Call for Expression of Interest – Consultant

Assessing the way forward for Eco-Industrial Parks

The United Nations Environment Programme (UNEP) is looking for a consultant to carry out an analytical baseline study of past and existing technical approaches and policy practices that support the development and management of Eco-Industrial Parks (EIP) in developing and transition economies. The study is intended to conceptualize UNEP’s specific intervention in further supporting the development of EIPs.

Please find enclosed the Terms of Reference (ToR) for the provision of technical input to the programme: “Resource Efficiency & Eco-Innovation in Developing and Transition Economies”.

UNEP invites interested experts to submit their expression of interest covering the points outlined in the ToRs and accompanied by the following application documents:

- Curriculum Vitae (CV)
- Letter of Motivation outlining how your experience, skills, qualifications and professional networks fit with the required deliverables (one page maximum)
- Copies of the relevant articles/reports published through indication of www links or submission of PDF version of these via e-mail attachments

In order to participate in the call, please submit your detailed expression of interest – in PDF format – to dtie.biu@unep.org by end of business day (Europe time) May 30th, 2013. All communications related to this call should be sent to this e-mail address and should clearly indicate the application ID (EIP / 1202) in the subject title. E-mails should not exceed 9MB.
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Terms of Reference (ToR)
Assessing the way forward for Eco-Industrial Parks

Organizational Unit
UNEP/DTIE/Sustainable Consumption and Production Branch/BIU

Application Identify Code: EIP 1202

1. Background

The United Nations Environment Programme (UNEP) has partnered with the European Commission (EC) to promote resource efficiency and eco-innovation in an effort to change consumption and production patterns in developing countries and economies in transition.

_Eco-innovation is the development and application of a new or significantly improved product (good/service) or process, a new organization method or a new business practice that will lead to improved economic and environmental performance._

The 4 year _Resource Efficiency and Eco-Innovation in Developing and Transition Economies_ project aims to promote eco-innovation efforts based on resource efficient, cleaner and safer production (herein referred to as ‘RECP eco-innovation’). Supporting eco-innovation will require a multi-stakeholder approach to create an enabling policy framework, communicate the economic and business case for engagement, and enhance technical capacities to address growing demands for more sustainable products and services. The project’s four main components (please see attached programme flyer for details) seek to address these elements.

**Component 2 of the project (Policy Mainstreaming and Planning):**

A guideline entitled _Mainstreaming SCP Policy for Eco-Innovation_, which provides guidance for RECP service providers in their role as intermediaries, is being developed in order to practically support the integration of Sustainable Consumption and Production (SCP) policy at the national, regional and sectoral levels (specifically targeting the food, metals and chemicals sectors). Building on examples of successful policy mechanisms, it provides recommendations on how to effectively promote and develop such mechanisms to foster eco-innovation.

One such mechanism which will be discussed in the report, is the implementation and promotion of Eco-Industrial Parks (EIP). Clustering industry into a circumscribed area has the potential to encourage cooperation both amongst businesses and with the community. By creating a production ecosystem, lifecycle management of inputs and outputs can help reduce waste and pollution, and promote efficiencies and knowledge sharing.

Over the past few decades, many regions have in fact witnessed a boom in the number of industrial parks (or industrial clusters) and have recognized the economic benefits¹ and advantages that enhanced infrastructural conditions provide to their industrial tenants in terms of access to power, water, telecommunications and logistics. However, the clustered and mixed industry nature also generates

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¹ Economic benefits include job opportunities; reduction of production costs; promotion of innovation; reduced pollution loads; production of high value products; improved supply chain; and improved overall resilience to resource scarcity.
heterogeneous non-products concentrated in one specific location that can lead to negative ecological and social impacts if not properly managed.

The work of several multilateral organizations (e.g., UNEP, UNIDO, GIZ, EC) and industry sector specific programmes (e.g. Responsible Care) has created enhanced awareness of the opportunities and benefits of environmental management of industrial estates in many countries and sectors (e.g. chemicals).

Many countries have indeed demonstrated commitment towards developing policy frameworks that promote EIPs, such as setting national sustainability standards for these estates. However, they also recognize the challenge for park management to integrate local SMEs into advanced projects such as EIPs. Overall, the actual implementation of these approaches still appears to be weak, if not absent, in many developing and transition economies.

A key recommendation for governments is that of adopting an integrated approach to the planning and management of EIPs. To this end, public and private stakeholders in charge of environmental protection, land use and economic development strategies, could aim to develop joint guidelines to foster innovative organisational and economic models in the planning, design, construction and operational phases of EIPs in their national industrial development policies.

Two major components are essential to operationalise the concept of eco-industrial parks: the first is the efficient management of resource flow; the second, to address the enabling conditions needed in an EIP. Conventional approaches discussed in various international arenas such as the side event on this topic held at the 2011 Global Network Conference on RECP, include: appropriate policies, EIP management systems with a coordinated structure, multi-stakeholder involvement, R&D of indigenous resources, financing mechanisms and labelling schemes. However, as previously mentioned there is a need to better frame what constitutes an enabling environment, and to guide national and local authorities to develop policies that better support EIPs.

Within the framework of the RECP Eco-Innovation project, a consultant is required to conduct an analytical study/assessment of past and existing EIP approaches and policy practices in developing and transition economies, consulting with key national and international practitioners to:

i. analyse and validate the findings emerging from various international discussions;

2 Job opportunities; reduction of production costs; promotion of innovation; reduced pollution loads; production of high value products; improved supply chain; and improved overall resilience to resource scarcity.


4 This is being the case for Indonesia, China, India and Thailand for example.

5 ‘Groupement de Maintenance et Gestion’ is an example of a participatory approach currently being piloted in Tunisia.

6 SOFIES & Eco-Innovera (2012) International survey on eco-innovation parks - Learnings from experiences on the spatial dimension of eco-innovation

7 Took place in Nairobi (Kenya), 17-19 October, 2011

8 This need was confirmed during the workshop on eco-innovation parks (Berne, September 2012) facilitated by European Research Area Network (ERA-Net), the Swiss Federal Office for the Environment (FOEN)
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ii. conduct a needs assessment in the context of developing and transitional economies; and

iii. conceptualise UNEP’s follow-up intervention.

This study will act as a background document for a consultation meeting of key experts to be convened in the last quarter of 2013 which is expected to validate the study and lead to a constructive and focused discussion that will serve as a basis for the formulation of the multilateral intervention that UNEP will support in a subsequent phase under the current Eco-Innovation project.

**Qualifications / special skills or knowledge**

The consultant should have: an advanced degree (Master or Phd) in environmental management and/or policy with a specific focus on industrial ecology in developing countries and/or economies in transition. The consultant needs to have the following experience:

- A minimum of 10 years professional experience specifically related to industrial ecology, eco-industrial parks and the promotion of sustainable policy practices in industry and local or national authorities.
- Substantive knowledge and experience of EIP policies and management tools.
- Proven ability to research and prepare reports of a similar nature.
- Ability to clearly identify and evaluate local, national and regional EIP policies and communicate the mutual benefits for RECP service providers and public stakeholders in developing and transition economies.
- Excellent research skills both for qualitative and quantitative research purposes.
- Proven ability to write and present complex policy-related issues for a non-technical audience.

**Excellent English writing skills are necessary.**

**Ultimate result of services**

The consultancy service to be provided under this ToR will result in:

a. Improved awareness and clear understanding of the gaps, challenges and needs hindering the implementation of eco-innovative solutions for the set-up and management of eco-industrial parks, and how multilateral development organizations can best engage;

b. Effective contribution towards the progress for increased investment and effective regulations in sustainable processes and technologies.

**Duration**

The contract would be for 4 months spread over 8 months. Expected to start in June 2013.

2. Consultancy Fee

**Total amount**

Total amount: 20,000USD

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9 For example the institutional capacity to plan and manage these estates to achieve the positive economic as well as environmental gains.
Indicative level of remuneration

Proposed level of remuneration is paid in three instalments as noted below:

1st Payment USD 5,000
Upon delivery of the consultancy work plan, inclusive of an overview of existing literature and examples that can contribute to this study, and draft outline of the gap analysis and needs assessment study upon which feedback will be provided and approved by UNEP.

2nd Payment USD 10,000
Upon complete first draft of EIP assessment report (for an internal review and approval by UNEP) and presentation of output during a dedicated validation workshop consisting of a broader stakeholder group of experts.

Final Payment USD 5,000
Upon delivery of the final and edited document approved by UNEP, based on inputs from the expert working group.

3. Travel involved

A minimum of one travel to either Geneva or Paris is anticipated during the consultancy to contribute to the validation workshop. All travel costs will be covered and organized by the consultant.

4. Work plan

Objectives, output expectations and performance indicators

The objective of the consultancy is to have an overall thorough assessment of existing management and policy tools and approaches conducive to the development and management of EIPs in developing countries and economies in transition; identifying gaps and challenges to the planning, management and support of EIPs that would need to be addressed, and recommendations for UNEP specific intervention and support.

The assessment report is also intended to be the background document that will form the basis for discussions to be held in a dedicated workshop with international experts aimed at validating the gaps and developing a detailed roadmap for multilateral intervention projects.

The assessment report should not exceed 30 pages.

Based on research (carried-out through desk-top literature review\textsuperscript{10} and analysis of existing tools and case studies, as well as active research methods such as interviews with key experts) which will also tap

\textsuperscript{10} This will also include the eco-innovation SCP mainstreaming guidelines being developed under component 2
information from governments, technical experts and relevant multilateral organizations, an initial draft outline will be prepared for UNEP initial review. A revised draft report – inclusive of a critical assessment of the implementation of the existing tools and approaches that the consultant will have selected – will be developed and shared for comments during a broader validation workshop. This workshop will bring together UNEP and UNIDO programme managers and selected international experts to provide further inputs to the document and constructive recommendations for the specific intervention to be implemented in a subsequent phase of the project.

The consultant will support the workshop by: *i.* contributing ideas for the identification of experts; *ii.* drafting the agenda of the one day workshop; *iii.* presenting the document; acting as the main facilitator of the workshop and guiding the participants; *iv.* and collecting comments to be incorporated into a final version of the report that will be submitted to UNEP.

Overall expected outputs:

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<tr>
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<th>Consultancy workplan and outline of report</th>
<th>June 2013</th>
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<tbody>
<tr>
<td>2.</td>
<td>First draft of assessment report</td>
<td>Beginning of August 2013</td>
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<td>3.</td>
<td>Content validation workshop</td>
<td>September 2013</td>
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**Specific tasks and responsibilities**

A. Development of EIP planning and management assessment report:

- Prepare and submit a detailed work-plan for the research, writing and validation of the document.
- Draft an annotated outline (with chapters and subheadings along with a bibliography) based on initial research of existing practices and tools (sourced globally).
- Undertake a global scoping exercise for collection of relevant cases and examples of policy frameworks and existing regulations conducive to the planning, development and management of the EIPs, especially those related to existing industrial estates. This will involve contacting the relevant actors. The consultant will engage with UNEP to validate the scope of the research effort in advance.
- Draft and refine the assessment report according to inputs provided by UNEP. The report should contain: general coverage of regulatory frameworks, infrastructure and tools existing in developing and developed countries supporting EIP; innovative and specific recommendations for the improvement of such frameworks for existing industrial estates/clusters and the creation of an enabling environment capable of maintaining the system (i.e. policies and regulations that would induce collaboration, building of a management structure, improvement of individual environmental performance of industries present in the network, public approval); identification of the gaps that UNEP could address and; finally a concept proposal for a UNEP EIP intervention strategy.
- Present complete draft at the one-day validation workshop.
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- Review and refine the document according to inputs emerging from the workshop. The final document should clearly present all key intervention points that an EIP multilateral development strategy (based on UNEP’s organizational mandate) should address and how (e.g. a roadmap).
- Submit final report inclusive of executive summary to UNEP.

B. Validation Workshop:
- Refine complete draft report with inputs provided by UNEP (complete draft will be submitted by UNEP to workshop participants two weeks prior to the workshop).
- Recommend experts to be engaged in the validation workshop (companies and/or local authorities coming from some of the best cases collected will be invited to present their experience, as well as service providers who are working to support environmental industrial estates).
- In consultation with UNEP, prepare the one-day workshop agenda inclusive of key outcome questions, which will outline the workshop specific objectives.
- Prepare presentation, using Microsoft PowerPoint®, aimed at summarizing the report’s content. The presentation must be developed in such a way as to stimulate feedback from the workshop participants.
- Prepare a structured feedback template of the report for participants (this will help further consolidate opinions and recommendations).
- Consolidate feedback, refine draft and submit final report to UNEP.

Workshop logistics, venue and documentation will be organized by UNEP.

Reporting lines
The consultant shall report directly to the coordination of the Resource Efficiency and Eco-Innovation in Developing and Transition Economies programme, within the UNEP/DTIE/SCP/Business and Industry Unit.

5. Application Process

Interested experts are invited to apply by submitting the following application documents:
- Curriculum Vitae (CV)
- Letter of Motivation outlining how your experience, skills, qualifications and professional networks fit with the required deliverables (one page maximum)
- Copies of the relevant articles/reports published through indication of www links or submission of PDF version of these via e-mail attachments

Please submit your detailed application documents – in PDF format – to: dtie.biu@unep.org by May 30th 2013 indicating the application ID code (EIP/1202) as the subject of the email. E-mails should not exceed 9MB.

All communications and queries related to this call should be addressed to the same e-mail address.
The Eco-Innovation Project
Promoting Eco-Innovation and Resource Efficiency in Developing and Transition Economies

Eco-Innovation is any form of innovation aimed at significant progress towards the goal of sustainable development, through reducing impacts on the environment, enhancing resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources.

OVERVIEW
Harnessing eco-innovation for sustainable development

In many economies, small and medium-sized enterprises (SMEs) are the backbone of society, and are responsible for up to 70% of GDP in middle-income countries. However, rising global resource consumption patterns and the alarmingly high levels of resource depletion and environmental pollution associated with industrial production operations are currently pushing the limits of sustainability. Increased efficiency, as well as enhanced compliance with, and optimization of, current policy frameworks, could do more to facilitate change and create a demand for more sustainable goods and services, particularly in transition economies with growing manufacturing sectors.

What can be done to address these factors and realign development towards a more resource efficient Green Economy?

Sustainable development requires a ‘decoupling’ of resource use from economic and industrial growth. In 2012, UNEP partnered with the European Commission on the Resource Efficiency and Eco-Innovation in Developing and Transitional Economies project (RECP Eco-innovation) which will run for four years. This project promotes resource efficiency and eco-innovation in an effort to change consumption and production patterns in developing countries and economies in transition by incentivising systemic innovation and sustainable industrial production systems.

RELATED EXPERTISE:
This Project builds on work that UNEP and the EC have carried out in green economy, sustainable consumption and production, including:
- the Eco-Innovation Action Plan
- the UNIDO–UNEP Resource Efficient and Cleaner Production (RECP) Programme
- the UNEP 10 Year Framework of Programmes on Sustainable Consumption and Production (10 YFP) adopted at Rio+20

For more information visit: http://www.unep.org/ecoinnovationproject
RETHINKING PRODUCTS & SERVICES

The project will demonstrate and communicate the economic, social and environmental benefits of mainstreaming eco-innovation in SMEs and national policies, contributing to the transition to a more resource efficient and Green Economy. This starts with rethinking products and business processes in order to put eco-innovation principles into practice. The Project will seek to address growing market awareness of the sustainability of products by augmenting industry’s capacity to deliver responsible goods and services. Key value chains and industrial parks will also be engaged in order to reach a visible, substantive impact.

APPROACH

The 48-month project entails activities that will address:

What is the business case for Eco-Innovation?

The application of Eco-Innovation in business will be explored in The Business Case for Eco-Innovation, a publication that will outline opportunities and challenges and illustrate findings using case studies spanning various sectors from around the world with a focus on SMEs in developing and emerging economies.

The business case will also be supported by technical Eco-Innovation demonstration projects which will engage over 30 companies in 6 countries from Latin America and the Caribbean, Asia Pacific and Africa. These pilot projects will include capacity building based on an Eco-Innovation Manual, with supplements in the areas of:

- Agri-food
- Metals
- Chemicals

How can business intermediaries engage in the policy context?

RECP business service providers will be trained on proactive ways to support a policy framework that will stimulate sustainable production and consumption through eco-innovation. National level action planning will be carried out in 6 countries and will be based on country policy assessment studies. This policy work will be supported by the following publications:

- Mainstreaming SCP Policy for Eco-Innovation
- Moving Ahead with Technologies for Eco-Innovation
- Eco-Industrial Park Guideline

How will the Eco-Innovation lessons be upscaled?

A Final Compendium of best practices and lessons from pilot demonstration projects will be compiled. The Project’s experience will be shared and disseminated at various events including:

- Regional and National Project activities, workshops and training sessions
- UNEP–UNIDO RECPnet Global Conference (Switzerland, September 2013)
- UNEP–EC Eco-Innovation Forum (Asia, November 2013)