



**Ministry of Climate Change,
Environment and Energy**

Final Report

Training on Low Emissions Analysis Platform



CBIT Maldives

Capacity Building for Improved Transparency
of Climate Change Mitigation and Adaptation
Actions in the Maldives



Final report

Training on Low Emissions Analysis Platform (LEAP)

Prepared by: Stockholm Environment Institute (SEI)

Date: 24 January 2025

During December 8-12, 2024, Stockholm Environment Institute conducted a 5-day workshop on climate mitigation planning using the Low Emissions Analysis Platform (LEAP) for climate mitigation and energy experts in the Maldives. The objective of the training was to strengthen the Maldives' capacity to track greenhouse gas (GHG) emissions and mitigation efforts, supporting the country to meet its reporting obligations under the Enhanced Transparency Framework (ETF) of the Paris Agreement. The training was offered by the Ministry of Climate Change, Environment and Energy (MCEEE) and is part of the broader Capacity Strengthening for Improved Transparency of Climate Change Mitigation and Adaptation Actions in the Maldives (CBIT Maldives) project, funded by the Global Environment Facility (GEF) and supported by UN Environment.



Figure 1: Participants of the 5-day workshop on the Low Emissions Analysis Platform LEAP.

The training was conducted by Dr. Charlotte Wagner, Scientist in the Energy Modeling Program of the Stockholm Environment Institute, which is the developer of LEAP, and Ms. Benise Joseph from MRVhub/GHGMI at the Maldives MCEEE. Participants were comprised of a group of fourteen climate and energy experts from the MCEEE, as well as the Ministry of Finance, the Maldives Water and Sewerage Corporation, the Maldives Housing Development Corporation and the State Electric Company (7 male, 7 female). Through presentations, hands-on exercises and interactive sessions, the training aimed to build capacity in modeling energy demand and supply, estimating energy-related emissions, and analyzing the costs and benefits of energy systems using LEAP, with the objective of supporting ongoing GHG emission inventory development, climate mitigation efforts and co-benefit analyses in the Maldives and included pre- and a post-workshop assessments administered in Menti.



Figure 2: Welcoming remarks from Fathimath Nashwa, Assistant Director at the MCEEE Climate Change Department.

The first day began with a formal opening, including welcome remarks from Fathimath Nashwa, Assistant Director at the Climate Change Department of the MCEEE. Dr. Charlotte Wagner and Benise Joseph introduced the workshop's aims and logistics before participants gave brief introductions,

sharing their backgrounds and interest in LEAP. Following a pre-training assessment, participants were introduced to LEAP's features, history, and user interface. After lunch, examples of LEAP applications in planning worldwide were presented, leading into sessions on energy demand modeling, emissions, and scenarios, complemented by hands-on exercises and optional office hours.

The second day opened with a Q&A session on the previous day's material, followed by continued exercises on energy demand modeling. Participants then learnt about energy supply modeling in LEAP, covering key definitions, concepts, and emissions scenarios, including extended hands-on exercises further explored supply modeling.

The third day introduced cost-benefit analysis and non-energy emissions analysis. The morning included an introduction to cost-benefit analysis, followed by practical exercises in cost modeling in LEAP. The afternoon started with a presentation on non-energy emissions modeling, followed by participants gaining hands on experience in developing non-energy emissions analyses in LEAP.



Figure 3: Trainer Benise Joseph (MRVhub/GHGMI) leads participants through hands-on exercises.



Figure 4: Participants discuss during interactive group sessions.

The fourth day centered on the Maldives' LEAP model, which was developed for the recently published Biannual Transparency Report and features a complete energy systems model for the Maldives. After presenting materials on climate mitigation and energy systems planning in other Small Island Developing States, trainers familiarized participants with the model, highlighting methods, data sources, and results. Participants then explored the dataset through practical exercises, working collaboratively on scenario and policy explorations, and implementing alternative scenarios, further refining their skills in LEAP.

The final day introduced participants to advanced LEAP topics not covered in detail in the workshop, such as optimization and the Integrated Benefit Calculator. A post-training assessment captured participants' capacity development, followed by a recap of key topics and a discussion on future applications of LEAP in the Maldives. The training successfully concluded in the afternoon of December 12, 2025 with concluding remarks from



Figure 5: Participants after closing remarks from Director of the Climate Change Department, MCCCE, Ahmed Waheed.

the Director of the Climate Change Department of the MCCEE, Ahmed Waheed. The full agenda can be found in Annex I.

The workshop equipped participants with essential skills and insights to utilize LEAP effectively for energy planning and climate mitigation in the Maldives, as was evidenced in the post-training assessment and workshop evaluation. Over the course of the training, participants developed increased familiarity and comfort with energy and climate planning (reported comfort increased from 2 to 3.3 between pre- and post- training assessment, Figure 6 and 7) and improved confidence using LEAP (increase from 1.5 to 3.4) (both out of 5). Overall, participants self-reported level of knowledge of LEAP almost quintupled during the training (Figure 6 and 7). Participants found materials and delivery to be clear and helpful (both 100%) and reported high satisfaction with the training. 47% of participant reported that they were satisfied, and 53% reporting they were very satisfied with the training. Participants' feedback was overwhelmingly positive, with individuals noting the content and delivery were "very well-balanced between theory and practical application", "very well delivered, and instructors were very helpful during all the sessions".

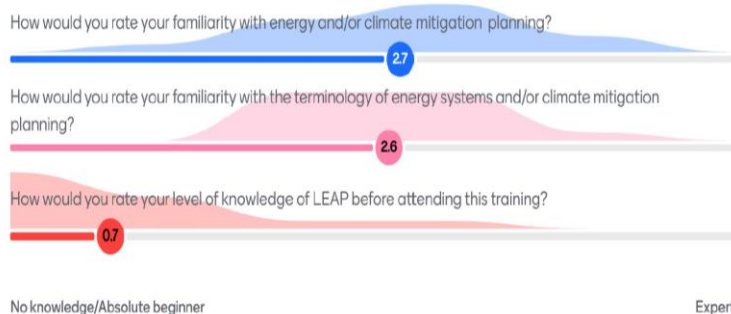


Figure 6: Participants' knowledge and confidence around energy and climate mitigation planning, and LEAP before the workshop.

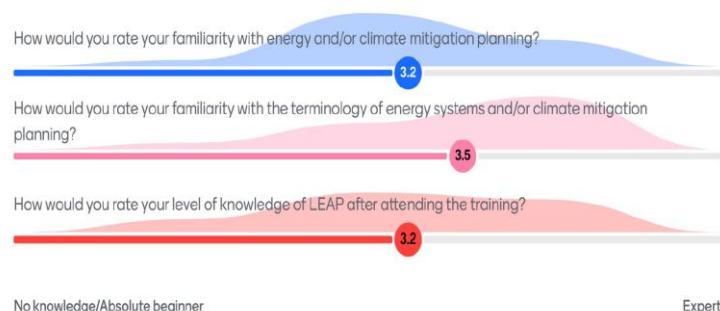


Figure 7: Participants' knowledge and confidence around energy and climate mitigation planning, and LEAP after the workshop. The self-reported level of knowledge of LEAP quintupled during the workshop.

Annex I - Agenda

Time	Topic
Day 1: Sunday	
09:00-09:15	Official opening <ul style="list-style-type: none"> Welcome remarks from Ministry of Climate Change, Environment and Energy
09:15-09:45	<i>Tea Break</i>
09:45-10:00	Aims and goals of the workshop and logistics <ul style="list-style-type: none"> Dr. Charlotte Wagner, Stockholm Environment Institute and Benise Joseph, MRVHub/GHGMI
10:00-11:00	Participant introduction presentations (3 min per participant) Key questions: <ul style="list-style-type: none"> <i>Introduce yourself and your background</i> <i>Tell us about your interest in LEAP</i>
11:00-11:30	LEAP pre-training assessment
11:30-12:00	Introduction to LEAP <ul style="list-style-type: none"> Key features, history, structure, user interface, terminology
12:00-13:00	<i>Lunch</i>
13:00-13:30	Examples of LEAP applications <ul style="list-style-type: none"> Overview of key examples of how LEAP has been applied for planning worldwide
13:30-14:10	Modelling Energy Demand with LEAP <ul style="list-style-type: none"> Definitions, concepts, and methods Emissions and scenarios
14:10-15:00	Hands-on exercise: Energy demand modelling
15:00-15:15	<i>Tea Break</i>
15:15-16:00	Hands-on exercise: Energy demand modelling
16:00-17:00	Optional: Open work time and office hours with LEAP trainers
Day 2: Monday	
09:00-09:30	Feedback and Questions from Day 1
9:30-10:00	<i>Tea Break</i>
10:00-11:30	Hands-on exercise cont'd: Energy demand modelling
10:45-12:00	Modelling energy supply in LEAP <ul style="list-style-type: none"> Definitions, concepts, and methods Emissions and scenarios
12:00-13:00	<i>Lunch</i>
13:00-15:00	Hands-on exercise: Modelling energy supply in LEAP

15:00-15:15	<i>Tea Break</i>
15:15-16:00	Hands-on exercise cont'd: Modelling energy supply in LEAP
16:00-17:00	Optional: <i>Open work time and office hours with LEAP trainers</i>
Day 3: Tuesday	
09:00-09:30	Feedback and questions on Day 2
9:30-10:00	<i>Tea Break</i>
10:00-10:30	Cost-benefit analysis using LEAP Definitions, concepts, and methods
10:30-12:00	Hands-on exercise: Cost-benefit analysis in LEAP
12:00-13:00	<i>Lunch</i>
13:00-14:30	Hands-on exercise cont'd: Cost-benefit analysis in LEAP
14:30-15:00	Introduction to non-energy emissions modelling using LEAP Definitions, concepts, and methods
15:00-15:15	<i>Tea Break</i>
15:15-16:00	Hands-on exercise: Non-energy emissions modelling using LEAP
16:00-17:00	Optional: <i>Open work time and office hours with LEAP trainers</i>
Day 4: Wednesday	
09:00-09:30	Feedback and questions on Day 3
9:30-10:00	<i>Tea Break</i>
10:00-11:00	Hands-on exercise: Non-energy emissions modelling using LEAP
11:00-12:00	Introduction to Maldives LEAP dataset <ul style="list-style-type: none"> • Lessons-learnt: Decarbonisation and climate mitigation modelling in Small-Island Developing States (SIDS) • Presentation of the LEAP dataset highlighting methods, data sources, and results
12:00-13:00	<i>Lunch</i>
13:00-14:00	Hands-on exercise: Exploration and familiarisation with Maldives dataset
14:00-15:00	Hands-on group assignment: Scenario/Policy Exploration
15:00-15:15	<i>Tea Break</i>
15:15-16:00	Hands-on group assignment cont'd: Scenario/Policy Exploration
16:00-17:00	Optional: <i>Open work time and office hours with LEAP trainers</i>
Day 5: Thursday	

09:00-09:45	Hands-on group assignment cont'd: Scenario/Policy Exploration
9:45-10:15	<i>Tea Break</i>
10:15-11:00	Hands-on group assignment cont'd: Scenario/Policy Exploration
11:00-12:00	Discussion of hands-on group assignment: Scenario/Policy Exploration
12:00-13:00	<i>Lunch</i>
13:00-13:30	Advanced LEAP topics <ul style="list-style-type: none"> • Other features in LEAP not covered in the workshop, including optimization, the Integrated Benefit Calculator, and others
13:30-14:00	LEAP post-training assessment and training evaluation
14:00-14:30	Recap of training workshop <ul style="list-style-type: none"> • Recap of topics covered • Q&A • Discussion on potential future LEAP applications in the Maldives
14:30-15:15	Official closing of the workshop and certificate distribution ceremony <ul style="list-style-type: none"> • Certificate distribution • Closing Remarks/Keynote Address
15:15-15:45	<i>Tea</i>