

RCREEE's Initiative for Environmental Risk Mitigation of Wind Power Projects Development Egypt, Gulf of Suez



RCREEE 

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

Outline

- Innovative Strategic Framework
- Objectives
- Initiative contents
- ATMP Area
- Environmental Key Issues
- Monitoring by radar
- Expected results

Innovative Strategic Framework



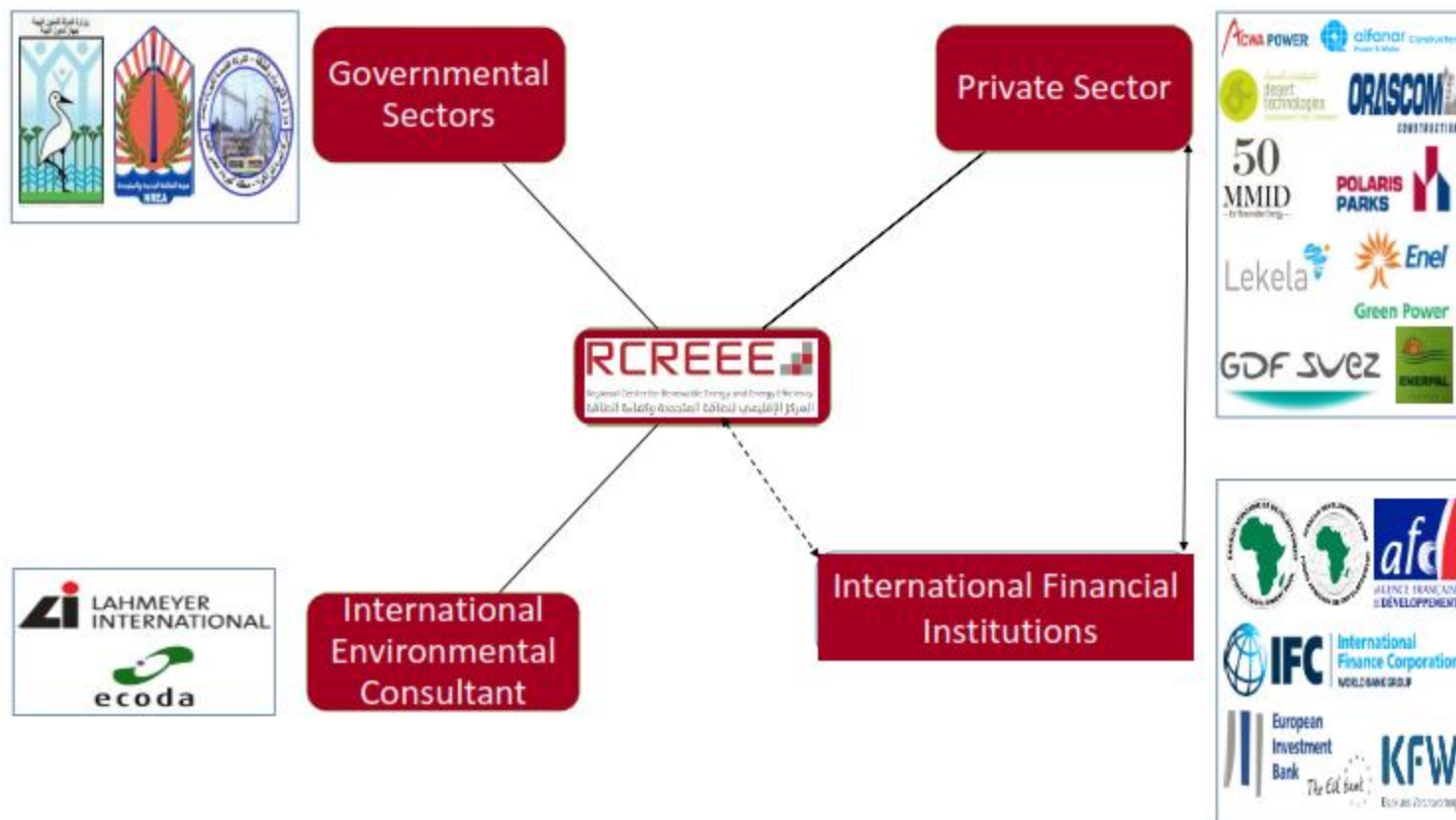
Key authorities on wind energy development
join forces through signing of a PROTOCOL

New and Renewable Energy Authority (NREA)
Egyptian Electricity Transmission Company (EETC)
Egyptian Environmental Affairs Agency (EEAA)
Regional Centre for Renewable Energy and Energy Efficiency (RCREEE)

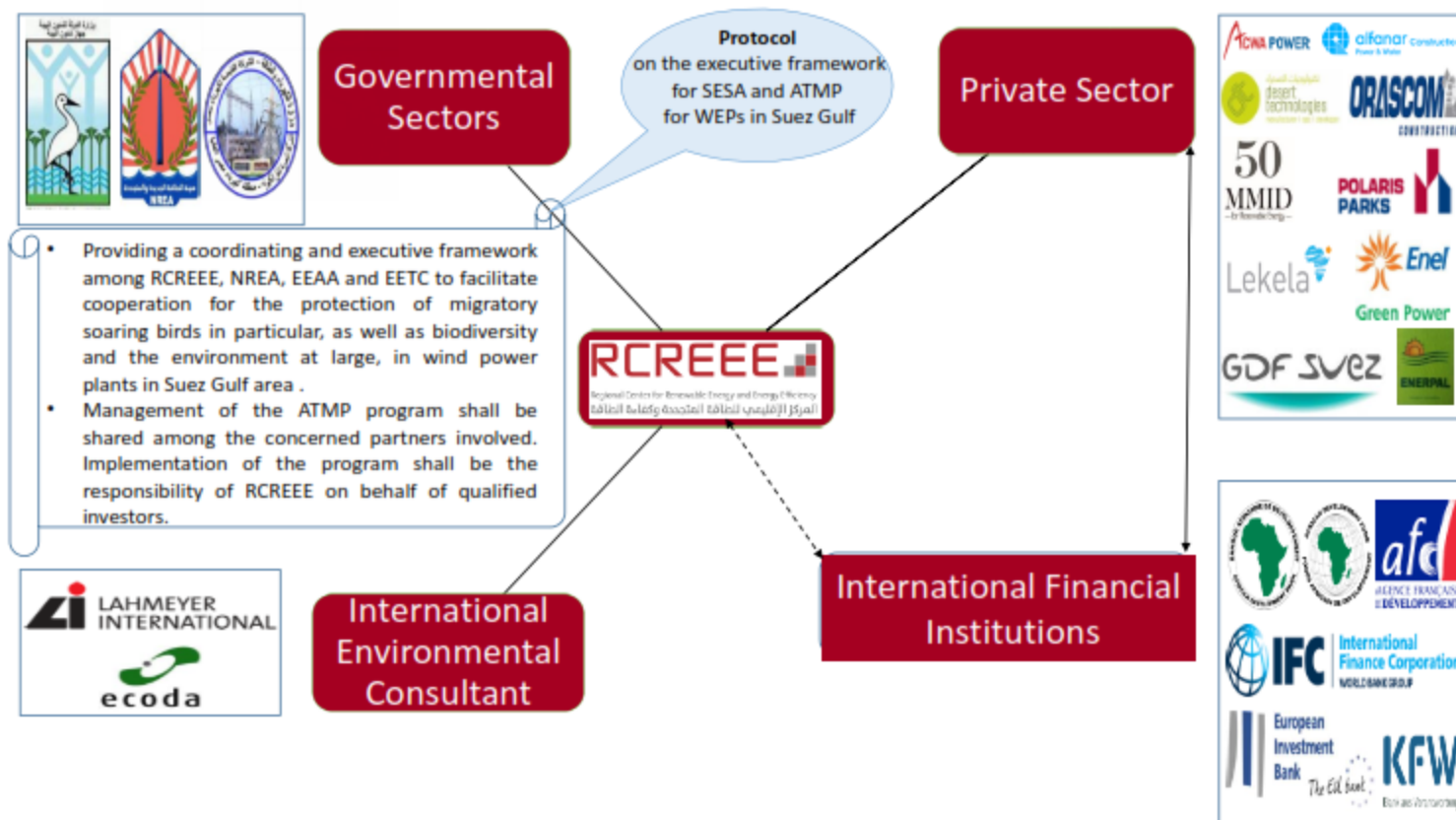
Qualified Investors on wind farm development
benefit from the Protocol:

Access to economic incentives and facilitation of
construction and operation of wind farms

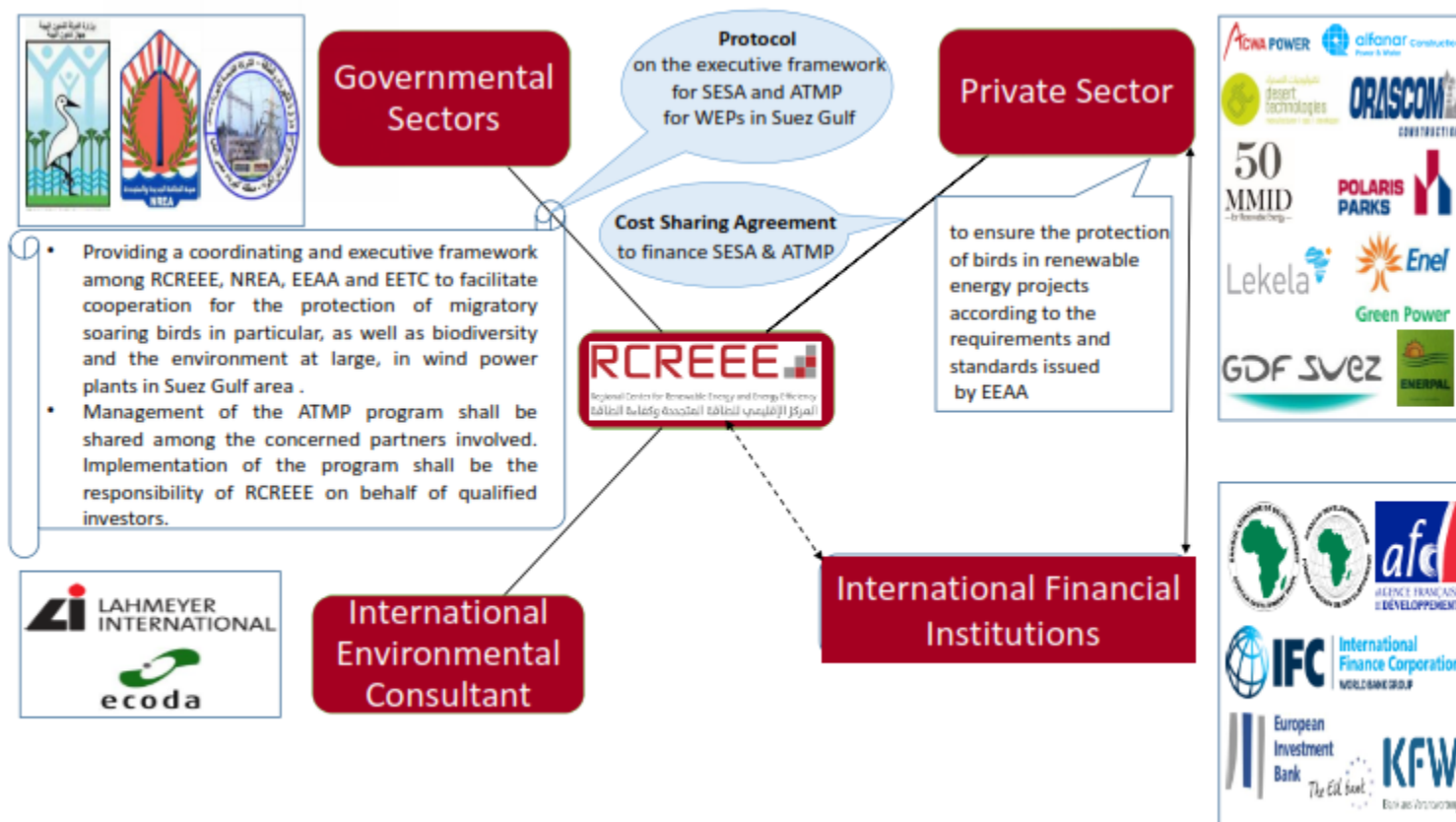
Innovative Strategic Framework



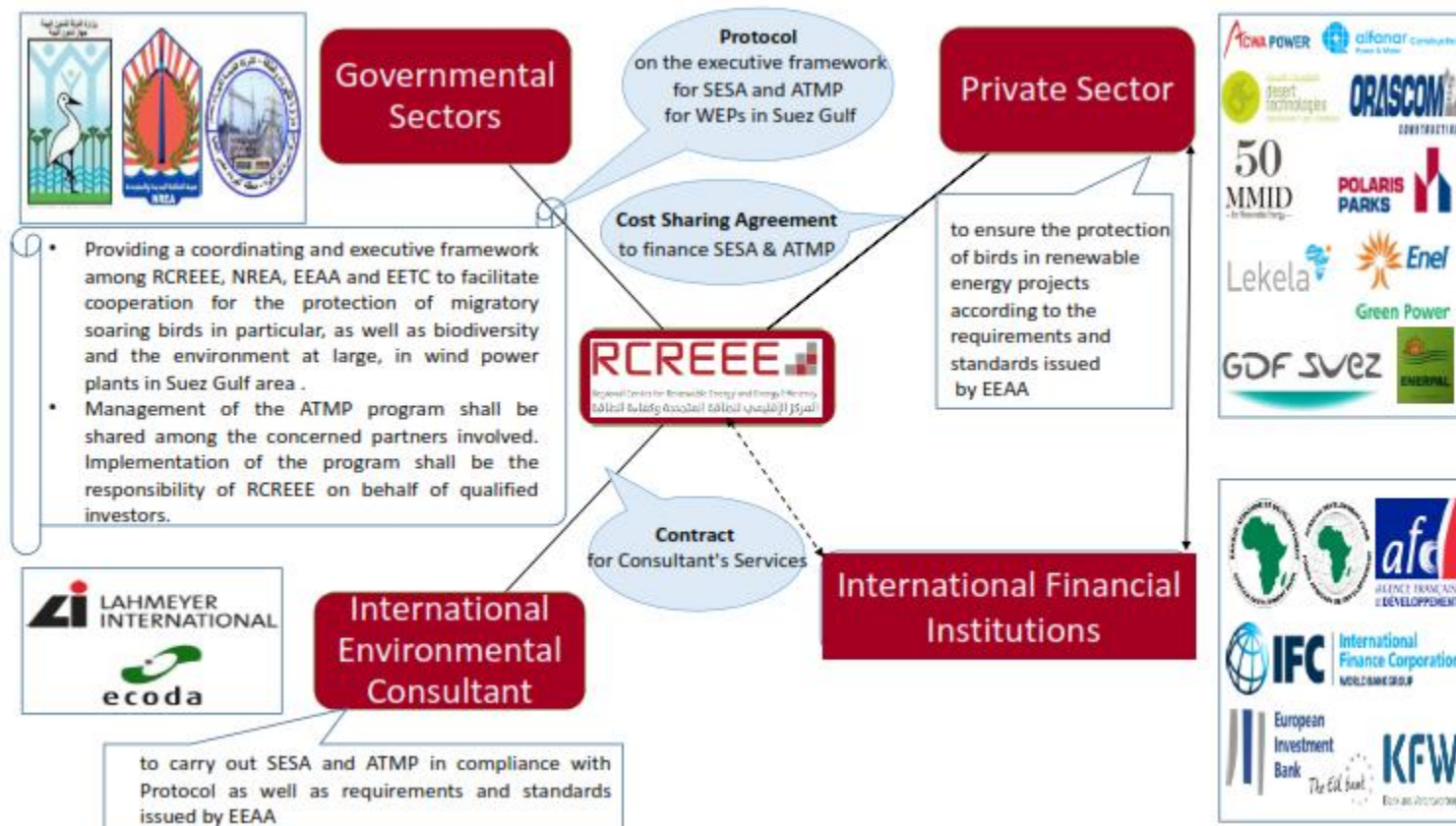
Innovative Strategic Framework



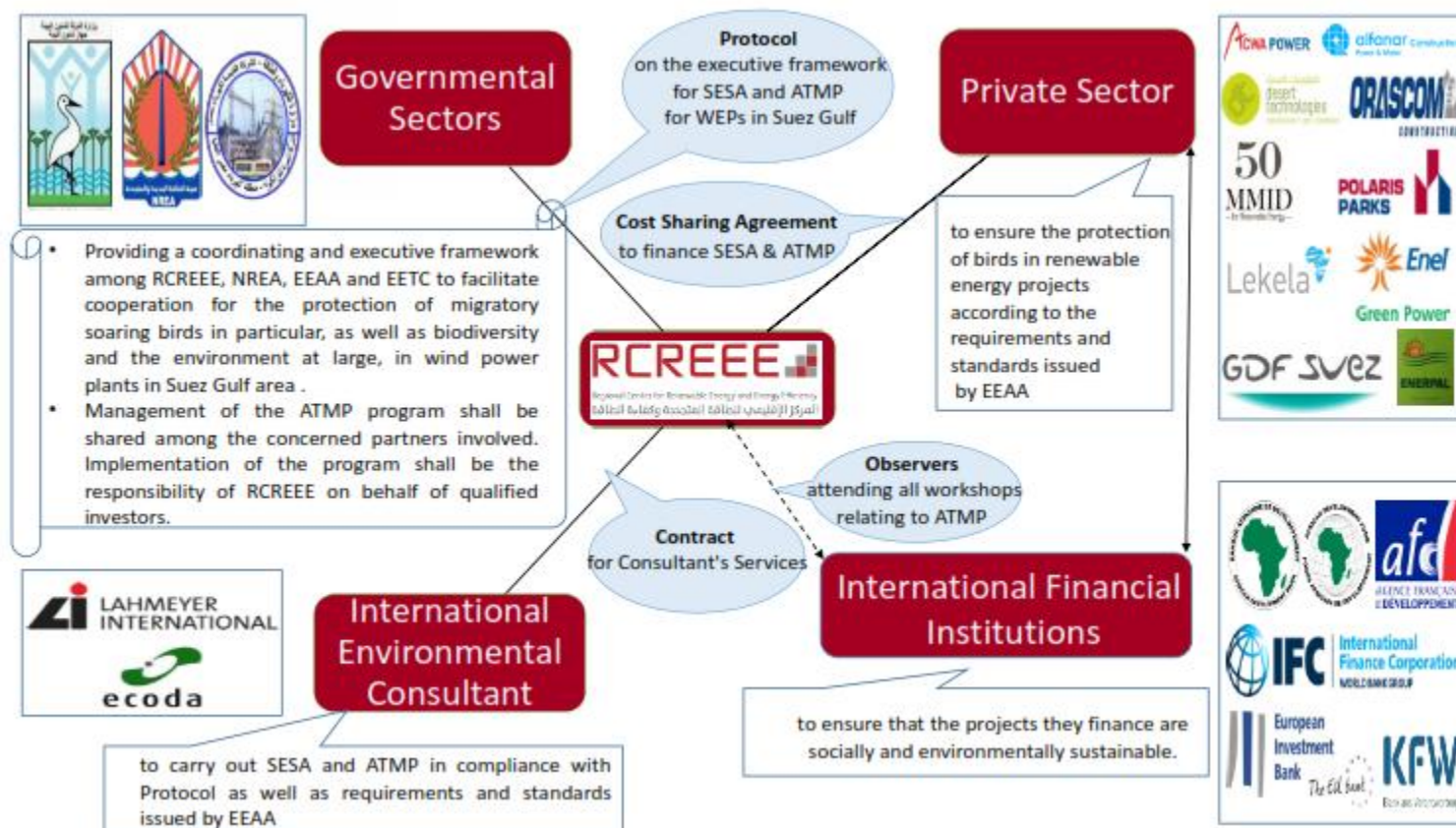
Innovative Strategic Framework



Innovative Strategic Framework



Innovative Strategic Framework



Objectives

"Better protection – better production"

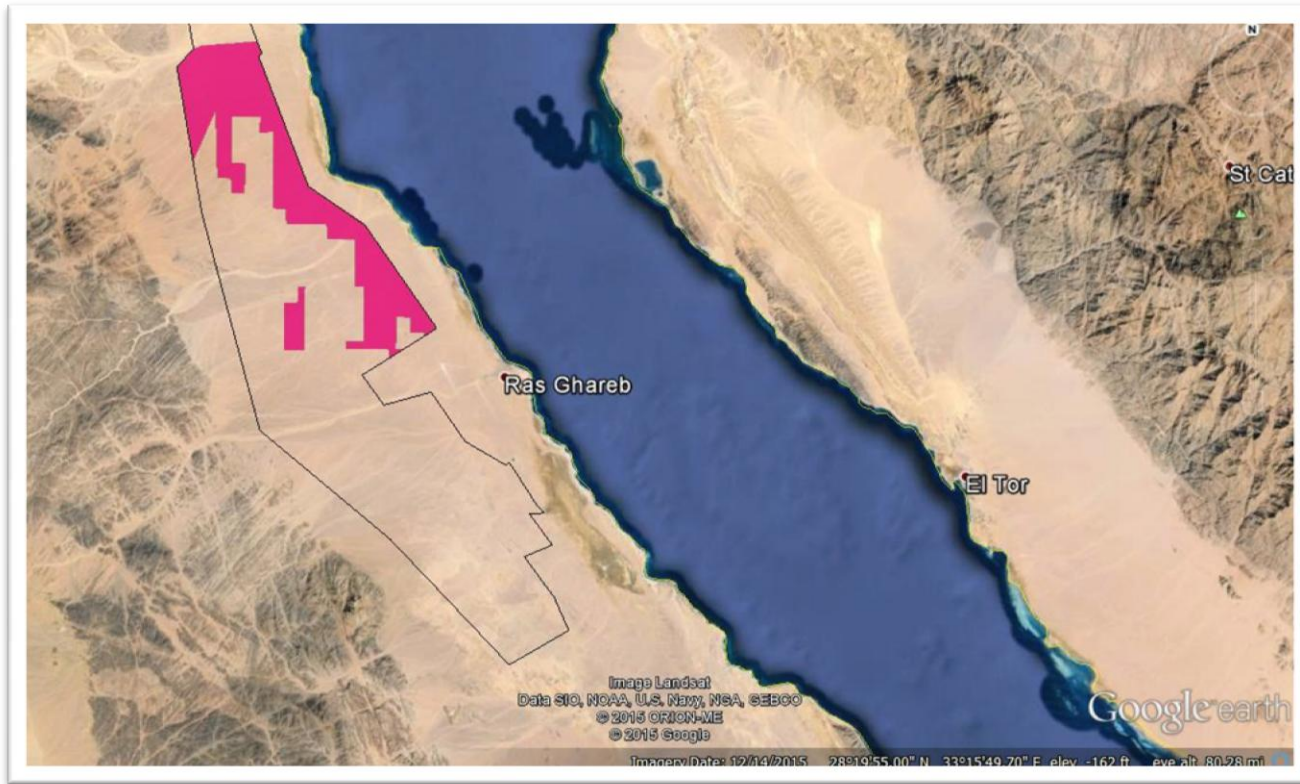
- Strengthen the protection of migratory birds crossing over the migration path of international importance route through Egypt
- Minimizing potential effects of wind energy projects on the migratory birds
- Expediting the economic construction of wind farms
- Facilitate the operation of wind farms

Initiative contents

1. Strategic and ***Cumulative*** ESA for Gulf of Suez **Whole** area
(starting with field-work in spring and autumn 2016)
2. Five-years shared monitoring program of wider area
(pre-, under- and post-construction monitoring)
3. Production in all subsequent years with
 - (a) Common monitoring program
 - (b) Active turbine management program

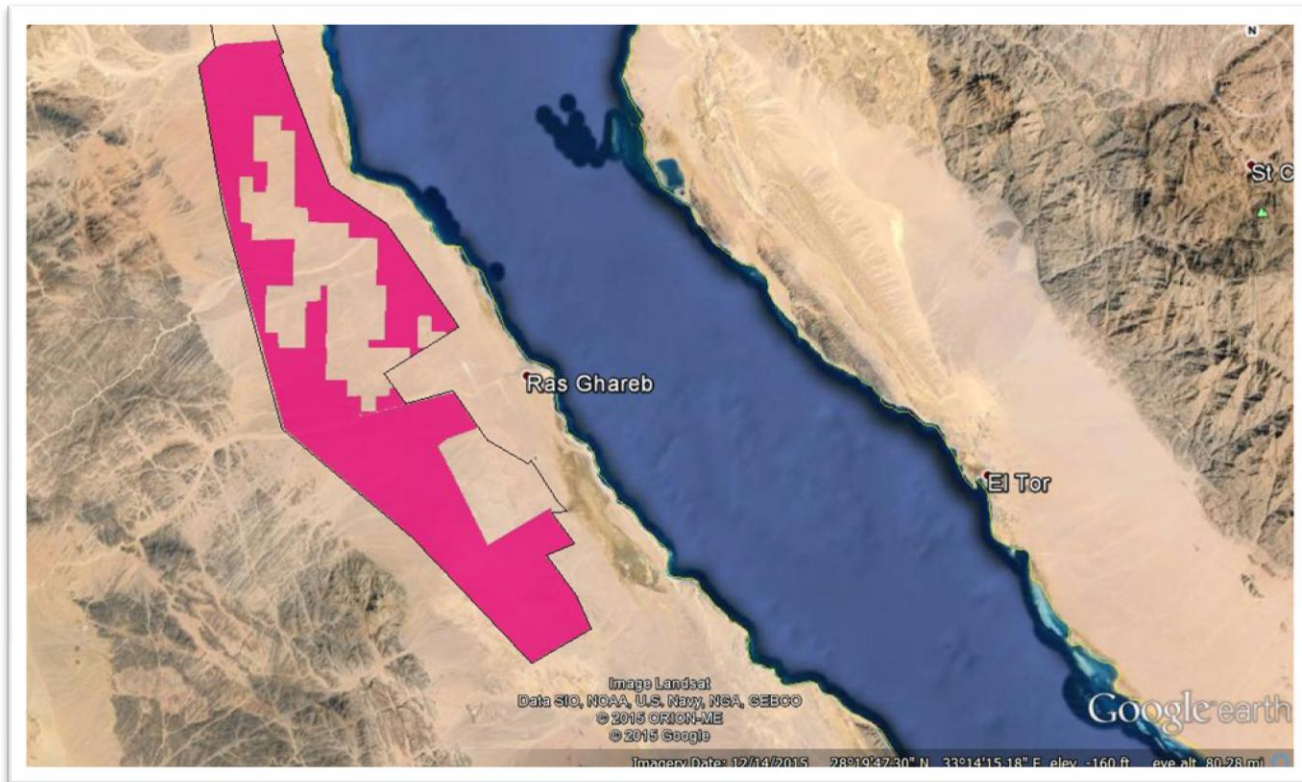
ATMP Area

- Strategic and Cumulative Environmental and Social Assessment (SESA) area



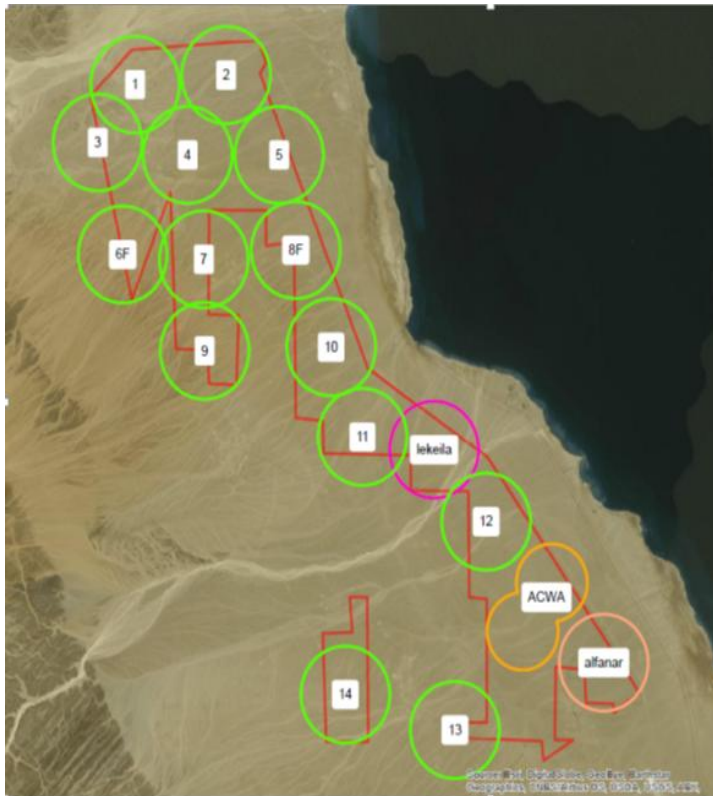
ATMP Area

- Active Turbine Management Program (ATMP) for wind power projects area



ATMP Area

- Methodology for executing the bird monitoring



Environmental Key Issues

Egypt has global responsibility for soaring migrants

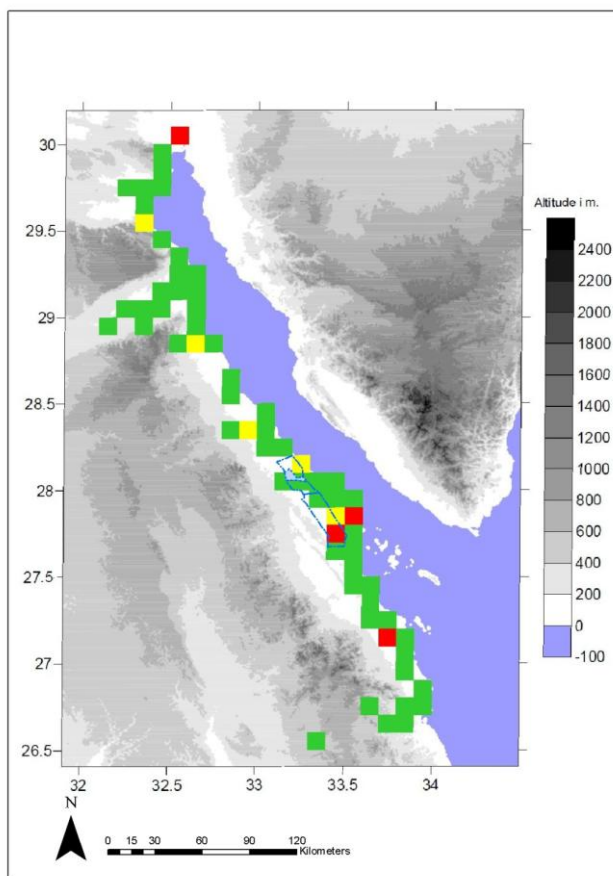
The Red Sea-Rift Valley Flyway holds most species and next highest numbers



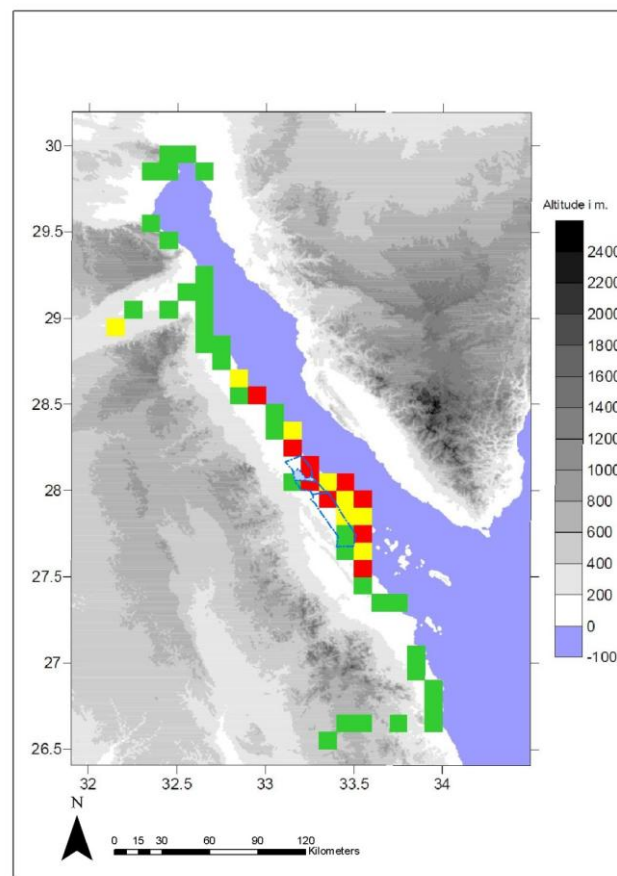
Principal flyways for soaring birds: (1) Trans-American Flyway, (2) the Western European-West African Flyway, (3) **the Eurasian-Sub-Saharan Flyway (Red Sea-Rift Valley Flyway)**, (4) the East-Asian Continental Flyway, and (5) the East-Asian Oceanic Flyway

Environmental Key Issues

Soaring Bird Atlas at Gulf of Suez, Danida, 1998



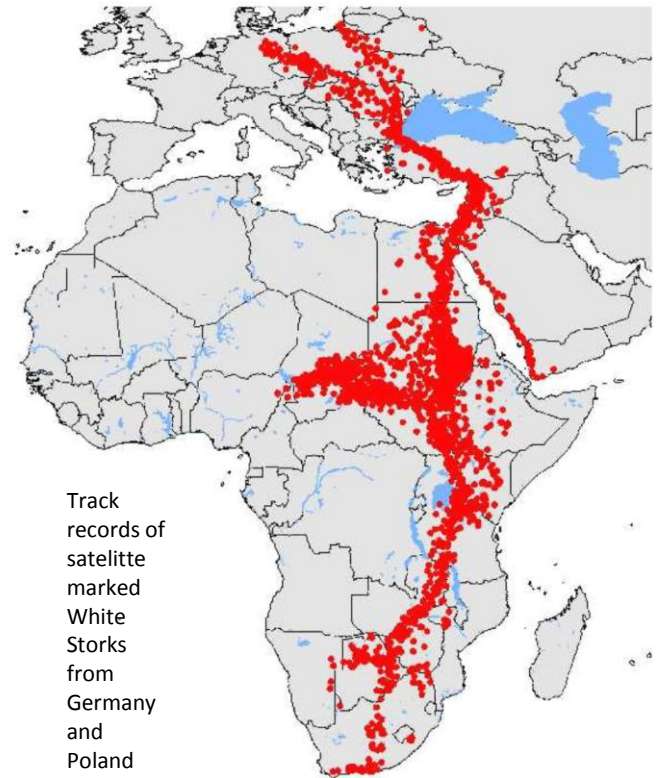
Spring



Autumn

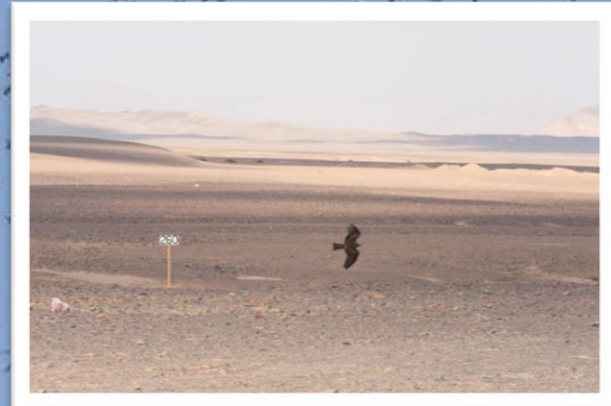
Environmental key issues

Bird-Migration – one example (White Stork)



Environmental key issues

Bird migration – other examples



Monitoring by radar with support from visual observations

Essential data

- Accurate, replicable documentation (real time, position, altitude)
- All migration patterns
- Total numbers of selected species
- Information from all weather conditions



Expected results

Qualified Investors:

- Investors haven't started their individual ESIA: will be able to receive an E&S non-objection from EEAA, hence being able to complete their financial closure.
- Investors already started their individual ESIA or their land plots are located in the area previously studied by NREA (LI/Ecoda): will be able to receive the cumulative E&S impact hence receive non-objection from EEAA, hence being able to complete their financial closure.
- Get access to financial incentives being limited in time.
- Investment guaranteed by qualified environmental impact assessment.
- Active turbine management program will increase production.
- Costs are reduced by shared monitoring program.

Expected results

Common benefits:

- Production of renewable energy will be expanded.
- Carbondioxid emissions are reduced.
- A new model is developed for future wind farm projects.

Thank you

