Maximizing the impact of resource efficiency through eco-industrial parks

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UNIDO
Hoi An, Viet Nam, 29 Sep 2016

UNIDO at a glance

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

www.unido.org
www.open.unido.org
Global challenge: Cities and Industry driving Consumption

- 53% of global population live in cities with 80% of global GDP being generated
- 3/4 of global energy use by Cities and 1/3 of global energy consumption by Industries
- 86 Cities emit 2.08 billion tons of CO2 equivalents and Industries 940 million tons

"Decouple economic growth from an unsustainable use of natural resources and negative environmental impacts"

Eco-industrial parks: Global assessment

- Need for clearly defined minimum requirements
- Lack of common understanding of “eco”
- Need for innovation in business relations
Eco-industrial parks: UNIDO methodology

“Industrial-urban symbiosis fosters inclusive and sustainable industrial development through outward integration”

Company
- Resource Efficiency & Cleaner Production
- Low Carbon Technology
- Green Chemistry
- Renewable Energy

Industrial Park
- Collective resource efficiency solutions
- Resources
- Infrastructure
- Supply
- Services

Sustainable Cities
- Waste Management
- Recycle
- Corporate Social Responsibility

Urban Symbiosis

Eco-industrial parks: Benefits for cities and industries

**Beneficiaries**

- Authorities
- Environment
- Industries
- Cities

- Reduced use of raw materials, water and energy
- Minimized GHG emissions, reduced release of POPs and (toxic) chemicals use
- Reduced waste through resource circularity
- Shared recycling facilities
- Improved competitiveness and profitability
- Creation of good-quality jobs
- Improved workers health and safety
- Increased quality of life for communities
- Better access to new technologies and finances
Eco-industrial parks: some ongoing projects

“Challenges include the informal sector, the social dimension of retrofitting and the scale of industrial parks.”

- Colombia: 1 Park
- Morocco: Pipeline
- Peru: 2 Parks
- South Africa: 2 Parks
- India: 5 Parks
- Viet Nam: 4 Parks
- China: 1 Park

Eco-industrial park pilots in India

**Gujarat State:**
- Partner agency: Gujarat CPC
- Selected industrial parks:
  - Dahej Industrial Estate
  - Nardesai Industrial Estate
- UNIDO methodology:
  - RECP assessments (40 companies)
  - Industrial symbiosis
  - Green infrastructure
  - Management
- SuRe Standard

**Andhra Pradesh State:**
- Partner agency: CII-GBC
- Selected industrial parks:
  - Jeedimetla Industrial Park
  - Gajularamaram Industrial Park (ALEAP)
  - Jawaharlal Nehru Pharma City
- UNIDO methodology:
  - RECP assessments (30 companies)
  - Industrial symbiosis
  - Green infrastructure
  - Management
- SuRe Standard
Pre-assessment process

- Stakeholder Consultation
  - Industrial Park Management (ETMDC & APIC)
  - Non-Government Organisations (NGO, Investors, Professionals)

- Indicator for Pre-assessment
  - Research Papers & Reports
  - Previous assessment study

- Visit to Parks
  - Meeting with Park Management (ULA & Zone office)
  - Meeting with association, industries and service society

Visits to park
- Evaluation of park infrastructure
- Industry/sectors in park
- Collection of basic information

© Confederation of Indian Industry

Candidate Industrial Parks

- JNPC
- APSEZ
- Andhra Pradesh
- Telangana
- Hyderabad
- Pench
- Hogenakkal
- Dharwad
- Gadwal

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
WWW.UNIDO.ORG
Jeedimetla Industrial Park, Hyderabad, India

Basic Information
- Established: 1973
- Area: 1300 Acres
- Number of Units: more than 1500
- Employment: 200,000 people

Classification
- 6 Phases - Multiuse
- Mostly – Red and Orange
- Housing and commercial also nearby

Basic Infrastructure
- Four Lane Roads
- Electricity
- Potable Water
- Training Facility - HRD Centre
- Common Quality Testing Laboratory
- Other Common Facilities

Industry Association
- One of the largest industry association in state
- Very active association with over 500 members

Sectors
Very Diverse: Engineering, Pharma, Chemical, Plastics, Food & Agro, Furniture, Equipment Building, Solar Energy, electrical, Textile & Garments, Bulk Drugs, blades etc.
Environmental concerns
- Critically polluted area in city
- Combined Waste Water Treatment Plant installed and operational at site (JETPL)
- No Communal hazardous waste and waste generation; currently managed by individual facilities
- Deteriorated groundwater quality
- Air Pollution constant concern in near by areas

Other
Distinct Industries: supply to Defence, Aeronautical and Space.
Active association
Many environment improvement related activities taken up in the past like training program on hazardous waste management, plantation drive, cleanliness drive are some initiatives

Common Facilities
- HRD Centre
- Quality Testing centre
- Road infrastructure management
- Provisions in place and operational: Electrical connection, potable/Manjeera water, CETP

Industries
- Highly diverse industries and sectors
- Relatively high quantities of effluent, solid waste and hazardous waste generated
- Suppliers to National Defence, Aeronautical and Space.
- Many units with exporting functionalities (pharma)

Industry and stakeholder feedback
- Industries are very positive about EIP initiative
- Basic awareness on environment initiatives
- History of uptake of initiatives to improve environment performance
- Good potential for upscaling Resource efficiency

Key industries
- Granules India
- Hetro Drugs
- Hyderabad Food Products
- Chemtech Industrial Equipments
- Eqic Dies & Moulds Engineers Pvt. Ltd.
## Overall Summary - Jeedimetla

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**Comment**

- Among the largest parks in the state
- Diverse industry across different sectors
- Positive feedback from the IALA & Service Society
- History of proven positive outcomes from various environmental initiatives: Evident by the basic awareness and positive orientation toward basic environmental management practices
- GIZ through Integration Gmbh involved in Climate Change Adaptation project in park and in constant engagement with park stakeholders
- Ideal for Pilot in this initiative

## Pre-assessment outcome

<table>
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<th>Indicators</th>
<th>Pashmyalaram</th>
<th>Jeedimetla</th>
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<th>ALEAP</th>
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Eco-industrial parks: Beyond definitions and towards standards

“... need for process standards for all industrial parks and performance standards for eco-industrial parks”

Joint cooperation → Towards a Common Framework

EIP Minimum requirements

Scoring system

Gold
Silver
Bronze

Economic | Environment | Social
Management systems
National Compliance
International EIP Centre supported by UNIDO

- Location: University of Ulsan, South Korea
- Joint cooperation between UNIDO and Ulsan city, South Korea
- Objectives: promotion of eco-industrial parks and eco-cities in developing countries

SuRe ® : The Standard for Sustainable and Resilient Infrastructure

- Global voluntary standard developed through a multi-stakeholder approach incorporating inputs from developed and emerging nations
- The standard integrates key criteria of sustainability and resilience into infrastructure development and upgrade
- SuRe® objectives:
  1. establish a common understanding of sustainable and resilient infrastructure between project developers, financiers, public sector institutions and end-users
  2. improve the quality of projects so they are built on sustainable and resilient principles and
  3. help investors identify responsible investment opportunities.

For more information visit: http://www.gib-foundation.org/sure-standard/
Thank You For Your Attention!

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