



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



GEIPP I and Beyond

Final Event 2023 Report



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Federal Department of Economic Affairs,
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Event Report



Picture 1: GEIPP I and Beyond-Final Event Participants

Purpose and objectives

The event, titled "Final Event – GEIPP I and Beyond," aims to unite stakeholders, policymakers, and distinguished industry professionals from across the GEIPP countries and to mark the closing of the first phase of the GEIP Programme. The primary objective of the conference was to disseminate updates pertaining to the accomplishments towards transition to eco-industrial parks while fostering a conducive environment for knowledge exchange among participating GEIPP countries.

Background and activities

The Global Eco-Industrial Park Program (GEIPP) conference was conducted from November 7-9, 2023, at the Vienna International Center (VIC). The conference spanned three days, with each day dedicated to a distinct facet of the eco-industrial park program's development. Day 1 deep-dived into **EIP policy development**, while Day 2 concentrated on **Advances in EIP implementation in GEIPP priority industrial parks**, and Day 3 was dedicated to a **site visit**.

The event aimed to share updates on significant achievements in eco-industrial parks approaches and promote knowledge exchange among participating GEIPP countries. The event provided a collaborative space for stakeholders to actively engage in the exchange of experiences and best practices.

The GEIPP has demonstrated successful implementations of the Eco-Industrial Park (EIP) approach in all seven countries through targeted interventions. The event took place as the first phase of GEIPP approached the conclusion.

To ensure the successful completion of Phase I and effective preparation for Phase II, it is essential to facilitate the exchange of experiences related to the implementation of Eco-Industrial Park (EIP) approaches across all participating countries. The final event was intended to act as a bridge, connecting individuals and organizations involved in the GEIPP Programme, offering a platform for reflection and strategic planning for the future.

This exchange aimed at promoting collaboration and information sharing, allowing for the identification of best practices, lessons learned, and successful strategies. This collaborative effort will improve resource productivity and enhance economic, environmental, and social performance across all countries involved in the program. By drawing upon these shared insights, the intention is to enhance the replication of effective and sustainable EIP approaches within the GEIPP countries and for broader application in other countries.

'Day 1: EIP Policy Development



Picture 2: Photo collage of GEIPP I and Beyond Event

¹ Presentation and World Cafe summaries are available in the annex

Day 1 centered on the policy dimension of the eco-industrial park development. Christian Susan, the GEIPP Program Manager, moderated the policy session. The session featured presentations from all GEIPP countries, including Colombia, Egypt, Indonesia, Peru, South Africa, Ukraine, and Vietnam, each elucidating the policy aspects and advancements within their respective eco-industrial park programs. The ensuing Q&A session provided a valuable forum for participants to pose queries and share experiential insights.

The presentations on Day 1 covered the following topics:

1. Capacity building of EIP stakeholders for policy development and Policy Support Tool (Egypt)
2. EIP Roundtable: Wide stakeholder engagement (South Africa)
3. Introducing EIP approaches to the national regulatory framework (Peru)
4. Process of Inter-Ministerial Forum in Indonesia for EIPs and the Way Forward (Indonesia)
5. From EIP vision to an official EIP Action Plan (Ukraine)
6. EIP decree to its update, national EIP indicators, standard and database (and its planned function) (Vietnam)
7. EIP National Standard (Colombia)

The World Cafe on EIP Policy Development, moderated by the GEIPP team, facilitated nuanced discussions on the following topics:

- » Trick to engage stakeholder in EIP development
- » EIP Action Planning
- » Climate and social activists to support EIPs
- » For EIPs to work what policies should be streamlined?
- » How to scale-up EIP through policy action?

Day 2: Advances in EIP implementation in GEIPP priority industrial parks ²

Day 2 delved into the Advances in EIP implementation in GEIPP priority industrial parks provided by UNIDO to facilitate the realization of economic, social, and environmental targets for priority parks. Klaus Tyrkko, UNIDO's Chief Technical Adviser, presented an overview of the technical assistance landscape, including progress and outcomes from GEIPP I.

Presentations from all GEIPP Countries show cased specific technical interventions and capacity-building initiatives in their parks. The session was moderated by Rana Singh, Project Manager of GEIPP Egypt and Ukraine. Presentations from GEIPP countries cover the following topics:

1. From planning to implementation: EIP in Peru (Peru)
2. Vocational training and job fairs to meet the manpower and skill requirement of the tenant companies (Indonesia)
3. EIP community engagement (South Africa)

² Presentation and World Café summaries are available in the annex

4. Introduction of Energy Management Systems & considerations for relocation and clustering of industries (Ukraine)
5. Industrial Symbiosis: firefighting station in Hai Phong (Vietnam)
6. Industrial Symbiosis - succesful and unsuccessful experiences (Colombia)
7. Linking SMEs to global value chains & GH2 ecosystem development (Egypt)

The World Cafe session on EIP priority parks, led by the GEIPP team, guided in-depth conversations regarding technical support, industrial collaborations, and challenges, addressing the following subjects:

- » How to get from company efficiency to park/level action
- » How to tease out industrial synergies
- » Why does so many industrial synergies fail
- » Why are industrial parks turnout inefficient
- » Community engagement as part of EIP development.

Day 3: Industry Site Visit - Siemens Green City

The concluding day featured a visit to Siemens Green City, with a focus on Industry 4.0 development and optimizing manufacturing efficiency through big data. Participants gained first-hand exposure to Siemens' Industry 4.0 implementation and explored its potential applications in eco-industrial park development.

During the visit, Siemens experts shared insights, highlighting the integration of data analytics, automation, and artificial intelligence. The discussions emphasized how these components synergize to propel advancements in Eco-Industrial Parks. The site visit bridged theoretical discussions with real-world applications, fostering an understanding of the balance between technological innovation and environmental responsibility.

Event conclusion

The GEIPP conference served as a pivotal platform for knowledge sharing and collaborative endeavors among participating countries in the realm of Eco-Industrial Park development. The event highlighted the notable progress made by each country in implementing the program, as well as the challenges encountered along the way. The integral role of UNIDO's technical assistance emerged as a critical component in realizing the economic, social, and environmental objectives of the program. The site visit to Siemens Green City further illuminated the practical application of Industry 4.0 in the eco-industrial park landscape. In its entirety, the conference emerged as a resounding success, offering valuable insights and contributing significantly to the ongoing development of Eco-Industrial Parks in GEIPP countries.

Noteworthy achievements during GEIPP I

Awareness raising and Capacity building

Capacity building and enterprise interaction

Number of SME-staff trained (tenant companies)	3 469
Number of industrial park management-staff trained	2 283
Number of involved staff from relevant governmental agencies	2 416
Number of trained service providers	1 719



32% of the GEIPP I trainees are female



326 of awareness raising sessions and training events during GEIPP I



EIP Opportunity identification and EIP Opportunity implementation

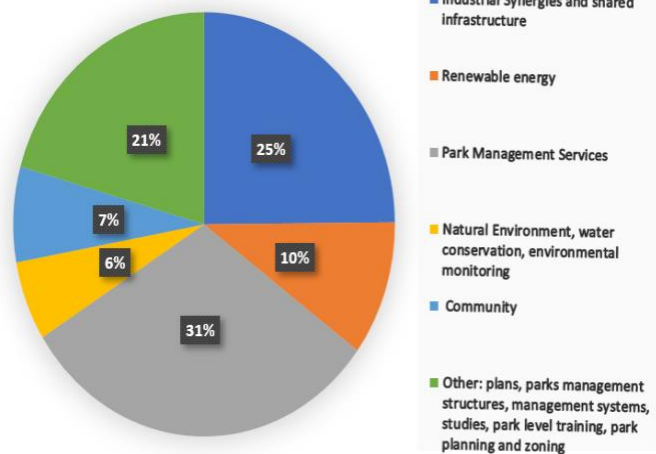
Number of all initiatives identified: 1296

Multi-company/park level initiatives: 279

Multi-company/park level initiatives under implementation: 165



Multi company/ park-level EIP initiatives with concrete action



Benefits and savings



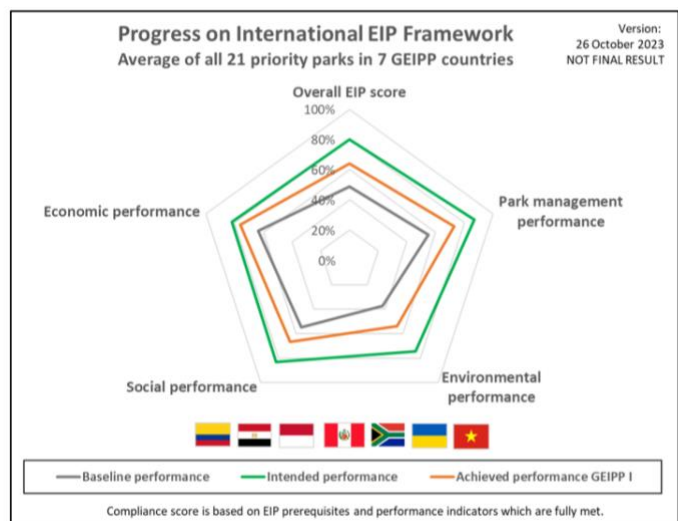
Environmental Savings

	Energy efficiency: kilowatt hours saved	57 997 581	5,180	Homes yearly energy use
	Renewable Energy: additionally produced in kilowatt hours	6 925 982	955	Homes electricity per year
	Water efficiency: cubic meters water saved	2 142 363	10,000	Peoples annual consumption
	Waste reuse and recycling: metric ton material saved	17 705	65,576	Persons annual generation
	Climate change benefits tCO2 Eq. / year	123 439	27,469	Petrol cars driven for one year

Good progress, about 25 % on the EIP indicators, has been made by the priority parks in GEIPP Phase I

- Good progress in all categories, Economic indicators practically as aspirational (Intended Performance)
- More work is needed in other categories, particularly environmental performance

Figure also shows the important learning that transition to EIPs take time, well beyond GEIPP I, for parks to meet their intended performance levels and further to full compliance to all the EIP benchmarks



Annex

Presentation and World Café Summary

Policy Development

First session of the event centered on the policy dimension of the eco-industrial park program. The session featured presentations from all GEIPP countries each elucidating the policy aspects and advancements within their respective eco-industrial park programs. The following section will provide summaries on the policy achievements of the respective GEIPP countries.

Topic 1: Capacity building of EIP stakeholders for policy development and Policy Support Tool (Egypt)

Egypt faces challenges in transitioning towards Eco-Industrial Parks (EIP) due to the large number of industrial zones in the country, which vary in scale, characteristics, and governance structure. The existence of special fiscal and tax regimes in some industrial parks, such as special economic zones, investment zones, and free zones, further complicates investment and industrial development conditions in these zones. These factors make it difficult to implement a standardized approach to EIP development across all industrial zones in Egypt. Therefore, a comprehensive analysis of the current situation, stakeholder engagement, and policy development is necessary to address these challenges and support the transition towards EIP.

The GEIPP has been assisting the country in assessing the suitability of stakeholders for participating in the EIP policy development process, using semi-structured interviews guided by the UNIDO. Through GEIPP intervention, Egypt has engaged in capacity building and technical guidance for stakeholders, including the development of a Training of Trainers (TOT) program and regular training sessions. Egypt highlights the use of a policy support tool and the development of a roadmap for EIP action planning. Key interventions include knowledge availability, finance facilitation, and the development of EIP policy instruments. Stakeholder engagement, policy analysis, and the identification of opportunities and interventions are central to the vision and roadmap for EIP development in Egypt.

Topic 2: EIP Roundtable: Wide stakeholder engagement (South Africa)

The first and most successful mechanism to engage EIP stakeholders in South Africa by far is the EIP Roundtable, which was established in 2020. The roundtable brings together all stakeholders in the EIP space to share information about projects, share knowledge and lessons learned and also to identify synergies and opportunities for collaboration. The roundtable also performs a coordination function to support alignment and reduce duplication of efforts in the EIP space. To date, this has led to three joint projects between participants and a range of collaborations and partnerships that have been established as a consequence of attendance and participation in the roundtable.

The Roundtable's impact is evident in its incorporation of the EIP approach into the national policy framework by the Department of Trade, Industry, and Competition (dtic), as well as its advocacy for the adoption of the EIP approach by all industrial spaces and its endorsement by the Treasury's Cities Support Programme. Furthermore, the strengthened

collaboration between the dtic and Treasury on industrial park activities and the encouragement of EIP adoption by metropolitan municipalities showcase the Roundtable's far-reaching influence.

Topic 3: Introducing EIP approaches to the national regulatory framework (Peru)

The GEIPP program in Peru has achieved several milestones, including stakeholder analysis, regulatory gap assessment, and the incorporation of EIP concepts. Key initiatives include enhancing the National System of Industrial Parks (SNPI) and addressing critical challenges. A nationwide training program has been implemented, and a policy roadmap updated to align with evolving priorities. The EIP Community of Practice (CoP) has been strengthened through rigorous training and collaboration. In March 2022, a specialized high-level working group was established, leading to the development of three key action lines for 2023, including the National Strategy for EIP, a Pilot Project for Administrative Simplification, and provisions enabling the SNPI's benefits to be applicable to both existing and future IPs.

The EIP Peru Framework has implemented regulatory changes incorporating the concept of sustainability, innovation, and reducing identified legal gaps into the national policy framework for industrial parks. The Ministry of Production adopted these modifications.

Topic 4: Process of Inter-Ministerial Forum in Indonesia for EIPs and the Way Forward (Indonesia)

Based on the initial analysis, it was identified that there is a need to establish national regulations that serve as a legal umbrella for planning, developing, monitoring, and evaluating EIP in Indonesia. Therefore, relevant stakeholders needed to cooperate to synergize and harmonize their respective regulations in all aspects related to the EIP implementation. These identified gaps in the Indonesian policy landscape required a collaborative and multi-stakeholder approach. Inter-Ministerial Forum was one solution to enhance coordination among eleven ministries to achieve the goal of having a harmonized regulations.

The EIP Inter-Ministerial Forum conducts coordination meetings at least twice a year. Thus far, five Inter-Ministerial Roundtable Forums have been organized in Indonesia to discuss various aspects of EIPs. The results of these discussions have been amalgamated in the draft of the Government Regulation regarding Industrial Zoning, which includes substances related to EIP.

Topic 5: From EIP vision to an official EIP Action Plan (Ukraine)

Ukraine has demonstrated a commitment to the development of Environmental Industrial Parks (EIPs), aligning its strategy with Circular Economy and Resource Efficient and Cleaner Production (RECP) principles. The Ministry of Economy (MinEconomy) is dedicated to implementing the EIP model in accordance with international frameworks and circular economy principles. The GEIPP Ukraine Project, in collaboration with MinEconomy, has played a crucial role in developing a roadmap for EIP policy implementation, leading to the establishment of a Working Group. The government outlined strategic objectives for EIP development in early 2021, incorporating these goals into the National Economic Strategy until 2030.

The strategy emphasizes financial support for officially registered Industrial Parks (IPs) to enhance economic, environmental, and energy performance. Amendments to the IP Law in 2021, influenced by the International EIP Framework, expanded the terminology and

included an environmental component in the IP definition. Notably, on February 24, 2023, the Ukrainian Government, in collaboration with the GEIPP Ukraine project, approved a decree adopting the Strategy for the Development of Industrial Parks until 2030 with the eco-industrial parks model. This strategic decision aims to transform industrial parks into drivers of economic growth through the transition to the eco-industrial park model. The Strategy and Operational plan establish national-level policies, defining goals, principles, and official tasks for regulatory development and incentives to support the evolution of eco-industrial parks in Ukraine. The overarching principle ensures a unified approach to understanding and implementing industrial parks and eco-industrial parks in the country. Key strategic goals involve enhancing the legal framework and encouraging the development of industrial parks based on the eco-industrial park model.

Topic 6: The journey towards EIPs from the policy perspective (Vietnam)

The GEIPP project in Vietnam has assisted in identifying critical policy gaps and challenges associated with implementing EIP approaches in Vietnam based on identified legal gaps and barriers. The project has supported the Vietnamese government in addressing the missing legal foundations and identifying key policy recommendations for developing and implementing EIPs in Vietnam. EIP development in Vietnam serves as the continuation of UNIDO's Global RECP programme with an EIP component. Therefore, advanced EIP policy work is to be expected from Vietnam.

Thus far, the activities of the GEIPP project have contributed to enhancing the capacity of EIP Vietnam through its support towards regulations amendment, guidelines creation, and national strategies. Among the notable contribution of the GEIPP in Vietnam are:

- Supporting the amendment of Decree 82/ND-CP to Decree No. 35/2022/ND-CP dated May 28, 2022, which regulates and creates conditions for EIP transition and establishment of new EIPs in Vietnam;
- Developing guidelines to support the relevant government agencies in regulating solid waste reuse and wastewater reuse in industrial settings towards the operationalization of Decree 35, including a review of the current legal status and international best practices. This will inform the Ministry of Natural Resources and Environment to issue more detailed guidance on waste treatment, reuse and recycling as defined in Article 58 of Decree 35;
- Supporting the Integration of EIPs into relevant policies: Sustainable Production and Consumption Strategy to 2030; National Green Growth Strategy and Action Plan for the period 2021-2030, with a vision to 2050; Scheme on circular economy development in Vietnam; and Scheme on tasks and solutions to implement the results of the COP26;

Topic 7: Advances in EIP implementation at GEIPP Colombia Policy Tools (Colombia)

The transition toward EIP in Colombia is harnessed by the incorporation of EIPs into the National Development Plan (NDP) derived policies, plans and strategies, emphasizing sustainability, green growth, and circular economy objectives. The process of integrating the GEIPP into the NDP involves two stages: raising awareness with the government about sustainability and EIPs and participating as a technical advisor for the Public Policy. To ensure the regulatory framework for EIPs is in place, the existing legal basis can be utilized, allowing for the development of an Exclusive Regime for Industrial and Eco-Industrial Parks.

Aligned with Colombia's reindustrialization policy, GEIPP Colombia strives to implement best management practices, fostering collaboration among companies in designated areas. The primary objectives include enhancing productivity and environmental performance indicators, realizing increased efficiency through water and electricity conservation, emission reduction, and waste minimization. A crucial aspect of the initiative involves creating a community of practice to facilitate interaction among stakeholders, establishing a roadmap for seamless initiative integration, and advocating for financial and non-financial incentives. The project also develops a national information system for monitoring industrial parks and free zones to expedite the process. To achieve these specific objectives, GEIPP Colombia is actively involved in implementing the NTC Technical Standard, which serves as a guideline for establishing and operating Eco-Industrial Parks (EIPs).

The formulation of a Colombian Technical Standard (NTC) for EIPs is crucial for establishing criteria and guidelines. The Colombian Institute of Technical Standards and Certification (ICONTEC) plays a pivotal role in this process, which includes multiple stages, from planning to publication. Notably, the NTC has already received the technical committee's approval and passed the public consultation phase.

Advances in EIP implementation in GEIPP priority industrial parks

The second session delved into the technical assistance and capacity building provided by UNIDO to facilitate the realization of economic, social, and environmental targets for priority parks. The following section will provide summaries of specific initiatives developed in the GEIPP priority parks.

Topic 1: Technical Assistance received by Industrial Parks in Peru (Peru)

UNIDO's baseline and goal assessments have revealed substantial improvements in key indicators. Notably, resource efficiency has seen a significant increase, with positive progress evident in energy and water consumption. These findings underscore the effectiveness of the program in promoting sustainable practices within industrial parks.

In Peru, the impact of the program transcends the boundaries of industrial parks, as evident in the implemented actions and their outcomes. GEIPP Peru showcases a noteworthy 38% reduction in water consumption and a remarkable 62% increase in implemented actions, highlighting the positive changes facilitated by the program.

The technical assistance for the Development of Eco-Industrial Parks in Peru marks a significant stride toward sustainable industrial development. By addressing crucial indicators, engaging local communities, and promoting resource efficiency, the program exemplifies UNIDO's dedication to fostering environmentally responsible industrial practices and contributing to Peru's sustainable development goals.

Topic 2: Vocational training and job fairs to meet the manpower and skill requirement of the tenant companies (Indonesia)

MM2100, a GEIPP beneficiary in Indonesia, aims to actively involve tenants in monitoring and mitigating greenhouse gas emissions. The industrial park plans to introduce a practical Carbon Footprint system, encouraging eco-friendly practices among tenants, such as the adoption of solar panels for electricity generation. Embracing digitalization, MM2100 incorporates measures like digital invoicing and online complaint reporting to reduce

paper consumption and gasoline use, underscoring the town's commitment to environmental responsibility.

As part of its community engagement, MM2100 has established a specialized vocational school, SMK Mitra Industri MM2100, offering tailored programs in motorcycle business engineering, mechanical engineering, and accounting. This initiative equips students with the essential skills for success in diverse industrial sectors. MM2100 goes beyond mere management of the school, actively participating in curriculum development. The park's distinctive values are evident in its dedication to digitalization systems and renewable energy, exemplified by its involvement in the "SiapKerja" JobHub initiative led by the Indonesia Ministry of Labor.

However, amidst its notable achievements, MM2100 encounters challenges in engaging tenants and implementing regulations to support the EIP transition. The industrial town strives to adapt global principles to its unique economic, social, and environmental conditions, acknowledging the intricacies inherent in this undertaking.

Topic 3: EIP community engagement (South Africa)

The East London Industrial Development Zone (ELIDZ) and Phuthaditjhaba Industrial Park play pivotal roles in community engagement implementation, strategic collaboration, and fostering a collaborative approach within their communities. ELIDZ's Corporate Social Investment Policy is geared toward prioritizing social and community transformation and development, concentrating efforts on specific geographic areas. The significance of community collaborations lies in harnessing local expertise, optimizing resources, ensuring sustainability, embracing cultural sensitivity, incorporating diverse perspectives, empowering communities, and fostering trust.

One notable initiative, the ELIDZ Bursary Programme, seeks to empower students with a keen interest in Mathematics, Science, and Technology, contributing to the cultivation of a highly skilled workforce. ELIDZ's Corporate Social Investment spending since 2021-23 reflects a substantial commitment to community initiatives and bursaries, underscoring a dedication to community development. In the Phuthaditjhaba Industrial Park, initiatives are geared towards attracting investors, creating employment opportunities, and stimulating the district's economy.

Additionally, the Eco-Industrial Parks Programme in South Africa, in collaboration with the the National Treasury, focuses on transforming existing industrial zones in metropolitan areas resource-efficient and sustainable zones with EIP approaches. This collaborative effort aims to address challenges faced by industrialists and enhance economic resilience, contributing to sustainable industrial development.

Topic 4: Introduction of Energy Management Systems & considerations for relocation and clustering of industries (Ukraine)

The Bilotserkivskiy Vantazhnyi Aviatsiynyi Kompleks (IP BVAK) is situated in Bila Tserkva, Ukraine, on the premises of the Bila Tserkva Aircraft Repair Plant and a military airfield. Established in 2000, the IP BVAK is a utility municipal company managed by the Bila Tserkva City Council. The park's improvement potential within the Ecological Industrial Park (EIP) context is 34%, with the highest performance in management and environment categories, attributed to EIP measures like performance monitoring, climate risk assessment, and environmental and energy management systems. Social indicators increased slightly, while economic indicators remained unchanged. Planned indicators for continuous coverage

include community dialogue and community outreach. Unfortunately, some resident companies went bankrupt due to a military conflict.

In terms of capacity building, EIP training sessions were organized for IP BVAK and tenant companies. These sessions covered EIP and Resource Efficiency, Cleaner Production (RECP), and Energy Management System (EnMS) implementation, focusing on the transition to an eco-industrial park, resource-efficient and cleaner production, and the role of Energy Management systems. Industrial Symbiosis (IS) Training sessions aimed to teach IS analysis, synergy identification, and RECP assessments. A Government-to-business (G2B) training session focused on identifying business needs according to the EIP International Framework and initiating dialogues for potential support mechanisms for EIP development.

Topic 5: Industrial Symbiosis: Implementation in Deep C Industrial Park (Vietnam)

The project focuses on supporting businesses and industrial parks in Vietnam, particularly in Deep C Industrial Park, to explore and implement opportunities related to industrial symbiosis and urban-industrial symbiosis. Despite successful pre-feasibility assessments for several opportunities, challenges persist, including legal, technical, economic, and awareness barriers. Legal barriers involve scattered regulations on waste recycling, leading to difficulties in application and compliance. Technical challenges arise from the lack of standards for recycling treated wastewater and waste. Economic barriers include the complex and costly licensing process for rooftop solar power. Additionally, limited support policies result in businesses bearing the financial burden of implementing symbiotic opportunities.

To address these challenges, stakeholders have prioritized 11 opportunities, focusing on feasible and easy-to-implement options. These range from investing in water treatment systems to developing shared services like firefighting and oil spill response. One urban-industrial symbiosis opportunity has been successfully implemented, involving the sharing of firefighting services between Deep C Industrial Park and Hai An District. An industrial-urban symbiosis agreement was signed to share personnel, equipment, and facilities for firefighting in Hai An District. The project continues feasibility studies for other opportunities and provides support to the government for policy development to encourage ecological industrial park models in Vietnam.

Topic 6: Industrial Symbiosis - Successful and unsuccessful experiences (Colombia)

The presentation on Eco-Industrial Parks (EIPs) in Colombia provides a comprehensive overview of the progress and initiatives related to EIPs in the country. The presentation highlights the focus areas and requests for guidance from IP Management, including EIP assessment, compliance with international EIP prerequisites, and EIP performance monitoring tools. The progress made in industrial symbiosis in Colombia's priority industrial parks is also highlighted, with 26 opportunities identified and 11 implemented. The exchange of waste and services, as well as collaboration with international references, has been a key focus. The presentation emphasizes the symbiosis among EIPs and international references, with sessions on environmental management, waste collection, sustainable reporting, and industrial symbiosis.

Further development on EIP was presented by Zona Franca Bogota, one of GEIPP beneficiaries in Colombia. Zona Franca Bogota emphasized its dedication to transitioning into an Eco-Industrial Park. The presentation not only identified specific challenges related to social, environmental, and economic performance but also addressed current management processes. Furthermore, the presentation outlined the proposed strategy for

advancing the transition to an Eco-Industrial Park, offering a roadmap that prioritizes sustainability, collaboration, and symbiosis in the implementation of EIPs at ZFB Colombia.

Topic 7: Linking SMEs to global value chains (case of leather) & GH2 ecosystem development as part of EIP, use of NBS for wastewater treatment (Egypt)

The Robbiki Leather City, a GEIPP priority park in Egypt presents a commitment to sustainable development in the leather manufacturing industry. The city aims to promote sustainable practices, connect small and medium-sized enterprises (SMEs) to global value chains, and contribute to the economic development of the region. Challenges include wastewater reuse, reduced resource consumption, and worker awareness. To address these, the city undertakes activities like eco-industrial park assessments, capacity building workshops, and infrastructure studies.

In the presentation GEIPP Egypt also presents the Suez Canal Economic Zone's (SCZone) commitment to invest in green hydrogen. The Suez Canal Economic Zone (SCZone) is one of the main partners in Egypt, which is the primary regulatory authority for all industrial zones located within the SCZone and cooperates with GEIPP Egypt for the implementation of EIP project in one its industrial parks (Orascom Industrial Park), in Sokhna. • The SCZone management aims to become a leading regional hub in the green hydrogen industries, coinciding with the global transformation to clean energy uses, also aims to localize this type of industry in its integrated zones in Sokhna and East Port Said. As a response to the request of the SCZone, GEIPP Egypt is supporting the SCZone in implementing the EIP approaches in the allocated GH2 production area for achieving sustainability as envisaged in the framework for Eco-Industrial parks.

The World Cafes

The World Café sessions were organized to enhance the participatory nature of the event and to assess the interests of various stakeholders representing GEIPP countries. These sessions were conducted after both Day 1 EIP policy and Day 2 EIP Priority Parks Session presentation and discussions. The following section captures the essence of the World Café sessions on both Day 1 and Day 2.

Day 1: EIP Policy Aspect

- **Topic 1: Stakeholder engagement in EIP development**

Stakeholder engagement is crucial for developing sustainable and environmentally friendly eco-industrial parks. Key aspects include clear communication, transparent channels, identifying and prioritizing stakeholders, tailored engagement strategies, early and continuous involvement, and using diverse communication channels. Seeking and acting on feedback, providing education, and addressing challenges such as diverse interests, communication issues, resource allocation, and conflict resolution are essential. Ensuring inclusivity, transparency, regulatory compliance, and long-term commitment further contribute to successful engagement.

Key takeaways from the discussion among others: successful stakeholder engagement is imperative for the successful development of eco-industrial parks. By employing strategic approaches and understanding the challenges, stakeholders can work collaboratively to

achieve sustainable industrial development while addressing the concerns and interests of all involved parties.

- **Topic 2: EIP Action Planning**

The discussion shows that the implementation of industrial policies related to Eco-Industrial Parks and Circular Economy through well-crafted Policy Action Planning at the national level is fundamental in the pursuit of sustainable industrial development. This approach not only addresses environmental challenges but also contributes significantly to economic growth, innovation, and social well-being. As nations continue to grapple with the complexities of balancing industrial expansion with environmental preservation, collaborative efforts between governments, experts, and stakeholders become paramount. By fostering international cooperation, investing in research, and encouraging private sector engagement, countries can create robust EIP frameworks that pave the way for a greener, more sustainable future.

During the discussions, participants mentioned several challenges faced during the EIP policy development. Among others is the discrepancy between regulatory frameworks. To solve this issue, participants acknowledge the importance of lobbying work to government that should involve all ministries.

- **Topic 3: How to get environmental climate and social activists to support EIPs**

To get environmental, climate and social activists engaged in EIPs development, the following steps can be taken:

1. Partner with environmental, climate and social organizations on the planning and development of EIPs. This will help to ensure that EIPs are designed and operated in a way that meets the needs of the community and that minimizes environmental and social impacts.
2. Provide environmental, climate and social organizations with access to information and resources. This can help these organizations to understand the benefits and risks of EIPs and to develop informed positions on these developments.
3. Engage environmental, climate and social organizations in the development of a national EIP standard.
4. Create opportunities for environmental, climate and social organizations to participate in public hearings and other forms of engagement. This will help to ensure that the concerns of these organizations are heard and addressed.

Work with environmental, climate and social organizations to develop monitoring and evaluation programs for EIPs. This will help to track the environmental, climate and social performance of EIPs over time and to identify areas where improvements can be made.

- **Topic 4: Market Driven Policies in the GEIPP countries**

Eco-industrial parks are truly multi-disciplinary systems bringing together many different stakeholders and various government agencies, including transportation, energy, water, job creation, environment, innovation. Therefore, policy interventions to support EIPs must apply integrated approaches. Each industrial park is unique and the successful development of industrial parks are driven mostly by economic conditions and the private

sector. Therefore, it is important to apply market-driven approaches and keep flexibility in EIP-related policies.

Key points from the group discussion on opportunities and lessons learned on integrated and market-driven EIP policies in the GEIPP countries:

1. Across all GEIPP countries, different types of financial (e.g. tax reductions, low interest loans) and non-financial incentives (e.g. provide technical advice, facilitate access to loans and finance) are provided already or being planned to promote green and sustainable industrial development.
2. Overall, there are limited government budgets available for financial incentives in GEIPP countries. It is therefore important for governments to consider both financial and non-financial incentives to support industries in their sustainable / EIP transformation.
3. Before considering incentives and tax reduction for EIP transformation, highest priorities should be given to “getting the basics right for industrial parks” (e.g. essential infrastructure, skills development, health and safety) as well removing policy challenges (e.g. for example on waste/water recycling).

- **Topic 5: How to scale-up EIP through policy action**

Replication of EIP approaches could be achieved by “organic” growth, and word-of-mouth, where good EIP practices are seeping into the technical advisory community, through companies belonging to the same parent corporation, industrial associations, and industry-to industry networks. Another, or perhaps a complementary approach, is to fuel the replication of EIP implementation through public policy.

Depending of the existing complexity of the current national regulatory situation the participants of the discussions found specific EIP regulations or integration into existing policies more appropriate for EIP scale-up. It was found imperative that the EIP approach is anchored into recognition schemes and standards for ensuring a wide adoption. Most participants expressed the need of linking such a standard, or any policy, to advise existing finance and non-financial incentive scheme to ensure EIP uptake and replication.

Day 2: EIP Priority Parks Session

- **Topic 1: Transitioning from Individual Company Level Efficiency to Industrial Park-Wide Action**

The journey from individual company efficiency to coordinated actions at the industrial park level is crucial for sustainability and collaborative impact. The transition involves assessing company efficiencies, establishing a collaborative vision, promoting cross-company cooperation, developing integrated sustainability plans, and investing in shared infrastructure. Engaging with local authorities and institutions is essential.

Challenges identified during the discussion include diverse stakeholder interests, coordination difficulties, alignment of incentives, communication barriers, change management resistance, data standardization, funding concerns, resource optimization, regulatory compliance, risk sharing, leadership and governance issues, and a lack of awareness and expertise. Overcoming these challenges through strategic planning and collaboration is necessary for creating an economically beneficial and eco- friendly industrial park.

- **Topic 2: How to tease out industrial synergies**

Teasing out industrial synergies in an industrial park involves identifying and leveraging opportunities for cooperation among businesses within the park. Methods include surveys to identify shared needs, workshops to foster collaboration, and mapping potential synergies. Examples include sharing resources (e.g., equipment), services (e.g., security), and forming joint ventures for innovation and market expansion. Benefits include cost reduction, improved efficiency, increased innovation, enhanced competitiveness, and economic development.

During the discussion, it was mentioned by participants that, providing information, fostering networking opportunities, offering support services, and promoting a culture of cooperation are key strategies to create a climate for industrial synergies.

- **Topic 3: Why does so many industrial synergies fail?**

Industrial synergies, where two or more companies collaborate to achieve mutually beneficial outcomes, Industrial symbiosis is a business model that aims to redirect wastes and raw materials from one process to be used in another process. However, implementing industrial symbiosis projects can indeed be challenging to implement successfully. The main identified hindrances to industrial symbiosis development are companies' lack of time and resources to implement new business models such as industrial symbiosis, as well as a lack of industrial symbiosis expertise in the region and low awareness about the opportunities provided by industrial symbiosis. However, it is important to note that industrial symbiosis is not a problem in itself, but rather a solution to reduce waste and promote sustainability.

Main challenges identified during the discussion were lack of trust, business model misalignment, mismatched goals and objectives, poor communication, cultural differences, leadership issues, inadequate planning, resource constraints, resistance to change, legal and regulatory challenges. Overcoming these challenges requires meticulous planning, effective communication, a shared vision, strong leadership, and a commitment to addressing issues promptly as they arise. Successful industrial synergies demand continuous effort, adaptability, and a willingness to learn from failures.

- **Topic 4: Successful Planning of Eco Industrial Parks**

The planning of industrial parks includes site selection, feasibility assessments, concept planning and subsequent master planning. All industrial parks are part of a broader system and no industrial park is operating in isolation, so it is key to apply integrated approaches for the planning of industrial parks aligned with municipal, regional and national development plans. The internal and external conditions impacting on any industrial park are changing constantly, such as infrastructure developments, community encroachment, types of companies operating in the park, etc. It is important to recognize that the EIP planning is applicable to all types of industrial parks, ranging from newly planned industrial parks (greenfields), partly developed industrial parks to retrofitting brownfield parks which are fully developed.

Key points from the group discussion on opportunities and lessons learned on the successful EIP planning in the GEIPP countries:

1. Site selection for a new industrial park should be undertaken through a systemic and strategic process which is based on the demands of investors and technical, economic, social, environmental, and political factors. Attempting to develop an industrial park which does not meet investor demands is doomed to fail and will likely result in significant expenditures without economic returns.
2. There is a key role for government to guide the strategic planning and development EIPs at national/regional level which provide investors with predictability for investment planning. Planning decisions lock in infrastructure for many years, so it is important to make sure these decisions are done strategically, allowing for different future scenarios.
3. The EIP concept planning approach guides the strategic direction and concept designs for an industrial park. The approach delivers concept maps focusing on key priorities affecting the industrial park, such as industry clustering, risk management, water/energy supplies, transportation network and development roll-out. A EIP Concept Planning Tool is available from UNIDO Knowledge Hub.
4. An industrial park master plan is much more than a map. A master plan is a comprehensive document that guides planning, development and operation of an industrial park. It details on how an industrial park implements its strategic direction, including business plan, operational procedures, management model, engineering designs, etc. A Master Plan EIP Review Tool is available from UNIDO Knowledge Hub.

- **Topic 5: Community engagement as part of EIP development.**

All industrial parks are operating in broader system, including community at the local level. It is important to recognize that social and community risks are real and if realized they will affect the businesses as well as the performance of the park and local economic development. International experiences with industrial parks clearly indicate that pro-active community collaborations are most beneficial and effective.

The participants agreed that the benefits and synergies with communities are of utmost importance. Stakeholders to engage include educational centers (from vocational training to universities), chamber of commerce for finding synergies as well as the general public. There should be a process of general hearings and gatherings as well as possibilities to file grievances on the park operation from the outside community. Participants also considered general outreach in form of happenings and sponsoring of local activities as well as access to park services to bring a better cohesion with the community.

Event materials are available here:

[GEIPP Final Event - Documents, Presentation, and Photos](#)



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