

## Term of Reference

# System Dynamic Modeler

### For Low Carbon Development Initiative Phase-2 (LCDI2)

#### Background

The Foreign, Commonwealth, and Development Office of the UK Government (FCDO) in collaboration with the Development and Planning Ministry (Bappenas) and the Government of Indonesia, have developed a partnership agreement in the Low Carbon Development Initiative (LCDI) since 2017. The first phase of LCDI was implemented in 2017-2021. Currently, the program has entered LCDI Phase 2 (LCDI2) for four years. The LCDI Phase 1 focused on the preparation and implementation of the first national low-carbon development plan for Indonesia. One of the major milestones in LCDI Phase 1 is the Government of Indonesia launched a UK-funded report called “*Low Carbon Development: A Paradigm Shift Towards a Green Economy in Indonesia*” (the LCDI Report). This report has been successfully incorporated into the national Medium-Term Development (RPJMN) 2020-2024.

Oxford Policy Management Limited (OPML) has recently contracted by FCDO, with the British Embassy Jakarta (BEJ) as its client service, as the Supplier to deliver and manage program implementation of LCDI2 in collaboration with the Government of Indonesia (GoI), primarily Bappenas, along with relevant line ministries and the pilot provinces of the Programme. This program will support the implementation of the LCDI at both the national and subnational levels to help the Government meet its emissions reduction targets in Indonesia’s medium-term development plan. In specific, the program covers:

- Building political support for low-carbon development within and outside of government
- Building knowledge and understanding of the LCDI approach among those who would be responsible for implementing it within GoI
- Supporting implementation of the LCDI approach, especially through provincial and national development plans
- Raising ambition to the highest levels set out in the LCDI report

To effectively implement the LCDI2, OPML as an implementing agency is planning on mobilizing a team of System Dynamic Modelers.

#### Key objectives of the role

The System Dynamic Modeler will support the LCDI2 management unit in providing technical input for low-carbon intervention and climate resilience for system dynamics and modeling. The System Dynamic Modeler is responsible for developing and discovering patterns and trends through system dynamic modeling, developing model applications and tools, and managing digital databases, among other duties. The System Dynamic Modeler will report directly to the Team Leader of the LCDI2 Project.

## **Main Responsibility**

1. Deliver and develop work products in a system dynamic modeling environment for key priority sectors.
2. Analyze various scenarios using system dynamics models for key priority sectors and produce model structure and results.
3. Develop time series trends of key priority sectors based on model simulations and analysis.
4. Write technical notes for model structure in the system dynamic model
5. Collaborate with GIS and Spatial Analysts to integrate system dynamic model results into spatial systems.
6. Liaise between the Directorate of Environment of Bappenas with other ministries and other national institutions, provincial governments, and development partners.
7. Support other activities based on the direction of the LCDI-2 Team Leader, and coordinate relevant with other consultants/experts and other coordinators.

## **Output**

1. System dynamic model and structure on key priority sector based on rigorous scenario analysis
2. Database compilation for key priority sectors and regular updates at national and provincial level
3. Chart, slide presentation, and report describing structure model and results on each key priority sector
4. Regular report updates on key priority sectors at national and regional
5. Regularly update on project communication material including factsheet, blog post, website, journal article, etc
6. Regular updates on the AKSARA web system and platform
7. Monthly activity progress report

## **Required Qualifications, Skills, and Competencies**

1. Minimum 5 years' experience in a System Dynamic Modeling environment
2. Experience in modeling software such as Stella (preferable), Powersim, and Vensim
3. Proficiency with database programming languages such as SQL, R, or Python.
4. Proficiency with front-end design languages such as HTML, CSS, JavaScript, and various mapping languages.
5. Outstanding quantitative skill set.
6. Attention to detail and good problem-solving skills.
7. Analytical mindset.
8. Excellent written and verbal communication in English and Bahasa Indonesia.
9. Good interpersonal skills.
10. Understand climate change, environment, economic development is required.

## Education

Have a minimum education of bachelor's degrees in the field of computer science , engineering, statistics, or a related field

## How to apply

This role is full time and the candidate will be contracted for Inception phase until February 2024 with a possibility of extension.

Please send your application by sending a cover letter addressing the required qualification, skills, and competencies, and CV as one file in English to [lcdi2.recruitment@opml.co.uk](mailto:lcdi2.recruitment@opml.co.uk) with the subject line "Application for System Dynamic Modeler LCDI 2 Programme " before 15 November 2023. Only shortlisted candidates will be contacted.

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