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**TERMS OF REFERENCE**  
**(Individual Contractor Agreement)**

**Title:** GEO Cities: Consultancy of the Global Environmental Outlook for cities in Chile  
**Project:** Sustainable Cities  
**Duty station:** Chile  
**Section/Unit:** UNEP Sub-regional Office for the Southern Cone  
**Contract/Level:** LICA 10  
**Supervisor:** Southern Cone Director , Mr. [Jose] [Dallo]

### **1. General Background**

(Brief description of the national, sector-specific or other relevant context in which the individual contractor will operate)

Based on a regional inter-agency agreement, UNOPS is providing support to UNEP's Regional Office for Latin America and the Caribbean (UNEP-ROLAC) and the Southern Cone Office for the recruitment of different project personnel. In this context, UNOPS wishes to recruit an experienced environmental affairs expert for six (6) months to join the UNEP-ROLAC and the Southern Cone Office team related to the following working area:

Since 1995, UN Environment has been conducting an ambitious integrated environmental assessment project known as GEO (Global Environment Outlook). The GEO Cities project was launched in 2001, within the framework of the GEO project and responding to the request of the Forum of Ministers of Environment of Latin America and the Caribbean and to the activities related to the Johannesburg Summit. The project aims at promoting a better understanding of the dynamics of cities and their environments, providing local governments, scientists, policy-makers and the public in general in the region with reliable and up-to-date information about their cities.

GEO reports have an established methodology to detect trends in the state of the environment and to monitor progress towards the achievement of environmental policy targets.

The GEO methodology employs a matrix of the Pressure-State-Impact-Response (SPIR) indicators to answer these questions as an analytical instrument that permits factors that act on the environment to be organized and grouped in a logical manner. It shows how urbanization affects the environment because of factors that put pressure on local natural resources and ecosystems, as well as action taken by local society and government to confront the problems caused by human activities.

GEOs provide the community with improved access to meaningful environmental data and information, which help increasing the capacity of local and central governments and the private sector for planning and decision-making. A GEO city process can be instrumental for the establishment of a multi-sectoral and comprehensive mechanism tasked with integrated monitoring and assessment of the environment and health of the population in areas where conflicts are detected, but in which simultaneously important environmental monitoring investments have been made that are not necessarily recognized.

## **2. Purpose and Scope of Assignment**

(Concise and detailed description of activities, tasks and responsibilities to be undertaken, including expected travel, if applicable)

### **II. RESPONSIBILITIES**

#### **Functional Responsibilities**

The overall objectives of the GEO-Cities consultancy are:

- Recognize the links between environmental conditions and human activities, especially those related to urban development.
- Contribute to building local technical capacities that will permit integrated assessments to be made on the state of the urban environment.
- Guide consensus building on the most critical environmental problems in each city by encouraging all sectors of society to engage in dialogue and participate in the decision-making process.
- Make it possible to formulate and implement urban strategies and plans that will help cities to improve urban environment management.
- Encourage the creation of permanent institutional networks in the city.

In August 2017 UN Environment and the Chilean Society of Industrial Development (SOFOFA), the main business association of the productive sector in Chile, signed a cooperation agreement focused on promoting electro mobility.

Then, both institutions identified new cooperation possibilities to enhancing the environmental performance of the productive sector in the country. In this framework, the 2 parties have agreed to advance a joint strategy to improve quality, access and use of environmental information for specific areas of public and private interest, in an effort to facilitate design of policies and regulations, and to enhance effectiveness of environmental assessments for investment projects SOFOFA, through its Environmental and Energy Centre, signed a collaboration agreement with the Ministry of the Environment in 2016 aimed at assessing the functioning of air quality and meteorology monitoring networks in industrial areas, beginning with the V Region of the Country. This study showed the absence of quality assurance and control systems, duplication of information and design deficiencies of the networks in operation. As a result, air quality monitoring campaigns were developed based on a new design of the network and with the support of the Finnish Institute of Meteorology (FMI).

Along these lines, the newly established Environmental authorities see value in strengthening a public-private strategy aimed at attaining higher levels of reliability in the monitoring of air quality, and potential future extension to other parameters (e.g., atmospheric emissions).

The Director for the Sub-regional Office will directly supervise the consultant for the Southern Cone, with the Climate Change Coordinator in the UN Environment Regional Office for Latin America as second supervisor.

### III. **EXPECTED RESULTS**

#### **Activity 1: Guidelines for the production of GEO-Cities**

The main expected deliverable from this consultancy will be a careful and detailed description of the main topics and related chapters to be included in the GEO-City for the Fifth Region. This shall include a thorough analysis on available sources of data and information; their nature (private, public, open format, scientific literature, grey literature); existing gaps in terms of data sustainability, accessibility and availability (frequency of publication, existence of a mandate, availability of operating funds); a list of public institutions, private organizations and individuals to be approached and engaged in the development of each chapters and, finally; a preliminary list of key references to be considered for the development of each chapter;

Product: Guidelines for the production of GEO and Outlines of the GEO report

#### **Activity 2: Collection and classification of background information for the design of a GEO Information Platform.**

Through this activity, the consultant will perform a systematic collection and analysis of existing information regarding national and international experiences (good practices) for the design and deployment of a data platform for on-line publication of validated data on air quality and meteorology. The proposed data platform would provide users with the following functionalities: 1) systematic data collection, validation, publication, and sharing; 2) Data analysis and integration; serve as structured repository of up-to-date and robust data and information to feed into the development of periodic Global Environment Outlooks (GEOs) for the area; 3) Modelling patterns and trends of the environment to produce outlooks and future scenarios relevant to the area of study.

The data Platform will provide the users with direct access to the most up-to-date and relevant data sources (both from public institutions and from private sector), statistics and indicators included in the narrative of each Chapters. Furthermore, it would provide an opportunity to the population living in the areas object of the GEOs report to point out to the local authorities' specific environmental issues and to upload data and information through the deployment of new monitoring systems based on innovative, non-conventional solutions (e.g., low-cost sensor networks, citizen science).

This activity shall cover the following points (sub-activities):

- Identification and definition of critical development stages and related timing for the platform's design.
- Identification of the regulatory and legal changes needed for the full integration and deployment of the new monitoring network of air quality and meteorology.
- A description of main functionalities and a preliminary proposal of conceptual design for the (open) data platform, including suggested solutions in terms of architecture and software solutions;

Product: Guidelines for the development and operational deployment of a data Platform based on different sources of data. Description of main functionalities and conceptual scheme.

#### **Activity 3: Collection and classification of air quality and meteorological information:**

- Processing of validated information from historical meteor and air-quality stations in the Fifth Region and trend analysis.

- Processing of information from monitoring campaigns and inferences about the current air quality situation in the study area (Fifth Region);
- Development of trend graphs from previous information, corrected by meteorological conditions.

Product: Mapping of data and analysis available about air quality in the Fifth Region.

**Activity 4: Collection and review of atmospheric emissions data from the main sources operating in the Fifth Region and production of a background report for a technical mission of VTT-Finland scheduled for the month of June 2018.**

- Review of information on emissions from existing reports and inventories for the area.
- Based on information from previous points, an executive report will be prepared as an induction for the experts of VTT-Finland visiting Chile in June 2018.

The report shall include

- a. Technical data related to main emission sources in the area, type of measurement used, and the reports generated;
- b. Identification of information gaps, duplication of reporting mechanisms and opportunities for simplification or optimization, and;
- c. Detailed information about investments for abatement of atmospheric emissions supported by the main companies in the area, as a fundamental input for the GEO-City Report and related Information Platform.

Product: report

### **3. Monitoring and Progress Controls**

(Clear description of measurable outputs, milestones, key performance indicators and/or reporting requirements, which will enable performance monitoring)

**Lumpsum payment modality.** There will be a single lumpsum payment issued at the end of the consultancy period, upon confirmation by the supervisor in written of his/her clearance of the below-described deliverables:

<b>Deliverables</b>	<b>Percentage of the Total</b>
Product 1: Guidelines for the production of GEO and Outlines of the GEO report	30%
Product 2: Guidelines for the development and operational deployment of a data Platform based on different sources of data. Description of main functionalities and conceptual scheme.	30%
Product 3: Mapping of data and analysis available about air quality in the Fifth Region	20%
Product 4: Executive report including data related to main emission sources in the area, identification of information gaps, and detailed information about investments for abatement of atmospheric emissions in the area.	20%

#### 4. Qualifications and Experience

(List the required education, work experience, expertise and competencies of the individual contractor. The listed education and experience should correspond with the level at which the contract is offered.)

##### a. Education (Level and area of required and/or preferred education)

- Master's Degree or equivalent is required in environmental sciences, Earth sciences, economy, or environmental statistics.
- A first-level university degree is required plus additional years of experience (+7) may be accepted in lieu of a Master university degree.

##### b. Work Experience

(List number of years and area of required work experience. Clearly distinguish between required experience and experience, which could be an asset.)

- A minimum of 5 years professional experience in environmental sector in Latin America and the Caribbean (7 years with a Bachelor).
- Experience in project manager is an asset.
- Experience in international projects, as well as in South-South cooperation is desirable.

##### c. Language

- Fluency in Spanish is required.
- Fluency in English is required

##### d. Key Competencies

(Technical knowledge, skills, managerial competencies or other personal competencies relevant to the performance of the assignment. Clearly distinguish between required and desired competencies)

- Professionalism
- Communication skills
- Team work
- Planning and organisation
- Technology awareness
- Creativity
- Client orientation



Develops and implements sustainable business strategies, thinks long term and externally in order to positively shape the organization. Anticipates and perceives the impact and implications of future decisions and activities on other parts of the organization. **(for levels IICA-2, IICA-3, LICA Specialist- 10, LICA Specialist-11, NOC, NOD, P3, P4 and above)**



Treats all individuals with respect; responds sensitively to differences and encourages others to do the same. Upholds organizational and ethical norms. Maintains high standards of trustworthiness. Role model for diversity and inclusion.



Demonstrates understanding of the impact of own role on all partners and always puts the end beneficiary first. Builds and maintains strong external relationships and is a competent partner for others (if relevant to the role).



Efficiently establishes an appropriate course of action for self and/or others to accomplish a goal. Actions lead to total task accomplishment through concern for quality in all areas. Sees opportunities and takes the initiative to act on them. Understands that responsible use of resources maximizes our impact on our beneficiaries.



Open to change and flexible in a fast paced environment. Effectively adapts own approach to suit changing circumstances or requirements. Reflects on experiences and modifies own behavior. Performance is consistent, even under pressure. Always pursues continuous improvements.



Evaluates data and courses of action to reach logical, pragmatic decisions. Takes an unbiased, rational approach with calculated risks. Applies innovation and creativity to problem-solving.



Expresses ideas or facts in a clear, concise and open manner. Communication indicates a consideration for the feelings and needs of others. Actively listens and proactively shares knowledge. Handles conflict effectively, by overcoming differences of opinion and finding common ground.

Project Authority (Name/Title):		Contract holder (Name/Title):	
Signature	Date	Signature	Date

