



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



Ministry of Trade & Industry
وزارة التجارة والصناعة



GEIPP

GLOBAL ECO-INDUSTRIAL PARKS PROGRAMME



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Federal Department of Economic Affairs,
Education and Research EAER
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Eco-Industrial Parks Policy Framework Development Workshop

Cairo, 30th of May, 2023



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Egypt EIP baseline; policies and practices

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Egypt Experience

- Based on CE database and GEIPP assessments 7 Egyptian IP performance varies significantly between 20% and 60%
- Most zones taking the assessment have aspirations to improve above 70%
- Scoring from highest to lowest
 - ✓ Economic
 - ✓ Park management
 - ✓ Social
 - ✓ Environmental

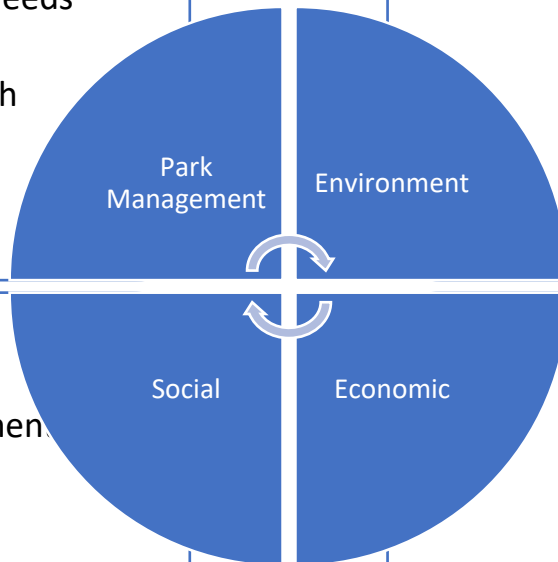
PARK MANAGEMENT	
75%	(Basic) park management services
25%	Monitoring and risk management
100%	Planning and zoning
ENVIRONMENT	
33%	Management and monitoring
22%	Energy
17%	Water
0%	Waste and material use
40%	Climate change and the natural environment
SOCIAL	
39%	Social management systems
57%	Social infrastructure
0%	Local community outreach
ECONOMIC	
100%	Employment generation
44%	Local business & SME promotion
78%	Economic value creation

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Typical areas of improvement in Egypt

- Detailed understanding of customers needs and gaps (market assessment)
- Working groups on EIP (interaction with tenants)
- Improved customer care
- EIP governance

- Transportation services
- Joint CSR activities
- Vocational training and skills development
- Joint social infrastructure (clinics and nurseries)
- Gender inclusion



- Resource efficiency in of shared infrastructure
- Resource management
- Monitoring and benchmarking
- Shared infrastructure, access to resources and symbiosis

- Value added business services to SMEs
- Service in licensing and government compliance
- Facilitating access to finance and banking services
- Suppliers management

Typical areas of improvement in Egypt

- Conduct surveys to understand current and potential tenants challenges and needs
- Develop EIP policy statements, vision, mission, roadmaps, develop EIP committee and targets
- Regular meeting with tenants on joint EIP and RCEP activities leading to stronger engagement and dialogue
- Development of KPIs, reporting lines, responsibility matrices
- Customer care SOPs and reporting lines
- Awareness raising services



Park
Management
Increased Score

Typical areas of improvement in Egypt

- Increased energy efficiency and renewable energy inclusion in shared infrastructure (street lighting, last mile electricity distribution, water supply and treatment)
- Investment in shared RCEP investments (heat recovery and exchange, shared cooling, heating, compressed air, utilities, etc.)
- Waste management services
- Improved energy and water management (metering, benchmarking and improvement)
- Facilitation of industrial symbiosis
- Linking with service providers, green finance
- Assistance in benchmarking and monitoring



Environment
Increased Score

Typical areas of improvement in Egypt

- Adjusting load sells and packaging systems for more accurate product filling
- Shifting to less polluting chemicals (shifting to green chemicals such as organic dyes and catalysts)
- On-site recycling or material recovery such as in plastic industry
- Producing bi-products from waste such as ethanol or methanol and MDF from bagasse of sugar industry
- Using less packaging material



Environment
Increased Score

Typical areas of improvement in Egypt

- Develop BDS for SMEs either directly through capacity building and consultancy or through linkages to support programmes
- Assistance in government compliance and paper work including licensing, certifications, social insurance, tax reporting etc. (on site officers or linkages with providers)
- Facilitating access to finance and banking services through attracting banks to open branches on site or advising and linking firms particularly to green finance facilities
- Assistance in accessing joint supply, creating databases of suppliers and B2B linkages for stronger value chain integration



Economic
Increased Score

Typical areas of improvement in Egypt

- Arrange joint transportation services for blue collars and workers in general
- Jointly implementing CSR programmes for stronger and more focused and coordinated impact on surrounding communities
- Develop vocational capacity building programmes addressing common skills gaps for labor and workers tenants face
- Improving social infrastructure by investing in on-site health care facilities (clinics to manage emergencies for instance) and day care for women with children working in the industrial zone
- Assistance in hiring and gender inclusion activities



Social
Increased Score

Relevant Policies and Regulation to EIP

- Despite the absence of regulatory and legal articles under the title of EIP, there are numerous regulations, laws and policies which either directly or indirectly act as drivers towards EIP
- Egypt higher level strategies also include numerous aspects relevant to EIP
- Most articles address factory level with very few addressing the park level



Egypt Vision 2030

Egypt Climate Change Strategy 2050

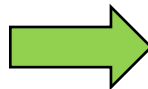
Egypt Sustainable Energy Strategy 2035

Relevant Policies and Regulation to EIP



Electricity Law 2015

- Doesn't specifically address operators but mandates development of energy register and hiring energy managers for entities with peak load above 500 kW
- Requires distribution utilities (applies to operator if distributing electricity) to develop annual load reduction and EE plans



EIP Frame Requires

Management and monitoring Park management entity operates an environmental/energy management system in line with internationally certified standards, monitoring park performance and supporting resident firms in the maintenance of their own firm-level management systems.

Energy Supporting programs and documents are in place to improve the energy efficiency of resident firms, especially for the top 50 percent of major energy-consuming businesses in the park.

Electricity Law 2015

- Opens up market for private investors (distribution, solar grid integration) allowing park operators to play a bigger role in electricity market and in renewable energy aspects
- Net metering regulations
- Emphasize on standards and specifications which can improve efficiency of infrastructure



IIP Frame Requires

Total renewable energy use in the industrial park is equal to or greater than the annual national average energy mix

Park management entity sets and works toward ambitious (beyond industry norms) maximum carbon intensity targets (maximum kilograms of carbon dioxide equivalent (kg CO₂-eq) / kilowatt hour (kWh) for the park and its residents. Targets should be established for the short, medium, and long term, in line with local norms and industry sector benchmarks.

Biodiversity Strategy (2015-2030) and Law

- Egypt National Biodiversity Strategy and Action Plan Goal 4 Target 14 “T14: By 2020, enhancing environmental awareness of Egyptians of the importance of biodiversity and ecosystem services through integrating environmental themes into university and school curricula, promoting green media, and supporting youth clubs and **eco-industry**”.
- “Threats to biodiversity in Egypt are either directly or indirectly linked to human impacts, with the former including extreme hunting, clear-cutting and deforestation, and the latter linked to habitat devastation for developmental purposes and all pollution types, including refuse **from industry and human settlements**”
- Recognizes treated industrial water discharge as threat to marine life
- Law is being prepared and will address new industrial development specially in costal and fragile desert areas

EIP Frame Requires



At least 5% of open space in the park is used for native flora and fauna



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Water, wastewater and environmental policies

Ahmed Gaber
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Consultants

Weber Sites Consulting
Management Consultant

Waste management law 2020

- Establishing the "Green Mark" system in cooperation with the Ministry of Commerce and Industry, to motivate manufacturers to increase the proportion of recyclable inputs and reduce the generation of industrial waste
- Waster Management Regulatory Authority (WMRA) to work to approve integrated industrial waste management plan done by Industrial Development Authority (IDA), industrial zones, free zones and investment areas
- Coordinate with IDA to supervise organizing, planning and monitoring of the integrated management processes for industrial waste
- Set Extended Producer Responsibility (EPR) systems and plastic taxes

EIP Frame Requires

At least 20% of solid waste generated by firms is reused by other firms, neighboring communities, or municipalities



100% of firms in park appropriately handle, store, transport and dispose of toxic and hazardous materials

Less than 50% of wastes generated by firms in the industrial park goes to landfills

Waste management law 2020

- It requires large waste generators to register and report on their waste produced and how it is handled
- WMRA to dedicate budget to support entrepreneurial industrial waste management businesses (reduce-reuse-recycle-safely dispose)
- All industrial zones should prepare an integrated waste management plans for industrial zones
- Each factory needs to dedicate an environmental managerial who keeps register of waste and how it is used and to be shared with IDA also submits regular waste management plans
- Eco-design of products to reduce waste

EIP Frame Requires

At least 40% of resident firms with more than 250 employees have an environmental / energy management system in place that is in line with internationally certified standards.



Water Regulations

- Water discharge specs are set and monitored
- Tariff for wastewater discharge is in place indirectly rewarding facilities which reuses water
- Industrial wastewater control authority monitors discharged water quality as per environmental law



EIP Frame Requires

Park management entity has a functioning system in place to comply with local/national regulations and international standards applicable to the industrial park. Park management informs compliance by resident firms including compliance information that firms share with the park management entity

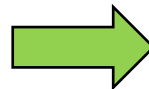
100% of total water demand from firms in industrial park do not have significant negative impacts on local water sources or local communities

At least 95% of industrial wastewater generated by industrial park and resident firms is treated to appropriate environmental standards

At least 50% of total industrial wastewater from firms in the park is reused responsibly within or outside the industrial park.

Environmental Law 1994

- Recognizes untreated industrial wastewater as a key pollutant
- Criminalize dumping of industrial waste or its disposal in a none regulated manner
- Regulates disposal of hazardous waste
- Sets permissible emissions levels and discharged water quality sets rules for monitoring and penalizing those who don't comply



EIP Frame Requires

A program is established to **monitor, mitigate and/or minimize GHG emissions**, such as carbon dioxide (CO₂), methane (CH₄), nitrogen oxide (NO_x), and so on. There is clear evidence of steps taken to introduce mitigation activities

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