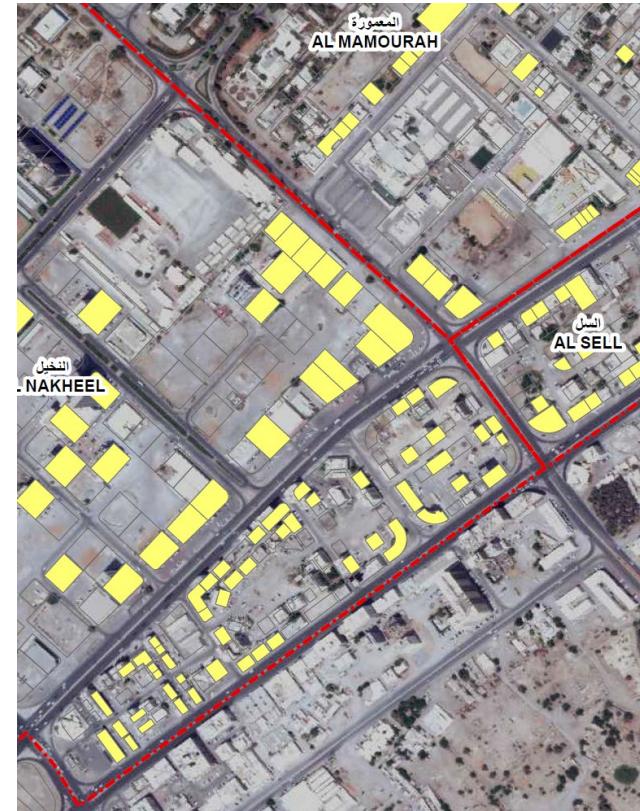


COMMERCIAL LEASE TRANSACTIONS 2019 VS. 2020

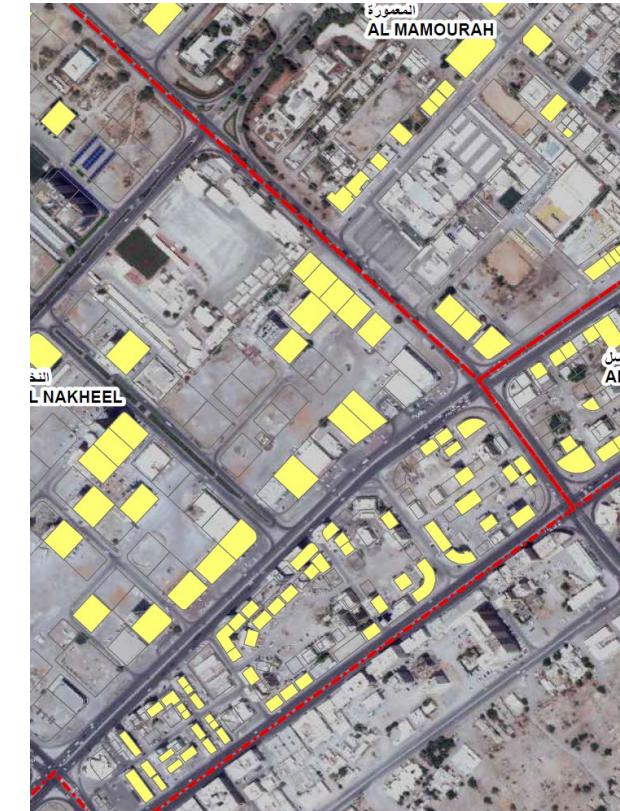
Impact Assessment

- The 2020 map shows impact on lease transactions
 - The yellow color depicts the commercial parcels that have a real estate transaction in the years 2019 and 2020

2019



2020





COMMERCIAL OCCUPANCY

Year 2020

- The map visualizes the commercial occupancy for a sector in RAK
 - Darker color shows areas that have seen higher volume of lease transactions





RESIDENTIAL OCCUPANCY

Year 2020

- The map visualizes the residential occupancy for a sector in RAK
 - Darker color shows areas that have seen higher volume of lease transactions





CONCLUSION

- GIS Technologies serve as a valuable tool in impact assessment
- GIS Center's well established GIS Capabilities enables enhanced analysis by providing the foundation of data collection, analysis and visualization
- Geospatial outputs are a key resource in the local government's response to Covid-19

THANK YOU

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