International Experiences in EIP Policy Development

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Presentation Plan

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2) EIP Policy and Inclusive Economic and Social Impact
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8) Introduction to UNIDO’s “EIP Policy Support Tool”
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1. Introductory Considerations
EIPs are Multidimensional

• Industrial parks can act as an instrument for
  – economic diversification, productivity, transformation
  – inclusive and sustainable growth

• The need for EIPs is typically driven by a combination of:
  – First, industrial growth, absence of serviced industrial land, and local & foreign investor needs
  – Environmental management issues, residential encroachment, municipal rezoning

• Development of EIP Policy therefore involves acting systemically at multiple levels
Sustainability and Industrial Parks

- IPs’ sustainability and long-term viability are, first, a financial question
- If IPs, as real estate, do not respond to the level or nature of the demand for serviced industrial land, the negative consequences for their sustainability will be numerous and varied, including:
  - over-scoped and unoccupied “white elephant” sites
  - unrecoverable public subsidies, deficits, and debt
  - tenants and occupants locked into a “rent-seeking” logic that destroys economic value, export-readiness, or competitiveness
- IP feasibility must ensure, through credible market engagement, that they are truly market responsive, in terms of (initially latent) investor demand, location, size, infrastructure, and services - all of which must be real and robustly confirmed
- The economic sustainability of IPs is intimately tied to their financial sustainability
- Modern IPs are also expected to be ecologically and socially sustainable, lest their negative externalities on these fronts outweigh any economic benefits – hence the notion of EIPs
The Need for EIPs

“The treatment of women, labour standards and working conditions in zones have been highlighted... as have pollution and misuse of land... misappropriating or destroying agricultural land in the pursuit of industrialization, or for fraudulent private gains... As of 2017, the ILO concluded that ‘problems persist in the protection of fundamental principles and rights at work, in particular freedom of association and collective bargaining, and gender equality’ and that ‘other violations of workers’ rights are also common, especially concerning hours of work and safety and health’... some countries have pursued ‘a low-wage strategy for... development, where labour law either does not apply or is not enforced’ (ILO, 2017). ILO surveys continue to report instances of unpaid overtime, unremunerated work at night and lack of social security... Poor environmental practices... have also long been of concern. An often-cited example of environmental degradation relates to Mexican maquiladoras... Their rapid growth caused air and waste pollution that became a health hazard for nearby populations. Weak monitoring and enforcement capabilities compounded the problem”.

- UNCTAD, World Investment Report 2019
EIPs as a Form of Best Practice Industrial Parks: Going Beyond Environmental Issues

- Industrial parks are increasingly “green”, as for instance demonstrated by:
  - good waste management practices (e.g., the CETPs in Nepal’s Bhaiharawa SEZ, Bangladesh’s Kaliakhoir Hi-Tech Park and Peru’s Piura Futura Industrial Park)
  - renewable energy installations (as is, for instance the case with the UAE’s Masdar City’s solar and wind power).

- But industrial parks have also made other positive contributions to sustainable development of host countries’ industrial bases through such mechanisms as:
  - third-party workplace inspectors (e.g., Pakistan’s Sialkot Industrial Estate)
  - health services (e.g., Ethiopia’s Bole-Lemi SEZ worker dispensary)
  - promotion of inclusive growth through linkages (e.g., Jebel Ali Freezone’s vendor linkage programme; Tacna Free Zone’s employee matchmaking database)
  - positive economic spill-over effects (e.g., Tacna Freezone for the broader economy of the town and region of Tacna in Southern Peru, which now hosts considerable Chilean health tourism as a knock-on effect of the duty-free shopping the free zone originally brought about)
2. EIP Policy and Inclusive Economic and Social Impact
Some Industrial Zone Impacts
(UNCTAD, 2019; WEPZA, 2020; FIAS, 2008)

- As of 2019, Industrial Zones had created over 90 million direct and at least 50 million indirect jobs, and can account for a substantial share of national total employment
  - MENA:
    - 25% in UAE;
    - 8.7% in Tunisia;
    - 7% in Jordan
  - SSA: Successful Zone examples in Africa
    - TangerMed, Morocco; East London IDZ, South Africa; and Port Louis, Mauritius...
    - Ethiopia’s new Industrial Parks program, launched in 2016, has already created 50,000 jobs
- Higher pay levels and working standards (Poland, Philippines)
- Skills and technology transfer (Malaysia, Dominican Republic
  - (Rhee ’90; Wang, ’90; Cho, ’90; Amirahmadi & Wei, ’95; Madani, ’99)
Community Dialogue
(Helsingborg IP, Sweden)

Due to our central location with housing not far from the area, it is extra important for us at Industry Park of Sweden to have a dialogue with local residents. We therefore hold continuous talks with the public and the municipality to let the inhabitants of Helsingborg make their voices heard. We see this as an opportunity to have a rewarding discussion and listen to what thoughts and wishes you who live nearby have.

A part of this discussion is our information sheet "Dialogen". Through the "Dialogue" we hope to be able to convey what we do and what our future plans look like. In the menu on the right are all the numbers released so far.
Linkages Programs for Inclusive Community Development

- Well-designed linkages programs can help spread the benefits of EIPs to surrounding areas and businesses, to encourage linkages with local suppliers, such as:
  - Encouraging EIP businesses to subcontract with local non-zone businesses through tax or rent reductions or certified lists of recommended suppliers provided by the zone operator
  - Encouraging EIP firms to provide materials, technical assistance, or financing to non-EIP suppliers through incentives
  - Establishing a “Machinery Purchase Fund,” as South Korea did to finance the procurement of domestic machinery for EIP enterprises
  - Allowing local suppliers to import components on the basis of the original letters of credit of the EIP firm they are selling to

- South Korea and Taiwan have made ample use of such supplier linkages, which has led to strong “spill over” benefits to the local economy. Because of these linkages, foreign investors have transferred significant skills and technology to smaller domestic companies and workers outside the zones.

- Additionally, linkages can be made with local labor markets to encourage domestic employment. The following measures can for instance be considered in this regard:
  - Creation of staffing and labor databases for investors (as is done at Zofratacna in Peru);
  - Establishing local training institutes designed to impart knowledge and skills directly related to the activities in the zones (as is done, for instance in the Panama Pacifico Zone, in the Mirshorai Zone in Bangladesh, or in Patan Industrial Estate in Nepal)
  - Conducting skills assessments of workers in the surrounding area and making this information easily accessible to EIP employers
  - Encouraging hiring and training local workers through fiscal incentives, such as tax credits or rent reductions
  - Coordinating with universities and other existing educational facilities to enhance industrial R&D and create programs designed to feed into zone-based businesses (as in the Oxford Science Park and Cambridge Science Park in the UK, and the KUST Science Park in Kuwait)
“Value Added” Economic Services (Zofratacna Zone, Peru, Case Study)

• Staffing and labor databases for investors, including information regarding level of education, languages, skills, etc.

• Public bus lines between the town of Tacna and the zone

• Presence of local professional services, including lawyers, accountants, auditors, couriers and customs agents, as well as on-site banks, customs agents, and transport companies within the zone and its extended “commercial area”
Patan Industrial Estate, Kathmandu, Nepal

- 15 ha with 223 buildings
- 100 companies
- 1,300 industrial workers
- Management Office and Ministry of Industry Office
- **Training Academy**
- **Union (ANIWU) Office**
- **Canteen**
- **Bank**
- **Show room**

Can be mandated by EIP Policy
3. EIP Policy
and
Environmental Impact
Green Transformation in China’s Industrial Parks (2015-2018)

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<th>Unit</th>
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<th>Average in the State Level</th>
<th>Comparison</th>
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<td>1</td>
<td>land area output per GDP</td>
<td>Hundred million RMB / km²</td>
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<td>0.086</td>
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<td>energy consumption per industrial added value</td>
<td>Tce / Ten thousand RMB</td>
<td>0.89</td>
<td>1.17</td>
<td>7/10</td>
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<tr>
<td>3</td>
<td>water consumption per industrial added value</td>
<td>m³ / Ten thousand RMB</td>
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<td>45.6</td>
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<td>4</td>
<td>COD emissions per industrial added value</td>
<td>Kg / Ten thousand RMB</td>
<td>0.24</td>
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<td>5</td>
<td>SO₂ emissions per industrial added value</td>
<td>Kg / Ten thousand Rmb</td>
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Results of industrial green transformation are positive

Source: TEDA Eco Center, Green Development League. National Economic and Technological Development Zones (NETDZs), China (2019)
Drivers of Green Transformation In China’s Industrial Parks

Main Actions of Green Transformation in Industrial Parks

• **Infrastructure Eco-Construction**: water circulation systems, energy integration, centralized waste treatment, etc.
• **Industrial Eco-Development**: clean production, industrial symbiosis, ecological design, etc.
• **Management Eco-Innovation**: *green policy, green culture*, etc.
4. Drivers of Comprehensive EIP Policy Impact
An effective and impactful EIP exists when all of the below elements converge to create a “competitiveness bubble”

- Policy, Legal & Regulatory Framework
- Site, Infrastructure and Amenities Requirements
- Governance

EIP
5. EIP Policy
and Site Selection, Infrastructure Design
and Amenities Requirements
Some Key Considerations in Site Selection

- Industrial Parks must be underpinned by a critical quantum of localized output, critical factors of production (including labor), sufficiently deep local supply chains, and significant potential occupant and consumer markets.

- Site choice must be screened through a rigorous assessment of such considerations as unencumbered land, business social infrastructure and “Quality of Life” enablers, as well as labor.
  - Social infrastructure, including schools, hospitals, hotels, retail business, and places of worship.
  - Upstream raw materials or distribution centers and/or downstream processing or distribution points for outputs.

- As sites for access to inputs and factors of production, agglomeration and distribution, IPs must be in Pareto-optimal locations, determined by relative costs of moving factors of production, inputs and outputs.

- In pre-feasibility studies, several months of inputs from Economic, Transport & Logistics, and Environmental & Social experts should be budgeted for.
Industrial Park Policy Impact through Judicious Project Selection

• *Allow private sector to drive industrial park opportunity* identification and promotion

• Only involve Government in promoting specific parks on a PPP basis, and promoting only a limited number of such parks, to not crowd-out private investment or erode individual parks’ value

• Focus on the market, as informed by cargo demand, locational competitive advantage, labor markets, infrastructure, transport links, factor costs
Industrial Energy Symbiosis... a.k.a. Pipelines...
(Sweden’s Helsingborg Business Park)

- The Helsingborg Business Park in Öresund, in southern Sweden, hosts 20 chemical and service companies, the biggest being Kemira Kemi, which also owns the park
- Due to the energy-intensive industries onsite, its total energy turnover is considerable, at around 1,000 GWh/year
- However
  - Approximately 600 GWh/year (or 60%) of this figure is climate-neutral, being either ‘green electricity’ or ‘recovered energy’ in the form of repurposed steam, hot water, compressed air and cooling water
  - Approximately 350 GWh/year of the recovered energy is supplied as district heating to the nearby city of Helsingborg, corresponding to 1/3 of the total district heating demand

www.industrypark.se
Mandating Planned Circular Site Design... and More
(Kalundborg IZ, Demark)

• Symbiosis in the zone was not originally “planned”, but rather
• In 2011, the *Kalundborg Symbiosis Center* was officially established by the municipal government-it focuses on
  – education and courses
  – *creating resource exchange systems* and markets for residuals and raw materials requiring reprocessing
  – pro-actively identifying potential candidates for similar exchange projects
  – formally facilitating such projects, and *kick-starting* them

• *The Danish Business Authority* is now also supporting efforts to identify and establish new symbioses (involving *cluster-based economic activity and plot allocation*)

• The IZ thus has both:
  – connection of factories with pipelines (water, steam)
  – exchange markets

• Impacts:
  – Total savings in the system is 600 million DKK/year (€ 81 Mn/yr)
  – Yearly CO$^2$ emission reduced by 240,000 MT
  – 3 million m$^3$ of water saved through recycling and reuse
6. EIP Policy and the Question of EIP Governance
Entrusting the Functions of Parks Regulation, and of Park Development and Operation, to Different Entities, the Latter Ideally to the Private Sector

- Industrial Park developers should be left alone to construct infrastructure and facilities in parks and provide services to their users, including managing and maintaining their infrastructure and facilities, leasing their property and marketing them.

- Park regulators, on the other hand, should be responsible for overseeing and inspecting development, operations and the activities of users in order to ensure they comply with the law, including environmental, land use, labor, and other regulations.

- Reasons for enforcing this separation of roles include avoiding:
  - Conflict of Interest – Regulators must be free and independent of the activities they regulate, which include zone development and operation.
  - Overload and Confusion of Responsibilities and Mission – Policy implementation and effectiveness is best enabled when government entities are given clear and consistent mandates. Assigning a Parks Regulator the missions of designing, financing, developing, operating, and regulating zones will impose unmanageable burdens, require expertise in too many different areas, and result in contradictory and conflicting objectives.
  - Lack of Specialization – Regulation and zones promotion require distinct skills sets; thus distinct entities should be encouraged to specialize separately.
  - Uneven and Uncompetitive Playing Field for Industrial Park Activities – Public entities that both develop and regulate parks have an unfair and market-distortive competitive advantage over private developers that do not have a regulatory function.
7. EIP Policy and Legal Frameworks
Industrial Parks Legal Frameworks

- **The State should primarily support industrial parks through proper urban planning and industrial zoning**—for instance by:
  - Rationalizing processes and permits through a dedicated law and One-Stop Shop, and single responsible body or committee
  - Structuring land-backed concessions for PPP industrial parks
  - Enabling developers to independently develop, own, and operate, and deregulate utilities monopolies, notably for IP water and power production and distribution systems
  - *Granting infrastructure tax incentives or credits to developers and users, to compensate for their utilities-related Development, Maintenance & Operation costs*

- **Industrial Parks Legislation must be deemed supportive** by Industrial Park occupants and business associations, potentially in terms of:
  - Mandatory designation criteria
  - Allowed activities
  - Potentially PPP governance facilitation
  - Potentially SME support services

- Every Industrial Park Developer and Operator **license**, at a minimum include Conditions and Limitations, including requirements regarding:
  - Environmental and Social Impact Assessments
  - Activities not allowed, and
  - *How to store and dispose of Construction debris, waste, effluents…*

- In addition to IP laws regulations, it is important to develop:
  - Inter-agency MoUs (including with the Environmental Agency)
  - Comprehensive, world-class EIP Standard Operating Procedures in light of international best practices
EIP-oriented Legislating

- Sufficient attention to this matter is yet to be given by most governments, although some examples of progressive policymaking exist
  - The Salvadoran and Costa Rican Zones laws make reference to developer installation of educational, healthcare and recreation facilities
  - The Mexican Federal Zones Law has amongst its objectives “sustainable economic growth”, poverty reduction as well as “health and productive lives”
  - The Liberian Zones Act speaks of “environmental, labour and gender sustainability” as well as the promotion of human rights, poverty reduction and “sustainable economic development”
  - Similar examples adopted over the past decade include zone laws in Kuwait and Qatar (in MENA), and Kenya, Ethiopia, Botswana, South Africa, the DRC and Madagascar (in Africa)
- Zone socioeconomic sustainable development goals, including regarding the quality of employment, sound environmental management and gender-sensitive labour policy have however received little formal attention so far, being present in less than 1/6 of 148 such laws reviewed by UNCTAD

(Sources: WEPZA; UNCTAD, World Investment Report 2019)
Monitoring & Enforcing Labor Rights

• Ideally, government inspection capacity should be strengthened rather than create a duplicative NGO structure – with emphasis on training new recruits with no history of corruption

• Encourage buyers, employers, workers, unions and government agencies to agree on common set of standards, inspection procedures, training and remediation procedures.

• Inspectors should seek to advise rather than police

• Government inspectors do not have time and resources to also remediate violations once discovered. Other agencies should be empowered and resourced to address worker and employer issues. This is a potential role for the IP regulator
Innovation and Knowledge Framework
(Botswana IP Incentives Case Study)

- **Labour training grants, in the range of 50% of salary**
- An Innovation Fund, providing grants for industrial R&D, with the requirement that these be channelled through *local universities*
- **An Innovation Incubator**, with subsidized access to “intelligent premises,” as well as Business Development Services (e.g., business plan development assistance, mentoring services, etc.)
- Value-added business services in such areas as legal, accounting, patent registration, reception, translation, communication, security, and cleaning services—as well as such *common facilities as la cafetera, gym, crèche*, laboratories, conference facilities, etc.
- **Training Institute focused on innovation, and training labour for prospective BIH tenants**, as a dedicated infrastructure, administrative focal point, and delivery mechanism for the BIH’s various academic-linkage initiatives
Relationship between Employers and Employees
(Panama Pacifico Case Study)

• Formalities for the subscription of work contracts, conditions and procedures for the application of special causes for the termination of work contracts, and procedures for proving the existence of the special causes
• Overtime payment, as well as nocturnal, combined, rotating and other extraordinary work shifts
• Weekly day off and payment for working on such day
• Annual leaves, treatment, negotiation and payment of such
• Job transfers between posts within the same enterprise, taking into consideration factors such as possible skills, salary discrepancies, job safety and self-esteem of worker, seniority and rank, and others
• Job pairing of national and foreign specialized personnel for training purposes taking into consideration the education, experience, talents, skills and other factors of both the foreign specialized employee and the applying national employee
• Approval of IP enterprises’ by-laws, with the procedures and timeframes to be followed in fulfilling such
• Labor Conciliation – administrative and functional services required to move and hold labor conciliation procedures in PP Authority, including services required to periodically move and hold Labor Section Courts and procedures in PP, provisions for special bureaus and clerks, schedule for court sessions, etc.
EIP Labor Inspections Regimes
(Panama Pacifico Case Study)

• General occupational health conditions
• Enterprise inspection and search processes and timeframes. These shall include the necessary circumstances, conditions and procedures for the inspection, evaluation and improvement of working conditions in the AEEPP’s enterprises without impairment and undue interruptions to the operations of enterprises
• Violations to labor provisions and applying the pertinent sanctions and penalties
Labor Rights in Jordan’s QIZs

- In 2006 the ILO accused Jordanian garment producers of gross violations of labor standards, e.g., forced overtime, late and/or under payment of wages, etc.
- USAID immediately moved to support the Ministry of Labor to strengthen its inspectorate in Jordan’s QIZs
  - Recruiting 100 university graduates, tripling the number of inspectors from 2007, hired under contract rather than under civil service rules in order to promote flexibility. There are now 1,500 workers to every inspector in the QIZs (13,500 outside QIZs) in Jordan
  - Practical training, including interview, audit, language and computer skills
  - Procuring computers and vehicles
- The IFC prepared SOPs
- The ILO provided legal training
- The Ministry of Labor developed a “Golden List” of preferred employers who receive preferential administrative services for their foreign workers due to their good compliance record
- In 2008 the Ministry, ILO and IFC introduced the “Better Work Jordan” program
  - Better Work Jordan operates independently of the Ministry’s inspection program, although both organizations share experiences, and Ministry inspectors accompanying a number of Better Work factory assessment visits
  - It provides remediation and training to participating employers
  - It consulted with stakeholders to design its inspection checklist
8. Introduction to UNIDO’s “EIP Policy Support Tool”
EIP Policy Support Tool

**MODULE 1**
Analyze stakeholders
(for interests & participation in policy development)

**MODULE 2**
Develop policy vision / goal
(and Theory of Change)

**MODULE 3**
Review existing policies

**MODULE 4**
Prioritize policy interventions

**MODULE 5**
Overview policy instruments

**MODULE 6**
EIP policy action planning

Weighting & Scoring of Options within Policy, for likely impact

Relevance, Complexity, Difficulty of Implementation Assessed

Programs, Standards, Taxes, subsidies, Tariffs, Training.

Address Economic, Social and Environmental challenges

Include Private sector, Public Sector, CSOs

NB: See Next Page

Policy support and actions for the EIP project

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<th>Actions</th>
<th>Responsible</th>
<th>Timing</th>
<th>Status of action</th>
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Inclusive and Sustainable Industrial Development
DEVELOP POLICY VISION / GOAL FOR ECO-INDUSTRIAL PARKS

Theory of change: It is recommended that at the start of the policy intervention process, an easily communicated long-term vision for EIP development and implementation is defined. Utilizing a “Theory of Change” methodology will help to organize ideas as to what change is desirable and also possible. The theory of change illustrates how (policy) interventions intend to achieve the desired results by reviewing underlying challenges and causal pathways (e.g., processes through which an outcome is brought into practice). It is of key importance to develop the Theory of Change in consultation with all relevant stakeholders.

Template for developing national policy vision and goal for EIPs through a simplified Theory of Change:

Step 1: What are the underlying challenges in relation to industrial parks and sustainable industrial development in the country?

Step 2: Who are the key stakeholder groups in relation to industrial park and industrial development?

Step 3: What (type of) actions are needed to enable positive change through EIPs?

Step 4: Targeted impacts and benefits through development and implementation of EIPs.

Step 5: What is the long-term vision/goal for EIPs in the country?

Where to find more information about UNIDO EIP tools?
- Manual for UNIDO Toolbox on Eco-Industrial Parks (UNIDO, 2019)
9. Taking a Bottom Up Approach: Introduction to UNIDO’s “EIP Assessment Tool”
EIP Assessment Tool

**EIP ASSESSMENT**

**STEPS IN TOOL**

**STEP 1**

**STEP 2**
Select EIP opportunities which are most achievable and beneficial.

**STEP 3**
Plan, manage and monitor progress on prioritized EIP opportunities.

This could be an EIP Policy
EIP Opportunity Identification

- Some Prerequisites
  - Park Management
  - Ambition
  - Commutable distance to local community labor, suppliers
  - Draft Strategies and plans
  - Funding strategies
- Assessment of specific areas that can be improved

Where to find more information about UNIDO EIP tools?
Manual for UNIDO Toolbox on Eco-Industrial Parks
(UNIDO, 2019)

What do we mean with Eco-Industrial Parks?
An International Framework for Eco-Industrial Parks
(UNIDO, World Bank Group, GIZ, 2017)

How to operationalize the EIP Framework?
A Practitioner’s Handbook For Eco-Industrial Parks
(UNIDO, World Bank Group, GIZ and MOTIE 2018)

How do we implement Eco-Industrial Parks?
Implementation Handbook for EIPs
(UNIDO 2017)
Final Word

- Delivering industrial parks well is a complex and difficult endeavor, especially given the competition for investment.
- The State should not enter industrial parks “product space” with anything but highest degree of Government-wide commitment and coordination.
- Much of the impact industrial parks have had with respect to sustainable development is down to their developer-operators more than it is to policymaking.