



Shared Prosperity Dignified Life



UN
environment
programme



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1 March 2023
ORIGINAL: ENGLISH

**Economic and Social Commission for Western Asia (ESCWA),
the League of Arab States and the United Nations Environment Programme (UNEP)**

Consultative Meeting on the Environmental Dimension of the Sustainable Development Agenda:
“Solutions and Action for SDGs implementation amid the triple planetary crisis”

Beirut, 2 March 2023

Assessment of Wind Farms Impact on Biodiversity and Migratory Birds' Trajectory: A Case from Egypt

RCREEE

Regional Center for Renewable Energy and Energy Efficiency
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة



Dr. Jauad El Kharraz, Executive Director, RCREEE

RCREEE

ATMP: Active Turbine Management Program

The Regional Center for Renewable Energy and Energy Efficiency (RCREEE), Egyptian Electricity Transmission Company (EETC), Egyptian Environmental Affairs Agency (EEAA) and New and Renewable Energy Authority (NREA) have signed on 15th of December 2015 a Protocol titled “Executive Framework for Strategic Cumulative Environmental and Social Impact Assessment (SESA) & Program of Ornithological Monitoring and Active Turbine Management Program (ATMP) for Wind Energy Developments in the Gulf of Suez”.



RCREEE

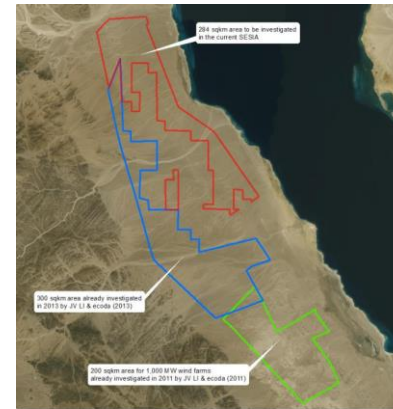
Regional Center for Renewable Energy and Energy Efficiency
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RCREEE's Niche Expertise

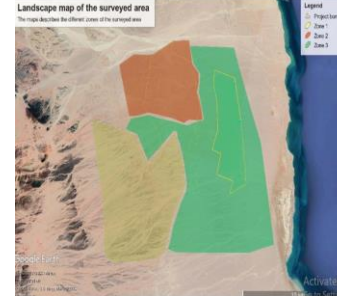
SESA and Proposal for 5-yrs BMP

Site-Specific ESIA's

Active Turbine Management Program (ATMP)



Legend: 284 km² area (red) in relation to previous studied 300 km² area (blue) and the area (200 km², green) for 1,000 MW wind farms, all together covering nearly the whole 797 km² area for multiple wind farms development



Roadmap of ATMP Activities

Analysis and Assessment of the Potential Risks and Impacts on habitats and the Biodiversity

Analytical Study for Optimal Design of BMP, SOD-Program and FMP

Under-, Post-Construction Bird Monitoring Program (BMP)

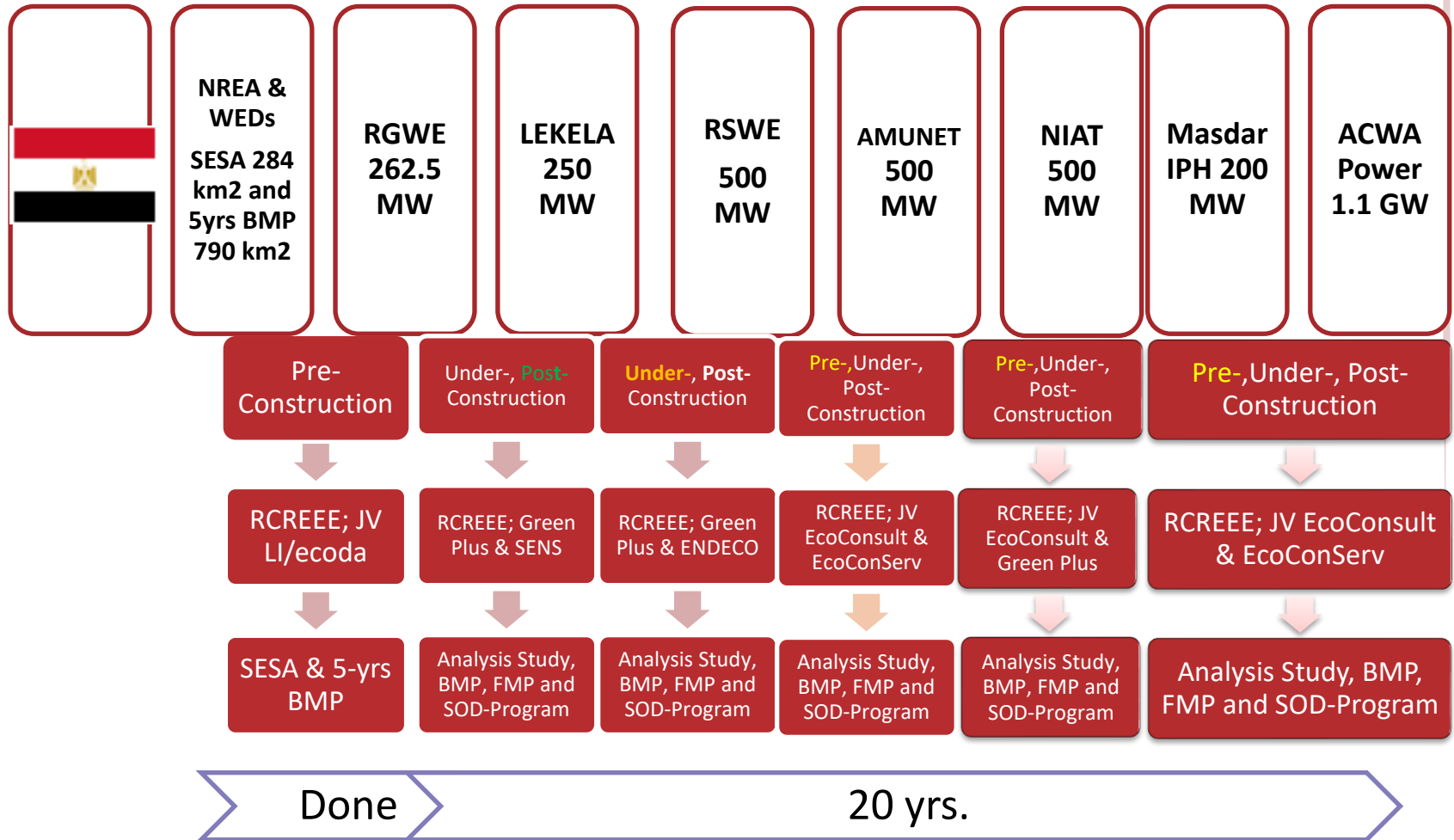
Post-Construction Bird and Bat Fatality Monitoring Program (FMP)

Post-Construction Shutdown On-Demand Program (SOD-Program)

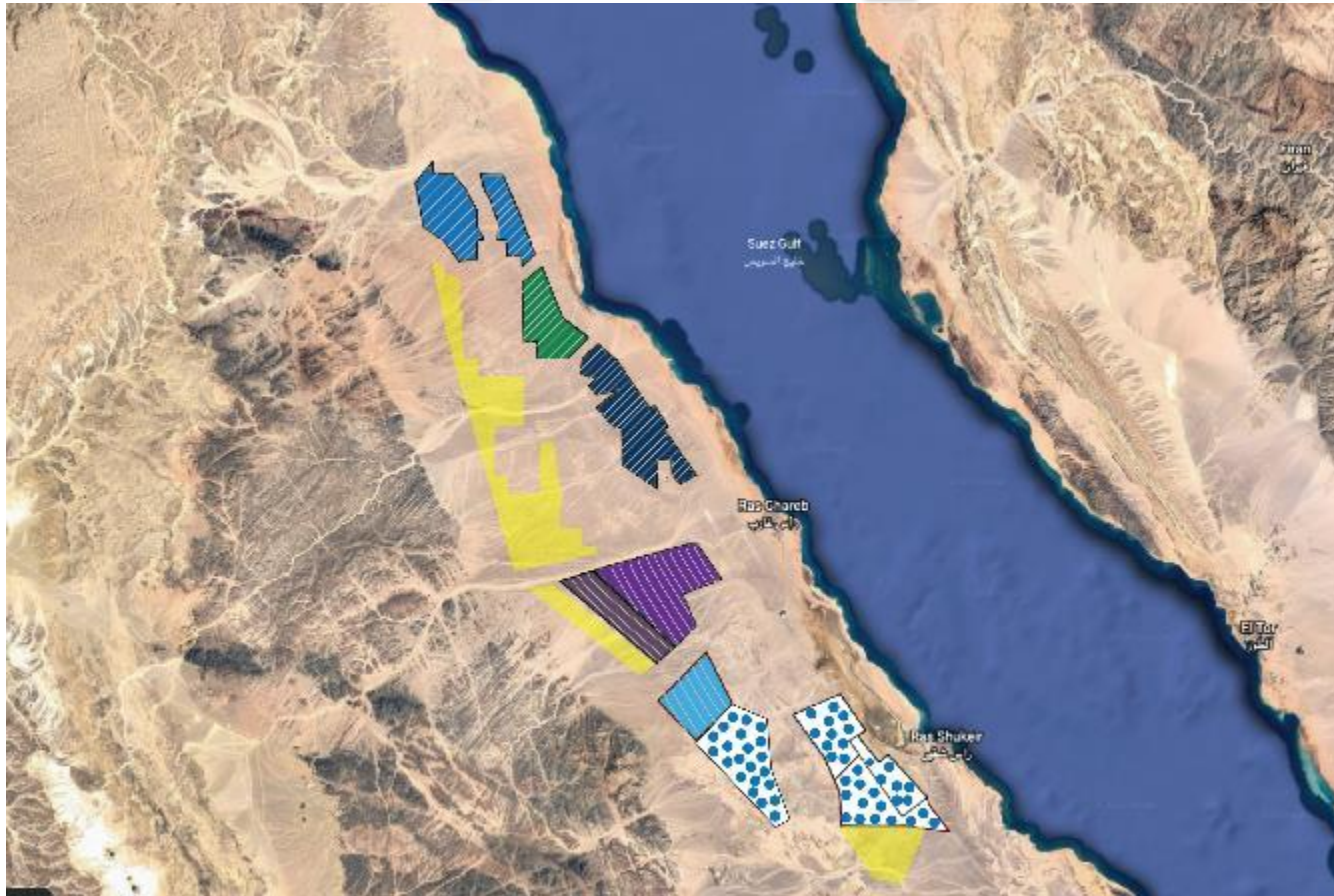


ATMP Portfolio

Total of 3.3 GW of wind turbine Power



ATMP Portfolio



ATMP Components

Environmental and Social Requirements

Landscape and Visual

Land Use

Geology, Hydrology, Hydrogeology

Biodiversity

Birds

Archaeology and Cultural Heritage

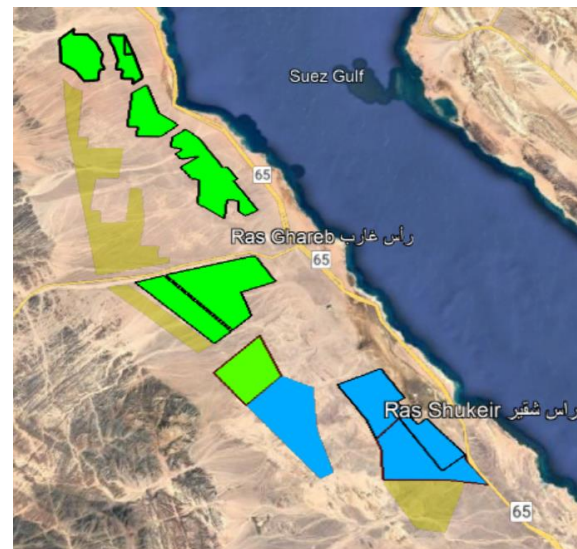
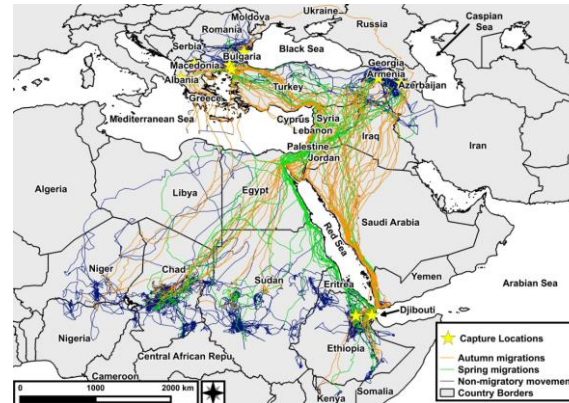
Air Quality and Noise

Infrastructure and Utilities

Occupational H&S

Public Health and Safety

Socio-economics



ATMP Main Components

Under-, and Post-Construction
Bird Monitoring Program (BMP)

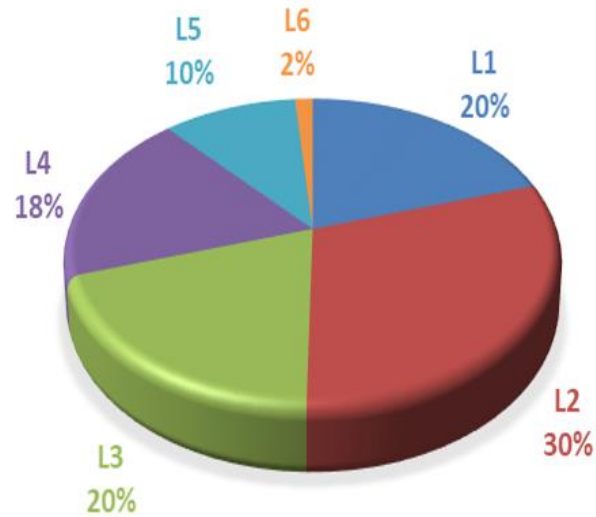
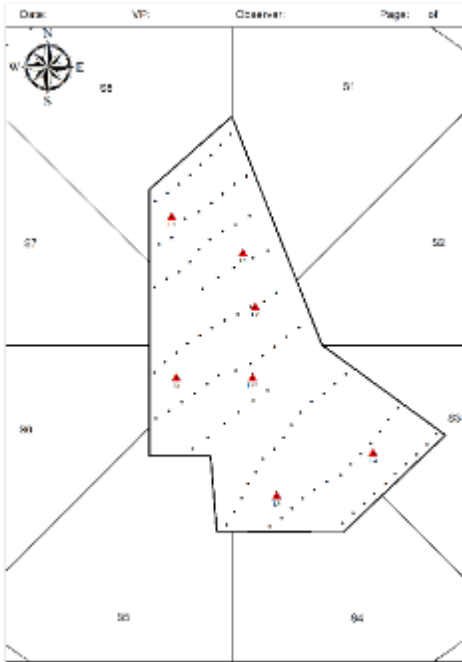
Bird and Bat Fatality Monitoring
Program (FMP)

Shutdown On-Demand &
Predictive Fixed Shutdown
Programs (SOD-, PSD-Programs)



ATMP Activities

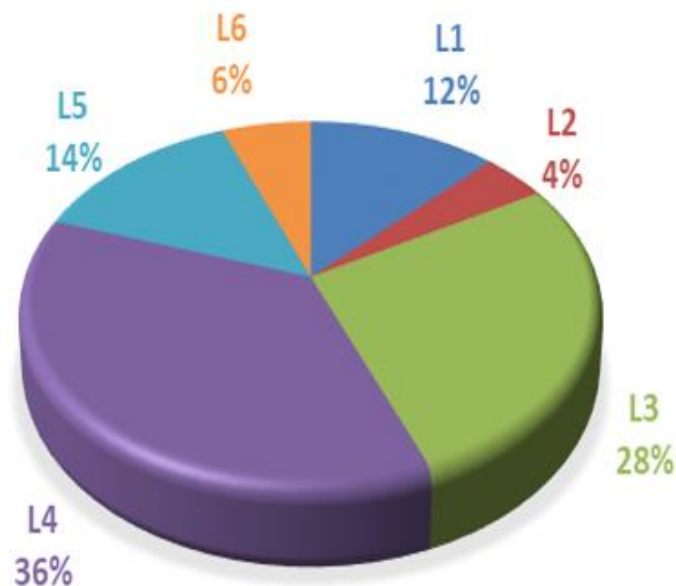
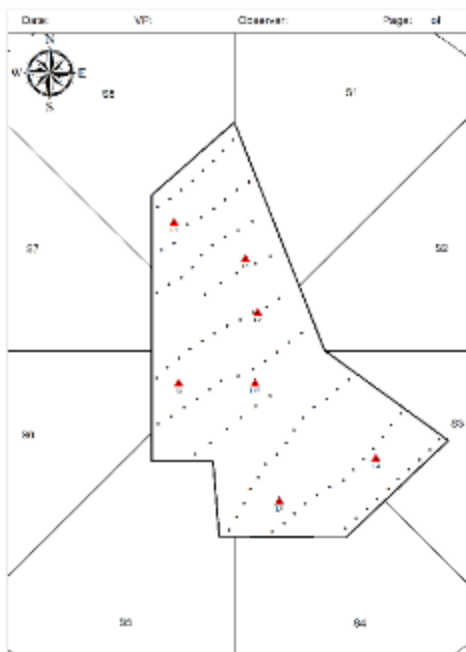
Autumn 2021 at WBWF, GoS, Egypt (250 MW/ 96 turbines)



Study area			Windfarm			Outside		
Records	Birds	Species	Records	Birds	Species	Records	Birds	Species
1041	19420	20	820	15541	20	221	3879	10

Bird Monitoring Program

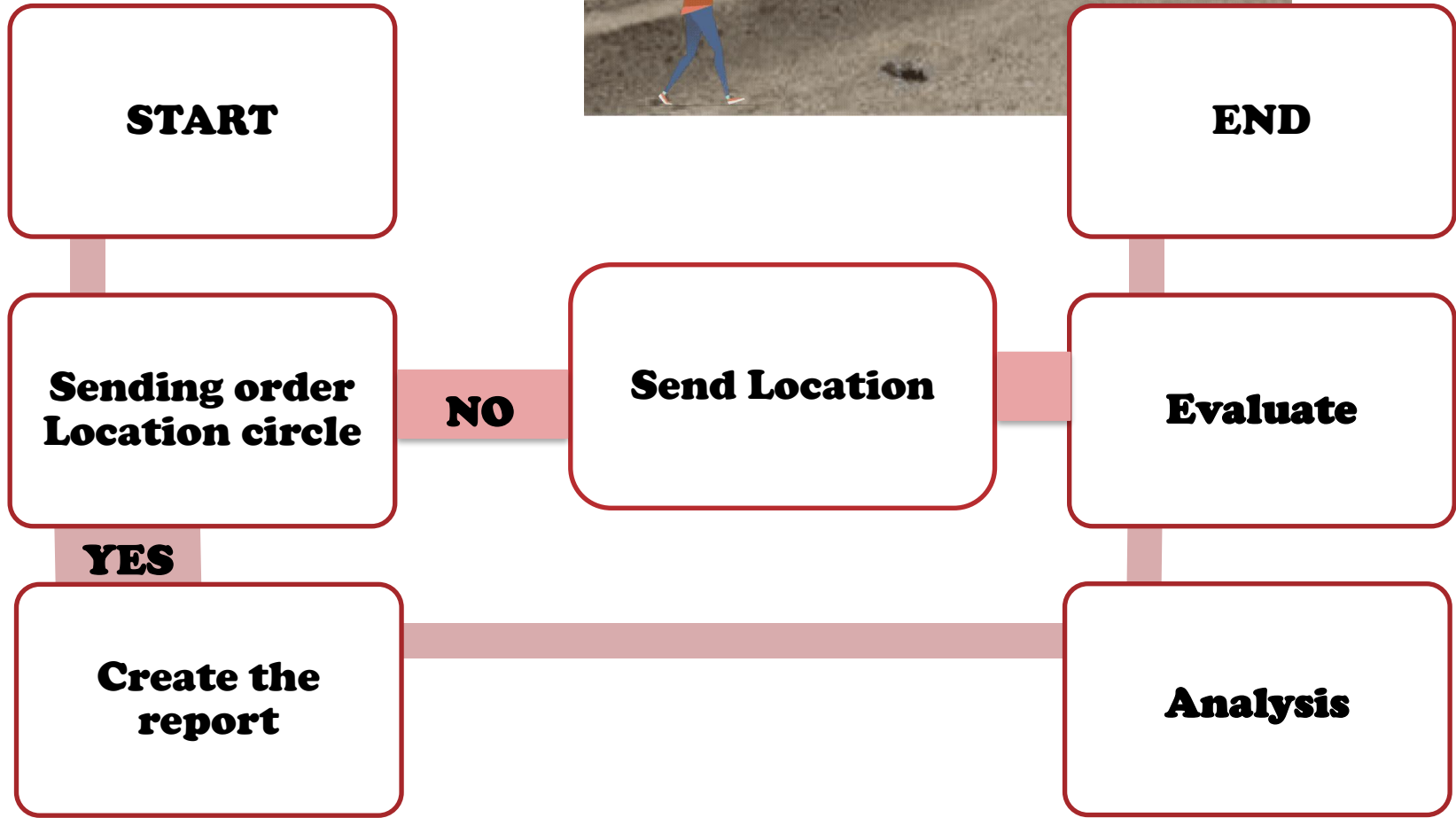
Spring 2022 at WBWF, GoS, Egypt



Study area			Windfarm			Outside		
Records	Birds	Species	Records	Birds	Species	Records	Birds	Species
3359	85607	28	2782	49646	27	577	35961	19

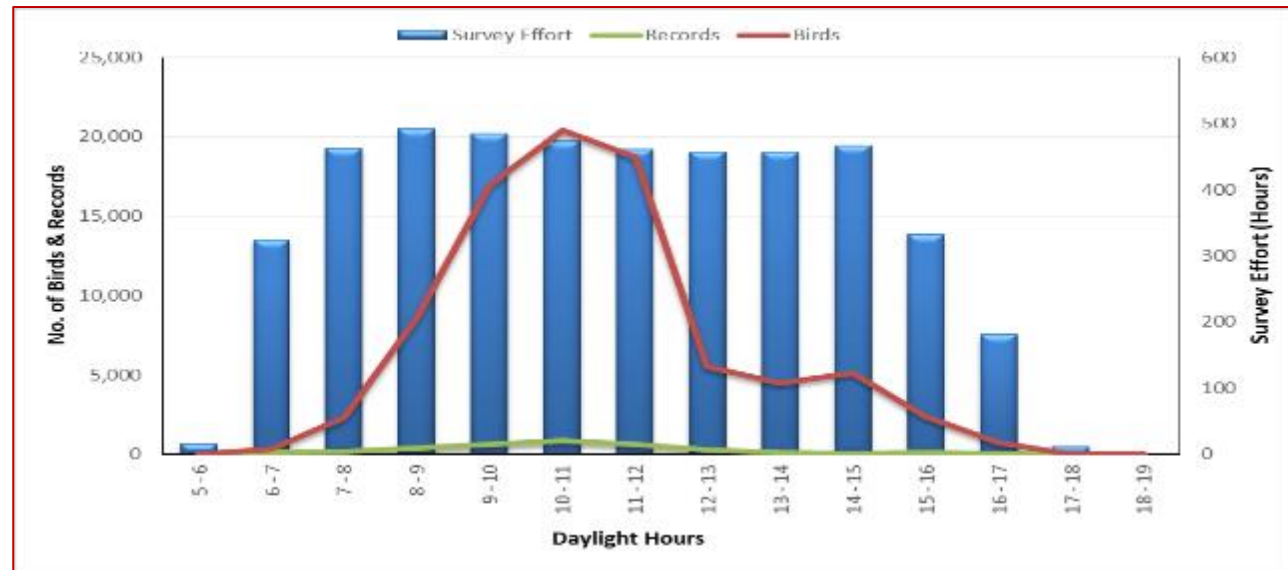
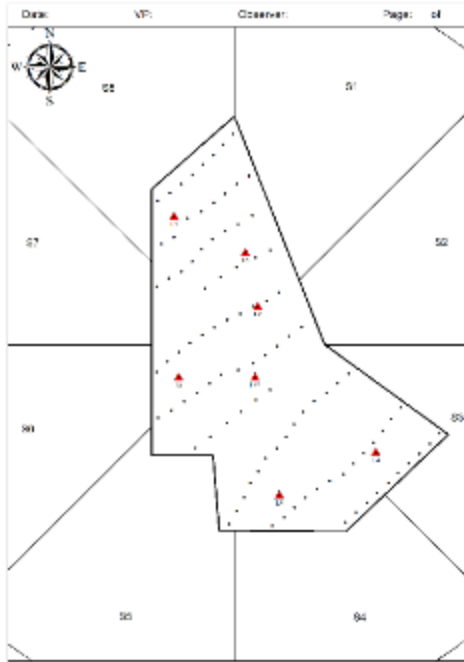
ATMP Portfolio

Bird & Bat Fatality Monitoring



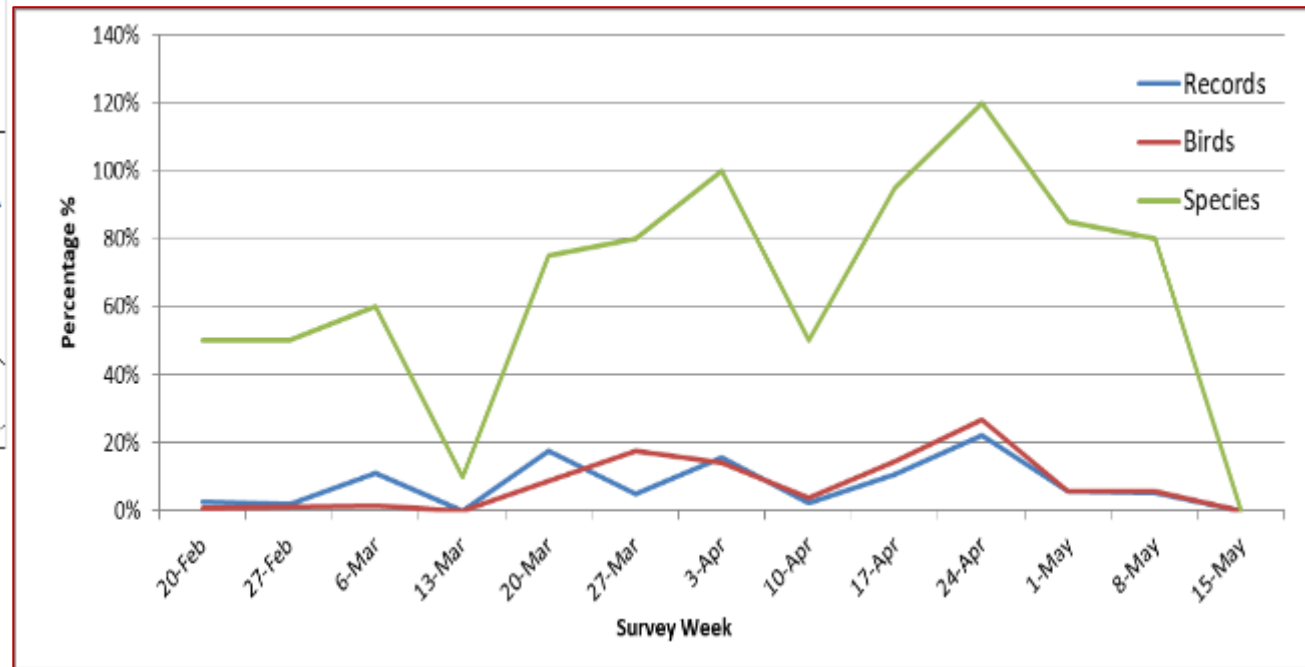
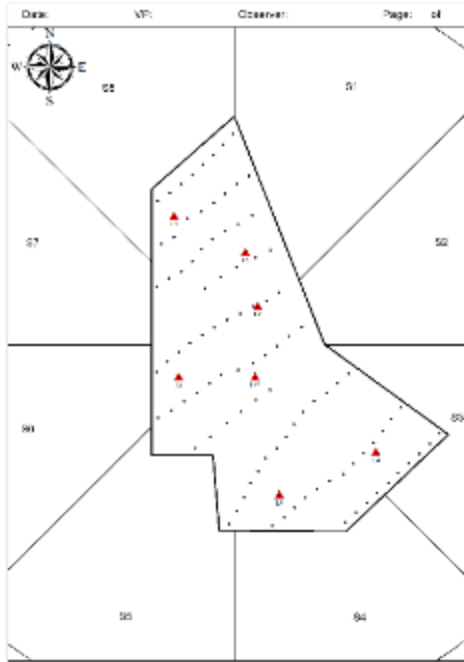
Bird Monitoring Program

Spring 2022 at WBWF, GoS, Egypt



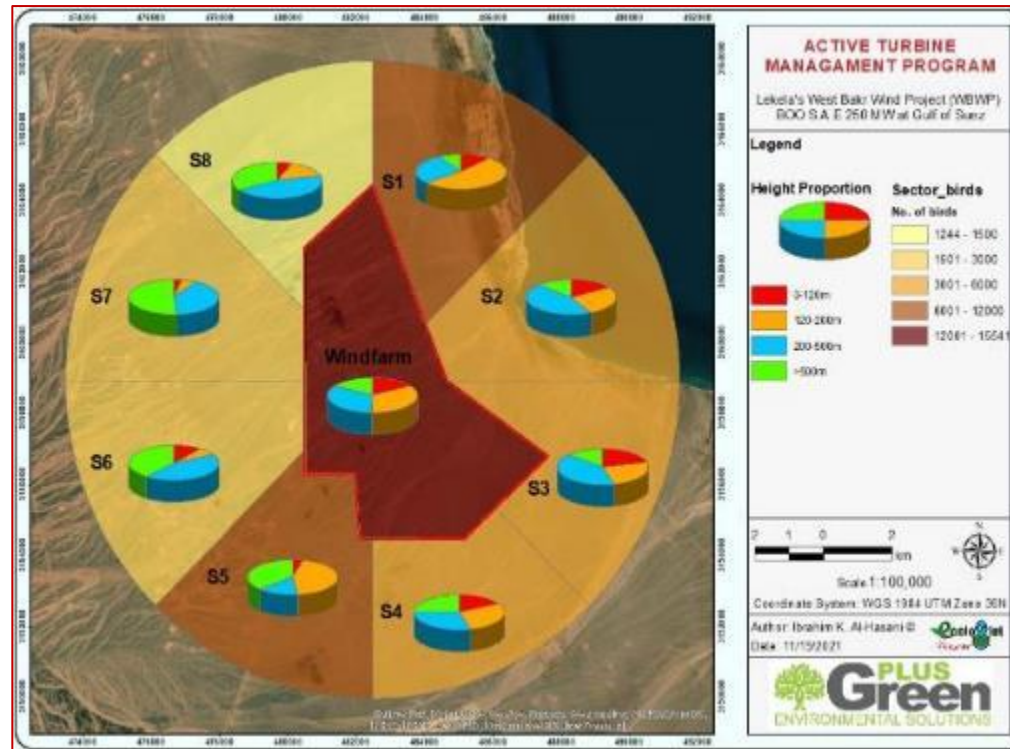
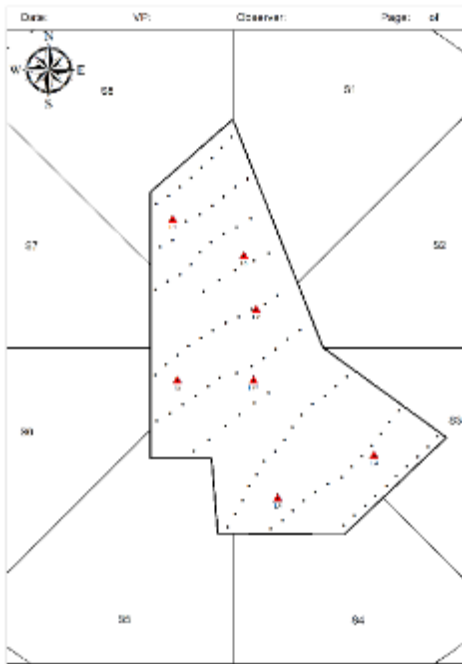
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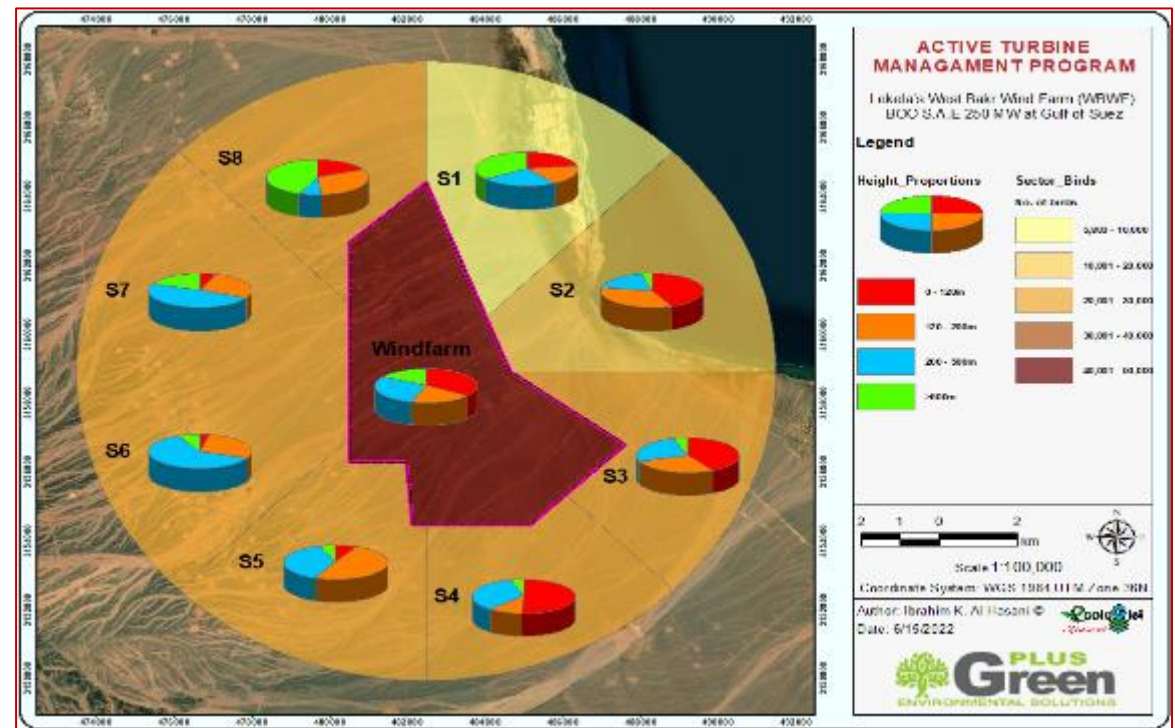
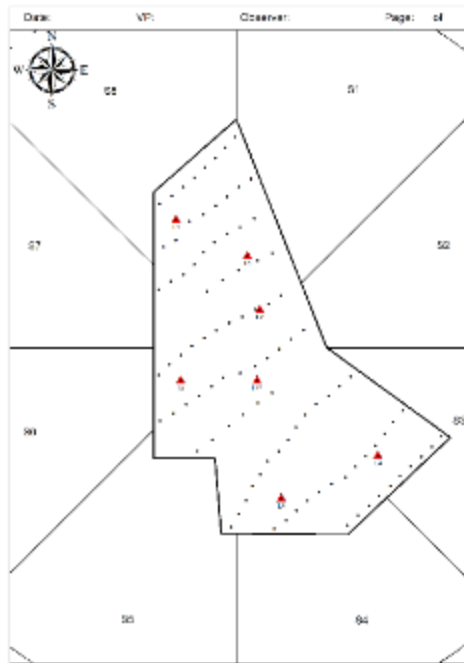
ATMP Activities

Autumn 2021 at WBWF, GoS, Egypt



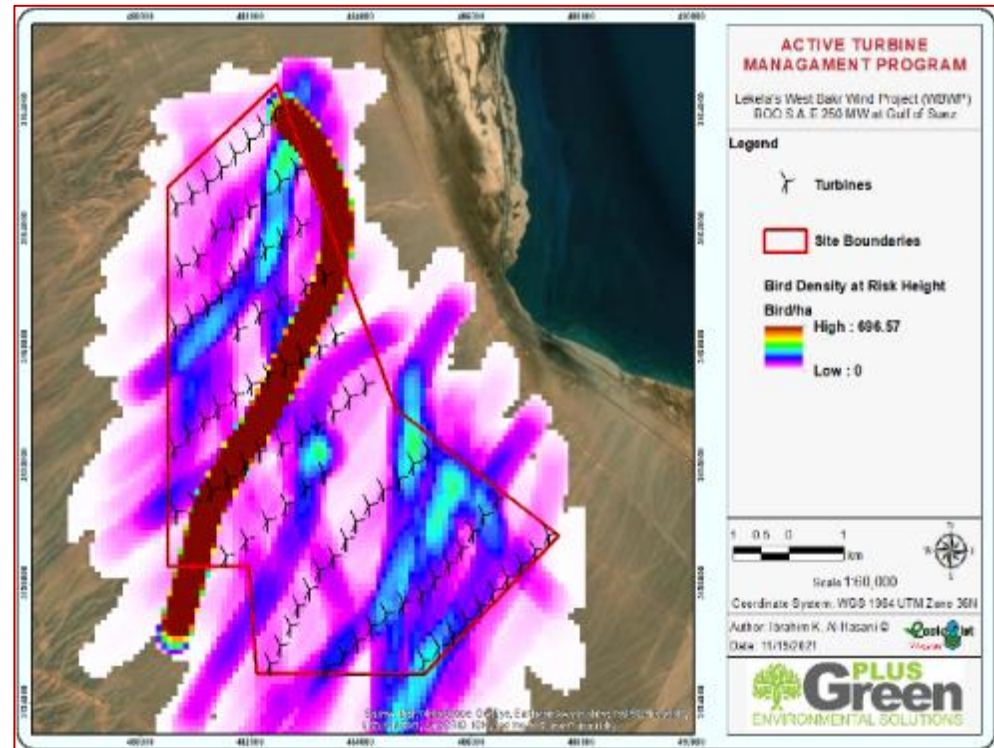
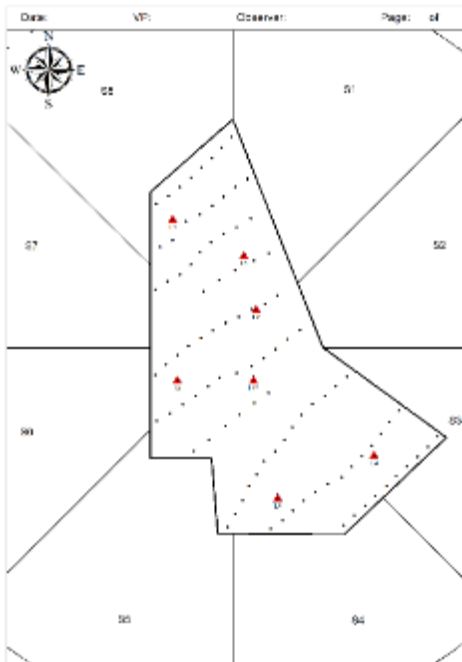
Bird Monitoring Program

Spring 2022 at WBWF, GoS, Egypt



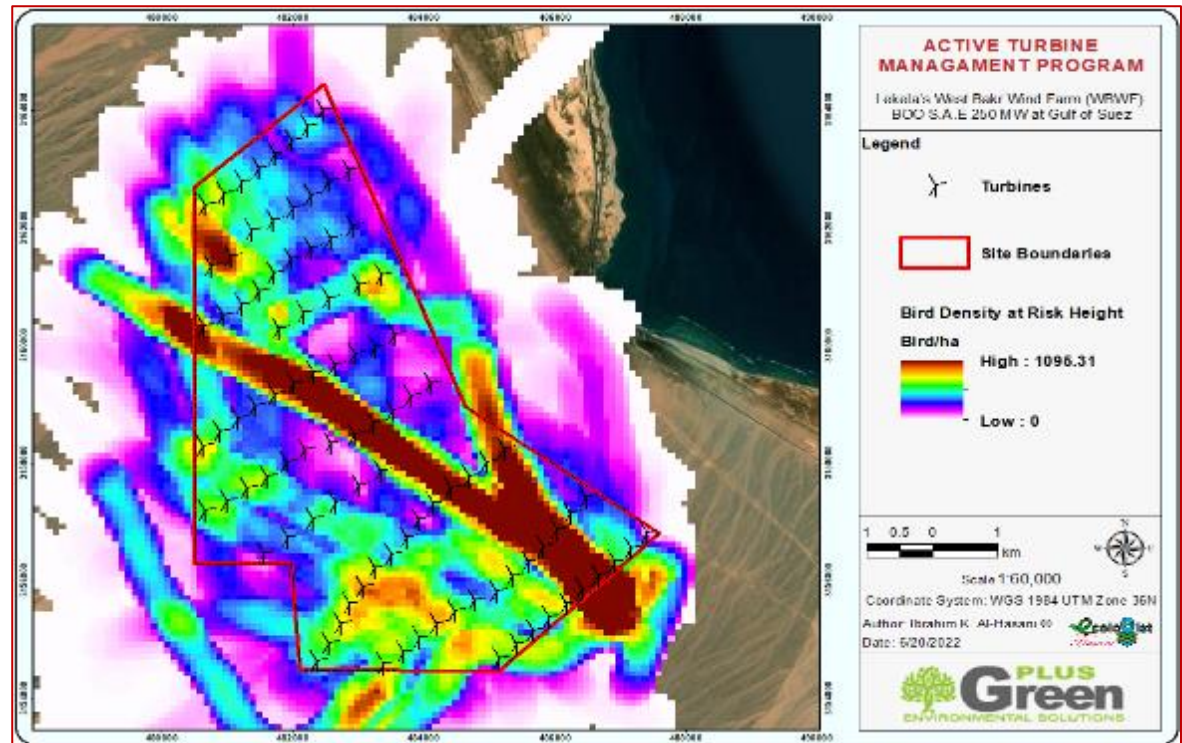
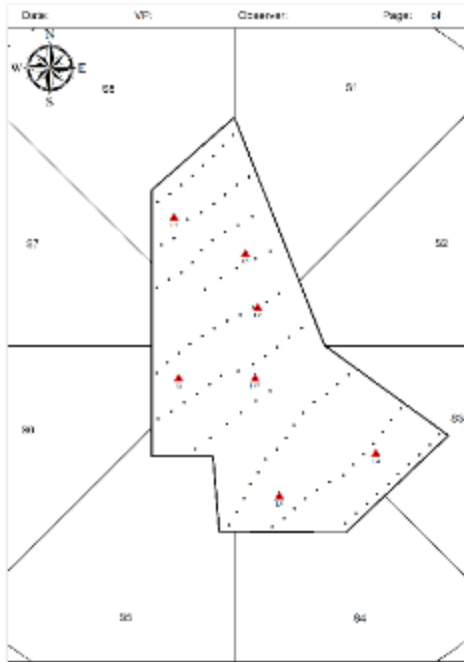
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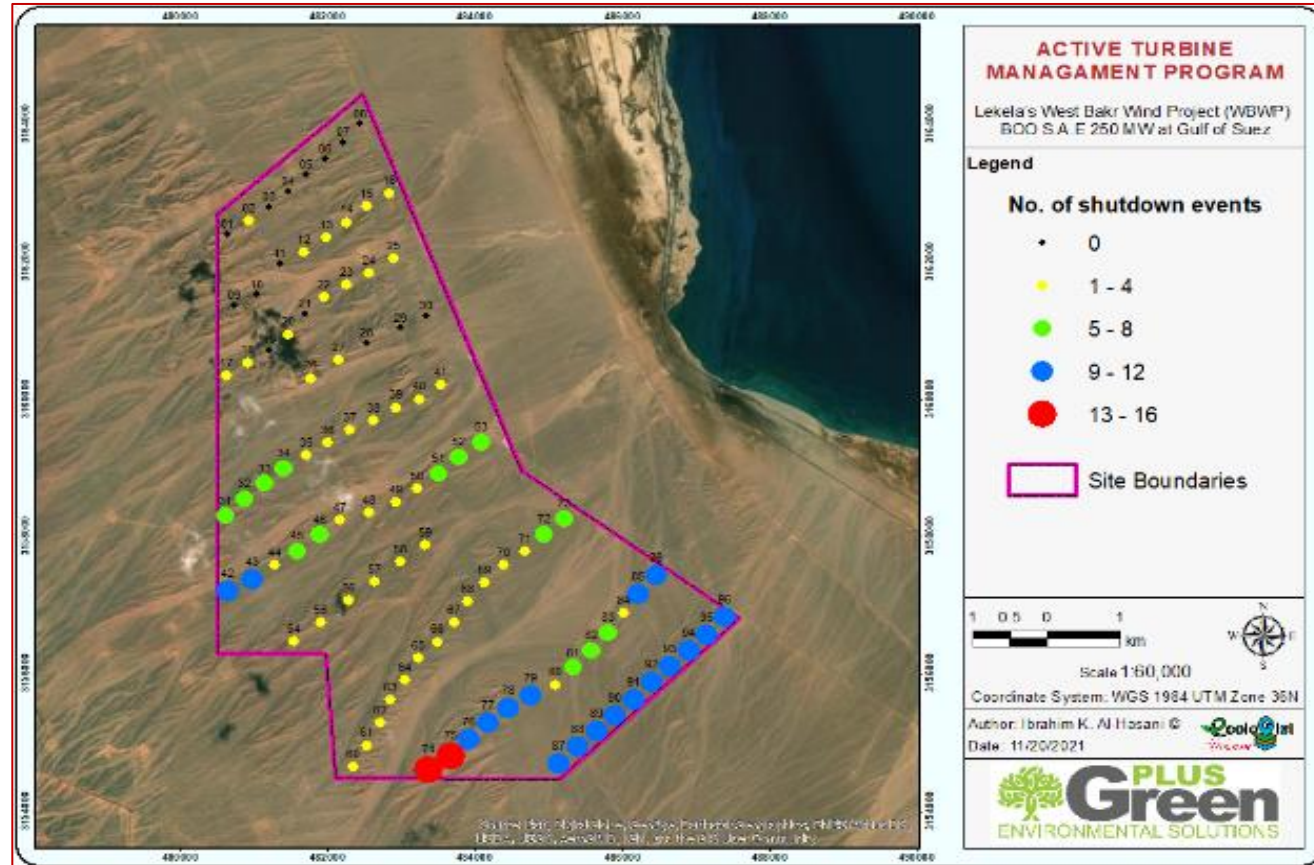
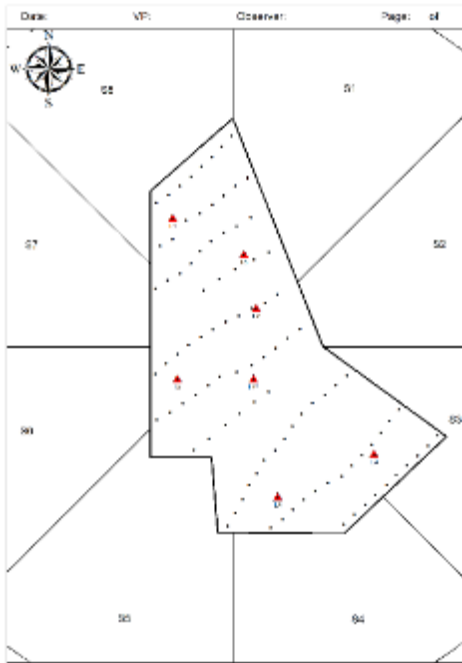
Bird Monitoring Program

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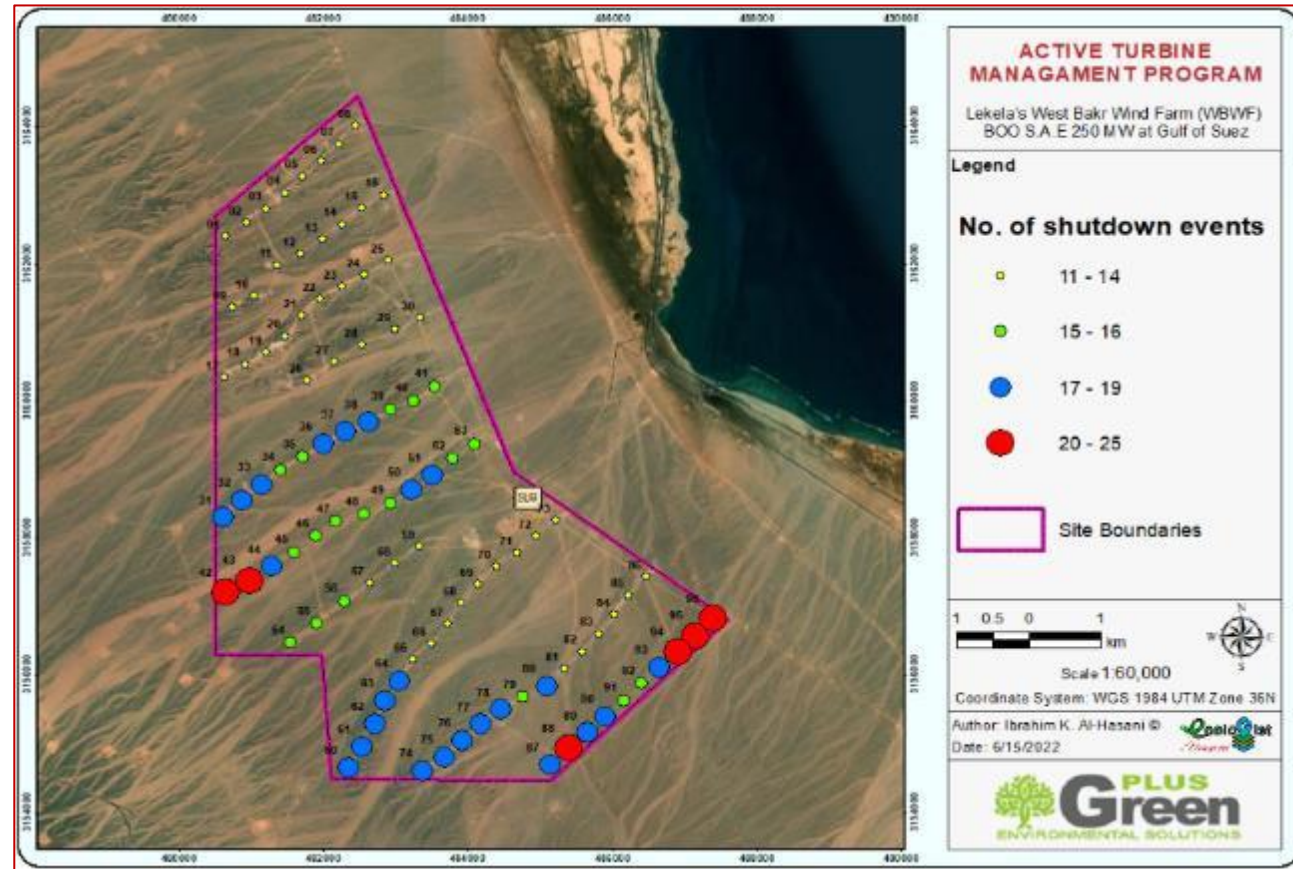
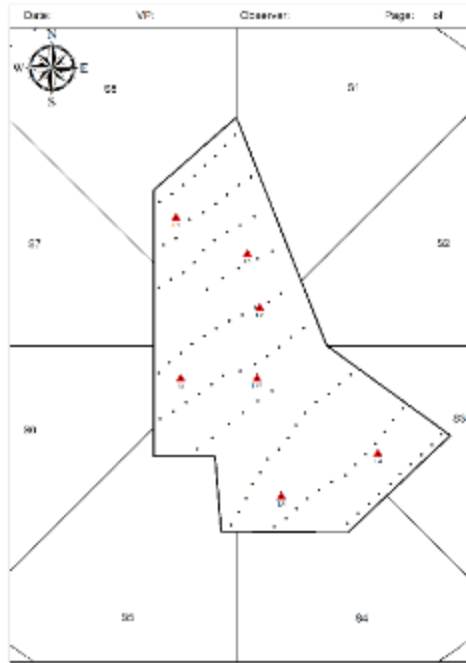
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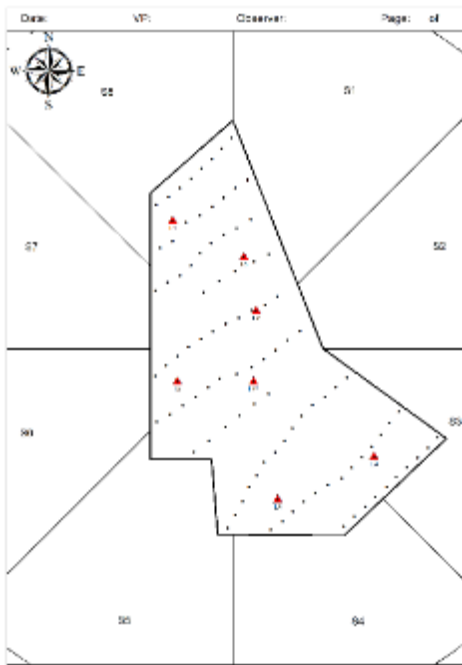
Bird Monitoring Program

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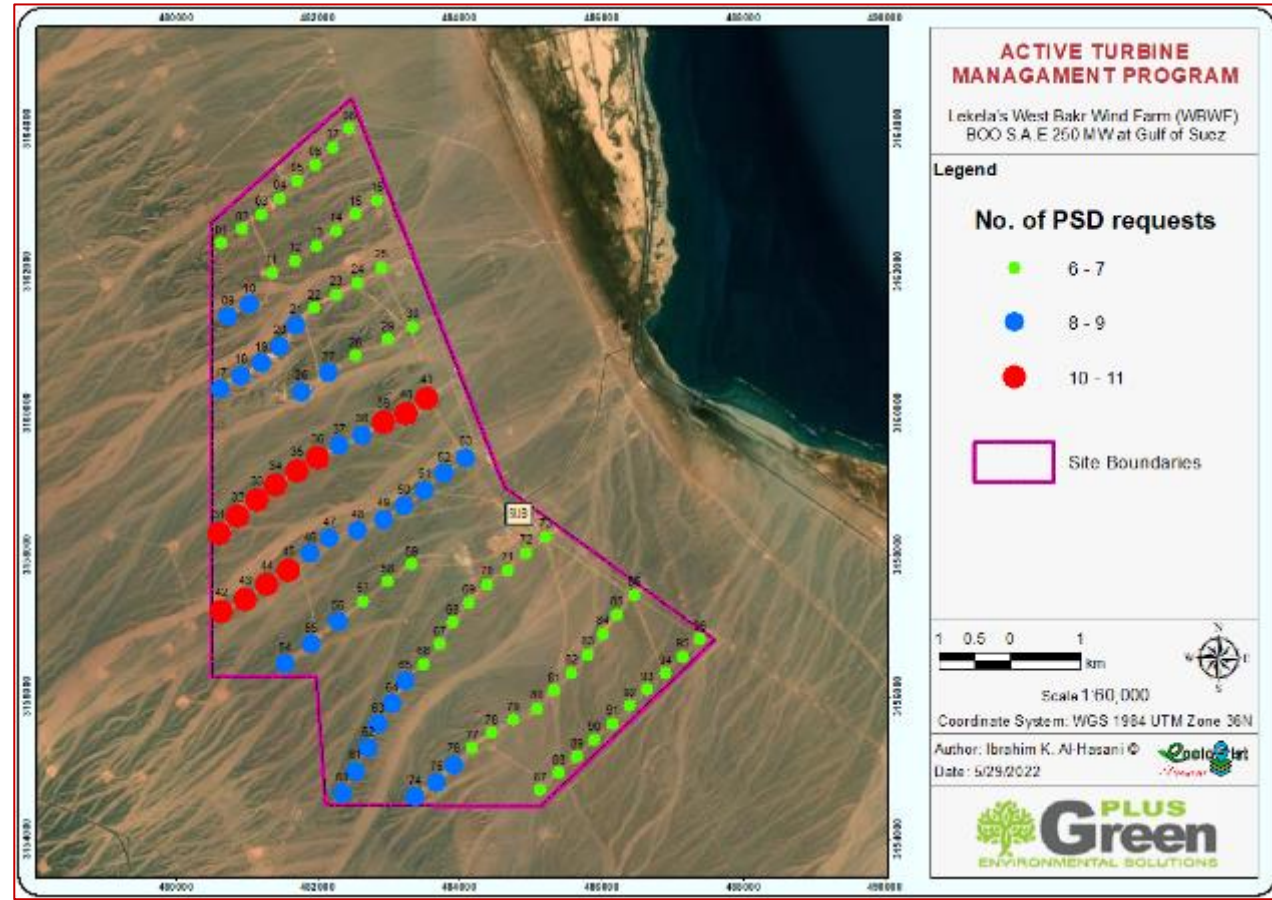
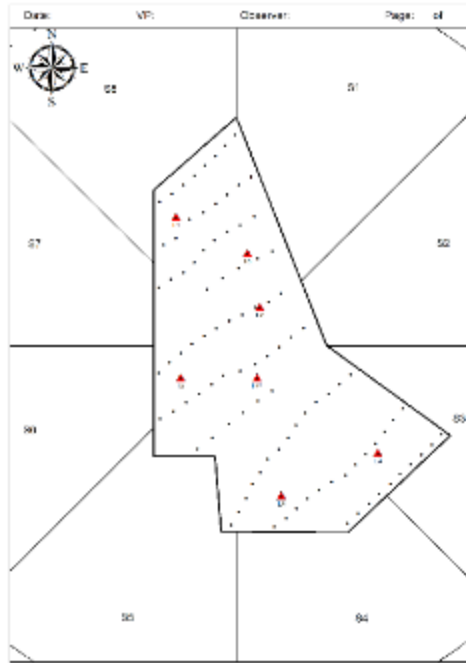
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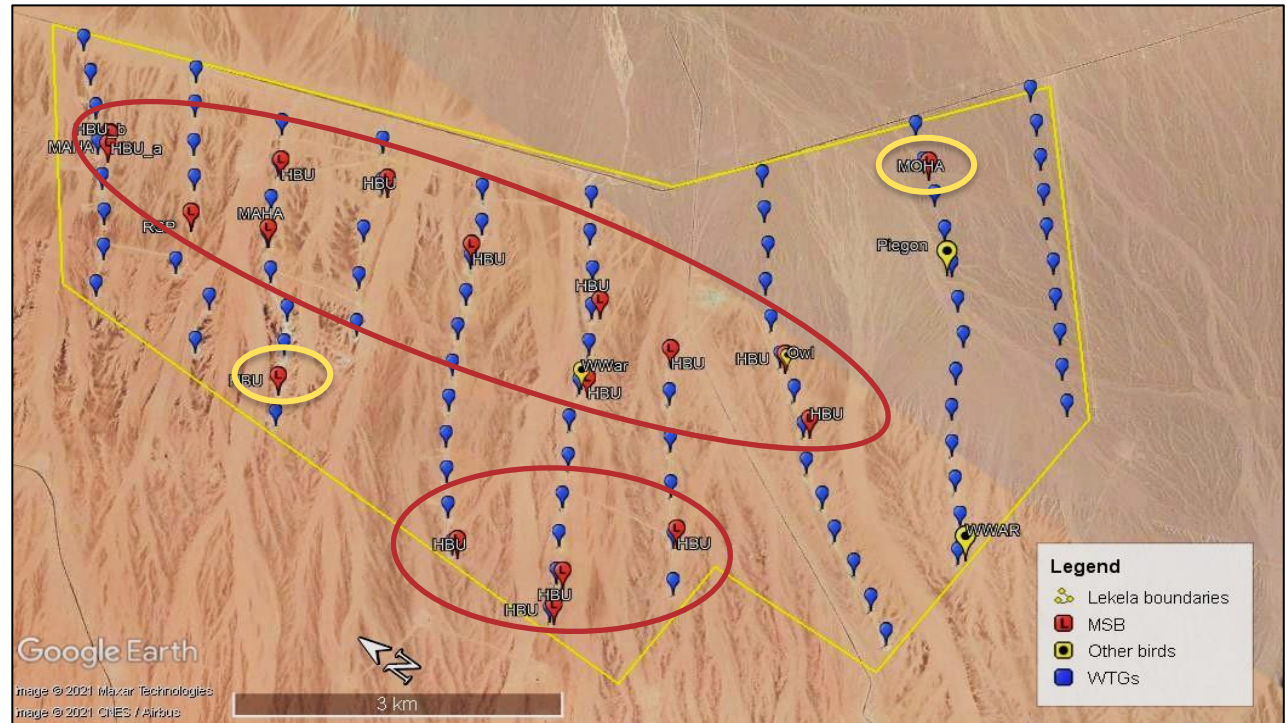
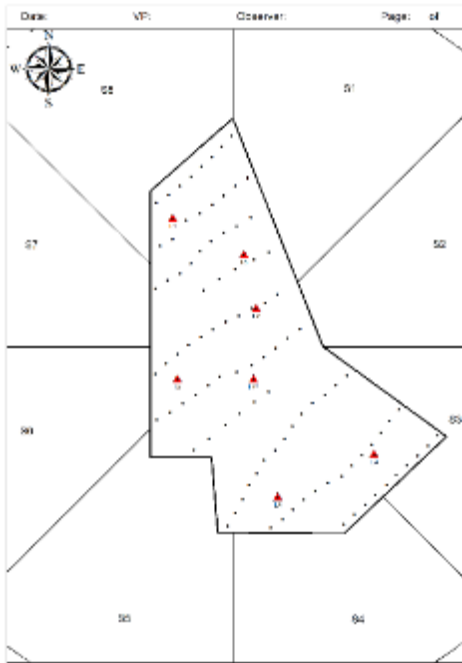
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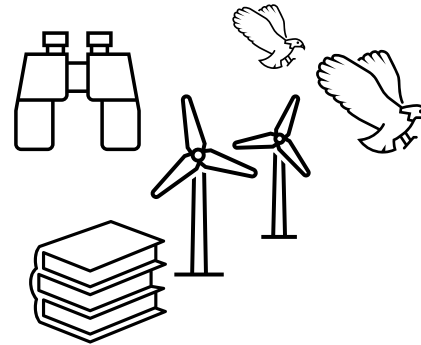
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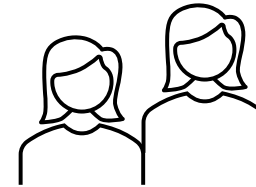


ATMP Training and Capacity Building Activities

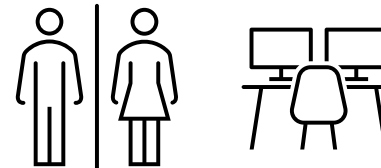
throughout the application of ATMP program, RCREEE committed to train **200** young professionals on bird monitoring and observing in wind farms



35% of the females involved in the process



ATMP Management Team has both genders working together for the program success



RCREEE Proud To Be The First Center in the Region to Train Women on Bird Observing in Wind Farms and to Be Core Part Of The Program Implementation



Thank you for your attention



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