
Terminal Evaluation of the “EU-UNEP Africa Low Emissions Development Strategies Modelling, Planning and Implementation Project” (Africa LEDS, 2016-2019)



Action 1: Replace fuel powered irrigation pumps with Solar Powered Irrigation (SPI)



Evaluation Office of United Nations Environment Programme

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EU-UNEP Africa Low Emissions Development Strategies Modelling, Planning and Implementation Project (Africa LEDS project)

Project number:

Sub-component of PoW Project 1721: *Operationalizing Green Economy Transition in Africa*

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The evaluation consultants hope that the findings, conclusions and recommendations will contribute to UNEP's and the EU's strategic programming and to the formulation and continuous improvement of similar projects in other countries and regions.

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ABOUT THE EVALUATION

Joint Evaluation: No

Report Language(s): English

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Brief Description: This report covers the terminal evaluation of a UNEP-EU project implemented between April 2016 and October 2019. The project's **overall objective** was "To assist partner African countries in defining, building support, and launching implementation of inclusive, low emission, climate-resilient, and resource efficient socio-economic development pathways while also building local research, knowledge, expertise and capacity to develop and implement Nationally Determined Contributions (NDCs)".

The evaluation sought to assess project performance in terms of relevance, effectiveness (outcomes), impact, sustainability and efficiency. The evaluation has two primary purposes:

- i) to provide evidence of results to meet accountability requirements, and
- ii) to provide opportunity for learning, by sharing an understanding of results, challenges, and lessons learned, between UNEP, EU, Implementation Partners and lead partners in the countries.

The evaluation identifies lessons and recommendations of operational relevance for future project formulation and implementation.

Key words: greenhouse gas emissions, agriculture, forestry, transport, processing, energy, value chain, multi-country, rice, SRI, cassava, solar, ICT, multi-disciplinary, deforestation, hydropower, biogas, renewable, lifecycle, modelling, projection, socioeconomic, policy, LED, LEDS.

Primary data collection period: from June 1st to December 20th, 2020

Field mission dates¹:

Cameroon: from September 7th to 17th, 2020

Democratic Republic of Congo (DRC): from October 1st to 10th, 2020

Côte d'Ivoire: from October 18th to 22nd, 2021

¹ A substantial delay in carrying out a field mission to Côte d'Ivoire was caused by the travel restrictions in force during the COVID-19 pandemic.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACTS	Africa Centre for Technology Studies
ADEID	Action for an Equitable, Integrated and Sustainable Development (Cameroon, NGO)
AfLP	Africa LEDS Partnership
AFOLU	Agriculture, Forestry and other Land Use
AMCEN	Africa Ministerial Conference on the Environment
ANADER	National Agency for Agricultural Supervision (working with MINEEDD, Côte d'Ivoire lead partner)
BAU	Business As Usual
BUR	Bi-annual Update Report (for NDC)
CADRI	Centre pour l'Adaptation et le Développement Rural Intégré (DRC), subcontracted by MECNDD
CBO	Community Based Organisation
CEAGRE	Centre for Agriculture and Natural Resources Studies (EMU Faculty of Agronomy & Forestry Engineering), subcontracted by UEM, Mozambique
CNA	Capacity Needs Assessment
CoP	Community of Practice
CSO	Civil Society Organisation
DEVRS	Direction de l'Économie Verte et de la Responsabilité Sociétale (de MINEEDD, Côte d'Ivoire)
DRC	Democratic Republic of Congo
EA	Expected Accomplishments
EBA	Ecosystems Based Adaptation
EBAFOSA	Ecosystems Based Adaptation for Food Security in Africa Assembly (Cameroon)
EC	European Commission (co-financing)
ECCC	Environnement Changement Climatique Canada / Environment and Climate Change Canada
ECN	Energy research Centre of the Netherlands (subcontractor of NREL)
EQ	Evaluation Question
EU	European Union
FMO	Fund Management Officer (UNEP)
GDP	Gross Domestic Product
GHG	Green-House Gas
ICI (IKI)	International Climate Initiative (in German: <i>Internationale Klimaschutz Initiative</i> , IKI)
ICT	Information and Communication Technology
NDC	Intended Nationally Determined Contribution (UNFCCC), French: <i>Contribution Prévüe Déterminée au niveau National (CPDN)</i>
INIR	Mozambican National Institute of Irrigation
IP	Implementation Partner (of UNEP)
IREN	Institut de Recherche des Énergies Nouvelles (Côte d'Ivoire)
ISTA	Institut Supérieur de Techniques Appliqués (subcontracted in DRC, by MECNDD)
KNUST	Kwame Nkrumah University of Science and Technology – Energy Center
LEAP-IBC	Long-range Energy Alternatives Planning system – Integrated Benefits Calculator (applied in Ct. d'Ivoire)
LEDS GP	Low Emission Development Strategies - Global Partnership
Logframe	Logical Framework (or Result Framework)
MAPS	Mitigation Action Plans and Scenarios (a project of the Climate & Development Knowledge Network)
MECNDD	Ministère de l'Environnement, Conservation de la Nature et du Développement Durable (DRC)

MEF, MEWNR	Ministry of Environment and Forestry, or Ministry of Environment, Water and Natural Resources (Kenya)
MERH	Ministère de l'Énergie et Ressources Hydrauliques (DRC)
MENR	Ministry of Environment and Natural Resources (Zambia)
MESTI	Ministry of Environment, Science, Technology and Innovation (Ghana)
MICOA	Ministry for the Coordination of Environmental Affairs (Mozambique)
MINADER	Ministry of Agriculture & Rural Development (Cameroon)
MINEDD	Ministry of Environment and Sustainable Development (Côte d'Ivoire, DRC) Ministère de l'Environnement et du Développement Durable
MINEPDED	Ministry of Environment, Nature Protection and Sustainable Development (Cameroon) <i>Ministère de l'Environnement, de la Protection de la Nature et Développement Durable</i>
MINFOF	Ministry of Forestry and Wildlife (Cameroon)
MITADER	<i>Ministério da Terra, Ambiente e Desenvolvimento Rural</i> (Ministry of Lands, Environment and Rural Development, Mozambique)
MLNR	Ministry of Lands and Natural Resources (Kenya)
MTS	Medium Term Strategy
NAMA	Nationally Appropriate Mitigation Actions (UNFCCC)
NDC	Nationally Determined Contributions
NGO	Non-Governmental Organisation
NREL	National Renewable Energy Laboratory (US, nrel.gov ; in the contract: Alliance for Sustainable Energy LLC)
PCA	Project Cooperation Agreement
PIMS	Project Information Management System
PoW	Programme of Work (UNEP, for its Medium-Term Strategy)
PRC	Project Review Commission
PSC	Project Steering Committee
REDD+	Reducing Emissions from Deforestation and forest degradation in Developing countries, and SFM, etc.
SDG	Sustainable Development Goals
SEQ	Strategic Evaluation Question
SRI	System of Rice Intensification
ToC	Theory of Change
UEM	Universidade Eduardo Mondlane (Mozambique) – <i>Eduardo Mondlane University</i> (KNUST subcontract)
UNBS	Uganda National Bureau of Standards
UNDP	United Nations Development Programme
UNEP (French: PNUÉ)	United Nations Environment Programme; French: <i>Programme des Nations Unies pour l'Environnement</i>
UNFCCC	United Nations Framework for the Convention of Climate Change

PROJECT IDENTIFICATION TABLE

UNEP PIMS ID:	A sub-component of PoW Project 1721 – Operationalizing Green Economy Transition in Africa		
Implementing Partners:	Africa LEDS Partnership (AfLP), LEDS Global Partnership (LEDS GP)		
Relevant SDGs and indicators:	SDG 13, 13.3.2, 13.b.1		
Sub-programme:	Resource Efficiency	Expected Accomplishment(s):	2014/15 - 6:1 2016/17 - 6:1 2018/19 - 6:1
		Programme of Work Output(s):	2014/15 - 6:1.5 ² 2016/17 - 6:1.4 2018/19 - 6:1.8
UNEP-EC approval date:	15 March 2016	Directorate General (DG) Climate Action approval date	12 April 2016
Expected start date:	Not available	Actual start date	12 April 2016
Planned completion date:	12 April 2019	Actual operational completion date (incl. no-cost extension of 6 months, duration 42 months):	12 October 2019
Planned project budget at approval:	EUR 3,420,000	Actual total expenditures reported as of 20 November 2019:	US\$ 3,754,914.19
Planned Environment Fund allocation:	Only in-kind (post)	Actual Environment Fund expenditures reported as of 20 November 2019:	n/a
Planned Extra-Budgetary Financing by the European Commission (EC):	EUR 3,420,000	Secured Extra-Budgetary Financing:	EUR 3,420,000
		Actual Extra-Budgetary Financing expenditures reported as of 20 November 2019:	US\$ 3,754,914.19
First disbursement:	13 April 2016	Planned date of financial closure:	To be confirmed
No. of formal project revisions:	1	Date of last approved project revision:	March 2019
No. of Steering Committee meetings:	3	Date of last/next Steering Committee meeting:	Last: Dec 2018 Next: n/a
Mid-term Review/ Evaluation (planned date):	Not applicable ³	Mid-term Review/ Evaluation (actual date):	Not applicable
Terminal Evaluation (planned date):	2019	Terminal Evaluation (actual date):	June 2020 – ??? 2021
Coverage - Countries:	Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Ghana, Kenya, Mozambique, Zambia	Coverage - Region(s):	Africa
Dates of previous project phases:	Not applicable	Status of future project phases:	Not applicable

² Alignment to PoW Output 6.1.5 is required but the document does not present such an output. There is EA1

³ UNEP policies require a formal mid-point performance assessment for projects with a duration of 4 years or more.

EXECUTIVE SUMMARY

Projects' background

1. The Africa LEDS project (for Low-Emission Development Strategies, LEDS) was designed to support implementation of the Paris Agreement, to pursue a low emissions development pathway. The project objective was to assist partner African countries in **defining, building support for, and launching implementation of inclusive, low emission, climate-resilient, and resource efficient socio-economic development pathways** while also building local research, knowledge, expertise and capacity to develop and implement Nationally Determined Contributions (NDCs).
2. The project Component 1, implemented in Cameroon, Côte d'Ivoire and the Democratic Republic of Congo (DRC), was to demonstrate LEDS in practice, and this would form a basis for modelling. Component 2 was to develop modelling capacity and demonstrate the modelling outcomes' use for LEDS policy decisions, in 8, (eventually 7) countries: Cameroon, Côte d'Ivoire, DRC, Ghana, Kenya, Mozambique and Zambia.
3. The project was managed by UNEP's Regional Office for Africa (ROA). Implementation Partners were the Africa LEDS Partnership (AfLP) and the LEDS Global Partnership (LEDS GP), who appointed their lead partners, respectively the National Renewable Energy Laboratory (NREL, contracting the Alliance for Sustainable Energy LLC) and Kwame Nkrumah University of Science and Technology – Energy Center (KNUST) to implement the project, in close collaboration with the country partners. NREL was in charge of modelling capacity building (focussing on the use and adaptation of modelling tools) and KNUST was to lead, support and coordinate partner countries' governments on the subject of LEDS planning (incl. scoping, context analyses, stakeholder engagement, regional peer learning, networking and communication).
4. The project was implemented from April 2016 to October 2019, with a budget of € 3,420,000 from the European Commission (EC), Directorate General for Climate Action. Of this amount 89% was subcontracted: 28% to NREL, 52% to KNUST and 9% to ACTS.

The evaluation

5. The Evaluation assessed project performance in terms of relevance, effectiveness, efficiency, impact and sustainability. The evaluation had two primary purposes: i) provide evidence of results meeting accountability requirements, and ii) promoting operational improvement, learning and knowledge sharing through results and lessons learned, among UNEP, the EC, the participating countries and main project Implementing Partners (IP): key audiences for this evaluation.
6. The UNEP Evaluation Office notes that the project and evaluation teams did not reach a consensus on the main findings of this evaluation (see Annex I for Response to Stakeholders' Comments). The Office attributes this divergence in views to three main causes:
 - i) While the project team asserted that the project had a 'strong focus' on shaping NDCs following the Paris Agreement, and claimed these as 'results' of the project, not all members of the Project Steering Committee nor the Funding Partner, agreed that this

was a result that could be expected of the project. The evaluation team was also not able to establish a defensible causal pathway between project activities on modelling and NDC developments, which are in-country processes influenced by a large range of factors.

- ii) During country visits to project demonstration sites beneficiaries reported substantive limitations to the LED practices that were introduced by the project. The evaluation team found that these limitations undermine the effectiveness of the project in developing LED knowledge and capacity to produce reliable predictions with models.
 - iii) A UNEP project document template was not used to design this project and the Description of Action did not pass through the UNEP Project Review Committee. While this was standard practice for grants that were secured after a host UNEP project had been approved (in this case PIMS project 1721 on Green Economy Transition in Africa), this case demonstrates the challenges that approved grants can face in terms of demonstrating performance. The EU-UNEP project document, the 'Description of Action' does not have a Theory of Change, nor a robust results framework, specifically there are no Outcome statements. Reference to LED modelling in Africa⁴ was added to the ProDoc of PIMS 1721 as part of Output 3 in Revision 1, 2015, however this did not represent a coherent results framework for the Africa LED project. While the reconstruction of the ToC at Evaluation was carried out in a participatory and consultative manner during this evaluation process, there were several different interpretations of the project's level and nature of ambition among key parties involved in the project implementation. This level of divergent thinking was evident throughout the evaluation process.
7. The Evaluation Office further acknowledges submissions provided by the Project Manager in the first quarter of 2022 (during the commenting process on the draft report) from six of the implementing countries. These submissions refer to how this project directly supported the revised NDCs. However, this is single source material that could not be triangulated with other data. While the testimonials from the countries are much appreciated, they could not compensate for the lack of clarity, or agreement, on the intentions of the project nor could they demonstrate the causal pathway linking the modelling results to policy formulation.

Key findings

- 8. Key project strengths were its demonstration of how modelling could help to quantify the effects of different LED approaches, which could inform LED policy.
- 9. The implementation also helped to identify several challenges to effective modelling, and an important requirement for mainstreaming LED policy (or more generally, Climate Change Adaptation *and* Mitigation): the transformation of policy processes, to be more multidisciplinary and informed by climate-relevant indicators.
- 10. *Strategic relevance and project design*: The project was generally relevant to priorities of UNEP and the EU, as well as countries' priorities for climate change mitigation. It was

⁴ ProDoc Revision 1 text, 2015: "Adapted models to support LED analysis in countries. Creation of a network of skilled modelers and analysts that can learn from and inspire each other to adapt and improve LED modeling and analysis on an ongoing basis in 2-3 African sub-regions. This will also include building capacity of 3-5 key technical institutes in each sub-region to serve as centers of excellence on LED modeling and analysis and to lead ongoing networking, peer exchange, training and technical support".

more challenging to tailor the design of modelling projects to policy needs and key stakeholders needs, especially those of intended LEDS practitioners, as there was insufficiently detailed analysis of the context.

11. *Effectiveness*: The project trained modelling experts in the use, and adaptation, of modelling tools. It also resulted in the set-up of modelling teams, and intersectoral policy teams. The pilot projects demonstrated that, to provide relevant data for modelling, more established (proven) LEDS practices would be needed. The main challenges were in the area of (training on) design of modelling projects: to connect modelling to well specified policy makers' needs (to assure that they can use the modelling outcomes) and to base modelling on proven LEDS good practice that evidently responds to the needs of LEDS practitioners on the ground. The modelling design phase challenges are explained in further detail, in:
 - §88 - complementarity with other initiatives, to use capacity- & technology needs assessments, feasibility studies, lessons learned)
 - §97 - where the PSC (after inception) requests a more narrow thematic focus and building on existing policy and established LEDS practice
 - 98 – where country plans suggest that context analyses are yet to be done and activities yet to be identified
 - §230 – about baseline data (or lack thereof) e.g. on capacity and -needs
12. *Efficiency*: The roles of KNUST and UNEP are duplicative, and it is not evident where KNUST's support to countries resulted in adequate context analyses and scoping of the modelling projects, stakeholder engagement, regional peer learning, networking and communication. This is detailed further in §218-219 and §238-241 – about KNUST reporting lacking on deliverables (contracts 004 and 006), e.g. on KNUST leading the scoping for modelling (prioritisation, further design, scoping reports, capacity and situation assessments, identification of gaps the project will bridge).

Conclusions and Recommendations

Conclusions

13. **Conclusion 1. Strategic Relevance, synergies and complementarities** – Generally the relevance to UNEP, EU and country priorities was there, but in order to narrow down from broad ideas in NDCs to modelling exercises, the context analyses were insufficient (§88, 97, 98, 230).
14. **Conclusion 2. Effectiveness** – Capacity to use and adapt modelling tools was built. The modelling exercises also revealed a need for more relevant and reliable data, pointing out limitations in current monitoring systems. However, modelling is yet to obtain its place in policy making processes and the technical assistance provided to countries could have provided better support to strengthen further design, to chart a clearer pathway from existing policy and LEDS options, to modelling, to inform policy change.
15. **Conclusion 3. Efficiency** – While the main subcontracted Implementation Partners made efforts to deliver the project well, the results do not reasonably match the resources spent.

16. **Conclusion 4. Sustainability of results** – The pilot projects were to demonstrate established LEDS good practice (business cases to establish the relevance for end users); this would form a solid base from which to build models. However, in reality the pilot projects were in various stages of development, from being merely an idea (planting trees in cassava) or at early research & development stage (composition of briquettes, trying SRI in lowland flood areas with little or no control over water and no tenure security, hydropower, biogas); end users were not asked to validate any cost-benefit analysis. It is understandable that the Africa LEDS project had difficulties to find established LEDS good practices, and defensible that more tentative, innovation-type pilot projects were identified. However, if the limitations in practice are generally known (they were often found confirmed in reports from similar projects), these should have been discussed in any ToR for modelling, and onward into policy propositions, as they have policy implications.
17. At national policy level, there is some likelihood that in Mozambique the demand for modelling will be created, as it can find its place in transformed, CCAM-integrated policy making processes.
18. At regional level more efforts are needed to revive and sustain peer learning.
19. **Conclusion 5. Factors affecting performance** – Project monitoring and reporting was weak in terms of clarity and reliability, at project level as well as at the level of Implementing Partners (89% of the project budget is subcontracted).
20. The Project Steering Committee provided relevant strategic guidance, e.g. on further design, capacity building plan, reporting quality, but the effect of this guidance was limited (§151, 276).
21. **Conclusion 6. Human Rights and Gender considerations** – With little or no stakeholder analysis, human rights and gender issues are not identified. In the reporting the word gender is nearly absent, and opportunities are missed to identify issues, for example in Cameroon one could suspect gender issues where the project suggests to plant trees in cassava farms (§285-288).
22. **General conclusion** – Based on the findings, the project demonstrates performance at an **unsatisfactory** level (see Table 11 for performance ratings by individual evaluation criteria). The project has demonstrated strong performance in the area of delivering capacity on the use and adaptation of modelling tools but does not demonstrate the achievement of the desired results. Areas that would have benefited from further attention are project design, reporting and communication.
23. **The main lessons learned** are about the critical importance of matching modelling efforts to a context: the need for LEDS modelling-for-policy-change needs to be firmly and precisely determined by policy makers and shakers (civil society, private sector), and with reference to challenges or opportunities in society and related policy gaps (lessons 1, 2, 4).
24. **Intersectoral collaboration** is a critical success factor for integration of LEDS/CCAM in policy (and -processes) across sectors, and for the composition of LEDS modelling teams (lesson 3).

Recommendations

25. **UNEP recommendations (#1 & #2)** – Implementing the Evaluation, it was learned that the partner countries need support to define a need for LEDS modelling, as part of a wider effort to transform policy making processes to mainstream Climate Change Adaptation and Mitigation, processes that would include policy makers as well as civil society (policy shakers). Countries' weaknesses in policy making is not the production of policy ideas (of which there are many), but the justification of ideas, based on adequate identification of concrete LEDS opportunities and challenges in society and down to the level of stakeholders the policy is to impact (end users), and related policy gaps. Considering this need, the recommendation to UNEP is to improve its **Project Management competence (#5) on context analysis (including stakeholder and policy analyses) and policy-communication** – to ensure that relevant competence is identified and mobilised through Implementing Partners (Recommendations 1, 2 and 3).
26. **Institutional recommendations (for UNEP and partners, #3)** – Linked to the first recommendation, considering weak links from policy gap to modelling to using outcomes for LEDS policy, Country leaders could review **and transform policy processes** to mainstream Climate Change Adaptation and Mitigation (including LEDS), strengthening intersectoral collaboration and opening space for civil society (policy shakers'). With such transformation, a need for LEDS modelling can be better articulated (Recommendation 4).
27. **Modelling projects could consider a path away from growth (#4)** – For mainstreaming Climate Change Adaptation and Mitigation, alternatives are considered, e.g. in the European Environment Agency's key messages: "The ongoing 'Great Acceleration' ^[1] in loss of biodiversity, climate change, pollution and loss of natural capital is tightly coupled to economic activities and economic growth. [...] Doughnut economics, post-growth and degrowth are alternatives to mainstream conceptions of economic growth that offer valuable insights."⁵

⁵ <https://www.eea.europa.eu/publications/growth-without-economic-growth>

1 Introduction

28. This terminal evaluation covers the EC-funded project component **“EU-UNEP Africa Low Emissions Development Strategies Modelling, Planning and Implementation Project”** – the Africa LEDS Project. The evaluation also covers those activities that were part of the project, also those implemented after the project operational completion date (e.g. PCA contract with ACTS).
29. The Africa LEDS Project was implemented by UNEP and contributed to the Sub-Programme 6 on Resource Efficiency, Expected Accomplishment 1 “Science-based approaches that support the transition to sustainable development through multiple pathways, including inclusive green economy and sustainable trade, and the adoption of sustainable consumption and production patterns at all levels. The project, which was implemented under the Programme of Work (PoW) project “Operationalizing Green Economy in Africa” (PIMS ID 1721), was expected to contribute to the PoW output 8 “Policy support as well as training and technical assistance delivered to cities and local communities to support them in transitioning to more resource-efficient policies and practices”.
30. The PoW Project 1721 was implemented by UNEP’s Regional Office for Africa (ROA). The Implementation Partners were the Africa LEDS Partnership (AfLP) and the LEDS Global Partnership (LEDS GP)⁶, and the implementation was to be in close collaboration with lead project implementing partners in 8 African countries: Cameroon, Côte d’Ivoire, Democratic Republic of Congo, Ghana, Kenya, Mozambique, Zambia. The 8 countries are present up until the September 2018 annual progress report⁷, however, the December 2018 minutes of the Project Steering Committee (PSC) note that it was decided, with Morocco’s consent, for the country to disengage; this was because Morocco had not signed the required contract, and there were unexplained delays in forming the in-country project team.
31. The Africa LEDS Project started on 12 April 2016 (date of signature by the donor) and ended on 12 October 2019. There was no project appraisal at the start, and no Mid-Term Review as the project’ duration fell below the UNEP 4-year threshold. The Sub Programme Resource Efficiency was evaluated in 2018⁸, making available relevant recommendations for the Africa LEDS project. The total secured budget was € 3,420,000 from the European Commission (EC), Directorate General for Climate Action.
32. In line with the UNEP Evaluation Policy⁹ and the UNEP Programme Manual¹⁰, the Evaluation assessed project performance (in terms of relevance, effectiveness, efficiency, impact and sustainability). To assess the effectiveness, project outcomes

⁶ Mitigation Action Plans and Scenarios (MAPS) Africa was also identified as an implementing partner at project design.

⁷ The September 2018 annual report states that in Morocco a modelling scoping meeting had already taken place, facilitated by NREL technical team and the Morocco modelling team; sectors had been prioritised, and the Morocco Climate Change Competence Centre (4C Maroc) was confirmed as the lead institution to coordinate modelling actions, notably these 'scenarios': 1. Agriculture, energy & waste - solar micro-irrigation using recycled waste water (BAU: diesel powered furrow irrigation, no waste water re-use); 2. Energy & housing infrastructure: solar home/water systems (BAU: grid); 3. Energy & transport: scale large public mass transit in major urban areas (BAU: expanding urban roads). And next steps had been planned.

⁸ [Sub Programme Evaluation on Resource Efficiency.pdf](#) September 2018, Resource Efficiency Sub-Programme Evaluation Report.

⁹ <https://www.unenvironment.org/about-un-environment/evaluation-office/policies-and-strategies>

¹⁰ <https://wecollaborate.unep.org>

were determined, as well as the actual and potential impact and sustainability of these outcomes.

33. The evaluation had two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned, among UNEP, the EC, the participating countries and main project Implementing Partners (IP); they are therefore the key audiences for this evaluation.

2 Evaluation methods

34. The methodology followed requirements in the Terms of Reference (Annex IV – Evaluation Terms of Reference (ToR 133117)), including the UNEP guidelines and instruments for project evaluation. The evaluation was divided in three phases, namely: the inception phase, the main data collection phase and the report drafting and finalization stage. The evaluation followed a participatory approach as much as possible given circumstances. Key actors in UNEP, the EU and in-country teams were kept informed throughout the evaluation process.
35. During the **inception phase**, a preliminary review of key project documents and interviews with key project stakeholders was conducted to prepare the Inception Report, which included an Evaluation Framework with key evaluation questions and sub-questions. A Theory of Change (ToC) at Inception was constructed, based on the project's Description of the Action and discussion with the Project Manager, to understand the project's intentionality and causal pathway of change as per its design. This ToC was shared with key stakeholders through the evaluation Inception Report, refined during the data collection period and then used to assess the project's effectiveness, the sustainability of results and likelihood of impact.
36. During the **main data collection phase**, the following methods were used:
- **Desk review**, primarily to assess and analyse the Description of the Action (from here onward: 'Description of the Action') and other project documents, plans and reports, study reports and PSC minutes. The evaluation consulted about 350 documents and online sources.
 - **Semi-structured interviews**, with key resource persons in UNEP, the EU, the PSC, Implementing Partners (IP), and socioeconomic actors that were engaged in the project. Interview protocols were prepared based on the evaluation framework designed during the Inception phase. Cameroon, Democratic Republic of Congo (DRC) and Cote D'Ivoire, in which pilot demonstrations took place, were selected for face-to-face interviews. In total 50 interviews were carried out. Some interviews were followed up with further requests for documentation.
 - **The LEDS policy cycle**: To assess progress on *LEDS policy making capacity*, the Evaluation developed a visual of a LEDS-integrating policy cycle (Annex IX) with four stages: 1. Identification of LEDS options, context analysis; 2. Planning (selecting options, data collection, modelling tools), 3. Modelling and communicating results to policy makers and society; 4. Creating change: policy and implementation. These stages loosely correspond with the Description of the Action (section 3.1.3). The Evaluation explored stage 1¹¹ in greater depth, as follows:
 - **stakeholder analyses to identify development actors**, e.g. in the context of product lifecycles or value chains, existing initiatives and relevant experts
 - **stakeholder analysis to identify relevant socioeconomic stakeholders** in the context of product lifecycles or value chains, their stakes or interests/needs (considering gender), and interlinkages between product lifecycles or value chains, to mobilise their expertise: i) for identification of LED practices corresponding to

¹¹ This can be done in various and combined ways, by formal research, or as often done in practice (and suitable for shorter-term projects), by mostly using and combining available information, considering this is an exercise to reflect and better understand the context, the focus of change, and possible implications for policy and various stakeholders.

their needs, and ii) for evaluation of effects (benefits but also possible negative effects; to prevent marginalisation of more vulnerable groups). Later, these actors can be powerful proponents for policy change

- **policy (gap) analysis** to ensure that modelling answers policy makers' questions.
- **Analysing communication through reporting:** Written communication is very important in this project, in a multi-country, multi-lingual and multi-disciplinary context, with complex conceptual matters and limited opportunity for voice communication. To analyse the reporting quality (assessed in 5.G. Monitoring and Reporting), the Evaluation checked:
 - i. relevance for the audience: e.g., assuming project reporting to the PSC is for the purpose of strategic steering, how do reports inform the PSC so that it can give strategic guidance?
 - ii. structure: how does the structure of reports follow the relevant requirements?
 - iii. clarity of content: how easy is it for a reader to understand the content? Are there issues of poor clarity, misunderstanding the content, misleading presentation?
 - iv. reliability: how do facts presented in a report correspond with what is verified?
 - v. efficiency: this is about the time it takes for a reader to find and read relevant content¹².
- **Sense-Making¹³ workshops:** this approach is used to enhance and ensure participation and learning among key stakeholders. Sense making workshops take participants through findings, to ensure understanding and verify validity. This is followed by a creative stage where participants reflect on the meaning of the findings, bringing up what is surprising, dilemmas, contradictions. Dialogue is important at this stage, and different perspectives are welcomed. In a final stage, participants translate the reflections into conclusions, lessons they learned and actionable recommendations for the project. The evaluation carried out three face-to-face sense-making workshops in the three countries where the evaluation was present, and one online workshop on 13th of December 2021 to validate findings and reflect on results. The result of validation and Sense-Making sessions is presented in Annex VI.
- **Presentation of the preliminary findings:** for the project team, to present and discuss findings, conclusions and recommendations.
- **Scoring:** The UNEP Evaluation Office has developed detailed descriptions of the main elements required to be demonstrated at each level for each evaluation criterion. The evaluation team has considered all the evidence gathered during the evaluation in relation to this matrix in order to generate evaluation criteria performance ratings. Most criteria are rated on a six-point scale: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability and Likelihood of Impact are rated from Highly Likely (HL) down to Highly Unlikely (HU) and Nature of External Context is rated from Highly Favourable (HF) to Highly Unfavourable (HU). The ratings against

¹² Principles obtained from: Waging War on Woolly Writing at Work <https://www.amazon.com/Waging-war-woolly-writing-work-ebook/dp/B01B6P2ZTG>

¹³ The methodology is applied by organisations specialised in M&E, like MDF <https://mdf.nl/evaluation>. Sense-Making ensures key stakeholders of a clear and transparent process, to provide satisfactory answers to any disputes that may arise. This method is specifically applied to analyse findings from different perspectives and to help deepen understanding and internalise learning from the evaluation. It can help to translate findings into actionable measures, that will empower participants to make an even greater effort towards social impact.

each criterion are 'weighted' to derive the Overall Project Performance Rating. The greatest weight is placed on achievement of outcomes, followed by dimensions of sustainability.

37. Finally, at the **report drafting and finalization stage**, findings were triangulated, and conclusions and recommendations refined and agreed in the final evaluation report.

Limitations of this evaluation

38. Weaknesses in project formulation, and inaccessibility of reporting (in terms of quality) made it time-consuming to find, check evidence of concrete results, and to understand the process and challenges. Most reporting was from sub-contractors, reporting on *activities* rather than *results*.
39. Covid-related circumstances made it impossible for the Principal Evaluator to visit four countries as planned, so in-country verification was done in three, of which two with in-country consultants (in Cameroon, DRC) and one by the Principal Evaluator (Côte d'Ivoire) – to address any information gaps and ensure the validity and quality of conclusions and recommendations.
40. A minor limitation was that in North West Cameroon the insecurity situation prevented the in-country consultant from visiting the Jakiri project site. That aside, communication with the Jakiri cooperative was satisfactory. Another minor, manageable limitation is that communication with the DRC in-country consultant was challenged by frequent power cuts and poor connectivity.¹⁴ No information could be obtained from Morocco on why or how they eventually left the project.

¹⁴ As also recognised here: <https://www.bbc.com/news/world-africa-50516888>

3 The project

A. Context

41. African challenges of persistent poverty, growing inequality and low human development are compounded by ecosystem degradation, climate change and economic disruption, which disproportionately impact the poor and most vulnerable. These problems are covered in a handful of common African agreements (including SDGs, Rio+20 and the African Union Agenda 2063) committing to socioeconomic development priorities to achieve food security, create income and enterprise opportunity and sustain macro-economic growth. Cumulatively, these underscore the need for a low emissions development pathway, and protecting ecosystems, toward an Inclusive Green Economy.
42. The Description of the Action (p3) links the project to UNEP's Medium Term Strategy for 2014-2017, sections on Resource Efficiency, and Ecosystems Management.
43. The project was designed to support implementation of the Paris Agreement objectives through targeted, country-led support for modelling, planning and implementation of Low Emission Development Strategies (LEDS) and (Intended) National Determined Contributions (NDC). Participating project countries were to include Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Ghana, Kenya, Morocco, Mozambique, and Zambia. Morocco disengaged from the project - this is discussed in section 5.D Effectiveness.
44. Governments, through multi-ministerial Steering Committees, were to drive in-country teams to undertake LEDS assessments and design and implement policies and measures. The project aimed to establish optimal implementation structures that would maximise both climate- and socioeconomic benefits.
45. The project planned to be complementary to, build on, and draw experience from ongoing programmes¹⁵, including:
 - Initiatives resulting from the UNEP PoW project "Operationalizing Green Economy in Africa" and other UNEP Green Economy initiatives
 - Initiatives resulting from the EU-Africa Partnership, including the EU/UNDP Low Emission Capacity Building Programme
 - Initiatives resulting from policy frameworks of the Africa Ministerial Conference on the Environment (AMCEN)
 - Initiatives to assess capacities and -gaps, including Technology Needs Assessments (TNA), the MAPS Africa Feasibility study¹⁶
 - Initiatives on other continents, e.g. the MAPS Latin American Programme
 - Initiatives in other relevant projects, including: Facilitating Implementation and Readiness for Mitigation (FIRM)
 - Initiatives that are part of Nationally Appropriate Mitigation Actions (NAMA), national frameworks for low emission modelling, policy making and planning, and operational investments in key NDC and low emissions areas.

¹⁵ See Description of the Action, section 2.1 last §, and 3.1 last § (before 3.1.1).

¹⁶ The TE ToR Section 3(b) refers to sources of expertise (on modelling), including the Energy Research Centre of the Netherlands, the Stockholm Environmental Institute (SEI), the Global LEDS Pacific Northwest National Laboratory and other institutions and individuals related to MAPS Africa.

B. Results framework

46. The overall objective of the project, as described in the Description of the Action, was 'to assist partner African countries in defining, building support for, and **launching implementation of inclusive, low emission, climate-resilient, and resource efficient socio-economic development pathways** while also building local research, knowledge, expertise and capacity to develop and implement Nationally Determined Contributions (NDCs).
47. The document describes three other 'objectives':
 - Strengthen networking and peer-to-peer exchange/learning and support on climate change issues across African countries and enhancing regional cooperation in communicating the co-benefits of action by countries to pursue climate resilient low emission development paths.
 - Develop local research capacity knowledge and expertise and a related evidence base on the economic, social, and environmental benefits of low emission development, conducting programs to communicate these benefits to political leaders and stakeholders, supporting development and implementation of low emission, climate-resilient action plans.
 - Engage the partner countries in training and peer exchange with other African countries that are leaders in this area.
48. The Description of Action presents two Components:
 - **Component 1: LEDS Planning and Implementation Support** – Development and/or implementation of LEDS plans or mainstreaming of climate priorities within development plans. To be implemented in Cameroon, Côte d'Ivoire, DRC.
 - **Component 2: LEDS Modelling Support** – Analysis of LEDS options, adapting and utilizing select models to inform LEDS policy decisions, evaluate and design climate resilient low emission development actions. To be implemented in all 8 countries.
49. For Component 1 there are 10 outputs/deliverables and 3 high-level results in the Description of the Action text, and 4 project outputs in the Logical framework matrix (logframe). For Component 2 there are 7 outputs/deliverables and 4 high-level results in the text and 3 project outputs in the logframe (the logframe does not represent a copy of the results presented in the text).
50. Under Component 1, the partners in three countries were to implement pilot projects or demonstrations, that were also to be the basis for modelling, by comparing the proposed LED practice with 'Business As Usual' (BAU). *Table 1* describes the planned pilot projects.

Table 1: Pilot projects

Country, site	Intended or reported result
Cameroon – Jakiri	Cassava-agroforestry: a set of interventions in the cassava farming system, including trees (mostly plum trees), beehives, high-yielding cassava, biochar and organic fertilizer; BAU: local variety of cassava, little agroforestry
	Cassava-processing: diesel fuel to be replaced by hydropower (and for that, equipment to change, hydropower to be developed)
	Cassava marketing with ICT to reduce emission from transport
Cameroon - Ngoulemakong	Cassava-agroforestry: as above
	Cassava-processing: wood-fuel drying replaced by electric 'mixed solar dryer'
Côte d'Ivoire – both sites	System of Rice Intensification (SRI): training on planting, compost, water management
	Briquettes composed of rice husk: pyrolysis improving the briquettes production process; BAU: rice husk used for bedding
DRC	Improved cookstoves and briquettes (made of waste: rice bran, sawdust): financial support to increase the output of entrepreneurs already producing briquettes and cookstoves. BAU: local cookstoves (various).
	Biogas: 6 installations

51. The Description of the Action has a separate Section on Communication, which is discussed in this report under Section 5.I. *vii. Communication and public awareness.*

C. Stakeholders

52. The inception report analyses stakeholders, here the main stakeholder groups (Table 2):

Table 2: Stakeholders

Stakeholders	i) interest in LEDS	ii) influence on LEDS policy	iii) project roles & responsibilities	iv) contribution to LEDS policy change*
Socioeconomic actors	+++	-	++	++
Local communities and CBO	+++	-	-	+++
National policy researchers and modellers	+++	+	+++	+
National policy makers	Variable	+++	+	t.b.d. in this project
Multilateral institutions**	+++	+	-	-
Implementing Partners (IP): KNUST, NREL, ACTS	+++	<i>to be demonstrated in this project</i>	Implementation	<i>to be demonstrated in this project</i>
Local partners / initiatives	+++	++	-	++

Legend: +++ = strong; ++ = medium; + = weak; - (nearly) absent; – absent

*: this is potential contribution; the discussion of impact (5.4 ix) provides justification for this.

** : the PSC includes UNEP, EU, 2 implementing partners, 1 Côte d'Ivoire representative / KNUST implementing partner

53. Key implementing partners and stakeholder groups identified by the Evaluation are:

- i. **Countries responsible for high emissions** (not the 8 countries initially participating)
- ii. **Multilateral institutions:** EC, AfLP, LEDS GP, AMCEN
- iii. **Seven of an original eight partner countries:** Cameroon, Côte d'Ivoire, DRC, Ghana, Kenya, Mozambique and Zambia, especially policy makers in Ministries prioritised in NDCs (AFOLU, energy, transport), in an **inter-ministerial task force.**

- iv. **Other countries benefiting from peer-learning**, participating in close-out meeting and peer exchange events: Benin, Nigeria, Uganda and Togo
- v. **Main Implementation Partners (IP)**: KNUST, NREL and ACTS have IP subcontracts with UNEP
- vi. **In-country partners or stakeholders in Cameroon:**
 - ADEID (lead)
 - Ministry of Environment: convening the interagency policy taskforce
 - Actors and organisations along AFOLU (especially cassava) value chains:
 - Local municipalities (Jakiri, Ngoulemakong)
 - Actors in the sectors of energy and transport
- vii. **In-country partners or stakeholders in Côte d'Ivoire:**
 - *Agence Nationale d'Appui au Développement Rural* (ANADER) (lead)
 - Ministry of Environment and Sustainable Development (MINEDD)
 - Tipadipa and Tiétiékou villages (no organisation named, resp. 62 and 25 rice farmers)
 - Rice mill (company) and Gagnoa town
 - Actors and organisations along the AFOLU (especially rice) value chains
- viii. **In-country partners or stakeholders in DRC:**
 - Ministry of Environment, Nature Conservation and Sustainable Dev. (MECNDD) (lead)
 - Ministries for petroleum, industry, scientific research and technology, and experts (if not from ministries): socioeconomics, value chains, urban planning, cooking energy, etc. and the University of Kinshasa was involved in a preliminary study in Kivu
 - Centre for Integrated Rural Development and Adaptation (CADRI), modelling
 - Higher Institute of Applied Technologies (ISTA)
 - National Centre of Energy (CNE), Gen. Secretariat / Ministry for Energy & Hydraulic Resources
 - *Centre pour les Études et Recherches sur les Énergies Renouvelables* (CERERK)
 - Green Space Network (GSN, <https://gsn-rdc.org>), clean cookstoves expert
 - Local municipalities (Ndolo, Barumu)
 - Actors and organisations along the AFOLU value chains
- ix. **In-country partners or stakeholders in Ghana, Kenya, Morocco, Mozambique, Zambia**
 - Ministries of Environment (lead)
 - Actors and organisations along AFOLU and energy value chains
 - Eduardo Mondlane University (contracted by NREL).

54. The final project report names NREL but not the other two subcontracted IP. At beneficiary level, the report refers to 'villages' or individual beneficiaries (gender-disaggregated); Civil Society Organisations (CSO, including companies) are not named.

55. Project Cooperation Agreements (PCA) are with these implementing partners:

- Alliance for Sustainable Energy LLC (Alliance)¹⁷ (referred to as NREL)
- The Energy Centre, Kwame Nkrumah University of Science and Technology (KNUST)

¹⁷ They are a 'non-profit company', subcontracting for the National Renewable Energy Laboratory (in the United States; nrel.gov), under the US Department of Energy (DOE). Source: Implementing Partners contracts.

- African Centre for Technology Studies (ACTS).
The consultant did not receive a signed version of the KNUST contracts.

D. Project implementation structure and partners

56. **Project Steering** – The Description of the Action proposes 'overall guidance' by an 'advisory Committee comprised of the EC, LEADS GP¹⁸, AfLP, and MAPS Africa'. In addition, each country was to have a National PSC. In the implementation, this was organised somewhat differently; MAPS Africa did not participate, and LEADS GP and AfLP were represented, respectively, by NREL and KNUST (who are also main Implementation Partners). This is discussed in more detail in Section 5.1, *ii. Quality of project management and supervision*. Various participants from Lead Agencies in the countries participated in the Project Steering Committee meetings
57. The Description of the Action (3.1.4) also suggests that national project teams should be set up. In the implementation, most countries found and used existing multisectoral structures for coordination of climate change action (adaptation and mitigation), and/or created policy teams and modelling teams.
58. **Project Management** – The implementation took place as indicated in the Description of the Action, UNEP's Regional Office for Africa (ROA) managed the Africa LEADS project. For this project, the Africa LEADS Project manager¹⁹ was supervised by the Africa Regional Director.
59. **Country-level management** - The Description of the Action (3.1.2 Implementation structure) describes that the Low Emission Development Strategies - Global Partnership (LEADS GP) was to lead implementation of country specific *support*, and AfLP was to lead *coordination of regional training and administer contracts with African partner institutions* (in collaboration with ACTS). AfLP was also expected to support the inception phase. In the implementation, LEADS GP delegated the (technical) *country support* role to NREL (modelling training), and AfLP delegated all its tasks - the inception phase, the coordination of regional training and the administration of contracts with (country) partner institutions - to KNUST.
60. **Inception** – The Description of the Action in its Section 3.1.3.1 discusses a *Mandating Process*. This is to reconfirm *government ownership* and 'to begin to **assess [lead government agency capacity] needs and priorities related to LEADS planning and implementation and modelling**'. It suggests the outcome of this would be a partnership Memoranda of Understanding (MoU) on "**LEADS planning and implementation and modelling**". These are MoU between AfLP (read: KNUST) and country lead organisations in Cameroon, Côte d'Ivoire, DRC and Morocco, and between ACTS and country lead organisations in Ghana, Kenya, Mozambique and Zambia. In the implementation, KNUST signed agreements with seven countries to implement action plans. Morocco does not sign and disengages at the end of 2018 (details explained in section 5.D.i).

¹⁸ LEADS represented by individuals from each of the joint secretariat institutions, NREL and CDKN.

¹⁹ The Project Manager also coordinates the Climate Change sub-programme.

61. To conclude, KNUST was the main Implementing Partner; the role of NREL was limited to training on modelling. ACTS was contracted just before finalisation of the project Final Report (it does not mention ACTS).

E. Changes in design during implementation

62. **Intervention logic** - There were no formal changes in the intervention logic, and the PSC did not recommend changes. PSC minutes merely emphasised aspects of the Description of the Action. The donor (EU) emphasised that on the ground, concrete LEDS actions were crucial for success and advised to revise action plans so that these would narrow down to concrete work priorities, and concrete LEDS actions. LEDS GP however emphasised the support for implementation of Intended Nationally Determined Contributions (NDCs), and advised other PSC members to build modelling and policy work on *established* progress existing in the countries.

63. The Project objective is a long statement which is difficult to understand. Various documents produced during implementation²⁰ present different versions of the project objective. All versions start with (LEDS modelling) capacity building, and the original version continues: '*and launch implementation of LEDS socio-economic pathways and develop and implement NDCs*'. Alternative versions only detail that the capacity building is to *inform* concrete LEDS policies and plans and implementation consistent with NDCs.

F. Project financing

64. The budget for project implementation was as follows:

Table 3: UNEP budget (EUR) for 42-month implementation (12 April 2016 – 12 Oct 2019)

UNEP Budget Categories		Budget by project component (€)			Budget by calendar year* (€)			
		C1	C2	Total	Year 1	Year 2	Year 3	Total
10	PERSONNEL							
110 0	Project personnel	90,000	90,000	180,000	60,000	60,000	60,000	180,000
120 0	Consultants	125,000	125,000	250,000	100,000	100,000	50,000	250,000
160 0	Travel on official business	20,000	20,000	40,000	15,000	15,000	10,000	40,000
	Personnel total	235,000	235,000	470,000	175,000	175,000	120,000	470,000
20	SUB-CONTRACTS/PCA							-
210 0	LEDS GP, African Techn. Instit., country grants	1,500,000	1,057,000	2,557,000	1,987,000	300,000	270,000	2,557,000
	Sub-contracts total	1,500,000	1,057,000	2,557,000	1,987,000	300,000	270,000	2,557,000
30	TRAINING							-
330 0	Regional Training /Seminars	50,000		50,000	40,000	10,000	-	50,008
	Training total	50,000		50,000	40,000	10,000	-	50,008

²⁰ <https://www.unenvironment.org/news-and-stories/press-release/african-countries-urged-create-enabling-environment-attract-low> for example, notes: 'replication of the project, as part of NDC implementation'. The project final report, section 1.1: the project supports to 'put in place a structure to guide optimal implementation of [countries'] climate commitments to the Paris Agreement" (NDCs).'
Kenya final report: to establish requisite modelling & analytical capacity to inform concrete LEDS policies and plans and their implementation for prioritized low emission, climate-resilient, and resource efficient socio-economic development consistent with NDCs & other LEDS plans.
Mozambique final report is named: 'report on modelling and capacity building': to develop technical and technological modelling capacities, establish a sound analytical framework to facilitate the decision-making, and implementation of long-term LEDS policies that respond to [NDC].

UNEP Budget Categories		Budget by project component (€)			Budget by calendar year* (€)			
		C1	C2	Total	Year 1	Year 2	Year 3	Total
40	EQUIPMENT AND PREMISES							-
4000	Computers and Office Space	15,000	10,000	25,000	10,000	10,000	5,000	25,000
	Equipment and Premises total	15,000	10,000	25,000	10,000	10,000	5,000	25,000
50	MISCELLANEOUS							-
5201	Reporting and communication	25,000	19,255	44,255	20,255	14,000	10,000	44,255
5500	Evaluation			50,000			50,000	50,000
	Miscellaneous total	25,000	19,255	50,000	20,255	14,000	60,000	94,255
99	Total Direct costs	1,825,000	1,321,263	50,000	2,232,255	509,000	455,000	3,196,263
	Project Support Cost (7%)	127,750	92,488	3,500	156,258	35,630	31,850	223,738
	TOTAL COST	1,952,750	1,413,751	53,500	2,388,513	544,630	486,850	3,420,001

Source: Annex 1 Budget - LEDS Component - 13.11.2015.xls

Umoja	Description	Component A	Component B	Evaluation	Total (€)	Year1	Year2	Year3
FT CLASS 010	Staff/Personnel	215,000	215,000	50,000	480,000	126,000	194,000	160,000
FT CLASS 125	Operations, other costs	40,000	29,262	-	69,262	15,255	34,007	20,000
FT CLASS 140	Transfer/Grant to IP	1,500,000	1,057,000	-	2,557,000	1,787,000	500,000	270,000
FT CLASS 160	Travel	70,000	20,000	-	90,000	34,362	45,638	10,000
FT CLASS 155	UN-PSC 7%	127,750	92,488	3,500	223,738	137,383	54,155	32,200
Total		1,952,750	1,413,750	53,500	3,420,000	2,100,000	827,800	492,200

Source: Annex III Budget for the Action.xls

4 Theory of Change at evaluation

65. The Description of the Action had no Theory of Change (ToC)²¹, which is a fundamental element of all UNEP project performance evaluations.
66. The ToC prepared during the Evaluation Inception Phase is a composition of items from the Description of the Action (from its outputs, indicators, milestones - there were no outcomes), arranged to show a causal pathway, while taking care to avoid a change of the original project intent²². This ToC was based on collected evidence and the understanding expressed by key PSC members of the (expected) results.
67. The same ToC (now the ToC at Evaluation) is presented in this report and was used to assess the performance of the project. However, throughout the evaluation it was clear that expectations of the projects effect on NDCs were far from uniform. There are two main lines of thought:
- Members of the PSC (EU, UNEP Director in unison) confirmed that their idea of the main thrust of this project was that modelling supported the development and implementation of specific, evidence-based LEDS policies; as for NDCs, the EU emphasised that there are other projects (EU-funded and other) directly deal with development of the NDCs. PSC meetings also reflect this.
 - The Team Leader, through reporting, emphasises a description of a stronger, direct relationship between the project's activities and the formulation of NDC (i.e. to 'inform' or 'maximise' NDCs); the Team Leader considers that supporting governments to development and implement NDC is a main thrust of this project.
68. The comprehensive working definition of LEDS (from the inception report) is maintained for this report: **Low Emission** (mitigation), climate-resilient (adaptation), resource efficient and socioeconomic justice (SDG23) **Development Strategies**.
69. The project, according to its logframe, aimed to deliver 8 outputs; 4 under each project component. **Component 1** "LEDS Planning & Implementation Support in 3 countries" was to be reached through these outputs:
- i. New / improved LEDS initiatives developed or improved,
 - ii. Implementation of specific LEDS measures initiated,
 - iii. Enhanced global and regional knowledge of LEDS planning and implementation, and
 - iv. LEDS champions cultivated.
70. **Component 2** "LEDS Modelling Support", on the other hand, would have been reached through these outputs:
- i. LEDS actions prioritization and decision-maker support for priority LEDS measures significantly enabled
 - ii. Strengthened analysis and communication of LEDS benefits

²¹ ToC are required for all projects since July 2011 (in response to the formative evaluation in Feb/March 2011), this project did not go through a UNEP Project Review Committee approval process, where consistency with project design requirements is reviewed.

²² During this evaluation the Project Manager also produced a ToC; that version also has issues with duplication (at all levels NDC are mentioned, at impact level: 'endorse NDC'). It only mentions one specific stakeholder: policy makers.

²³ Development as meant in SDG: inclusive, respecting human rights, sustainable, etc. Kenya uses LECRD: Low Emission Climate Resilient Development.

- iii. Improved LEDS modelling capacity, and
- iv. Improved regional and global knowledge.

The narrative of the Theory of Change

71. In the reconstructed ToC, **Project Outcome 1** focuses on the change process linked to the 3 pilot countries, and is presented as “Policy taskforces (in 3 primary partner countries) and LEDS champions (3-5 institutes) translate LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures/ policies (linked to NDC priorities) and initiate implementation of LEDS plans”. For this project outcome to be achieved, local socioeconomic actors (in 3 primary partner countries, various stakeholder groups²⁴) would have to validate socioeconomic and/or environmental benefits obtained from the pilot projects (Direct Outcome 1).
72. **Direct Outcome 1** would result from the delivery of 2 proposed outputs: Output 1.1 – “Local socioeconomic actors (in these 3 countries) implemented new/improved LEDS pilot projects, and results are demonstrated and shared”; and Output 1.2 – “Established LEDS champion institutions (3-5) increased their capacities and actively shared LEDS country results regionally and globally”. To support the change process from outputs 1.1 & 1.2 to Direct Outcome 1, high level government buy-in and stakeholder support (Driver 1) would be required. The change process from Direct Outcome 1 to Project Outcome 1 would require two conditions to be in place: Assumption 1: Willingness by policymakers to learn from demonstrations, and Assumption 2: Socioeconomic actors engage policymakers and advocate for LEDS.
73. **Project Outcome 2.1** “Policy actors (in 8 partner countries) translated LEDS analyses/results into improved, evidence-based policy decisions” focuses on the change process expected in the 8 partner countries. This would be the change resulting from Direct Outcome 2.1 “Policy actors (in these 8 countries, incl. lead government- and technical agencies, UNFCC focal points) endorsed LEDS for policy analysis”, which in turn would result from the delivery of Output 2.1 “Country Teams (in the 8 countries) have agreed plans to analyse policies for LEDS, with prioritized actions”. In parallel, Direct Outcome 2.2 “Country teams conducted LEDS analysis with adapted models/tools” would be the result from the delivery of Output 2.2 “Country teams (8) have strengthened capacities for LEDS analysis and modelling”. For Policy actors to translate LEDS analyses into evidence-based policy decisions, an enhanced understanding on the LEDS benefits should be present (Driver 2).
74. **Project Outcome 2.2** “LEDS champions (3-5 institutions) leveraged country experience and mobilized sustained LEDS commitment among 8+ partner countries and non-partner countries, both regionally and globally” reflects the change process derived from the peer learning and knowledge exchange promoted by the project. This outcome would be achieved through Direct Outcome 2.3 “LEDS champions (3-5 institutions) and country teams (8) created a regional, global peer network”. The driver for this change process would be that “Non-partner countries are interested and actively participate in the peer-to-peer forums/exchanges” (Driver 3). This direct outcome would be achieved through the delivery of two interlinked outputs: Output 2.3 “Policy actors (in 8 partner countries)

²⁴ Stakeholder analysis is to identify current and potential actors along the value chain, with special attention to vulnerable groups, gender, and communities that are (in whatever way) governing land and natural resource linked to it.

communicate / share LEDS benefits and (peer) learn on LEDS policy and modelling” and Output 2.4 “Global stakeholders accessed LEDS training materials, case studies and experiences online”. Both outputs 2.3 and 2.4 are (also) a product of the work of LEDS champions, output 1.2 “LEDS champions (3-5 institutions) increase their capacities and actively share LEDS results”.

75. **Intermediate State I:** “Transformation: socioeconomic actors engaged in the pilot projects and at a wider scale are empowered, and apply LEDS, good practices beyond project end”. This means that their roles along value chains have changed, including their roles in governing land and natural resources that provide for the value chains.²⁵ This state is ‘the proof of the pudding’ or direct result of Direct Outcome 1, where these actors are engaged in pilot projects, however, this state also depends on Intermediate State II.
76. **Intermediate State II** is where the most direct impact of the project on policies is observed: “Policy actors (in the 3 primary partner countries) fully implemented a set of LEDS policies and plans within a collaborative regional context”. This state is an expansion of the result in Project outcome 1. where implementation of LEDS policies and plans is initiated. This expansion requires that Assumption 3 is in place: Transformative and comprehensive and de-siloed LEDS policies have to be developed, to achieve the environmental impact (including reduction of emissions). This Intermediate State could concretely and quantifiably contribute to reduced emissions, and socioeconomic results, but with the condition that “LEDS policies are transformative and comprehensive and de-siloed, increasingly addressing entire sectors, complete value chains” (Assumption 5, discussed below).
77. **Intermediate State III:** “Policy actors (in more than 8 countries) used LEDS evidence as a foundation for strengthened Intended Nationally Determined Contributions (INDCs)” is mostly a result of Project outcome 2.1 (improved, evidence-based policy decisions). And it is also helped when Intermediate States II and IV are achieved, and vice-versa: Intermediate State III (I)NDCs can contribute to Intermediate States II and IV. The driver for the changes in INDCs would be that Policy actors realize that transformation is needed, and that NDCs are helpful instruments to achieve this (Driver 5). **Intermediate State III** is the less emphasised link to NDCs that is evident in the project objective; this state could have been considered as a driving force (in support of the project goal) rather than a change target for the project, however, as explained in paragraph 65, opinions on this differ.
78. **Intermediate State IV:** “Policy actors (from at least 5 partner countries and 2 non-partner countries) endorsed and used the LEDS evidence-base to develop concrete LEDS policies, and some countries initiate implementation (based on shared project knowledge)” is a result of Project outcome 2.1 (LEDS policy decisions in 8 partner countries) and Project outcome 2.2 (LEDS commitments in more countries, regionally and globally). The drivers for this change are several; first, it would be that the Project Team actively communicates and engages with non-partner countries (Driver 4); secondly, the drivers that are present for other outcomes, notably Driver 5 (Policy actors realize that transformation is needed) and Driver 2 (Enhanced understanding of LEDS

²⁵ Considering good practice and trends (including <http://www.fao.org/3/a-i5415e.pdf> and <http://www.fao.org/3/a-i7395e.pdf>), the role of local communities in this context refers to their role in management or governance of natural resources (ecosystem preservation), complementary to the role of to value chain actors, using these resources and related ecosystem services.

benefits). There is also the condition that non-partners countries have an on-going interest and commitment to adopting LEDS lessons from regional fora (Assumption 4). This Intermediate State has a direct Environmental impact, including a significant reduction of emissions, and a socioeconomic impact, but (as with IS II) with the condition that "LEDS policies are transformative, comprehensive and de-siloed, increasingly addressing entire sectors, complete value chains" (Assumption 5).

79. Based on the evaluator's analysis, the development objective or 'Socioeconomic IMPACT' to which the project is expected to contribute is identified as "Inclusive Green Economy (engaging poor, vulnerable) leads to socioeconomic benefits, reduced inequality, increased resilience". This impact needs to be detailed for different countries or value chains, by identifying specific groups of beneficiaries or 'socioeconomic actors', including poor and vulnerable groups, as value chain interventions do not have a uniform effect on socioeconomic actors along the value chain.
80. The environmental objective or 'Environmental IMPACT' to which the project is expected to contribute "Ecosystem health and biodiversity preserved" separates the nearer environment (local ecosystems) and global environment in terms of reduced emissions, with feedback loops between the two.
81. For these socioeconomic and environment (including emissions) impacts to take place, LEDS policies need to be transformative AND comprehensive and de-siloed, increasingly addressing entire sectors and complete value chains (Assumption 5).

Table 4: Justification for Reformulation of Results Statements (as in the inception report)

Result level	Formulation in original Description of the Action, planned results	Realigned results for the ToC at Evaluation Inception	Justification
Project objective	Description of the Action text: The overall objective of the Africa LEDS project is to assist partner African countries in developing local knowledge and expertise to formulate, build support for, establish necessary implementation capacity and then establish and implement concrete LEDS policies and plans for low emission, climate-resilient, and resource efficient socioeconomic development, while also enhancing knowledge and capacity to support development and implementation NDCs.		Unchanged; reflects the intention at all result levels as appropriate
Environmental Impact	<u>2.1 African context, environmental suggestions include:</u> - low-emission exploitation of natural capital - protection of natural capital and ecosystems	Reduced Emissions Ecosystem health and biodiversity preserved	Description of the Action does not specify impact. At this level, separation between environmental and socioeconomic impact follows the doughnut logic. ²⁶
Socioeconomic Impact <i>Systemic, long-lasting change</i>	<u>2.1 African context, socioeconomic suggestions include:</u> - economic and climate resilience, climate adaptation - poverty and inequality reduction, inclusive growth, human development - engagement of local economies, -societies in extractive sectors - overall transformation	Inclusive Green Economy (engaging poor, vulnerable) leads to socioeconomic benefits, reduced inequality, increased resilience	
Intermediate States (IS)	<u>In the text, section 3.1, para below 'The overall objective': Other Objectives:</u> A. Strengthen networking and peer-to-peer exchange and learning and support on climate change issues across African countries and enhancing regional cooperation in communicating the co-benefits of action by countries to pursue climate resilient low emission development paths. → <i>Direct Outcome 2.3</i> B. Develop local research capacity knowledge and expertise and a related evidence base on the economic, social, and environmental benefits of low emission development, conducting programs to communicate these benefits to political leaders and stakeholders, supporting development and implementation of low emission, climate-resilient action plans. → <i>all Outputs (this covers the whole project)</i>	IS I: Transformation: Socioeconomic actors ²⁷ engaged in the pilot projects and at wider scale are empowered, and apply LEDS ²⁸ , good practices beyond project end Note: this has implications for their roles and powers along the value chain as well as their roles in governing land and natural resources that provide for the value chains IS II: Policy actors (3 primary partner countries) fully implement a set of LEDS policies and plans within a collaborative regional context IS III: Policy actors (8+ partner countries) used LEDS evidence as a foundation to strengthen NDC implementation	Description of the Action refers to <i>socially inclusive</i> growth, and AMCEN: for an inclusive green economy, ' <i>overall structural transformation</i> ' [required]. From the Objective: [countries to] ' <i>implement concrete LEDS policies and plans</i> ' From the objective: ' <i>capacity to* support development and implementation of NDCs</i> '

²⁶ Green European Journal, 12 March 2019. Doughnut Economics for a Thriving 21st Century. Accessed 30/04/2020: <https://www.greeneuropeanjournal.eu/doughnut-economics-for-a-thriving-21st-century/> In this logic, the space of development has two hard limits; the outer circle of the doughnut represents the Environmental ceiling beyond which any change is unsustainable; the inner circle represents the social foundation, that what all humans need (food, water, energy, health, equality, resilience, income and a voice), it ties to human rights and obliges duty bearers.

²⁷ These are actors along the value chain implicated in pilot projects; stakeholder analysis is to identify current and potential actors along the value chain, including producers, service providers, processors, transporters, investors, consumers, media, and communities governing land and natural resources that provide for the value chains. With special attention to vulnerable groups, gender.

²⁸ LEDS defined as: Low Emission (mitigation), climate-resilient (adaptation), resource efficient socioeconomic just Development Strategies

Result level	Formulation in original Description of the Action, planned results	Realigned results for the ToC at Evaluation Inception	Justification
	C. Engage the partner countries in training and peer exchange with other African countries that are leaders in this area. → Outputs 2.3 and 2.4		*: the project is not accountable to, but can contribute to (NDCs
		IS IV: Policy actors (5 partner- & 2 non-partner countries at least) endorsed and used the LEDS evidence-base to develop concrete LEDS policies, and some countries initiate implementation	From Component 1, high level result a., & output 2, and Component 2, high level result a.
Component 1 – LEDS Planning & Implementation Support (3 countries)	Outcomes: No outcomes identified in the Description of the Action	Project Outcome 1 Policy actors (3 primary partner countries) and LEDS champions (3-5 institutes) translated LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures / policies (linked to NDC priorities) and initiated implementation of LEDS plans	From High level result a. and Output 2.
	<p>3.1.4 Project components and results</p> <p>Strengthen and improve LEDS planning and implementation processes.</p> <p>Broader African regional workshops launched to support robust LEDS planning and implementation and knowledge products drawing lessons and good practices from the effort will enhance LEDS efforts at the global level.</p> <p>High level results:</p> <p>a. Based on LEDS planning and implementation support, LEDS developed in three countries with high level government buy-in and stakeholder support and implementation of LEDS measures initiated, providing a foundation for strengthened Intended Nationally Determined Contributions (INDC)</p> <p>b. Global and regional knowledge of LEDS planning and implementation enhanced through peer learning forums and dissemination of knowledge products (e.g., case studies, training materials, etc.) that leverage partner country experience</p> <p>c. LEDS champions cultivated to carry forth and lead LEDS planning and implementation peer learning efforts in the Africa region²⁹</p>	Direct Outcome 1 Local socioeconomic actors (3 primary partner countries, various stakeholder groups³⁰) validated socioeconomic and/or environmental benefits obtained from the pilot projects	Direct effect of Output 1.1, and a more active role for 'socioeconomic actors' is hinted in Description of the Action section 3.1, 'Other Objectives' B: ' <i>communicate these benefits to political leaders and stakeholders</i> '
Outputs	1. New ³¹ LEDS initiatives developed or improved	Output 1.1 Local socioeconomic actors (3 countries) implemented new/ improved LEDS pilot projects, and results are demonstrated and shared	Interpretation of ' <i>LEDS initiatives</i> ' as pilot projects; Description of the Action does not mention pilot projects but ' <i>identify potential measures</i> ' ' <i>such as community</i>
	2. Implementation of specific LEDS measures initiated (3 countries)		

²⁹ Description of the Action further describes LEDS champions: regional peer learning leaders through AFLP.

³⁰ Stakeholder analysis is to identify current and potential actors along the value chain, with special attention to vulnerable groups, gender, and communities that are (in whatever way) governing land and natural resource linked to it.

³¹ The word "new" in this output statement has been omitted from the project progress reporting.

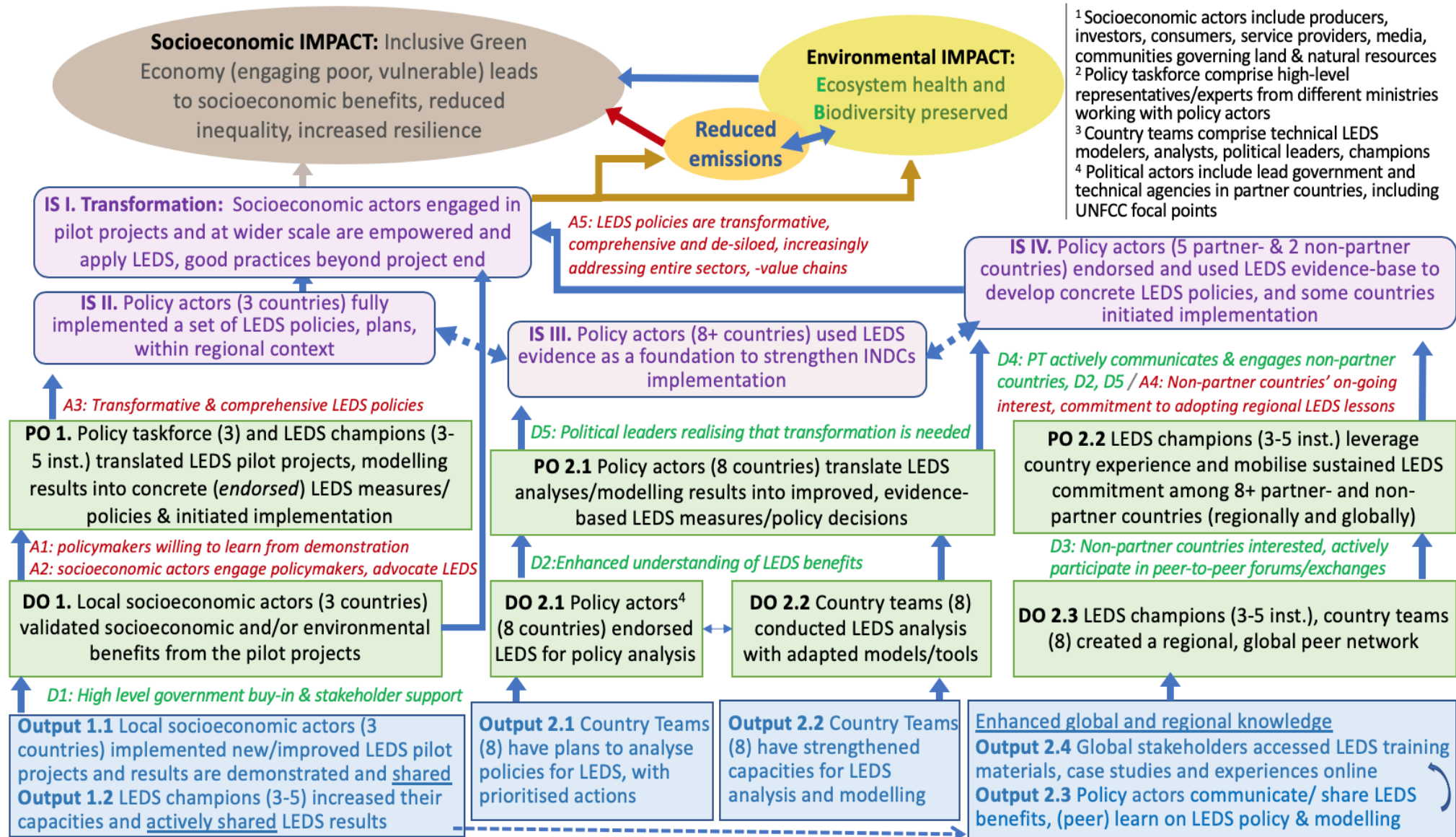
Result level	Formulation in original Description of the Action, planned results	Realigned results for the ToC at Evaluation Inception	Justification
			<i>solar lighting</i> ' and '3 case studies'. Details in the inception report ³²
	3. Enhanced global and regional knowledge of LEDS planning and implementation		Moved to Component 2: Outputs 2-4: peer learning
	4. LEDS champions cultivated	Output 1.2 Established LEDS champions institutions (3-5) increased their capacities and actively shared LEDS country results regionally and globally (i.e. to benefit Component 2, outputs 2.2, 2.3 and 2.4)	From Output 4, details from the LogFrame, various indicators, MoV, milestone
Component 2 LEDS Modelling Support	Outcomes: No outcomes identified in the Description of the Action	Project Outcome 2.1 Policy actors (8 partner countries) translated LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions	Formulated based on High level result a., 2 nd part 'allowing for further design and implementation of LEDS measures'
	3.1.4 Project components and results The LEDS Modelling component of the initiative will support improving the robustness of LEDS analytical efforts through adapting models and tools most relevant to unique national circumstances in select partner countries. The effort will also enhance LEDS modelling at the regional level through peer learning via five sub-regional forums and cultivation of LEDS modelling leaders to lead knowledge sharing efforts. Global knowledge products including adapted training materials and case studies will also support improvement of LEDS modelling efforts worldwide. High level results: a. LEDS prioritization and decision-maker support for priority LEDS measures significantly enabled allowing for further design and	Direct Outcome 2.1 Policy actors (8 countries, incl. lead government- and technical agencies, UNFCC focal points) endorsed LEDS for policy analysis	From Output 1, with policy task force details from the Inception report ³³ ,
		Direct Outcome 2.2 Country teams (8) conducted LEDS analysis with adapted models/tools	From Output 2; country teams are mentioned in the Description of the Action, 3.1: ' <i>undertaking LEDS assessments and designing implementation policies and measures</i> '
		Project Outcome 2.2 LEDS champions (3-5 institutions) leveraged country experience and mobilised sustained LEDS commitment among	Outcome reflects the use, uptake or adoption of an output: behavioural change expressed in Component 1, High level

³² The Inception reports to 'pilot actions' 'country ground actions', and a Minister from Côte d'Ivoire notes 'the urgent need to demonstrate practicality' [of renewable energy]; and also from DRC and Cameroon it is understood that LEDS modelling capacity building includes physical demonstration of using adapted models. DRC: 'Work with partners to develop business plan for processing, packaging, marketing and selling bio-fertilizer from bio-digester slurry', and 'collaboration with potential sources of agriculture and domestic kitchen waste' [for the biodigester]. The inception report concludes with Project Expectations, including: 'demonstrating how LEDS actions' [work]. In Final Remarks: 'practical demonstration of how LEDS can' [work].

³³ Task forces are not mentioned in the Description of the Action, but appear in the Inception report, Ch. 2, p. 4: "Based on the consultative outcomes of the inception workshop, roll-out strategy and action plans for project activities have been developed for Cameroon, Ivory Coast and DRC. Based on these action plans, a **two tier project implementation structure in partner countries is being established, involving: 1) a ministerial level task force to coordinate overall project implementation and convene policy- level stakeholders; 2) operational coordination to mobilize ground implementation partners.**

Result level	Formulation in original Description of the Action, planned results	Realigned results for the ToC at Evaluation Inception	Justification
	<p>implementation of LEDS measures, while also informing INDCs where relevant</p> <p>b. Significantly strengthened LEDS through rigorous modeling support leading to robust analysis and communicable evidence of LEDS benefits</p> <p>c. Greatly improved LEDS modelling capacity, complemented by a sustainable peer learning approach to support ongoing catalytic LEDS modeling efforts</p> <p>d. Improved regional and global knowledge through peer learning, networking, adaptation of training materials and dissemination of good practices, lessons</p>	<p>8+ partner- and non-partner countries, both regionally and globally</p> <p>Direct Outcome 2.3 LEDS champions (3-5 institutions), country teams (8 partner countries) created a regional and global peer-to-peer network</p>	<p>result b, and Component 2, High level result d.</p> <p>From 'Other objective' A, first part: <i>'Strengthen networking and peer-to-peer exchange and learning and support on climate change issues across African countries'</i>; and from fore last Project milestone <i>'Network of regional modellers, analysts as well as technical institutes for sustainability of project outputs formulated and installed'</i></p>
Outputs	1. LEDS actions prioritization and decision-maker support for priority LEDS measures significantly enabled	Output 2.1 Country teams (8 partner countries) have agreed plans to analyse policies for LEDS, with prioritised actions	From LogFrame, Component 1, Output 1, Means of Verification: <i>'Results of the prioritization incorporated on LEDS and/or implementation plan'</i>
	2. Strengthened analysis and communication of LEDS benefits	Output 2.2 Country teams (8) have strengthened capacities for LEDS analysis and modelling	Output 2 of the Description of Action is related to Outputs 2.2, 2.3 and 2.4. The element of 'communication of LEDS benefits' is captured in output 2.3, and details from the indicator (website, webinars) in Output 2.4
	3. Improved LEDS modelling capacity	Output 2.3 Policy actors (in 8 partner countries) communicate / share LEDS benefits and (peer) learn on LEDS policy and modelling	Output 2.3 builds from the Description of Action, section 3.1 Other objectives B: <i>[...] conducting programs to communicate these benefits to political leaders and stakeholders, supporting development and implementation of low emission, climate-resilient action plans</i>
	4. Improved regional and global knowledge	Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online	Output 2.4 expands from Other objectives C: <i>'engage the partner countries in training and peer exchange' (in Africa)</i> and it takes in the global reach from Component 1, output 3.

Figure 1: Theory of Change



¹ Socioeconomic actors include producers, investors, consumers, service providers, media, communities governing land & natural resources
² Policy taskforce comprise high-level representatives/experts from different ministries working with policy actors
³ Country teams comprise technical LEDS modelers, analysts, political leaders, champions
⁴ Political actors include lead government and technical agencies in partner countries, including UNFCC focal points

5 Evaluation findings

A. Strategic relevance

i Alignment to UNEP Medium Term Strategy, Programme of Work and Strategic Priorities

82. Description of the Action (p3) links the project to UNEP's Medium-Term Strategy for 2014-2017, sections on Resource Efficiency, and Ecosystems Management. The Evaluation analysed how the project *implementation* aligned with UNEP priorities; this is presented in *Table 5: Alignment to UNEP priorities*.

Table 5: Alignment to UNEP priorities

UNEP priorities	Evaluation assessment
<p>MTS 2014-2017 – Strategic focus: Resource Efficiency - Objective: promote a transition in which goods and services are increasingly <i>produced, processed and consumed</i> in a sustainable way that decouples economic growth from resource use and environmental impact, while improving human well-being.</p> <p>Expected Accomplishment (EA) 1: Cross-sectoral scientific assessments, research & tools for sustainable consumption & production and green economy are developed, shared & applied by policymakers, incl. urban practices in context of sustainable development & poverty eradication.</p> <p>EA 2: Increased uptake of sustainable consumption and production and green economy instruments and management practices in sectoral policies and in business and financial operations across global supply chains, in context of sustainable development and poverty eradication.</p>	<p>The project design is aligned to the MTS 2014-2017 where it focuses on LEDS in the AFOLU sectors.</p> <p>Lacking adequate context/stakeholder analyses and cost-benefits assessment at end-user (micro) level, it is unclear how the project affects well-being of various end-users (beyond farming).</p> <p>The project aligns to EA1, following a cross-sectoral approach for modelling and policy change.</p> <p>The project aligns to EA2 in a limited way, as efforts to promote uptake of LEDS are often focused on only a fraction of a value chain (where a specific LEDS practice is to be introduced), not sufficiently considering the larger context / value chain.</p>
<p>POW 2014-2015, Sub-Programme 6 on Resource Efficiency³⁴</p> <p>EA (a): Assist Governments and other public institutions at the subnational, national, regional and global levels – taking into account their specifications and priorities – to develop policies that support the transition to a green economy within the context of sustainable development and poverty eradication and that will promote sustainable consumption and production. Output 4: Governments [...] have the appropriate tools and methodologies to help shape their planning, piloting and integration into the delivery of policies and action plans; Output 5: so that they can subsequently be replicated and scaled up, including through mainstreaming in UNDAF processes.</p>	<p>EA (a) outputs 4 & 5: The project design is initially aligned to this EA, but later it is unclear how modelling results links back to policy (gaps).</p> <p>Also, policy teams were not pro-active in scoping the research questions for modelling, to make modelling an instrument to serve policy making.</p>
<p>POW 2016-2017, Sub-Programme 6 on Resource Efficiency</p> <p>EA (a): Cross-sectoral scientific assessments, research and tools for sustainable consumption and production and the green economy in the context of sustainable development and poverty eradication are developed, shared and applied by policymakers, including in urban practices. Output 4: Economic, legal and policy assessments and tools, TA and capacity-building provided [...] to develop and implement green economy and sustainable consumption and production policies.</p>	<p>EA (a) output 4: In design the project would align, as it prescribes that economic, legal and policy assessments are to take place.</p> <p>In the implementation, policy (gap) assessments are not evident, and identification of LEDS is not preceded by sufficiently comprehensive assessment of value chains or life cycles, and stakeholders.</p>
<p>POW 2018-2019 Subprogramme 6 (Resource Efficiency), EA (a): Science-based approaches that support the transition to sustainable development through multiple pathways, including inclusive green economy & sustainable trade, and adoption of</p>	<p>The project design is aligned in that it focuses on training & TA → modelling → policy change. But in the implementation the policy support is not clear.</p>

³⁴ Alignment to PoW Ouptut 6.1.5 is required but the document does not present such an output. EA are numbered differently and (a) has just 2 outputs.

UNEP priorities	Evaluation assessment
sustainable consumption & production patterns at all levels. Output 8: Policy support as well as training and TA delivered to cities and local communities to support them in transitioning to more resource-efficient policies and practices.	
Resource Efficiency subprogramme evaluation 2018 recommendations: 1. ToC to be strengthened 2. Longer Term impact and results reporting 3. Strengthen subprogramme portfolio of projects 4. Strengthen project designs (sustainability, impact, cross-cutting) 5. Donor relations and report formats 6. Work closely with regional offices	The TE does not consider this evaluation relevant because the project was 'almost ending' in 2018, and Africa LEDS had no direct role in reporting in the RE programme.

Rating for Alignment to UNEP Priorities: Moderately Satisfactory

ii. Alignment to EU Strategic Priorities and relevant interventions

83. At project start, the EU was adopting its Circular Economy Action plan; a development that should be relevant for this project, but not directly, and not at the start.³⁵ The Joint Africa-EU Strategy (2014-2017)³⁶ has agriculture as a key area of cooperation and also underlines *sustainable and inclusive* development and green growth – but circularity is not yet introduced. The Africa LEDS final report does not specifically mention the EU Africa partnership, but project alignment to the Joint Africa-EU Strategy can be seen in the choice of pilot projects, that focus on the AFOLU sector.
84. Although circularity is not yet introduced in the Africa-EU strategy, there are projects that identify clear links that are relevant to Africa LEDS.
85. The EU FLEGT programme operates since 2014 in 5 of the 8 project countries: Cameroon, Côte d'Ivoire, DRC, Ghana and Kenya³⁷, for sustainable timber trade linked to forest governance, with '*broad stakeholder support*' including '*civil society, the private sector and traditional chiefs*', and '*integrating land-based sectoral policies*'). This approach is an example of EU's lifecycle approach, and it is a small step to see this evident not only in timber but also firewood: UNDP's Côte d'Ivoire NAMA study³⁸ (Nov. 2015) demonstrates a clear link between forest management and rural energy ('charcoal value chain') and produces a list of policy recommendations. The study will be further discussed in section iv. (as the project is not an EU-supported intervention), but the point here is that, with the often more narrow scope of modelling (often pinned on a single innovation), it is not clear how this will serve (policy for) more

Figure 2: UNDP 2002 lifecycle approach: greening the charcoal value chain

comprehensive transformation of value chains or lifecycles.

Rating for Alignment to EU Strategic Priorities: Moderately Unsatisfactory

iii. Relevance to regional, sub-regional and national environmental priorities

86. AMCEN in 2019³⁹ discussed priorities, and the Africa LEDS project, in intention, aligns in particular to the first: A. promoting a circular economy.
87. At the level of selecting relevant LEDS practices, the justification for making this selection should refer to relevant national environmental priorities and not only that what is in the NDC. The environmental priorities sit in different Ministries (energy, forestry, agriculture) and may not be all coherent. This echoes a comment from the EU delegation in Zambia,



³⁵ [https://ec.europa.eu/transparency/documents-register/detail?ref=COM\(2015\)614&lang=en](https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2015)614&lang=en) (download from here, 2015 version, filename: COM(2015)614_0.pdf). It introduces the idea of *lifecycle environmental impacts* 'on sourcing, resource use and waste generation throughout a product's life; and 'producer responsibility [...] on the basis of the end-of-life costs of their products'. The policy was first introduced inside the EU, when the concept of circular economy was not yet gaining traction in Africa, but it is touching on international trade (with Africa) too.

³⁶ <https://africa-eu-partnership.org/en/stay-informed/publications/joint-africa-eu-strategy-roadmap-2014-2017>

³⁷ <https://www.euflegt.efi.int/background-cote-ivoire>

³⁸ <https://www.undp.org/publications/greening-charcoal-value-chains-ghana-and-cote-divoire-nama-approach> (Nov. 2015)

³⁹ https://wedocs.unep.org/bitstream/handle/20.500.11822/30786/AMCEN_17L1.pdf?sequence=1&isAllowed=y

commenting on the Africa LEDS Final report: declaring pre-selected specific interventions (e.g., be it clean cook stoves, hydropower mini-grids, or planting trees in cassava) as 'strategic to drive NDC priorities' is unclear.

Rating for Relevance to (sub)regional, national environmental priorities: Moderately Unsatisfactory

iv. Complementarity with other existing interventions or initiatives

88. LEDS Global Partnership (LEDS GP) and the Africa LEDS Partnership (AfLP): the LEDS GP website hosts the AfLP; there is a page on the AFOLU CoP but it is not updated since 2018.
89. In section 5.B. *Quality of project design*, the Evaluation will discuss project design down to the level of specific pilot projects and modelling projects. It is at that level, in the context analyses for these specific projects, that (complementarity with) other relevant interventions or initiatives could also be identified. In the implementation, opportunities for complementarity with other existing interventions are explored, but not systematically. The Evaluation did not come across any reports referring to such initiatives such as those listed in the Description of the Action, where relevant work was done to assess capacities and -gaps, Technology Needs Assessments (TNA), the MAPS Africa Feasibility study, the MAPS Latin American Programme, the Facilitating Implementation and Readiness for Mitigation (FIRM) project or initiatives that are part of Nationally Appropriate Mitigation Actions (NAMA).
90. For example, UNDP's Côte d'Ivoire NAMA study⁴⁰ considers the entire charcoal value chain, starting from sustainable (community) forest management (link to the EU FLEGT programme), improved kilns, transport, and transformation, to produce certified charcoal-based products (including wood *and* agricultural waste as inputs for briquettes), and preserve, increase or improve jobs along the charcoal value chain (because many of these are jobs for the most marginalised groups). Africa LEDS modelling could have built on this, comparing *strategic* (policy) options in the still charcoal-based lifecycle, even adding to the modelling the long-term economic benefit of improved health (supposing that a switch to improved cookstoves directly improves air quality in the kitchen). Modelling could have validated the NAMA recommendations (or rejected them in favour of a viable alternative – had there been one). Due to insufficient context analysis, more strategic opportunities for modelling were not identified.
91. Another example is the SRI project in Côte d'Ivoire: the demonstration focuses on SRI training, in a narrow farm-operations and -inputs context; had the irrigated rice lifecycle been considered, a *strategy or policy to transform rice farming* would include measures to enable farmers to control water: catchment protection, irrigation infrastructure, land preparation equipment and improving land tenure security. This critical need was also identified by ANADER in March 2016⁴¹, based on testing in locations (including Gagnoa), where farmers recommended that capacity be built on water management; FIRCA adds land tenure security. Earlier work in Senegal also puts water management, land preparation and labour

⁴⁰ <https://www.undp.org/sites/g/files/zskgke326/files/publications/NAMA%20Study%20Cote%20D%20Ivoire.pdf>

⁴¹ <https://sriwestafrica.files.wordpress.com/2014/06/rapsynthesesri2015.pdf> page 12 (March 2016) and <https://www.journalajst.com/sites/default/files/issues-pdf/3268.pdf> (August 2016) FIRCA echoes the importance of water management in its report (2019? <https://firca.ci/wp-content/uploads/2020/03/filiere-riz-et-technologies-generées.pdf>) where land tenure insecurity, poor water management and insufficient mechanisation are top among main weaknesses, and a subprogramme on water management is announced.

availability as top-factors for success⁴². Policy change would need models to demonstrate more than crop-level economics.

Rating for Complementarity with existing interventions: Unsatisfactory

Rating for Strategic relevance: Moderately Unsatisfactory

B. Quality of project design

92. Under UNEP's Programme Manual, no Project Review is required for grants implemented under umbrella projects; the project proposal therefore did not go through a review by the Project Review Committee. The project was designed by UNEP, EU and NREL together.⁴³
93. A critical weakness in the design is that the pathway of change is unclear. The intervention logic, at the top, has a **complex objective** that is hard to grasp (and in the course of the project it re-appears in different versions). At the bottom, **outputs are unclear** too: output users are missing, some outputs are merely activities, some cannot be understood unless one reads the indicator or milestones, and there is duplication. With no outcomes in-between, the causality is unclear. (*Terminal Evaluation Inception Report*)
94. This weakness was not picked up in the course of implementation; the PSC also did not ask for improvements of the intervention logic; no Theory of Change was developed. Only after project end and during the evaluation process did the Project Manager produce a ToC (Annex X, *Figure 5: ToC – version from Team Leader*); it has NDCs in nearly all activities, outputs, and outcomes, even as the PSC chairperson notes that contribution to NDC is not part of the results ('not a process by which to judge this project').
95. **The Description of the Action covers a large context.** Sufficiently substantial, it presents environmental challenges including emission, socioeconomic challenges including inequality ('disproportionately impact the poor and most vulnerable'), exclusion (inclusiveness mentioned 11 times), low resilience, and it refers to causes, like unsustainable 'terms of trade', pressure on land and natural resources, linking to unsustainable Agriculture, Forestry and Land Use (AFOLU). It notes a need for structural transformation, an inclusive green economy. The Evaluation assessed how the project's context analyses⁴⁴ further explore such challenges at country level.
96. The Description of the Action notes that *further design*⁴⁵ would happen in a 2-phase inception:
- i. **Key stakeholders were to be identified and their interests analysed** (including gender).
 - ii. **Policy needs** were to be assessed for LEDS modelling (p. 5 last bullet, and also p. 12: "modelling teams will be asked to develop and conduct processes for engaging decision- makers in modelling *design*")
- Further details on analyses *to be done* are provided for country-specific demonstrations / pilot projects: **assessment of local stakeholders and their needs** (p. 10, *DRC outputs*), and **community-level cost-benefits** (p. 9) and **responding to stakeholder feedback** (p. 12).

⁴² <https://www.fao.org/3/i2904f/i2904f.pdf> (2012), p. 21, titre: *Améliorer la production du riz irrigué dans la Vallée du Fleuve Sénégal à travers l'innovation et l'apprentissage par l'expérience*

⁴³ Source: TL direct communication.

⁴⁴ Context analyses usually include identification and analysis of stakeholders (producers, regulators, service providers, any relevant initiatives etc.), often along in the context of a value chain or product cycles, and analysis of policy (gaps) and practices.

⁴⁵ The term 'further design' is taken from the Description of the Action, first 'high-level result' in Component 2.

97. The Evaluation understands that the results of the 2-phase inception are to include an 'understanding of needs and gaps identified', captured in the inception workshops.⁴⁶ The **Cameroon** inception workshop report⁴⁷ (slide presentation) provides, for the energy sector, a brief on actors, legislation and general strategic/policy points and reform ideas for renewable energy. The **Côte d'Ivoire** report⁴⁸ introduces a focus on agriculture and the EBAFOSA initiative for food security; the discussion produces the idea to start with on-going initiatives and link to NDC and 'all institutions to be involved'. The Evaluation finds little on further identification of stakeholders, -needs or policy gaps. The **DRC** report⁴⁹ is a short-list of two dozen widely varying ideas, including valuation of gas flaring, geothermal projects, a national reforestation plan, and 'technology transfer in all sectors'. The Evaluation concludes that at the end of inception the project design in the countries is yet to start, and this is echoed in the PSC meeting.
98. The PSC in its first meeting (action points 2 & 3⁵⁰) requests a narrower thematic focus and, as understood by this Evaluation (and drawing from the Description of the Action), asks that (through country action plans) the project reflect on, or identify **where it builds on established policy and LEDS progress/practices**, and that it identify, focus on **stakeholder (socioeconomic) needs and priorities**, incl. gender considerations. In summary: the Evaluation understands that further design was envisaged through the development of country action plans that would **include a context analysis for each narrowed-down theme**. Focussing on stakeholder *socioeconomic* needs and priorities one could expect identification of key stakeholders along value chains or product lifecycles⁵¹ (not limited to direct beneficiaries).
99. Instead, the country action plans, taken together, suggest that context analyses are yet to be done. About stakeholders⁵², activities are to 'Identify [...] initiatives [...] by government, private sector, academia, non-governmental / development partners'. And to 'identify at least 3 project partner institutions as LEDS champions to lead in operating implementation initiatives'.⁵³ About policy, there are activities like 'mobilize ministerial level stakeholders [...] for policy analysis'. The Evaluation concludes that in the country plans the project design is yet to be nailed down.
100. Some examples to illustrate how critical socioeconomic context analysis is:
- In **Côte d'Ivoire** the idea was to replace household use of firewood-charcoal with rice bran-briquettes. The UNDP clean cookstoves project had a lot of experience with the charcoal value chain and finds: a. reducing smoke is critical to success; b. improving efficiency in the charcoal value chain preserves and improves the jobs of more marginalised groups; and c. strengthening local communities' forest governance for certified charcoal value chains could impact not only charcoal-efficiency, but also

⁴⁶ Source: TL direct communication.

⁴⁷ [ATELIER DE LANCEMENT DU PROJET DE STRATEGIE DE DEVELOPPEMENT A FAIBLE EMISSION EN AFRIQUE.pdf](#)

⁴⁸ [DRAFT 1 RAPPORT LEDS ABIDJAN atelier lancement.doc](#)

⁴⁹ [Inception Report of the implementation process of implementing-.docx](#)

⁵⁰ [FINAL-1st Steering Committee Minutes- Africa LEDS Project 29 November 2016.pdf](#) These minutes refer to the Inception Report, on page 6, provides what is expected from country action plans (here named 'execution plans'): "... filling in mobilized verifiable country level implementation partners and their respective roles while '**reflecting country realities**'. [...] The project team will continue to refine them as we roll-out the project."

⁵¹ The Description of the Action also refers to the *Cairo Declaration on Managing Africa's Natural Capital for Sustainable Development and Poverty Eradication* https://wedocs.unep.org/bitstream/handle/20.500.11822/11154/cairo_declaration.pdf?sequence=1&%3BisAllowed= that recognises involvement of all relevant stakeholders (and women in particular) in environmental management decision making, and the Statute of the African Court of Justice and Human Rights (notably, its role in recognising indigenous rights to land).

⁵² Where 'stakeholders' refers to others than those present in the August 2016 inception workshop, or 'Ministerial stakeholders', or the modelling team. In the Côte d'Ivoire plan, collaboration with 'stakeholders' or 'initiatives' is 'collaboration with potential sources of agriculture waste' and initiatives like 'digester sludge / slurry from biogas to be re-used' also do not reveal a stakeholder.

⁵³ Not to be confused with LEDS Champions in the project logframe, that are to facilitate peer learning between countries. (Côte d'Ivoire plan)

lead to more sustainable forest management. The 8 policy recommendations could have served the Africa LEDS project.

- In **Cameroon** the hydropower demonstration did not engage the private sector – yet hydropower experience elsewhere shows private sector investment is critical for success.
- In **Kenya**, smallholders are encouraged to apply agroforestry and the modelling considers the implementation of the Farm Forestry Rules, 2009, but the context is that this regulation (its 10% rule⁵⁴) is unpopular among smallholders (it creates marketing hurdles that are disproportionate to what large forest entrepreneurs have to deal with). The modelling ignores this context: 'terms of trade' unfavourable for poor or more vulnerable groups.

101. An illustration of political context analysis is provided in Box 1. It suggests that for Photo-Voltaic Water Pumping Systems (PVWPS), where the project is yet to formulate policy propositions (or generally suggests further government investments), others calculate that removal of duties would be more effective.
102. Finding 1: From the inception report: The causality between outputs and objective is unclear; the logframe is incomplete; a ToC was not produced.
103. Finding 2: Context analyses, that were set to take place at country level in a 2-phase inception, were not carried out before (and for) the finalisation of Country Action Plans. The country action plans have a thematic focus, but lack in the area of context analyses.
104. An update of the Assessment of the Quality of the Project Design (first done in the Inception report) is provided in Annex XI.

Box 1: Mozambique – the policy gap for Photo-Voltaic Water Pumping Systems (PVWPS)

How identification of policy gaps can make modelling more politically relevant

Context - In Mozambique, Photo-Voltaic Water Pumping Systems (PVWPS) have been successfully introduced at least since 2006.⁵⁵ Before the project started, the emission-reduction effect of PVWPS was already known and by 2018 the government had started distribution of more than 900 PVWPS⁵⁶.

Modelling in- and output in terms of policy –

Input: The Mozambique report describes PVWPS advantages, disadvantages are presented and worldwide studies are cited that show that most farmers agree PVWPS help increase income (10% disagree). The policy appears to be that the government distributes PVWPS kits to farmers and subsidizes smallholders' energy for irrigation (diesel & grid electricity). Initial investment is mentioned as a strong weight (but no breakdown of cost, and 'PV technology has experienced strong cost reductions in recent past, which are expected to continue').

Output: It is a next step (way forward) to inform policymakers about socioeconomic and environmental benefits of available options (in this case: increasing smallholders' access to PVWPS).

⁵⁴<https://www.researchgate.net/publication/338124018> The Impact of Legislation on Sustainability of Farm Forests in Kenya The Case of Lugar i Sub-County in Kakamega County Kenya

⁵⁵ Energypedia, July 2021? Energy Access in Mozambique https://energypedia.info/wiki/Energy_Access_in_Mozambique Between 2006 and 2016, FUNAE installed 60 solar irrigation systems. In 2018 UNIDO and GEF distributed PVWPS to smallholders in Zambezia, Sofala and Tete provinces. By 2020, 80 photovoltaic systems benefit ±4000 farmers. Kisakye, E., UNIDO, 10/3/2010. Smallholder farmers in Mozambique embrace solar energy (w support from GEF) <https://www.unido.org/stories/smallholder-farmers-mozambique-embrace-solar-energy>

⁵⁶ Chilundo, R. et al. July 2018. Design and Performance of Photovoltaic Water Pumping Systems: Comprehensive Review towards a Renewable Strategy for Mozambique. <https://www.scirp.org/journal/paperinformation.aspx?paperid=86300> The PVWPS enhances the adaptation of green energy while it substantially promotes to mitigate climate change by assuming as estimated that it may realize CO₂ reduction of 7.4 t/ha [115]. [...] more than 900 PVWPS for irrigation will be installed by the government [...] until 2021. 115: Campana, P.E., Li, H., Zhang, J., Zhang, R., Liu, J. and Yan, J. (2015) Economic Optimization of Photovoltaic Water Pumping Systems for Irrigation. *Energy Conversion and Management*, 95, 32-41. <https://doi.org/10.1016/j.enconman.2015.01.066>

Discussion – The government is already working on increasing smallholders' access to PVWPS, taking a role as distributor. In this context, what is the added value of modelling, *suggesting what policy change?*

The project did not identify policy gaps; other projects did. RVO (2018) discusses PVWPS (and FUNAE is installing some) but notes that the Renewable Energy Strategy 2011-2025, although mentioning off-grid solar PV, has **no concrete national electrification plan**⁵⁷. The Global Green Growth Institute (2019) nails the problem: 'Removal of [duties] on solar products have been one of key drivers of rural electrification programs in countries like Tanzania. In Mozambique [...] all renewable energy products [...] solar panels] are charged 17% VAT. Additionally, solar products are charged 7.5% import duty [also] solar panels used in the agriculture sector (e.g. water pumping for irrigation) must pay the duty, even though agricultural equipment is exempt. When fees for facilitation services are considered, **these charges could add 30-40% to the total cost of installation**. [...] A recent study indicates that removal of [duties...] cost only \$1.1 million over a 10 year period, and would accrue a benefit of \$7.6 million from higher business taxes and VAT on income by employees in the sector. On the consumer side, financial savings from the exemption could reach ~\$14 million and would create thousands of jobs (DFID, 2016).'⁵⁸

Rating for Quality of project design: Highly Unsatisfactory

C. Nature of the external context

105. The Description of the Action did not identify any external context that could affect implementation. The conflict in northwest Cameroon started end 2016 and may not easily have been foreseen. Conflict-related insecurity there put project partners at risk; work in Jakiri was not completed.
106. The conflict in Kivu was in 2015 characterised by volatility, profound instability, impunity and a negative trend: 'populations increasingly caught between competing armed factions'⁵⁹. So it did get worse in 2016 and 2017; this could have been foreseen. The project in 2017, after inception, removed Kivu as pilot location. The Ebola pandemic then also caused delays (2nd PSC report).
107. Rating for Nature of the external context: Moderately Unfavourable for Cameroon, DRC; Favourable for the other 5 countries → Overall: Moderately Favourable

D. Effectiveness

108. In this section, the results have been analysed based on the ToC developed for this Terminal Evaluation and the identified project outputs, outcomes, intermediate states and impact. Annex VIII presents the further details on the project's results per country, and for the regional/global peer learning results.
109. Morocco is not assessed in this section because the country disengaged by the end of 2018. The November 2018 report still notes that Component 2 is implemented in all 8 countries; Morocco 'has been experiencing bureaucratic delays' but the modelling lead

⁵⁷ RVO, 30/7/2018. Final Energy report Mozambique <https://www.rvo.nl/sites/default/files/2019/01/Final-Energy-report-Mozambique.pdf>

⁵⁸ Baruah, P. & B. Coleman, Global Green Growth Institute, 2019. Off-grid solar power in Mozambique: opportunities for universal energy access and barriers to private sector participation. Country Brief Mozambique. <https://ggi.org/site/assets/uploads/2019/02/Mozambique-Country-Brief.pdf>

⁵⁹ Verweijen, J. and C. Iguma Wakenge, Rift Valley Institute, December 2015. Understanding Armed Group Proliferation in the Eastern Congo <https://biblio.ugent.be/publication/7017636/file/7017665>

⁶⁰ November 2017 PSC minutes: 'progress smoothly ongoing in all countries'; 2017 progress report: 'NREL is technically backstopping Kenya, Morocco and Zambia' (p.42, 2nd §) and 'with the guidance of the project management team, Moroccan stakeholders identify [...] as priority sectors'.

institution has been established (4C Maroc), strategic direction of the work clarified, and an action plan developed. However, the December 2018 PSC minutes then note that Morocco's responsiveness is 'not optimal' and 'the contract has not been signed' (by Morocco authorities).

i. Availability of outputs

110. The Evaluation, based on reporting, could not effectively establish what the outputs contain; the final project reporting is based on poor quality country reports, and both are hard to reconcile. Most of the reporting is on activities, and many of these are experiments. Some examples:
111. the DRC final report notes an experiment comparing different types of cookstoves and fuels does not reveal whether this experiment took place in households, or who participated; the final report only describes a demonstration on using solid waste for fuel briquettes (also no concrete reference to any socioeconomic actors participating)
112. the Cameroon final report notes a demonstration for micro-hydro powered processing, which is for the most part a technical lecture on how cassava is processed (harvested, washed, peeled, sun-dried and milled), which prepares for reading some bullet points of 'tasks carried out'; the first is 'Rehabilitation of micro-hydro plant & upgrading micro-hydro power control unit' and after a lengthy technical essay it is concluded that 'hopefully, the transformer could be repaired'; the second task carried out is 'Extending wiring' (to power the mill) which ends mysteriously with 'we did have access to the transformer formerly used' (and verified in the field: no cabling was extended and the transformer has issues)
113. the Côte d'Ivoire final report, chapter Achievement, subheading 'Support briquette production', notes that the project 'lent its support' but it is not clear what support. 'It was necessary, according to specialists, to build a pyrolysis' (and verified in the field: that is what the FAO project did).
114. In none of these examples is any socioeconomic actor mentioned in the country or final report, and that is more rule than exception. It also corresponds with the planning, which is identical in the three countries, not naming specific socioeconomic actors apart from a general reference to government and non-government actors, academia, private sector, farmer groups.
115. A more detailed comparison between what is reported and what is otherwise found is presented in Annex VIII, per country, in tables 19, 21, 22, 23, 24, 25 and 26. For Cameroon, Côte d'Ivoire and DRC a summary is presented in the next section, in *Table 6: Pilot project results*, with a special column to identify socioeconomic actors (from the Rollout Action Plans, Part 2: Action Plan, table column 3: Next steps / roles).

Output 1.1 – Local socioeconomic actors (3 countries) implemented new/improved LEDS pilot projects and results are demonstrated and shared:

- a. **Pilot projects were partly delivered, to some of the intended socioeconomic actors**

116. An overview of the demonstration results is provided *Table 6*.



Photo 2: Cassava Business As usual (BAU) - open-air (sun) drying on raised beds (Ngoulemakong)



Photo 1: Cassava Solar drying (Ngoulemakong)

117. A main weakness of the pilot projects is that, at planning stage, there were insufficient context analyses. The evaluation found very little evidence of context analyses carried out during the inception phase of the project *before* the formulation of Country Action Plans. As the same applies for the modelling, this is further discussed under *Output 2.1*.
118. Finding 3: In some cases, participating local socioeconomic actors saw the project deliver to the extent that they were adopting low-emission practices. But generally, the results are not that advanced, and adoption is uncertain, cost-benefit analyses were incomplete or not carried out; some projects were **not completed, and participants had not yet validated the results.**

Table 6: Pilot project results

Sites	Intended result	Socioeconomic actor	Result as verified by the Evaluation	Reported result (Final report)
Cameroon – Jakiri	Cassava-agroforestry: cassava farming system interventions incl. trees (mostly plum trees), beehives, new cassava variety, biochar / organic fertilizer; BAU: local variety of cassava, little agroforestry	Partners (in academia, government, private sector, farmer groups, NGO, CSO) and 'other relevant stakeholders'	The high-yielding cassava and biofertilisation is appreciated (adoption rate unknown), especially as the local cassava variety was not well performing.	<ul style="list-style-type: none"> • Demonstration actions finalised • Sites operationalised Digitalized green villages of Cameroon in 12 municipalities
	<i>Cassava-processing: hydropower to replace diesel fuel (for that, equipment to change, hydropower to be developed)</i>		<i>sieves upgraded (replaced)</i> <i>hydropower not completed due to distance to hydro source; electrical engine not used anymore</i>	
	Cassava marketing with with ICT to reduce emission from transport		Not verified. (the cassava-processing 'Coopérative de Ngoulemakong' is not aware of it)	
Cameroon – Ngoule-makong	Cassava-agroforestry: as above	Farmers adopted the high-yielding cassava variety and observed trees in a 4 ha cassava farm (rationale: add income), but did not like trees planted in the cassava field		
	Cassava-processing: wood-fuel drying replaced by electric 'mixed solar dryer'	Producers appreciate the hydraulic press. The solar dryer replaces open air sun drying (raised beds)		
Côte d'Ivoire – Tipadipa and Tiétiékou	System of Rice Intensification (SRI): training on planting, compost, water management	Partners (in academia, government, private sector, farmer groups, NGO, CSO) and 'other relevant stakeholders'	Training on planting, compost and water management (SRI) done in both sites, seed provided.	<ul style="list-style-type: none"> • Case study findings
	Briquettes composed of rice husk: improving briquette production with pyrolysis; BAU: rice husk used for bedding		Africa LEDS only obtained data from the FAO briquettes project. ⁶¹ (the FAO project ended, no results, briquette making stopped)	<ul style="list-style-type: none"> • Briquettes demo completed, case study findings
DRC	Improved cookstoves and briquettes (made of waste: rice bran, sawdust): financial support to increase the output of entrepreneurs already producing briquettes and cookstoves (supported by a local NGO project). BAU: local cookstoves (various).	Partners (in academia, government, private sector, farmer groups, NGO, CSO) and 'other relevant stakeholders'	Entrepreneurs increased output of rice-bran & sawdust briquettes, cookstoves, but poorer households, women find the cookstoves too expensive (a microfinance programme is suggested, to support adoption; but this is not referring to other cookstove initiatives in DRC and other countries with similar challenges ⁶²).	<ul style="list-style-type: none"> • Demonstration on briquettes: case study • Demonstration on biogas completed, lessons compiled in case study
	Biogas: 6 installations		Biogas: only 2 of 6 installations still in use. Results not yet proven or documented.	

⁶¹ FAO, project name: 'Contribution à l'atteinte des objectifs liés au changement climatique et la sécurité alimentaire, via l'agriculture intelligente face au climat en Côte d'Ivoire'. In Gagnoa it had 2 components: rice-bran-briquettes and SRI. M Kouadio coordinated the FAO project as well as Africa LEDS.

⁶² Good practice elsewhere shows that there are better (more feasible and more sustainable) ways to promote improved cookstoves, in response to well-identified needs of the users.

Output 1.2 – LEDS champions (3-5) increased their capacities and actively shared LEDS results:

a. Partly delivered

119. The UEM from Mozambique is the designated LEDS champion. UEM is well-placed and due to its active role in the country good effort was made with the adaptation of policy planning systems, to integrate climate change adaptation and mitigation. UEM prepared a whole set of materials for a workshop in May 2020 and integrated in these materials some of the lessons that were learned in Mozambique. Due to Covid-19, the May workshop was postponed. UEM is working on a framework that places modelling in an entire policy/planning cycle; the Evaluation engaged UEM in a discussion on this subject; this helped design the LEDS policy cycle (Annex IX).
120. The Final Report also adds that Communities of Practice provided a platform to cultivate 3 champion institutions via project webinar knowledge exchanges', engaging CEEZ Zambia, UEM and Côte d'Ivoire MINED. There was one webinar on LEDS in Agriculture organised by AfLP63. Despite some online evidence that a Community of Practice was active occasionally during project implementation, no regional Community of Practice was active (anymore) when the Terminal Evaluation started.
121. Finding 4: The University Eduardo Mondlane (UEM) from Mozambique is the LEDS champion. It increased its capacity by preparing training materials and pro-actively shared information with a few countries. But UEM could not exercise its international facilitating role, due to lack of response from policy makers in different countries (before Covid-19).

Output 2.1 – Country Teams (7) have plans to analyse policies for LEDS, with prioritised actions:

Partly delivered; plans not including context analyses

122. The project supported the development of country actions plans in all 7 participating countries. These plans were not very detailed or specific and were generally used by the modelling teams to select LEDS subjects for pilot projects and/or modelling exercises. *Table 13* presents an overview of what could be found related to the contexts of the specific subjects, based on the country reports. Main findings from that overview are:
- most countries did not refer to any specific policy (apart from NDC); those who did (e.g. Mozambique), did not identify policy gaps
 - relevant ongoing initiatives on the same selected subjects were not identified
 - indicators for macro- and micro/user-level cost-benefit analysis have not been identified upfront, in a structured manner, and macro- and micro levels are not clearly defined; important micro/user-level indicators are missing.
123. Some of the interviewed modellers in countries expressed discomfort with having to 'leap' from the rather conceptual LEDS themes in their country action plan, directly into the modelling; considerable data gaps required that they made many assumptions along the way, some explicit, many not. A context analysis could have helped to scope the subject for modelling and related stakeholders, including identification of policy gaps (and politicians' more precise take on the modelling questions and how they want to use the

⁶³ [Minutes of the Webinar AfLP May 2020.docx](#) The minutes only present the speakers, but there is a link to the audio of the Webinar. No list of participants but 'more than 30 participants attended'. According to RM this webinar *is* Sources are contradicting as to whether MINED in Côte d'Ivoire had participated. Sources differ on whether this webinar is the training that UEM was to deliver. According to UEM, interview, it was not delivered.

outcome for decision making), possible sources for data (from government but also from other/similar initiatives), so that further study could assess the shape and quality of data and adapt the modelling to what is available and feasible. For example, if it had been established on a timely basis that rice ban briquettes were in early stage of development, it could have led to a different choice for modelling.

124. Examples below describe country-specific issues arising from the lack of context analyses.
125. In Cameroon – cassava farming, the project assumed that cassava producers needed trees in their cassava field. It is not clear what the rationale for this choice was (whether it was built on existing good practice). The tree idea is far from CIAT's recommendations on cassava farming (a clear set of practices arising from farmers' research and evaluated by farmers in dozens of countries), with a wealth of data on soil loss reduction (and with that, emission) and yield benefits. Some of CIAT's work is reflected in North West Cameroon, where expert farmers do their own extension to have their peers adopt contour hedges to reduce soil loss. FAO also did work on cassava in Cameroon. In the project's demonstration sites, the Evaluation found that farmers were unconvinced about planting trees in their cassava field, and that project implementers did not explore farmers' reasons for this (they assumed it a matter of better educating the farmers).
126. As there was no stakeholder analysis in the context of cassava farming, there was no assessment of the gender impact of planting trees in a cassava farm. One can imagine a traditional land tenure regime where, even if women are the main producers of cassava, they are not allowed to plant trees. If men plant trees in a women's cassava farm, there are other implications. Without any analysis, it is not clear what the effect of the LEDS proposed practice can be on women.
127. Because the project did not assess the effects of the tree-planting at the level of the cropping system, the claim that planting fruit trees in cassava fields helps to reduce deforestation is not credible. The opposite could also be claimed (trees take space, can eventually depress cassava yield, more land required to feed the family → deforestation).
128. In the case of the solar dryers, the project did not clearly explain how a solar dryer helps reduce emissions; the BAU is open-air sun drying, so both are directly fuelled by solar energy.
129. In Côte d'Ivoire – briquettes project (the project used data from FAO's project on briquettes for cookstoves), the Africa LEDS report refers to a survey reporting consumers' concerns on briquette making with rice husk: diverting rice husks away from current use (for animal bedding) may reduce a locally valuable economic activity. This illustrates why a single intervention (diverting rice husks for briquettes) needs to be analysed in a larger context. Job losses in the charcoal production are also not considered, yet this typically affects more marginalised rural dwellers. The report finds that the adoption of briquettes will halve the forest destruction, but does not discuss the implications for people in the charcoal business.
130. Anyway, the FAO project has ended and briquette making was not successful: electricity costs too high, no business plan, too much smoke, composition of briquettes not yet decided and more research needed.
131. The introduction of the System for Rice Intensification (SRI) can easily be justified, as producers can be linked to a vast amount of SRI expertise and farmer validation from many countries, and it could have provided modellers with relevant modelling datasets. But the

context here is also killing the idea; lowland producers in Gagnoa have for various reasons insufficient control over the water and can for these reasons not adopt SRI.

132. With regard to various options for cookstoves and -fuel, no other initiatives are mentioned. In the rural cooking fuel subsector, good practice is to first consider the entire value chain (and stakeholders) before narrowing down on specific LED practices. By 2015, several reports and studies from the Clean Cooking Alliance, WHO and UNDP (NAMA, mentioned in 5.A.ii and 5.A.iv) had demonstrated and reported on this, and published highly relevant data (including emission data), indicating what further research (modelling) was needed, and formulating policy and strategy recommendations⁶⁴. Rice-husk briquette making is a tiny option in a wide range of briquette options and a wider range of cooking fuel options. It is the view of the evaluation, that politicians would want more comprehensive recommendations.

Box 2: Clean cooking link to forestry

From community forestry to clean cooking - A selection of what was found online:

- The Clean Cooking Alliance has for years evolved its value chain approach that is truly cyclic. It produced transformative, well-founded policy recommendations that cover the entire cycle, from forest governance (community forests), production efficiency (more efficient kilns), reorienting charcoal producers' jobs, cost-saving opportunities that can create investment opportunities for eco-labelling, youth entrepreneurship, retailers' diversification (various charcoal and briquette products and *gradually* changing the composition of briquettes, various cookstoves), user information (campaigns to sell the benefits to users, to create understanding on health effects, and cost-effectiveness). The approach is comprehensive and open-ended where it comes to the composition of briquettes (agriculture waste is an option), and keenly focused on the private sector. This is in contrast to the project, with a more narrow focus on more early-day FAO research, producing rice bran briquettes with use of main-grid electricity.⁶⁵
- WHO worked on testing cookstoves, and demonstrating health benefits - the most decisive factor for woman going for clean cookstoves/fuel. The Africa LEDS country report does not take up smoke effects in the modelling, but it could – as its health effect also has economic consequences.⁶⁶

133. In Côte d'Ivoire – SRI, there preliminary analysis of micro-economic costs using the CCS Analytical Toolkit would have identified 'all relevant energy, resources and emissions impacts'. Yet the costs identified are based on an ideal situation where farmers have rice fields with great control over water for intermittent irrigation; the Evaluation found that not to be the reality; most farmers indicated major constraints related to water management, requiring them to invest considerably to control catchment runoff, improve irrigation

⁶⁴ There is expertise for that, e.g. the Clean Cooking Alliance is present in Côte d'Ivoire, with its partners being JVE, and 'Ivoire consommation' <https://www.cleancookingalliance.org/partners/item/21/894>: (<https://www.cleancookingalliance.org/partners/item/16/110>) and in 2015 a study was done (<https://www.cleancookingalliance.org/resources/448.html>, file [cotedivoire-en-icsector2015.pdf](https://www.cleancookingalliance.org/resources/448.html) by www.stoveplus.org). WHO's work on health benefits and testing cookstoves: cooking time, smoke, combustion emission efficiency (emission related) and Heat Transfer Efficiency (THE), see WHO, 2012-2013? WHO Indoor Air Quality Guidelines: Household fuel Combustion. Review 2: Emissions of Health-Damaging Pollutants from Household Stoves https://www.who.int/airpollution/guidelines/household-fuel-combustion/Review_2.pdf. And then the study: Dickinson, K. et al., 2015. Research on Emissions, Air quality, Climate, and Cooking Technologies in Northern Ghana (REACTING): study rationale and protocol. Source: BMC Public Health. <https://bmcpubhealth.biomedcentral.com/track/pdf/10.1186/s12889-015-1414-1> also highlighting user-oriented criteria (beyond just emission: durability, cooking behaviour, cost-benefits), important for making any practice be acceptable. "While there are many reasons to believe that shifting cooking practices could have wide-reaching benefits for some of the world's most disadvantaged populations, achieving this objective in practice requires well-designed interventions that understand and integrate existing cultural practices."

⁶⁵ Unless these recommendations touch on areas they prefer not to discuss in public (forestry, typically – but let us not assume that in this case).

⁶⁶ Policies are to also address systemic corruption along the chain, and for that, bribes if existing are part of the value chain studies, the Clean Cooking Alliance reports for one country that bribes make up 20-30% of the retail price.

infrastructure, buy equipment for land preparation, and yet, for nearly all of the farmers the land tenure is highly insecure.

134. In the DRC, no context analyses were done. The cookstoves project worked directly with local entrepreneurs who had been supported by a local NGO (the donor for that NGO is not known). The Africa LEDS project financed the expansion of the briquette and cookstove business. The Congolese Cookstove Alliance was not engaged during project implementation, however, given their experience in the subject matter.
135. The other LED technology introduced by the sub-contracted executing partner, l'Institut Supérieur de Techniques Appliqués (ISTA), was biogas: the institute directly established 6 installations in local institutions. However, the Evaluation could not establish whether opportunities of synergy with other initiatives were missed (private investments in LPG cooking exist, unlinked to this biogas initiative).
136. In Ghana there was a straightforward introduction of two 'LED technologies': 'cookstoves' and, instead of Agroforestry from the NDC, 'forest/wood-fuel plantations in the restoration of grassland in the transition and transitional zones'. This was not preceded by a discussion of Ghana's policy to introduce 1 million improved cookstoves (at least the policy's impact indicators could have been recalled as, ideally, these would be used for the modelling). There is also no discussion in the action plan or report on Ghana's land use policy, to frame the idea of turning grassland into tree plantations. This is an important aspect to consider given that land conversion could have land tenure implications for different users (including communities governing the land). And there was no business plan concept for the tree plantations: what challenges do current tree farmers face, how do they link to consumers?
137. In Kenya too, the choice was for cookstoves and agroforestry. For cookstoves, this links to Kenya's policy to replace solid with non-solid fuels, and the interest to use biogas or LPG as indicated in the National Climate Change Action Plan 2018-2022, to reduce the demand for biomass. The indicators from that policy are recalled: the proportion of households using biomass for energy, or LPG. The NDC focuses on energy efficiency, -conservation, alternative fuels, and 'clean biomass (charcoal, wood) cookstoves in rural areas. As in Ghana, Kenya has a plan to distribute 4 million improved cookstoves. But in the case of Kenya, the indicators for modelling were indeed taken from existing policy.
138. The choice for agroforestry focuses on: 'transformation of land use with a focus on agroforestry' tied to the Agricultural Land Act, 2009, requiring that 10% of 'Agricultural land be transformed into farm forestry'. Besides, the NDC requires just a 10% tree cover by 2030 (it does not allude to protecting any existing forests). The policy discussion on land transformation leaps (in 2.3.2) to defining three farm land uses: 'slash and burn, agroforestry, and residue burning'. The change of the proportions for each is then subject to modelling.
139. As in Ghana, there is no discussion on implications of transforming agricultural land use. In Kenya there has been a discussion on the effectiveness of the agroforestry policy (or ineffectiveness) and some of that should have been reflected in a policy (gap) analysis.
140. For any plan to model the effects of land use transformation, it would be worthwhile to recognize that it first requires the transformation of the land users, and analyse and describe the effects on land users, on tenure (gender), and governance of land, and on other stakeholders along the product cycle (and with a gender dimension). In Kenya, land tenure on most farmland is still uncertain, and this situation is not likely to change given the Land

Administration challenges - linked to highly sensitive political issues that prevent decision-making on community governance of land. In other countries, similar issues are at play. And also: what can be SMART indicators to monitor land use changes if – as is the case in Kenya – there is not yet an accepted definition of tree cover, and no tree cover inventory protocol? Such questions are missing in the project reports.

141. In Mozambique, in the final report, farmers are described as de facto practicing the least economic way of farming, by not using fertilizer or not practicing agroforestry. It is not explained why farmers choose this practice above a more economical way of farming: farmers have their reasons (they face obstacles); for policy sake, this should be known.
142. The Mozambique report adequately explains why PVWPS is relevant for smallholder irrigation farmers but that was established rather long ago since PVWPS has been adopted in Mozambique for many years already, also by Government. It is not clear what is the added value of modelling to policy, as policy gaps are not identified (see Box 1).
143. The Zambia Team planned some further design in the ToR for a subcontracted modelling team; one of its tasks was to describe a 'consensus on approach', including feedback from stakeholders. But the Evaluation found no reporting on any approach.
144. The responsibility for the development and oversight of implementation of country action plans was delegated to KNUST, and KNUST signed 7 contracts with country partners for implementation of the country action plans. KNUST was charged with the provision of LEDS planning support. This includes inception workshops and more: 'Lead development of scoping reports/situation assessments [...] based on the inception workshops and outlining priorities, needs, stakeholders, and other critical information to inform country-specific activities' (first contract (004) Annex A-ii67, output 2). The KNUST final report for this contract skips this activity entirely.
145. Participating countries describe KNUST's role essentially as (limited to) providing the finances.
146. In contract 3 (third contract (007)), it is indicated that there would be 'scoping mission reports' or 'focus group discussion reports' that outline country needs and priorities. At evaluation, such reports had not been delivered. The Evaluation also did not find materials or check-lists guiding the partners in an identification stage. Apparently, it was assumed that with the country action plans there would be no more identification and that the modelling could begin.
147. The role of NREL was at times limited to more technical modelling (adapting models, using the software), and within that constraint they could not easily link to a policy context.
148. Finding 5: There is no evidence that context analyses were done after the Country Action Plans, to refine these plans (scope modelling, choice of LEDS). Although reports mention various studies, these could not be obtained, and key findings from these studies were not reported on (for example, if any socioeconomic actors had been identified, these would appear in reporting). This is a major issue, with a significant effect on several project results.
149. Finding 6: There is no evidence that the countries were provided with adequate support in the LEDS policy cycle identification stage (after country action plans were done and before

⁶⁷ Not Annex A-I, as there the objectives and outputs from the Description of the Action are copied.

modelling). The Evaluation found no deliberate approach, or guidelines for context analysis⁶⁸.

Output 2.2 – Country Teams (7) have practiced LEDS analysis (using & adapting modelling tools):

Partly delivered; all have practiced LEDS analysis but not all was communicated it in a policy context

150. The focus of NREL was clearly on this output of building capacity on modelling and then finding out at what level to mainstream findings from LEDS modelling, to create or adapt development plans, and medium and long-term policy. To have a subject for modelling, the focus was on AFOLU, and County teams indicate the sectors or subjects (e.g. clean cookstoves, agroforestry). The process leading to the choice of LEDS practice, before modelling, did not involve stakeholder consultation. In Ghana this process is 'guided by (a ToR that is) the Africa LEDS Project Document' (it refers to the country Rollout Action plan). In practice, the start was to 'pick existing projects' (energy, sustainable agriculture, forest regeneration), identify indicators and start modelling. It helped to confirm, for example, that assisted generation is the way to go. In Kenya the subject for modelling was picked from the National Climate Change Action Plan (NCCAP): clean cooking.
151. The documentation available for the evaluation does not provide information on Capacity Needs Assessments, and little about modelling training, e.g. the Kenya report notes that there were 6 workshops (totalling 18 days) on modelling, but no participant list or numbers, nor details on the agenda. In Côte d'Ivoire (where NREL had been involved most intensely) there are now a few modellers claiming confidence with the various tools. In Zambia 20 people were trained (about 5 women), and of these, three quarters are still very active in modelling; they continue modelling informally. The contribution of TA from NREL was generally considered helpful or very helpful.
152. NREL notes that they did a survey at the end of training, but they did not report on learning results. According to NREL peer learning was successful (in building confidence and buy-in for modelling, in Ghana, Kenya, Mozambique, Zambia), and Mozambique was a very engaged champion. From interviews the Evaluation understands that participants generally learned about a dozen modelling tools and practised with some of these. In Kenya, modellers felt there is insufficient capacity built to use the modelling software effectively.
153. The modelling tools most applied in the Project are named here:
 - **Cameroon** used its own 'indigenous Cameroon LEDS Model' (built with expertise from a modeller from the University of Paris and students from the University of Yaoundé 1)
 - **Côte d'Ivoire's** integrated model uses the Long-range Energy Alternatives Planning System – Integrated Benefits Calculator ([LEAP-IBC](#)), the Ex-Ante Carbon-balance Tool ([EX-ACT](#)), and the Carbon Capture and Storage regulatory test toolkit ([CCS](#))
 - **DRC** used Model for Assessment of Energy Demand ([MAED](#))
 - **Ghana** used the ([LEAP-IBC](#)) and the Public domain software developed by the World Agroforestry Centre (ICRAF) ([REDD ABACUS](#)) and soft-linked both
 - **Kenya** uses the ([LEAP-IBC](#)) tool

⁶⁸ Feasibility studies seen by the Evaluation do not address much of a wider context.

- **Mozambique** used ([LEAP-IBC](#)) for the energy sector and ([REDD ABACUS](#)) for the agricultural sector
- **Zambia** used the International Jobs and Economic Development Impacts Model ([I-JEDI](#)), ([LEAP-IBC](#)) and Agriculture, Forestry, Land Use ([AFOLU](#)) tools.

154. Modelling capacity would include the modelers' capacity to communicate modelling results. Based on the Evaluator's assessment, this communication (as seen in reports, slide shows, videos, press release, etc.) was insufficient to communicate clearly, and in a tailored manner to different audiences. What was needed was clarity on questions of what policy options underly the modelling and what conclusions could be drawn (or what further research or data would be needed). To start with, the modelling results as presented in some reports are not always clear. The Cameroon modelling is not based on what is demonstrated in the pilot projects (and there is no reference to tools developed there). All country reports struggle to clearly describe the user/micro-level: what is the BAU (in what type of production unit) and how it differs from the LED practice in terms of cost-benefits? Which indicators are users' choice to compare the different practices, and what additional indicators are needed to assess effects on other stakeholders?

155. Unclear communication is in part the result of unclear modelling outcomes, in turn the result of unclear modelling assignments. The modelling inception did not produce an agreed ToR or plan, describing the context, the policy research question (with macro-level indicators) and a context for the selection of LED options (the LED target stakeholders, and micro-level indicators).

156. Finding 7 – Through practise (trained by NREL and learning by using and adapting the modelling tools), an unknown number of people from 7 country modelling teams have, to various extents, increased their capacity to use (and adapt) modelling tools.

Output 2.3 – Policy actors communicate/ share LEDS benefits, (peer) learn on LEDS policy and modelling:

a. Partly delivered

157. The PSC asked for a peer learning plan. The plan was produced⁶⁹; it proposed that the project:

- establish subregional hubs: this was not implemented
- organise a regional workshop: this is the Accra close-out meeting (May 2019) that produced the Accra Action Agenda (of which participating countries each 'own' their part);
- organise a 2-day regional training: not implemented; in April 2019 UEM (Mozambique, via KNUST) was subcontracted: UEM prepared materials for a training planned in May 2020, (it was not implemented due to Covid-19). UEM also reached out to politicians in the partner countries, but found it difficult to get politicians engaged for peer learning online, and to provide baseline information on policies they intend to change (and modelling outcomes).

158. A 'progress report' on peer learning (June 2018)⁷⁰ lists 17 tasks, with various responsible parties, including KNUST and NREL. As part of the 17 tasks, the project launched the AFOLU

⁶⁹ [AfricaLEDS component 3 ActionPlan_27March2017.docx](#) obtained on 4 December 2021

⁷⁰ [Africa regional peer learning progress report June 2018.pdf](#) The report has no name of writer or organization. It is introducing: 'As a key component of the Africa LEDS project, NREL (via LEDS GP and AfLP) in partnership with UNEP and KNUST launched regional peer learning activities across project partners, and more broadly with country stakeholders throughout Africa to advance learning on cross-sectoral modelling and AFOLU sector priorities.

CoP in August 2018; during that launch it is noted that AfLP was *to be* invited to join the next meeting⁷¹. Later, the KNUST/UEM-CEAGRE Memorandum of Understanding requests UEM to produce a plan for AFOLU CoP⁷²; in April 2019, UEM reports⁷³ 'a late beginning of this process' (related to Africa LEDS) and that it provided a workplan in the Dropbox (N.B. this workplan was not found on the project website nor shared with the evaluation).

159. There were contributions to the AMCEN meeting (an entire day on LEDS), and presentations in the Conference Of Parties COP22 in Paris, and the Bonn Climate Change conference (SBSTA 50, UNFCCC).
160. There were more informal, direct exchanges between countries (e.g. between Mozambique and Ghana, and between Kenya, Nigeria and Uganda). Also Benin and Togo are mentioned to have taken part in the Africa LEDS project's close-out meeting.
161. The evaluation found no data on participant numbers (policy actors in particular) in online events, or in the Accra close out meeting.
162. In Cameroon, Côte d'Ivoire and DRC it was UNEP leading the learning efforts. The Evaluation found that in Côte d'Ivoire no person had taken part in any regional (peer) learning.
163. The continuation of international sharing of LEDS experiences is not evident (it is not clear who leads this, AfLP, UEM or KNUST).
164. **Finding 8 – There were opportunities for policy actors to share and learn on (the role of modelling for) LEDS policy; it cannot be established how many policy actors took part.**

Output 2.4 – Global stakeholders accessed LEDS training materials, case studies and experiences online:

a. Not delivered

165. There was the official AFOLU CoP launch with AfLP in April 2018. And in the May 2000 AfLP webinar capacity needs were identified, in short: i) mainstreaming LEDS, combining with policy on climate change adaptation and resilience; ii) also mainstreaming in M&E, adding LEDS indicators; iii) an approach needed on how to identify LEDS options and scope LEDS modelling. After that, the AFOLU CoP was not very active, with few contributions from the countries.
166. The project website, which was launched on the 4th of October 2016⁷⁴, reports on project activities. Training materials or presentations, however, are not found in the AFOLU section. It is therefore unclear how global stakeholders have accessed LEDS training materials and experiences online, as these seem not to be available.
167. Most sharing of materials seems to have taken place alongside workshops. In Ghana, some notice was taken of written contributions from other countries ('reading about progress in Mozambique').

The peer learning activities focus on lessons and emerging good practices from the Africa LEDS project and the novel approach being taken to catalyse climate action that maximizes both climate and socioeconomic aims. The document appears to be more action plan than report.

⁷¹ AfLP held an AFOLU CoP webinar in May 2020, the main findings are about mainstreaming LEDS in planning systems, adding LEDS-appropriate indicators and adapting M&E for this. AfLP also planned an online meeting on 9/9/2020 (no evidence that the meeting took place). The project reports 4 online sessions of this CoP in 2018. It does not refer to the Africa LEDS Project, so it may not be linked. The website's AFOLU page has not been updated since 2018. <https://ledsgp.org/2018/04/africa-afolu-community-practice/>

⁷² [KNUST and Edorardo Mundlane University.pdf](https://www.knust.edu.gh/wordpress/wp-content/uploads/2019/04/KNUST-UEM-CEAGRE-MOU.pdf) signed 4/4/2019 by UEM/CEAGRE, that is 6 months before project end.

⁷³ [REPORT LEDS Africa KNUST.pdf](https://www.africaleads.org/wp-content/uploads/2019/05/REPORT-LEDS-Africa-KNUST.pdf) May 2020? The UEM/CEAGRE report notes: 'In coordination with South-South-North and NREL, we developed the workplan for M&E, which was submitted for discussion and adjustments, given the late beginning of this process in relation to the LEDS Africa Project. The Workplan is provided in the shared Dropbox. The Evaluation did not try to find it be it; because of this 'late beginning of this process'.

⁷⁴ Following advise here <https://www.labnol.org/internet/search/find-publishing-date-of-web-pages/8410/>, searching for launch date,

https://www.google.com/search?q=inurl:https://www.africaleads.org&as_qdr=y25 was used. Searching from before 2016, <https://www.africaleads.org/attachments/article/152/NetworksPaper.pdf> selected 2016, found 4th October 2016

168. The CoP established on the website of AfLP was to be the place for sharing 'e-books' training & communication materials, and modelling tool adaptations. This did not happen.
169. The AfLP website shows slide presentations on LEDS from Mozambique and Zambia, but these presentations are not evidently attributed to the project; the Africa LEDS project is not named in these presentations. The webpage for the AFOLU CoP does not feature a plan.⁷⁵
170. ACTS Outputs - Nearly 3 months before project end date the ACTS project was signed, to upscale results. The objective was to 'leverage key endorsed enablers of scaling up low emissions development and enhance the lessons and products of the Africa LEDS project products in Uganda, Nigeria, Kenya, Cameroon, Benin, Togo, Senegal and other African countries. It will leverage clean energy & sustainable Ecosystems Based Adaptation (EBA)-Driven agriculture amalgamation as endorsed by AMCEN and demonstrated in Cameroon, Cote d'Ivoire for replication in Nigeria, Kenya, Uganda, Togo and other African countries.' This does not fit any specific result in the ToC. Applying lessons from Kenya and Cameroon, the results are:
- i. **Kenya:** in Kirinyaga 60 youth built solar dryers (used by >100 farmers); EBAgroPamoja with Rafiki bank engaged >100 actors in a new Innovative Financing Facility for clean energy (incl. for food processing, briquettes)
 - ii. **Uganda:** 60 youth produced and tested 15 dryers (farmers ordered), and 10 dryers were built with grants; Uganda National Bureau of Standards (UNBS) plans tests for adoption of dryers in national standards; an improved cassava variety made yields increase with 400% (could not be verified); a new microfinance facility approached 100-400 farmers
 - iii. **Nigeria:** a company was created following the example of EBAgroPamoja; Nigeria Bureau of Standards exchanged with UNBS on standards for solar drying.
171. Finding 9 – In the Africa LEDS Partnership website (AFOLU CoP), the contribution of the project to online access of materials is not evident.

Rating for availability of Outputs: Unsatisfactory

ii. Achievement of project outcomes

172. This section assesses the extent to which the project achieved the outcomes identified in the reconstructed TOC at Evaluation. It is important to note that the project's Description of Action did not present any outcomes and that in order to assess effectiveness, the evaluation team had to define the causal pathway of change based on the logical framework and narrative of the project document without increasing the project's level of ambition.

Direct Outcome 1 – Local socioeconomic actors (3 countries) validated benefits from the pilot projects:

Not achieved

⁷⁵ https://ledsgp.org/2018/04/africa-afolu-community-practice/?loclang=en_gb with presentations. No date, no list of participants. From other sources it is known that the webinar took place on 13/05/2020. No further webinars held: <https://africaledspartnership.org/2020/09/02/invitation-inaugural-meeting-of-the-revived-aflp-afolu-cop/> planned 9/9/2020. There is a concept note <https://africaledspartnership.org/wp-content/uploads/2020/06/Africa-AFOLU-Community-of-Practice-2020-final.pdf> but no minutes.

173. This outcome is linked to Output 1.1 which relates to the implementation of new or improved LEDS pilot projects by local socioeconomic actors and the demonstration and sharing of results in the 3 pilot countries. While several pilot projects were implemented in the 3 countries, the results were not fully demonstrated and shared (see also *Project Outcome 1 below*). Sharing results would require an assessment of socioeconomic cost-benefits linked at micro-level, corresponding to identified needs. For example, for cookstoves, various experts agree that health benefits related to the reduction of smoke are an important factor and should be counted as a benefit; also initial costs (buying an improved cookstove) should be factored in. In DRC, improved cookstoves were demonstrated and tested in the pilot projects, but a micro-level (i.e. user = household-level and compared to the BAU) cost-benefit analysis was not produced to be validated by local socioeconomic actors; the Evaluation found their buy-in was minimal and depending on subsidies. In the case of Côte d'Ivoire, the briquette production was still in an experimental stage and it was found that for households, they produce too much smoke (so the idea changed and briquettes are now to be produced for small industries – anyway production was halted). Most SRI farmers in Côte d'Ivoire explained how conditions (poor water control) would not allow SRI. In the case of Cameroon, the Cooperative stopped using the mill that was connected to the electricity grid.

174. **Finding 10 – There is no documentation suggesting that local socioeconomic actors were explicitly engaged to validate benefits (e.g. based on concrete data like cost-benefits).**

Project Outcome 1 – Policy taskforces (3) and LEDS champions (3-5 institutions) translated results from pilot projects, modelling results into concrete (endorsed) LEDS measures/policies and initiated implementation:

Not achieved

175. Pilot project and modelling results in Cameroon, Côte d'Ivoire and DRC were not presented to policy task force members in a way that they could feed into policy. The policy taskforces received the country reports, but these reports did not include policy options; these were yet to be formulated at the time of the evaluation. The Evaluator considers this may be because of challenges on both sides; on the modelling side, results were not yet ready or not of quality to produce a policy brief, and on the policy makers side, although there were signs of engagement, the modelling was not really 'owned' and/or not based on concrete policy gap analysis that would link the more strategic policy makers' questions more firmly to the modelling.

176. In Cameroon, the modelling is not yet conclusive (e.g. on the practices recommended for the cassava cropping system; the high-yielding variety may be a success, but agroforestry is not; biofertilisation alone may be insufficient to reduce soil loss that is so critical in cassava farming, and there is no business case yet for hydropower).

177. In Côte d'Ivoire, the LEDS practice is not yet convincing (briquettes still in research, SRI has major adoption challenges); the modelling thus lacking a socioeconomic anchor.

178. In DRC the modelling is yet to be finalised.

179. In Ghana the quality of modelling results is debated, the policy brief not yet produced.

180. In Kenya results are yet to be shared with policy makers (there is a challenge to quantify socioeconomic benefits)

181. In Zambia the policy brief is not yet produced.

182. The situation in Mozambique is different; the modelling exercise was aligned with policy makers' intention to invest in solar power for irrigation – but that is not new. What is new is that the need to improve modelling is entirely set in a context of reforming policy making; that it needs better MRV, and better data collection (for modelling) that starts from baseline information on what policy is needed, or policy gaps. In that way, the project showed what would be needed for modelling results to contribute to concrete LEDS measures/policies.
183. Finding 11 – There were no modelling results ready, at the stage of concrete, actionable policy recommendations, that could be of practical use for policy makers.
184. Direct Outcome 2.1 – Policy actors endorsed LEDS modelling for policy analysis:
Partly achieved
185. In Mozambique, policy makers are beginning to acknowledge how LEDS modelling can have potential to inform policies. The Ministry of Lands, Environment and Rural Development has expressed the intention to prepare impact and ('policy cycle') process indicators, to mainstream LEDS in the planning systems. It is using a wide definition of LEDS, combining climate change mitigation with adaptation, so this is rather about integration of Climate Change Adaptation and Mitigation (CCAM). Suggestions on how to do this have been produced, with details on planning as well as M&E, and it specifies indicators for each sector. These proposals are being shared nationally and online (via UNFCCC, Climate Investment Fund, LEDS GP). This initiative to reform the policy process (or cycle) is also reflected in the NDC operational plan (2018). This development is not a project result, however, in this context the LEDS analysis skills (modelling capacity) can contribute to this reform; the reform can create a need for LEDS modelling.
186. The Mozambique team identified three success factors: 1. LEDS modelling capacity comes at the right time, as policy process reform is taking place; 2. existence of direct (more informal, flexible, purpose-driven) inter-ministerial collaboration; and 3. politicians involved at all stages.
187. As for the other countries, the Evaluation could not find evidence of the LEDS modelling being incorporated or used in the policy cycle, in any systematic way. There is the Accra Action Agenda on LEDS for Africa, but it is not clear who leads the monitoring of its implementation.
188. The Project final report (p. 29) notes that the inter-ministerial task forces (of Cameroon, Côte d'Ivoire and DRC) are infusing project lessons documented in case studies into national low emissions development plans in agriculture, forestry and energy sectors. The Evaluation did not find evidence of this; in Côte d'Ivoire a core member of the policy team notes: "the LEDS practices (SRI, briquettes) still have to be demonstrated as successful".
189. Finding 12 – In Mozambique, due to favourable conditions or timing, an example is created in which modelling can find its place in the policy cycle.
190. Finding 13 – Unexpected positive outcome – The modelling exercises produced valuable lessons on how to increase the likelihood that a specific modelling project produces reliable and actionable results: 1. data availability and -quality (across sectors) did not match modelling data needs; monitoring systems need review, to match data needs for policy cycles (including LEDS modelling); 2. the challenges to move from modelling results to policy change underlines the importance of the planning stage to scope the modelling in relation to specific, concrete policy questions (linked to low-emission and needs of socioeconomic stakeholders).

Direct Outcome 2.2 – Country teams (7) acquired LEDS analysis skills:

- a. Partly achieved, i.e., skills to use and adapt tools have been acquired
191. The Evaluation cannot verify whether skills for LEDS analysis are adequate, but given the extensive reporting on it, that may be assumed. All country teams conducted LEDS analyses with adapted models/tools and extensively reported on the modelling exercises in the country reports. However, the Evaluation found that the analyses lacked context, i.e. links to policy gaps, and links to demonstrated socioeconomic (cost)-benefits at micro-level (e.g., BAU not clear, LED practices lacking justification or validation by users, or analysis excluding effects for other stakeholders along the value chain). Therefore, at macro-level there are many assumptions with insufficient foundation. Some examples follow:
 192. In Cameroon, it is hard to understand what the modelling work represents. The BAU are not clear, the indicators are not clear.
 193. In Côte d'Ivoire, the choice for SRI at first sight appears suitable; SRI is a well-known good practice, adopted in many countries. But the choice needs justification from a context; in Gagnoa, most farmers could not validate the SRI practice because they could not apply it in the circumstances, with critical challenges related to control over water. On the issue of briquettes, there are assumptions of job creation by producing briquettes, but this is not balanced by jobs lost by replacing charcoal.
 194. In DRC, the complex matter of improved cookstoves and -fuel (also discussed under Output 2.1) is given insufficient context analyses; the assumptions on how this affects deforestation are insufficiently clear (or reliable), and effects on other actors in the value chain are not considered (i.e. job creation is quantified, job losses elsewhere in the value chain are not considered yet this affects the most vulnerable population). The modelling itself is not completed, one aspect of the modelling is to be adapted to forecast project level impacts.
 195. In **Ghana**, the modelling is based on intended policy on improved cookstoves (a plan to introduce 1 million improved cookstoves) and it looks into energy efficiency and health (health effects are indeed important). The linking to wood-fuel plantations (changing land use) is where a stakeholder analysis is missing, and too many assumptions arise.
 196. In Kenya, the modellers have themselves concluded that the results so far are unreliable and can therefore not (yet) be used to influence policy. They also find that government lacks a sustained commitment for LEDS modelling, making improvement of the results uncertain.
 197. In Zambia, the modelling used a wide set of socioeconomic indicators (i.e. health and gender), and the report provides some input (barrier removal strategies) that can be used to develop policy briefs. But a policy brief had not yet been produced at the time of the evaluation.
 198. In Mozambique the modelling skills are adequately demonstrated but the political relevance is yet to be described (see Box 1).
 199. Finding 14 – The teams have acquired skills to use and adapt modelling tools.

Project Outcome 2.1 – Policy actors (7 countries) translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions:

- a. **Not achieved**

200. **Finding 15 – The Evaluation did not find evidence of LEDS analyses/modelling results being translated into improved policy decisions.**

Direct Outcome 2.3 – LEDS champions (3-5 institutions), country teams (7) created a regional, global peer network:

a. *Not achieved*

201. So far, **effective** leadership in the network still has to prove itself. The only champion identified by the evaluation, the UEM of Mozambique, took some initiative towards the end of the project, but the response was weak. It is not clear how the networking by AfLP (notably, the CoP on AFOLU) can be attributed to this project. Any continuation of the networking efforts might take place through the AfLP website⁷⁶, although this is still unclear. Neither the AfLP website nor the modelling work presented in its AFOLU CoP⁷⁷ page for Mozambique and Zambia refer to the Africa LEDS project. The AfLP AFOLU CoP inauguration was planned for 9th of September 2020, however, this seems to be on hold due to COVID-19.

202. The Project Final Report does not mention AfLP. It reports that the Project brought together 'the Africa **AFOLU** CoP' in 'several remote interactive learning sessions' to 'continue beyond the project' and 'will be anchored through partnerships'. There has been some sharing between Mozambique and Ghana on modelling. Also contributing to Peer Learning were the AMCEN breakfast meeting, contributions to the Africa Carbon Forum, and the projects' own Accra close-out meeting (May 2020); it included participation from 4 non-partner countries Benin, Nigeria, Togo, Uganda and yielded some practical policy suggestions (*Final Report; for details see sections 5.D ii. a,b,c*). There is no evidence of a lasting network on the AfLP website.

203. **Finding 16 – The Evaluation did not find evidence of a regional peer network.**

Project Outcome 2.2 – LEDS champions (3-5 institutions) leverage country experience and mobilise sustained LEDS commitment among 8+ partner- and non-partner countries (regionally and globally):

a. Not achieved

204. **Finding 17 – The Evaluation did not find evidence of sustained LEDS commitment among 7 partner- and other non-partner countries participating.**

ACTS outcomes

205. **Uganda:** The main policy outcome is the adoption by UNBS of the 'Market Incentives Guide for agro-industrialisation – Compliance guideline'⁷⁸ (guidelines conform to NDC/LEDS and EBA).

Rating for availability of Outcomes: Unsatisfactory

⁷⁶ AfLP was contacted, but no response was obtained.

⁷⁷ https://ledsgp.org/2018/04/africa-afolu-community-practice/?loclang=en_gb

⁷⁸ UNBS, 2020. Uganda Standard - Climate action market incentives for agro-industrialisation — Compliance guideline, first edition, ref. US 2241: 2020 [Climate Action Market Incentive for Agro-industrialization - Compliance guideline.pdf](#)

ii. *Likelihood of impact*

IS IV: Policy leaders (5 partner- & 2 non-partner countries at least) endorsed and used the LEDS evidence-base to develop concrete LEDS policies, and some countries initiate implementation:

- a. Not likely in the near future (2 years); appreciation for the project is yet to translate to concrete policy change; no achievement at the level of Project Outcomes⁷⁹
206. **The likelihood of impact depends on how closely the modelling is linked to concrete policy issues or processes.** The situation in Mozambique makes it the most likely country to actually use modelling to inform policy change. The country is revising its policy processes to mainstream CCAM, and modelling can have its place in a policy process. The (re-)definition of indicators for this will also help modelling and vice versa: modellers would express what data/indicators they need⁸⁰. This context makes it more likely that modelling will take its place to inform LEDS policy.
207. **There are also risks, where the focus of LEDS modelling is less strategic** and more on a specific innovation or practice (e.g., a type of briquette, or plum trees in cassava – modelling for applied research) making it hard to link a practice (no matter its qualities) back to a strategic level.
208. **A narrow focus on a specific practice** is also out of step with current efforts to assess **emission and socioeconomic effects along an entire life cycle or value chain**. Job creation in one place may well cause job losses in another place. Some practices may be emission-reducing from user perspective (cookstoves), but contributing to deforestation in another place (the biomass controversies).
209. In **some** countries, e.g. Kenya, the subject was not a narrow one, e.g. the modelling was to assess the effect of an entire policy, in this case, the agroforestry law. However, this analysis was still limited in the way it only looked at the intention of the law and not the context or reality on the ground (the law was from 2009).
210. **ACTS - in Uganda** the production of pro-LEDS guidelines by UNBS is a good policy proposition. But the **likelihood** of further progress on pro-LEDS quality standards depends on mainstreaming; the National Standardization Strategy (2019-2022) gives no priority to environment-related standards, and the more widely used August 2020 Guidelines on SME, while covering a lot on product quality, do not mention effects of different production or processing methods.
211. To **conclude**, more generally in this project, the lack of context analyses before modelling makes it hard to avoid the risks above described, and unlikely that the modelling will have much effect on policy making.

IS III – Policy actors (7+ countries) used LEDS evidence as a foundation to strengthen NDCs implementation:

212. A causal pathway from modelling/evidence-based LEDS measures and policy decisions (Project Outcome 2.1) towards strengthening NDC implementation could not be established. First, because Outcome 2.1 results could not be established. Second, because the evaluation could not establish that policy makers were intentionally and systematically using Africa LEDS modelling results to inform specific parts of NDCs; one

⁷⁹ Using the Excel instrument 'Livelihood of impact', file [Likelihood of impact 201214.xlsm](#)

⁸⁰ Funding, but also relevant data. It is telling that so far, only Mozambique produced the NDC operational plan, with indicators (p. 103-110).

difficulty was also that no documentation was available on draft versions of the second NDCs in spite of repeated efforts by the consultant to be provided such.

213. The UNEP Evaluation Office notes that submissions from implementing countries were presented by the Project Manager during the process of commenting on the draft version of this report. These submissions refer to ways in which the project supported the revised NDCs. While these contributions are much appreciated they do not compensate for the lack of clarity in the intentions of the project or overturn the weak evidence of the project's causal pathways.

214. **IS II – Policy actors (3 primary partner countries) fully implement a set of LEDES policies and plans within a collaborative regional context:**

a. Not likely in the near future; regional collaboration still at early stage.

b. The **collaborative** regional context is not evident. For politicians to take up any good suggestions arising from the pilot projects, it requires that the key stakeholders engage (Assumption 2: socioeconomic actors advocate). Taking the example of SRI in Gagnoa, Côte d'Ivoire, the local administration (intent on developing land administration) would engage with the farmers (who are not owning the paddy wetland) to devise ways to improve their tenure security, so they could invest in better water management. And also there would be support to improve catchment (water) management. All this to make SRI economically viable, less risky in this context, so that upscaling can be likely.

IS I – Transformation: Socioeconomic actors⁸¹ engaged in the pilot projects and at wider scale are empowered, and apply LEDES⁸², good practices beyond project end: Unlikely

215. At user level the socioeconomic actors are engaged as beneficiaries of pilot-project benefits, not really empowered to benefit beyond that stage. The private sector is also not empowered in these projects.

Rating for Likelihood of Impact: Unlikely

Rating for Effectiveness: Unsatisfactory

E. Financial management

i. Adherence to UNEP's financial policies and procedures

216. The EC funded the entire project income of US\$ 3,521,266.84, as stated on 20/11/201983. Expenditures were not recorded per component or output as UNEP's financial system, UMOJA, does not have this feature enabled and the project team did not record it manually.

217. There is a budget line 'Transfers and Grants' with expenditure of US\$ 3,088,636.10. Most of this is for subcontracts (Table 8), the remaining US\$ 38,636.10 must be for grants in relation to the demonstrations in the three countries (Cameroon, Côte d'Ivoire, DRC). The

⁸¹ These are actors along the value chain implicated in pilot projects; stakeholder analysis is to identify current and potential actors along the value chain, including producers, service providers, processors, transporters, investors, consumers, media, and communities governing land and natural resources that provide for the value chains. With special attention to vulnerable groups, gender.

⁸² LEDES defined as: Low Emission (mitigation), climate-resilient (adaptation), resource efficient socioeconomic just Development Strategies

⁸³ [Interim Certified Financial Statement period ended 15 Nov 2019.pdf](#)

Evaluation found no evidence of Capacity Needs Assessment for the implementing partners / subcontractors.

Table 7: Project funding sources (in USD)

Funding source	Planned funding	% of planned funding	Secured funding	% of secured funding
<i>Cash</i>				
Funds from the Environment Fund	0	0	0	0
Funds from the Regular Budget	0	0	0	0
Extra-budgetary funding from the EU	3,420,001	100%	3,521,266.84	103%
<i>Sub-total: Cash contributions</i>				
<i>In-kind, and co-financing: not required. There is recognition that countries spend by attending to the project, but it is not required to be recorded.</i>				

Subcontracting to Implementation Partners (IP)

218. Of the total project budget of US\$ 3,420,001, 89% (US\$ 3,050,000) was subcontracted: 52% to KNUST, 28% to NREL/Alliance for Sustainable Energy, and 9% to ACTS. This is about US\$ 500,000 more than what the budget indicated for subcontracts (US\$ 2,557,000). The evaluation notes that this is within the allowed 25% variation limit.
219. Table 8 below presents the subcontracts used for project implementation. KNUST sub-sub-contracted US\$ 693,000 (39%) of its budget to seven countries, and US\$ 100,000 (5,6%) to the Eduardo Mondlane University in Mozambique. Some country sub-contractors have further sub-contracted work to local entities.

Table 8: Subcontracts

Subcontractor	Start date	End date	Amount (US\$)	Financial report	Reporting
KNUST 1 'LEDS implementation' ⁸⁴	07/06/2016	1/5/2019	407,000	Yes, 30/6/2019	
KNUST 2 'regional' ⁸⁵	31/05/2016	1/5/2019	577,500	Yes, 30/6/2019	
KNUST 3 'modelling' ⁸⁶	31/05/2016	1/5/2019	808,500	Yes, 30/6/2019	
Total KNUST budget			1,793,000	(=89% of total)	
KNUST subcontracts					
Cameroon: ADEID	8/8/2016	Dec. 2018	210,000	no	Country report
Côte d'Ivoire: DEVRS (→ ANADER)	11/1/2017	Aug. 2018	150,000	In Final Report	Country report
DRC: MECNDD	26/1/2017	Aug. 2018	150,000	In Final Report	Country report
Ghana: EPA (Envir. Protection Agency)	16/6/2017	May 2018	46,000	no	Country report
Kenya: MENR	no date	May 2018	46,000	no	Country report
Mozambique: MITADER	25/8/2017	May 2018	47,000	no	Country report
Zambia: MLNR	15/6/2018	May 2018	46,000	no	Country report
EMU/CEAGRE (MoU)	4/4/2019*	31 Dec. 2019	100,000	no	not required
Total KNUST sub-subcontracts			793,000	(=44% of KNUST)	
NREL/Alliance for Sustainable Energy	12/12/2016**		957,000	yes***	yes
ACTS****	19/8/2019	31/3/2020	300,000	Yes (all spent)	all 5 deliverables

*: this contract has no reporting obligations; **: valid till 28/6/2020; ***: received 700,000 USD, spent 640,859 USD; ****: upscaling lessons learned in Cameroon & Kenya and additional countries: Uganda, Nigeria, Benin, Togo, Senegal.

⁸⁴ The contract is not signed: no starting date. The Financial report states the starting date as 7/6/2016. The cash requests puts PCA start at 7/6/2016.

⁸⁵ The contract is not signed: no starting date. The cash request puts start at 31/5/2016

⁸⁶ The contract is not signed: no starting date. The 9/7/2019 Cash request states it is a PCA starting 31/5/2016.

All project legal agreements were signed by the Regional Director, as per UNEP guidelines⁸⁷, but it must be noted that the consultant did not receive a signed version of the KNUST contracts.

220. Furthermore, UNEP guidelines require that the PM, in collaboration with the FMO, obtains feedback from partners on project performance. The 2014 guidance⁸⁸ notes that Divisions must have a mechanism for obtaining collective feedback from Partners on project performance. This Evaluation understands that this 'mechanism' is primarily through the country reports, directly to UNEP and KNUST. The plans attached to the contracts were approved by both UNEP and KNUST, where the latter mostly played the logistics part.
221. The Description of the Action refers to IP grants and in the contracts the grants appear to be purely transactional: payment to deliver project activities; it does not show much in terms of partnership, where the implementing partner would share responsibility for (and report on) results. For all IP subcontracts or Project Cooperation Agreements (PCA) the UNEP template was used.
222. The partners' progress-report is more or less annually to coincide and support annual cash advance requests (not quarterly as required, Clause XI); this is discussed in section 5.G.
- iii. Quality of project reporting.*

For each contract, there was only one financial report available, contrary to what is required by the agreement: quarterly financial reporting (Clause IX).

Rating for Adherence to UNEP's financial policies and procedures: Moderately Unsatisfactory

iii. Completeness of financial information

223. The financial information received by the evaluation was mostly complete. As UMOJA does not record project expenditures by outputs or outcomes, this was not available.
224. What was not received or not complete: the copies of the three KNUST contracts provided to the evaluation are not signed⁸⁹ (a total of 1.8 million USD); UNEP disbursements (funds transfer) documents were not received.

Rating for Completeness of financial information: Moderately Satisfactory

iv. Communication between financial and project management staff

225. The communication was to the satisfaction of both Fund Management Officer and his team, and Project Manager. There were no issues reported with financial reporting, or disbursements, or with the quality of financial reports. There was sufficient communication ('engagement') between the PM and FMO.

Rating for Communication between FMO and Project Manager: Satisfactory

⁸⁷ [PROJ-10781991-121120-1500-770.pdf](#) A Division Director/Regional Director is responsible for signing legal agreements. And can delegate part of his/her authorities with clearly established 'tolerance levels' and accountability. (tolerance on time, budget, degree of deviation allowed of project output delivery). Effective delegation empowers adaptive management and avoids 'micro-management', while still retaining accountability.

[140109_Ofo_Guidelines_Use-of-UNEPs-standard-legal-instruments REVISED.pdf](#) Division Director/Regional Director subject to their respective delegations of authority. Unless delegation stipulates authority for signing PCAs, **all PCAs (including their amendments) will be signed by the ED.**

⁸⁸ UNEP, Jan. 2014. Guidelines for the Use of UNEP's Standard Legal Instruments, revised 9 January 2014.

[140109_Ofo_Guidelines_Use-of-UNEPs-standard-legal-instruments REVISED.pdf](#)

⁸⁹ The Project Team commented that signed versions exist but these were not the ones provided to the evaluation.

Table 9: Financial Management rating table

Components	rating*	Evidence / comments
1. Adherence to UNEP's policies and procedures Any evidence that indicates shortcomings in the project's adherence to UNEP's, or EU's policies, procedures or rules	MU	The frequency of reporting (mostly annually) was well below what was required in the PCA (quart.) The Evaluation received financial reports: only 1 for each KNUST contract, 1 for ACTS, 2 for NREL both signed on 13/11/2018. UNEP rules for IP reporting should demand that reporting is result-based – to match info needs.
2. Completeness of project financial information	MS	FMO: All financial reports delivered as required and 'available on record'.
Provision of key documents to the evaluator (based on below A-H)	Ok	
A. Co-financing and Project Cost's tables at design (by budget lines)	n.a.	
B. Revisions to the budget	Ok	No budget revisions
C. All relevant project legal agreements (e.g. Small Scale Funding Agreement - SSFA, PCA, ICA)	Ok	According to FMO
D. Proof of fund transfers	Ok	According to FMO
E. Proof of co-financing (cash and in-kind)	n.a.	
F. A summary report on the project's expenditures (by budget lines, project components and/or annual level)		FMO: There is the Nov. 2019 financial report. The final financial report to EC will be submitted after completion of the TE; any unspent funds will be returned to the donor as per agreement
G. Copies of any completed audits and management responses	n.a.	No audits
H. Any other financial information that was required for this project	no	No
3. Communication between finance and project management staff	S	FMO had no further issues to report here
Project Manager and/or Task Manager's level of awareness of the project's financial status.	Ok	FMO had no further issues to report here
Fund Management Officer's knowledge of project progress/status when disbursements are done.	Ok	FMO: Satisfactory
Level of addressing and resolving financial management issues among Fund Management Officer and Project Manager/Task Manager.	Ok	FMO had no further issues to report here
Contact/communication between by Fund Management Officer, Project Manager/Task Manager during the preparation of financial and progress reports.	Ok	FMO had no further issues to report here
Project Manager, Task Manager and Fund Management Officer responsiveness to financial requests during the evaluation process	Ok	FMO had no further issues to report here
Overall rating	S	

*: HS = 6; HU = 1

Rating for Financial Management: Satisfactory

F. Efficiency

226. The various monitoring and reporting quality issues (§108 on getting outputs clear, §141 on referring to studies that are not available, §144-145 on participants not counted, §147 on modelling results unclear, §148 on not presenting a ToR for modelling, and the entire section 5.G.iii) had an impact on project efficiency, as it would take the readers extraordinary efforts to find the information needed and to understand what is written. This would hamper and delay for example, the Project Steering Committee to understand what is of essence for their role. Weaknesses in the project's reporting system are

apparently offset by having numerous monitoring visits; and these are not only costly but also contribute to increasing travel-emissions. This is difficult to justify given that the visit reports provide little information on progress (see also 5.G.ii).

227. In terms of timeliness, the project had to undergo a 6-month no-cost extension to have sufficient time to wrap up project activities⁹⁰. During its implementation, the project faced delays in DRC and Cameroon due to insecurity, thus affecting its efficiency. In DRC it forced the project to change the pilot project location (after numerous studies were already carried out in the original location); this also delayed work in the new locations. In Cameroon, it prevented project visits⁹¹.
228. In terms of appropriate focus, there is an efficiency point to make on the subject of scoping the LEDS **modelling work: context analyses**. This is where guidance was to be provided as per KNUST sub-activity 2.2 (004 contract): Lead development of scoping reports/situation assessments for LEDS modelling [...] outlining priorities, needs, stakeholders, a.o. to inform country-specific activities.
229. With these contracts, the evaluation would expect KNUST to lead and assist the countries produce the Terms of Reference for modelling, with references to a modelling research question from policy makers and a description of the LEDS practice (the basis for modelling): how it was identified, how it responds to needs of LEDS practitioners, and any limitations; such ToR - with KNUST leading - would be a key deliverable for KNUST. It only found one document corresponding to this, the capacity needs assessment report from Cameroon⁹², which covers an extremely wide scope (all sectors) and does not tie needs to any specific stakeholder group/organisation. It identifies capacity needs for 'Activities', such as: "Forestry", "Quality", "agro-industrial technologies" or "ecosystemic and sociologic choices of renewable energy". For each, a short description of capacity gaps for 'civil society', 'ministries' and 'universities' is given (not any named in specific). It then discusses that **'the Task Force leading implementation of LEDS will be beneficiary of LEDS capacity building, baseline emission GHG, modelling and climate information.'** **But we are yet to know what the Task Force's capacity building needs are.** The evaluation finds that this kind of 'all-sectors' needs assessment is too superficial and vague, and the scope not in proportion to any capacity gap that the project could realistically bridge, and not contributing to identification of pre-existing institutions, agreements, partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects, to increase project efficiency.
230. At the level of implementing partners, both KNUST and NREL received nearly 1 million USD to provide TA (besides this, KNUST was also to administer and monitor contracts and payments to 7 countries). From reports and interviews the Evaluation understands that KNUST's main part was considered to be 'logistics' (mostly contract administration), and this also shows in its reporting, in the fact that peer-learning was eventually contracted to UEM in the project extension period, and the impression that project formulation at country level was mostly led by UNEP itself (as were monitoring visits). That leaves KNUST's TA part in reality very small and the Evaluation finds this subcontract inefficient.

⁹⁰ Project Manager, personal communication 28/05/2020.

⁹¹ Conflicting information was received on the impact of the insecurity; that is was not a factor in hindering work and yet the hydropower work was reported not to have been completed because of the conflict.

⁹² [STRATEGIES FOR « LEDS » CAPACITY BUILDING IN CAMEROON.pdf](#)

231. NREL has reported on the TA it provided to 6 countries (Cameroon opted out), and named the experts involved in this; the tools they use are all referenced and can be found online; all interviews confirm the contributions of NREL, generally as relevant and adequate. However, the reports do not show how many people were trained, or any evaluation of training.
232. KNUST reports on its country-contract administration work, i.e. (regional) liaising/learning, communication products (no specific product mentioned) and work that the country-subcontractors are ultimately themselves responsible for (their work plans). Leading scoping reports /situation assessments, such as the Cameroon one described above, would be a most important TA contribution from KNUST to the countries (as detailed in §218, from the KNUST contract). The Evaluation has insufficient documentation and also based on interviews it cannot find that KNUST delivered such support/TA to the countries.
233. At country level, the project could have been more efficient if complementarities with other initiatives, programmes and projects had been sought, to build on available expertise and assessments.
234. To conclude, efficiency is unsatisfactory, especially in relation to subcontracting. Implementation Partners made good efforts but the project results do not reasonably match the resources spent. The roles of KNUST and UNEP are duplicative, and plans/contracts, as well as reports, lack clarity on results.

Rating for Efficiency: Moderately Unsatisfactory

G. Monitoring and reporting

i. Monitoring design and budgeting

235. The Description of the Action had no monitoring plan, instead, it only included a table with some activity-milestones with delivery dates (unrelated to outputs), and a budget for 'reporting and communication' (44,255 USD) and for 'evaluation' (50,000 USD).
236. The monitoring system was not result-oriented. At the level of implementing partners it allowed very simple activity/budget plans, without indicators. In addition, reporting was limited to activities in spite of the PCA contract requirements (Clause XI: "Progress Reports shall include the status of activities, outputs delivered, results/impacts achieved and an assessment of whether the Project is being implemented in accordance with the agreed Project Implementation Plan and the Project Budget, and a description of any obstacles to full and timely implementation of the Project."). This means that essentially, TA contracts deliver learning activities but do not report on essentials like the name of the organisation, training needs, numbers of participants/subject and participants' scores to assess the quality of the training. The PCA contracts do not have monitoring plans.
237. Poor reporting also applied to the sub-sub-contracts between KNUST and implementing partners in 7 countries. The contracts require bi-monthly reporting, on activities and outcomes, but the contracts do not indicate which activities and outcomes. The country action plans only present activities/deliverables, no outputs or outcomes, no monitoring plans.
238. For example, the Ghana deliverables are: 1) Deliverable 1: Established / updated emissions baseline inventory for priority sectors and developed monitoring indicators and reporting

framework with training and capacity building provided; and 2) Deliverable 2: Long term LEDS policy planning analytical framework established [...] Model(s) adapted, capacity building [...]. The Ghana final report does not say anything about an emissions baseline inventory for priority sectors⁹³, does not report on indicators that were identified, and not on any analytical framework – and that is strange as the analytical framework pops up right at the beginning, as project objective, aiming "to establish an analytical framework to facilitate long-term LEDs policy decision making."⁹⁴

239. More observations on monitoring design will be presented in section iii, but the point here is that the absence of a monitoring design, or its weaknesses, which is obvious in the reports and also pointed out by the EU, do not appear to have been corrected during implementation.

Rating for Monitoring design and budgeting: Unsatisfactory

ii. Monitoring of project implementation

240. The project did not establish a monitoring system nor produce tangible baseline data, such as Capacity Needs Assessments⁹⁵. There was no systematic monitoring of stakeholder participation.
241. Monitoring was conducted through annual progress reports. Workplans were also not developed, other than the country action plans. There was no documentation on context analyses available, and apparently there was limited or no identification of stakeholders, beyond 'farmers' or 'smallholders'. The various project documents seem to avoid naming any stakeholders, and this is how phrases like 'collaboration with potential sources of agriculture waste'⁹⁶ appear.
242. The project did not undergo a Mid-Term Review or assessment.

Supervisory missions were carried out by the project team to all the countries. The Evaluation had access to 17 mission reports, of which 15 were for country visits, see table below:

Table 10: Supervisory missions

Date	Country Visited
Cameroon	July 2016
DRC	September 2016
Ghana, Mozambique, and Zambia;	March 2017
Ghana	April 2018
Mozambique	May 2018
Zambia (2 versions of a report)	October 2018
Ghana	October 2018
Katowice, Poland	December 2018
Brussels, Belgium (LEDS summit)	September 2019

⁹³ It is also rather ambitious to deliver this.

⁹⁴ A description of what the analytical framework is, from DRC report [Africa LEDS project - Component 2 - modus operandi \(FGD\) - DRC.docx](#): "a mosaic, comprising requisite modelling technical, technological & tactical capacity integrated into decision processes of relevant line ministries.

⁹⁵ The Cameroon capacity needs assessment does not assess the capacity of directly involved partners. And other needs assessment was done in the country inception meetings (source: RM, 03/12/2021) but there it is not clear what capacity is needed for who. E.g., the DRC inception report notes 'involvement of all relevant ministries' as a capacity need at strategic level. And at operational level 'involvement of traditional partners and other experts in new technologies, all relevant ministries and other stakeholders (CSO, etc.).

⁹⁶ Côte d'Ivoire country action plan.

243. The country mission reports, however, did not provide much detail on progress towards results and the reporting did not match project planned results (the Description of the Action only had outputs and 'high-level results'). For example, the Zambia March 2018 report only notes that the policy task force is being formed, and that there is progress in establishing NDC implementation policy decision models i.e. the I-JEDI modelling tool is shortlisted. The Zambia October report only notes: "The S/M assessed progress" (and does not record the progress).

Rating for Monitoring of project implementation: Unsatisfactory

iii. Quality of project reporting

Reporting to the EU

244. **Relevance of the content for the readers (policy makers, modellers, UNEP, EU)** – Large parts of UNEP and country-level reports are dedicated to modelling details; modelling results are relevant, but not all readers will not read this in such detail and much of this could have been placed in the Annex (the summary (1.5) presents modelling results at length, and 6/18 pages on Cameroon).
245. EU Zambia and COMESA jointly observe⁹⁷ that it is not clearly reported to what extent the modelling informed policy priorities or helped build strong analytical frameworks for national policy decision making⁹⁸.
246. **Reporting** structure – Comparing the required project reporting instructions (Project Agreement template Annex II and UNEP guidelines on reporting⁹⁹) with the Final Report¹⁰⁰, it is observed that the reporting structure has several weaknesses. The context section does not mention the budget, the implementing partners (also not elsewhere in the report), nor the UNEP PoW subprogramme to which the project contributes. Several duplications were also found in the reports; for instance, the visibility and communication section is duplicated in 1.3 and chapter 4. The reports do not capture any valuable benefits in terms of lessons, as they do not identify any project weaknesses, gaps or shortcomings.
247. **Reliability** – Some of the reporting does not correspond with other findings (findings found in further details deep down in the final report, in other reports and from interviews). Examples:
- Cameroon, Jakiri reports on "linking a micro-hydro plant to power milling of cassava"; the evaluation found no evidence of this;
 - Cameroon results were "compiled into case studies and shared with policy makers through the Ministry of Environment that convenes the interagency policy taskforce."
 - Case studies: these are not separately documented; the evaluation found that these case studies refer to some paragraphs in the country reports describing the pilot projects.
 - The report was shared, but no policy discussion were held; modellers indicated that modelling results were still insufficient to draw lessons and formulate concrete LEDS options for policy makers.

⁹⁷ Filename: [Africa LEDS Final Report EU comments.docx](#)

⁹⁸ Mitigation Action Plans and Scenarios (MAPS) Africa does not refer to the project <https://www.africaportal.org/publications/agricultural-emissions-mitigation-understanding-modelling-and-policy-implications/>

⁹⁹ [Template \(4\)- Annual Project PROGRESS Report 2019 131219.docx](#)

¹⁰⁰ [EU-UNEP Africa LEDS Project Final Report 17 September 2019.pdf](#)

- Direct Outcome 2.2 refers to modelling **and communication of results** (in the description of the Action: 'communication of LEDS benefits' to policy makers). The final report states that the project "has helped to inform investment policy decisions and contributed to implementing the NDCs since the selected project is an NDCs one contributing to the activity greening." The evaluation could not find evidence of this. At regional level some policy makers were *informed of modelling results* (Accra and AMCEN meetings 4 countries had some general policy propositions¹⁰¹), but at country level, if there were meetings to share results, these were not documented, and **no specific policy positions were documented** beyond those presented in Accra. Reports and interviews indicate that in several countries, key policy makers are yet to be informed.
- The milestones for LEDS planning and implementation activities are *all* marked as 'complete', however, case studies are not documented separately (they are in the country reports), and not all planned peer-learning and networking was implemented.
- Solar drying of cassava is presented as an emission-reducing practice (the alternative suggested is 'wood-fuel drying'); the Evaluation found the BAU is sun-drying on raised beds.

Reporting by Implementation Partners

248. The Evaluation found that not all reporting requirements, as stipulated in the signed legal agreements, were met by implementing partners. Under the reporting requirements of the signed Project Cooperation Agreements (PCA), 'the progress report should include the status of the activities, outputs delivered, results/impacts achieved...' However, reporting was done **on activities only**. Quarterly reporting is required for all Implementation Partners, and is to be **on results**, but as most of these were not delivered, reporting focussed on activity level. An overview of the Implementation Partners' contracts is already provided in 5.E.i.
249. KNUST contracts¹⁰² are essentially about coordination of, and knowledge sharing between the projects in the countries, **and supporting prioritisation and further design** of LEDS measures; the reporting is however limited to reviewing work plans, signing subcontracts, with only very brief references to project results in the countries, like 'pilot/demonstration projects executed' and no reporting on KNUST's contribution to prioritisation and further design of LEDS measures.
250. An overview on the KNUST reporting is provided in *Table 23*. KNUST did not produce quarterly reports as required in the contract (clause XI). Instead it produced, for each contract, three interim progress reports (2016, Oct. 2017 and July 2019) and 11 days after the last interim report, the near-identical final reports¹⁰³ for the different agreements with a focus on activities.
251. Activities and sub-activities in the reporting did not correspond with those in the contract. The reports contain several inaccuracies, for example, the Evaluation found that 'delivered'

¹⁰¹ General policy propositions on LEDS: Cameroon: i) import electric motorcycles; iv) enhance ICT in agriculture value chains; Côte d'Ivoire: i) master-plan land use in 2030; ii) promote EBA/land-intensive practices; DRC: i) replace wood-fuel by renewables (biogas, hydro, solar, wind, biomass); ii) invest in low-carbon infrastructure; iii) consider effects of energy transition on community development, employment; Mozambique: i) Include agroforestry and solar-powered irrigation.

¹⁰² In the UNEP records the KNUST file names are confusing (contract numbers and -names mixed up). For clarity this report uses adapted filenames, starting with '004', '005' & '006' (referring to contract-numbers of the 3 KNUST contracts).

¹⁰³ The contract final reports, respectively for contracts 1, 2 and 3 cover the period 07/06/2016-30/06/2019 (1), and 31/05/2016-30/06/2019 (2 & 3).

funding proposals have not been developed¹⁰⁴, 'completed' Cameroon demonstrations are incomplete, 'monitoring plans', and a 'modelling data and tools repository' do not exist, different reports contradict activity completion dates, some activities are missing, and others do not correspond with the contract. The assessment of the KNUST reports is presented in Annex VIII, Table 23.

252. According to the Project's Description of the Action, NREL is implementing for LEDS GP with a broad assignment to 'lead implementation in 8 countries'. The NREL contract was limited to training (capacity building) in-country modelling teams on modelling and adapting models, and on communicating evidence and contributing (materials) to regional peer-learning¹⁰⁵. NREL was also instructed by the project team to only offer technical inputs on modelling and avoid dialogue on policy.
253. The ACTS contract was signed in the month prior to the finalisation of the Africa LEDS project Final Report, however, in the Africa LEDS Final Report ACTS is not mentioned. The ACTS final report does not make it clear to which Africa LEDS results it contributes (see ACTS results in Annex IX). Nevertheless, ACTS' work on quality standards contributes to Project Outcome 2.1. Generally, the report is not that clear¹⁰⁶.
254. Clarity of content – The reporting shows little consistency in explaining a context, and often descriptions and distinctions between BAU and the proposed LED alternative are unclear or incomplete. The June 2018 peer learning progress report only provides the one online peer learning session date, no details on participants. It contains a plan, starting in March 2018, and in June 'collaboration with Hub institutions' (sub-regional) not named.
255. The 7 country reports and KNUST reporting overlap. E.g., the Côte d'Ivoire report notes collaboration with FAO-CI; in the KNUST report this is equal to 'partnerships with international initiatives'; KNUST did not itself contribute to implementation in Côte d'Ivoire (apart from sending money) neither connect with FAO-CI. Another example is the 004-contract report that proposals to seek funding were delivered by June 2019; the Evaluation found no proposals, only initial ideas in a short slide show¹⁰⁷.

Country reporting

256. KNUST subcontracted 7 country level partners as well as the UEM (*Table 8: Subcontracts*). Contracts with the countries are mostly identical; the deliverables (2 per component) are copied from the countries' action plans; differences are only in details related to country priorities and actors. The contract requires end-of-year reporting on activities and "the results of the Project as against the objectives" – this may refer to the country action plan aim: establish a strong analytical framework to facilitate long-term LEDS policy decision

¹⁰⁴ This is a deliverable in the KNUST contract 004, activity in Annex A-II: "fundraise with other institutions to support expansion of the work." The same in KNUST contract 006, and in the work plan is added: "Lead calls and meetings with potential funders and prepare a biannual report on fundraising efforts and opportunities". Instead a presentation with some ideas was produced (but not by KNUST): **Opportunities for Africa LEDS Project scale up – linking agriculture and energy** (7 slides, no date) [Africa LEDS scale up slides .pdf](#) (source: RM, 3/1/2021)

¹⁰⁵ Somewhere in the NREL contract there is 'LEDS plans and measures in 3 partner countries with high-level government buy-in and stakeholder engagement' which seems out-of-place, an outcome-level phrase from the Description of the Action, because NREL was asked to avoid dialogue on policy and had no role in ensuring high-level government buy-in; the connection between modelling exercises and government buy-in is not evident.

¹⁰⁶ For example: "various clean energy solutions [...] decentralized to power various levels of EBA-sourced agro-value addition", "enterprise collaborations in decentralising clean energy and EBA agro-approaches to green agro-value chains established with demonstrable youth empowerment" is supposed to clarify who are to collaborate; "finance institutions incentivised to develop risk sharing facility to indemnify financing clean energy and EBA/agro-value addition enterprise actions" not clear if this is a credit insurance for entrepreneurs; and where there is a plan for "facilitating and developing market incentives and operationalisation of the same for scaling up EBA and clean energy", the corresponding result is not about incentives, but about government-regulated standards for solar dryers (minimum moisture requirements); it is unclear whether producers need such regulation.

¹⁰⁷ Africa LEDS scale up slides_.pptx presents just ideas similar to the Description of the Action: 1. Côte d'Ivoire and Mozambique can serve as champions to enable replication; 2. Key activities for clean energy agriculture could include a. support 10+ countries with geospatial mapping of opportunities, and develop intersectoral policies, strategies to support farmers and investors; b. remote TA to 10-20 countries; c. expanded peer learning, knowledge sharing through the AFOLU CoP. One case from the CoP webinar (solar pumps/irrigation). Suggestions for Côte d'Ivoire rice value chain pilot (modelling).

- making & implementation (consistent with country's priorities, including those stated in NDCs).
257. UNEP had a key role in managing the quality of country reports, in line with deliverables, because these reports go to donors.
 258. Country reporting was on activities, and was generally not tied to contract deliverables (the Ghana report being the exception). Apart from pilot projects in the 3 countries, nearly all results there can be summarised as activities or exercises to strengthen capacities for LEDS analysis and modelling, linked to the Project's Output 2.2 (nearly all of the narrative is on modelling results).
 259. Important information gaps in the IP reports from the countries are found. The reports do not present context analyses; relevant other initiatives are not identified e.g. past initiatives in Côte d'Ivoire to promote SRI. In some reports the modelling results are presented as an amalgam of figures, often with unclear distinction between macro- and micro-level indicators and results.
 260. With regard to results, here are areas where reporting could have been done better:
 - Output 1.1: insufficiencies in comparing a pilot LED practice versus BAU, on the issue of cost-benefits and how the socioeconomic stakeholders validated these
 - Outputs 1.2 and 2.2: Countries' needs for LEDS capacity building are not presented
 - Output 2.1: Country action plans suggest these deliverables: 1. modelling indicators, -baseline, reporting framework; 2. establishment of LEDS policy planning analytical framework. But the reports, although presenting indicators, are not clearly organising these; no report explains what a 'LEDS policy planning analytical framework' could look like; not all reporting clearly distinguishes results at macro-, lifecycle/value chain- and micro/user level
 - Output 2.3, Policy actors' involvement and -peer learning is not well covered in any report and no participant numbers
 - Output 2.4: Reports do not cover what communication materials, accessed by how many
 - Project Outcome 2.1: On evidence-based policy decision making, policy change propositions are at most an idea (Ghana final report¹⁰⁸) or an untenable claim (Zambia¹⁰⁹).
 261. Generally, the country- or KNUST-sub-subcontract reports are long and difficult to understand, with some information that is misleading.¹¹⁰
 262. The most remarkable issue with the reporting from countries is the limited reporting on results. UNEP Interim and Final Report templates for legal agreements with Implementing Partners only require *activity level* reporting. While Project Management considers that the

¹⁰⁸ Ghana final report p. 37 added section (not featuring in the table of content) named: Integrating models into policy decision frameworks through the NDCs working group. This section is only projecting "ideas for a way forward": to make modelling results more reliable, to communicate and use modelling results for NDCs, and also to communicate socioeconomic benefits of LEDS to the public.

¹⁰⁹ The Zambia report indicates that it shared the modelling results with the Technical Committee on Climate Change, the Steering Committee and the Council of Ministers for Climate Change. In interviews, however, it is pointed out that the information obtained with modelling is yet to be processed for policy makers, and sharing was planned in April 2020 but did not happen due to Covid.

¹¹⁰ Examples: the UEM final report, "*Training delivered*" was not delivered (it requires eagle-eye reading to figure this out). Likewise in the Côte d'Ivoire report the notion of 'the project focused on' is – after verification – to be understood as 'no planned output delivered'. The DRC final report, lengthy conclusions "*Integrated approaches identified in this study*" are now understood as: project results were not shared with policy makers (this was confirmed in the validation workshop).

The Cameroon final report does not clarify that in Jakiri, the demonstrating cassava milling with renewable energy work was not completed. Instead, under chapter 2. Achievements (page 6-48), it reports on the activities carried out without any explaining that the overall work was incomplete.

inception report follows a results-based format, the 'Output performance' sub-headings focus on activities. Important results on capacity building are not systematically covered.

263. Reporting on activity in the Côte d'Ivoire report suggests collaboration with FAO work various activities, but is not clearly separating what Africa LEDS part is (or not is); the Evaluation established that the Africa LEDS simply gleaned some data from the FAO project (for modelling).

Rating for quality of project reporting: Unsatisfactory

Rating for Monitoring and Reporting: Unsatisfactory

H. Sustainability

i. Socio-political sustainability

264. The socio-political sustainability of project outcomes depends on buy-in or 'ownership' at political level: **a willingness to amend policy decision making processes to allow LEDS modelling** (side by side with climate change adaptation proposals) **to inform strategic decisions**. In the seven countries, this sustainability is not always assured.
265. In Côte d'Ivoire there are no signs yet of the LEDS policy team and the LEDS modelling team being formalised. In Cameroon policy actors confirm the importance of LEDS analysis in all sectors mentioned in the NDC, but there are no policy decisions or concrete plans for more LEDS modelling. In DRC there is apparently no policy task force aware or involved yet. On the positive side, Ghana formulated a ToR for the NDC Task Force / modelling team. In Kenya however, the modellers have limited funds and lack local experts. Only in Mozambique are there signs that the expertise on modelling falls on more fertile ground, due to the reform of policy making processes to mainstream CCAM, and more direct inter-ministerial collaboration.

Rating for Socio-political sustainability: Unlikely

ii. Financial sustainability

266. The sustainability of partner countries using modelling for policy making depends on whether LEDS is mainstreamed into regular planning cycles, so that modelling needs are identified from policy makers' (demand). By being demand-driven, there is a better chance that resources are allocated for modelling. Apart from Mozambique, no country expressed any interest or commitment towards adapting the policy making process based on LEDS modelling results.
267. Similarly, project outcomes (i.e. modelling capacity to develop further and be used) have a high dependency on future funding to persist. No future funding sources have been secured, and no exit strategy was developed by the project. This leaves the modelling teams uncertain of any future modelling. For the LEDS practices in the pilot projects, the same applies.

Rating for Financial Sustainability: Unlikely

iii. Institutional sustainability

268. The Modelling Teams have built their capacity on modelling, but the demand for modelling is to come from, or created by policy makers and/or civil society. Modelling Teams depend

on being formally institutionalised, to access the needed resources for this work. The evaluation did not establish how many of the modelling experts remain in a position to do modelling.

269. The Policy Teams that are in place are linked to Policy Task Forces and policy making structures, but signs of sustainability would be that these policy makers (and/or civil society) formulate what they want from modelling: specific requests laid out in ToR for modelling.
270. As explained earlier, Mozambique's reform of the policy processes (to integrate CCAM) can help create demand for LEDS modelling. In other countries there are no such signs yet. For example, in Cameroon a resource person suggested that integration of LEDS in sectoral planning would need to be adopted through the Ministry of Economy, Planning and Regional development; for this to happen, a vibrant LEDS national coordination unit is needed, and a policy task force functioning beyond the project life span. In Côte d'Ivoire the modelling and policy task forces have not progressed on the issue of getting formalised (to allow them to access finance).

Rating for Institutional Sustainability: Unlikely

Rating for Sustainability: Unlikely

I. Factors affecting performance and cross-cutting issues

- i. Preparation and readiness of project management and partners
271. The project approval was in April 2016, the project inception meeting took place after 3 months and the first PSC meeting 7 months after project start. During the project inception phase, no weaknesses were identified that directly referred to the Description of the Action. This in itself is remarkable, given the findings of the Evaluation on the quality of project design, see *Section 5.B. Quality of project design*.
272. The Evaluation could not assess preparation and readiness from documentation as these documents were not done: work plan, procurement plan (most funds went into PCA), ESE safeguards assessment, and confirmation (and assessment of) of partners' capacity. Especially the latter is an important gap as the project is all about capacity building (and building on capacity) and the Description of the Action (3.1.1, p. 4) puts the focus on "**.. identifying necessary human and institutional capacity requirements**".
273. The preparation for the implementation was incomplete; the country action plans and other documentation produced during the implementation did not include context analyses (as required in the Description of the Action, and recommended by the PSC). This is addressed in section 5.B. Quality of project design (§ 96, 98, 98) and 5.F. Efficiency. KNUST had the task to oversee the context analyses but mobilised insufficient capacity to do this.
274. The period between project approval and the first disbursements is not exactly established because the disbursement documents are not accessed. However, from the contract dates it can be established that PCA contracts were done in good time (May-June 2016), however, the subsequent contracts between KNUST and country partners took 1 month (Cameroon), 7 months (Côte d'Ivoire, DRC), a year (Ghana, Kenya, Mozambique) and two years (Zambia).

275. Disbursements to partners were not delayed, according to most respondents, however, UEM reported some delays.

Rating for Preparation and readiness: Unsatisfactory

ii. Quality of project management and supervision

276. Project management and implementation. As mentioned earlier in section 3. Implementation Structure, the UNEP Regional Office for Africa (ROA) was responsible for managing the Africa LEDS project. Management was to lead towards planned outcomes, and report on outcomes, however, that is not easy when the information from Partners' reports was on activities.
277. Project management focused on linking the project to the evolution of the NDCs, to show that LEDS could contribute to NDCs. The project would thus answer 'a burning continental need to move from NDC to NDC implementation.' NDCs were the focus of the mission reports.
278. Most implementation was subcontracted via KNUST, and further subcontracted to each country, where an Africa LEDS Project Manager (typically from the Ministry of Environment) was to coordinate the implementation. Some interviewed country project managers noted that they had limited time to coordinate, given their other assigned role and tasks.
279. The working relationship between the Project Manager and project partners did not appear very effective, considering that important deliverables are lacking, and there is poor quality of reporting.
280. The Implementing Partner KNUST provided weak leadership towards country partners, for achieving the planned outcomes.
281. Country Project Managers might not all have the capacity or time to fully support an effective implementation, but they were located in the country, working within the Ministry or closely associated to it.
282. The Description of the Action noted that the LEDS GP and the AfLP would lead implementation of country specific support and coordination of regional training and administer contracts with African partner institutions. LEDS GP and AfLP delegated these roles entirely to the leading partners, respectively NREL and KNUST. In the case of NREL that came with capacity relevant for the modelling capacity building (its report names the modelling experts mobilised for this work).
283. Project Steering Committee. UNEP guidelines specify the Roles and Responsibilities for PSC, to provide overall guidance and strategic direction¹¹¹; a PSC can take responsibility to adjust or refine a project strategy. The ToR of this Project's PSC¹¹² notes the PSC is responsible for 'long-term progress analysis and advisory of implementation' and names it a 'Project Steering / Advisory Committee'.¹¹³ The Implementation Structure (*Description of the Action Section 3.1.2*) foresaw a PSC limited to representatives from the EC, AfLP, LEDS GP (from joint secretariat institutions NREL and CDKN), and MAPS Africa. The PSC ToR¹¹⁴ adds UNEP, removes MAPS Africa, and AfLP delegates its seat to the AfLP host, KNUST.

¹¹¹ [PROJ-10781991-121120-1500-770.pdf](#) Guidelines on Project Implementation

¹¹² [TOR EU-UNEP AFRICA-LEDS STEERING COMMITTEE_13Sept2016.pdf](#)

¹¹³ In the first PSC meeting there is the PSC role of 'strategic guidance' but that is not reflected in the ToR.

¹¹⁴ LEDS GP and AfLP practically disappear; AfLP is just once briefly mentioned in the final report (contributing to the 2018 AFOLU CoP meeting); LEDS GP is not mentioned. Neither appear with contact persons in the list of contacts.

So, besides the EC and UNEP, half of the PSC is from Implementing Partners (KNUST and NREL spent respectively 52% and 28% of the project budget). Country representatives (subcontractors of KNUST) also attended the PSC meetings (3 did in the first, 6 in the second and 5 in the third meeting).

284. As per the ToR, the PSC was not set up to provide strategic guidance. Half of the members are themselves Implementing Partners (Country participants were invited and attended but were not formally part of the PSC). The double role of implementing partners in the PSC compromises the PSC role to provide strategic direction. The strategic direction provided by the PSC was relevant, and focused on further design at country level, emphasising what was also in the Description of the Action: policy- and stakeholder analyses.
285. In terms of the project following up with the PSC advice and requests, the evaluation found that several of the requests were not completed. The PSC requested a revision of country action plans, to have more focus and context analyses (5.B. Quality of project design, §98). In the second meeting, the PSC asked for a peer learning work plan. In the third meeting the PSC asked for the annual report to be clear on 'value for money', where value means (reporting on) results.
286. In the second PSC meeting minutes, it is noted that all points related to country action plans were followed up 'efficiently and effectively'. The Evaluation found this to be inaccurate where it concerns context analysis (§98 and Table 13: Overview of context analyses); little or no context analyses were done. Regarding the peer learning, a peer learning plan was eventually produced by UEM as discussed in §157 and §158, but there were no signs of implementation. Regarding the reporting on results, the Evaluation found that not much changed in terms of reporting quality.
287. With reports unclear, and the PSC relying heavily on oral reporting in the meeting, there was a tendency to exaggerate results (similar in the online communication). As a result, for example, the EU praises the projects' work in Cameroon on the subject of micro-hydro power, believing there is a result in the pilot project – which the Evaluation established, is not there.

Rating for Quality of project management and supervision: Moderately Unsatisfactory

iii. Stakeholder participation and -cooperation

288. Stakeholder analyses were not done, at least, there were very few 'other' stakeholders mentioned in the reports.

iv. Local socioeconomic stakeholders

289. At national level, there was little meaningful engagement with socioeconomic stakeholders. At local level, the project engaged with various *local* stakeholders, including the some private sector (producers, processors, cooperatives) and local councils. Most of the collaboration was transactional, and stakeholders were not engaged to validate the results.

Politicians and decision-makers at country level

290. Engagement of politicians varies between countries. In Mozambique, the policy makers remained interested at all stages, and this was explained by the fact that the project came at the right time, when the country was already revising its policy making processes to integrate CCAM.

291. In several other countries (Cameroon, DRC), after the country plans were made, engagement was minimal. Engagement of policy and decision-makers at country level later on was hindered by the fact that modelling results were not ready or of insufficient quality to develop ready-for-use policy propositions.

Cooperation with other UN interventions and donor initiatives in the region

292. At national level, there was collaboration with several institutions and some of that was across sectors and Ministries. However, collaboration and linkages with other stakeholders working on similar development initiatives (including initiatives supported by UNDP, World Bank) were not identified nor fostered by the project.
293. The Evaluation could not establish how the project cooperated with AfLP; on the website it is not clear whether AfLP's CoP for AFOLU is anything related to the project, and vice versa: the project final report does not mention AfLP. The only link is as indicated by the Project Management: KNUST is a member of AfLP.
294. In the same way, any links to LEDS GP were through the contracting of NREL (a member of LEDS GP) or NREL subcontractors. For example, the Energy Research Centre of the Netherlands (ECN) provided modelling capacity building to Mozambique and Ghana (the country reports do not mention that), and the Center for Climate Strategies (CCS) provided modelling capacity building to Côte d'Ivoire – yet the Côte d'Ivoire report does not name the US CCS115 (it mentions the CCS tool only); instead it notes that a FAO expert was consulted before selecting a modelling tool). In Kenya, members of the Stockholm Environmental Institute were listed as participating in the modelling team. In Zambia, apart from KNUST and NREL (providing remote support in the second half of 2018) no foreign institution is mentioned.

Rating for Stakeholder participation and -cooperation: Unsatisfactory

iv. Responsiveness to human rights and gender equity

295. In the Description of the Action, human rights issues are not mentioned. This should have been discussed e.g. in the LEDS proposition in Ghana, where change of land use is proposed.
296. No gender-specific indicators were created or used. The word gender is used rarely, and where it is used, the Evaluation finds the context lacking (no stakeholder analysis). There was also no budget allocated for gender-specific activities. For example, the Zambia report (its Table 6) presents the impact of stoves; under the development objective of 'gender equality' the impact is expressed in terms of saving time (smoke effects, in this table, are not gendered). The report also presents the impact of forest enhancement and natural generation (Table 23): under 'gender equality' women are encouraged to take up charcoal production as an income generating activity. The Ghana report noted that for socioeconomic modelling it was impossible to disaggregate results by gender.
297. No other reports mention gender, yet the issues are there. For example, the Cameroon report suggests planting trees in cassava farms, but does not discuss implications in terms of gender, or investigate the reservations farmers (f,m) have about it.
298. To conclude, none of this is linked to empowerment. The modelling does not pick up on any gender issues. Yet it is highly likely that the effects of promoting LEDS have gendered

¹¹⁵ With regard to the modelling capacity building, the Evaluation only received the NREL reports, not any from CCS or ECN.

outcomes; the Evaluation has raised possible issues in various other sections of this report, especially with regard to change of land use, land tenure insecurity and changing cropping or farming systems.

Rating for Responsiveness to human rights and gender equity: Highly Unsatisfactory

v. Environmental and social safeguards

299. The Description of the Action did not identify risks, and risks were not discussed in reporting.
300. The projects' environmental footprint is mostly through international air travel. The Evaluation did not establish how the project tried to minimize this.
301. Environmental and social impacts on key stakeholders, in particular, to the most vulnerable groups were not fully considered by the project. Between Government and Communities lies the issue of governance of land and natural resources. Several of the suggested LEDS practices and policies effectively change land use (e.g. Ghana: from grassland to tree plantation; Kenya and Zambia: agroforestry) but none of the reports discussed potential negative effects of this on land tenure inequality.¹¹⁶ Project Management found this lay outside the project scope.

Rating for Environmental and social safeguards: Highly Unsatisfactory

vi. Country ownership and driven-ness

302. In the context of this project, there is no better illustration of government engagement than that which is demonstrated in Mozambique, where LEDS (as well as climate change adaptation) are going to be firmly embedded as requirements in the mainstream policy making process. In hindsight, that transformation in the way policies are made (to be more pro-LEDS) could have been a higher level project result, and an indicator of country ownership and driven-ness: beyond formulation of concrete LEDS policies.
303. With that in mind, the Evaluation found officials in the AMCEN breakfast meeting appreciating specific LEDS ideas (i.e. domestic cooking, clean cookstoves), including their effects on emission and job creation; also modelling to inform investment policies was appreciated. However, there are no strong signs of higher-level government ownership in terms of formalising LEDS modelling teams and discussing policy needs and related need for modelling.

Rating for Country ownership and driven-ness: Moderately Unsatisfactory

vii. Communication and public awareness

304. The communication strategy is presented in Annex VI of the Agreement¹¹⁷. Target groups were identified at national level (including private sector), local level, continental level, and European Union. There is a list of activities.
305. The Evaluation found the quality of the January 2016 Communication Plan to be weak, given the budget of €44,255. The information needs of different target groups were not well identified, for the different stages of project implementation. The plan aimed to communicate to high-level government decision makers to get 'continued support and

¹¹⁶ <https://www.theguardian.com/environment/2020/nov/24/farmland-inequality-is-rising-around-the-world-finds-report>

¹¹⁷ Annex VI Communication and Visibility Plan 28Jan2016.doc

eventual policy upscaling', but failed to specify what kind of information or key messages would be provided to policy makers.

306. The plan had no objective for the wider civil society (except private sector), and there was little communication to the wider public, in a way that it could mobilise civil society (to know about socioeconomic benefits, to mobilise them as drivers for LEDS policy change). There was also no evidence that the project developed key messages at country level, catering for the need of audiences more removed from the project: socioeconomic actors.
307. On implementation of the Communication Plan it was found that the reporting did not refer to it. However, this does not mean that communication activities were not carried out; all 7 activities¹¹⁸ appear as outputs and are discussed in section 5.D.i.
308. The project website traffic is reported, the final report notes > 700,000 visits since 2016.¹¹⁹
309. Several project activities had some communication effect; these included:
310. The project website was effectively helping visitors access project reports and events reports, and pictures. The pictures of gatherings may have helped further networking; pictures of LEDS practices are not so instructive, lacking explanatory text
311. Twitter may have been useful communication for a while; however, it is in the name of the project manager, and in 2020 the activity on Twitter dropped sharply, and
312. Journal articles on the UNEP website, Relief web and 'Modern Ghana' news (all online) will have briefly brought the project, and some ideas, to the attention of a wider audience.
313. With regard to collaboration with the EU, the project missed some opportunities to influence the EU Africa agenda, as the connection with country EU Delegations was mostly lost after the Project inception phase.

Box 3: Communication of results

Communications of results in Cameroon¹²⁰ suggests clean energy solutions that the project did not demonstrate. The projects' World Meteorological Organisation (WMO) publication stated:

- i. better cassava drying methods are relevant for producers (reducing post-harvest loss) and consumers (health), but not "an example of a mitigating investment in clean energy" where in Cameroon the pilot project compares to the BAU that is already solar drying on raised beds.
- ii. The *pilot project results* do not include any micro-hydro-powered milling.

Also, the project website, Component 1 reported that 'Jakiri involved linking a micro-hydro plant to power milling of cassava sourced from a local cooperative into flour.' The brochure 'Linking Climate Action and Sustainable Development' also suggests that 'a micro hydro plant was developed'. However, based on the evidence collected by the Evaluation, the project did not establish the link to the already existing micro hydro plant.

Communication of DRC¹²¹ results in an online presentation claim that briquettes from waste 'would be up to 3 times cheaper than conventional charcoal' (an then quantifies this could save up to 5000 ha natural

¹¹⁸ From the communication plan: 1. Face to face meetings with high level government officials a.o. – took place; 2. Country inception / launch workshop – was done; 3. Compiling workshop material and country scoping reports – are available; 4. Developing training and communication materials – are available; 5. Training workshops – took place; 6. Compiling reports, newflashes, policy briefs, journal articles and country case studies - Developing a LEDS in Africa website – can be seen – except case studies; 7. Regional peer learning and networking forums / sub-regional workshops / Africa-wide workshop – reported on.

¹¹⁹ IT person consulted on 8/12/2021 did not reply.

¹²⁰ https://www.dropbox.com/s/3cwzaavll7rfm5d/EU-UNEP%20Africa%20LEDS%20Project_.pdf?dl=0 filename EU-UNEP Africa LEDS Project .pdf

¹²¹ Linking climate action and sustainable development https://www.dropbox.com/s/3cwzaavll7rfm5d/EU-UNEP%20Africa%20LEDS%20Project_.pdf?dl=0 and EU-UNEP Africa LEDS Project .pdf

forest). The DRC initiative on briquettes is still in a stage where subsidies are applied at several stages in the value chain and a cost-benefit analysis of charcoal vs agro/waste was not yet done. The Evaluation found the economic feasibility of agriculture-waste briquettes (e.g. using banana leaves) in doubt because of the high cost of gathering, collection and then transport, and sorting; sawdust briquettes may have a better economic perspective, but sawdust is in limited supply, and still depends on deforestation.

BOX 3. USING SOLAR ENERGY IN AFRICA

Using solar dryers to dehydrate cassava and increase its shelf-life enables producers to hold their harvest and sell only during peak demand to maximize earnings. This is an example of a mitigation investment in clean energy tied to power adaptation through value-added agro-systems that unlock socioeconomic opportunities. Converting raw cassava to dry cassava using solar dryers and milling this dried cassava to cassava flour (a finished product) using decentralized solar or micro-hydro-powered millers has been proven to increase incomes by 150% relative to cassava that is sold raw after harvesting.¹ This process addresses one of the key sources of vulnerability: low levels of socioeconomic growth. Clean energy and agriculture are prioritized in over 70% of Africa's Nationally Determined Contributions.

Solar dryers dehydrating cassava into a moisture content of 10%.



¹ Based on the results of project work done under the EU-UNEP Africa Low Emissions Development Project in Cameroon. See <https://www.africaleads.org/attachments/article/193/AMCEN-%20Africa%20LEDS%20BreakFast%20Summary%20Outcome.pdf>.



Photo 3: Cameroon cassava drying on raised beds, improved (left) and Business As Usual (BAU, right); DRC improved cookstoves

► In DRC, work focused on converting waste to domestic energy briquettes. Through this, the project showed that using biowaste – briquettes would be up to 3 times cheaper than conventional charcoal. Cumulatively, DRC could save up to 5000ha of natural forest if the paradigm of waste to briquettes is scaled out & replicated nationally.



Rating for Communication and public awareness: Unsatisfactory

Rating for I: Factors affecting performance: Unsatisfactory

6 Conclusions and recommendations

A. Conclusions

314. **Conclusion 1. Strategic Relevance, synergies and complementarities** - The project's strategic relevance was generally evident at national, regional and global level. Project interventions were aligned with national policies in the participating countries and were relevant to the NDC process. However, the project leaped from broad ideas in NDCs to modelling exercises, with insufficient attention to the context: policy gaps, policy stakeholders (private sector, civil society), value chain stakeholders, lessons from relevant initiatives. Thus, modelling capacities were strengthened, but to limited effect (see Conclusion 2). The project missed several opportunities for synergy with highly relevant and resourceful initiatives, including those implemented by the donor, the European Commission.
315. **Conclusion 2. Effectiveness** - Project efforts mainly focussed on strengthening of modelling capacities in terms of using modelling tools – and this is how most interviewed local collaborators perceived the project. Insufficient efforts were given to identification of modelling needs, from policy makers (or civil society). The modelling is further challenged by a lack of relevant and reliable data, limitations in the current monitoring systems. Both factors affected modelling results, and difficulties in translating results back to policy.
316. Policy makers, as clients for the modelling results, were mostly involved, but generally not to a level that they determined the ToR for modelling projects, to ensure it responded to a specific policy question. Modelling is yet to obtain its place in policy making processes and TA to countries could have provided better support to strengthen further design, to chart a clearer pathway from policy, to modelling, to inform policy change.
317. **Conclusion 3. Efficiency** – With the main subcontracts, results delivery does not reasonably match the resources spent. The roles of KNUST and UNEP are duplicative.
318. **Conclusion 4. Sustainability of results** - At user level, most pilot projects are unlikely to be sustained in the long term as too much is still at research stage, and sustainability not built-in. Pilot projects were implemented as stand-alone interventions, in the first place to produce data for modelling, and with little consideration for sustainability. Not all demonstrations were completed, and where they were, cost-benefit analyses were incomplete and not validated by users.
319. At national policy level, sustainability depends on how modelling needs will be defined as part of policy processes. There is some likelihood that in Mozambique the demand for modelling will be created, as it currently transforms the policy making processes to integrate CCAM.
320. At regional level some events took place, also online, but this does not seem to continue (on the AfLP no further LEDS events are planned). In the modelling teams, the awareness of peer learning was limited. The Eduardo Mondlane University saw little response to its initiative to organise an online training.
321. **Conclusion 5. Factors affecting performance** - Project monitoring and reporting was weak and negatively affected the project's efficiency. Of the total project budget, 89% is subcontracted, mostly to KNUST, responsible for guiding the countries' further design. It

is not evident that subcontractors were held accountable on reporting frequency, -quality and reliability.

322. The projects' own reporting (to the EU) was unclear, difficult to understand and not always reliable (§247), depending on reports from implementation partners. Project Management carried out 17 monitoring missions but the mission reports do not discuss project results (§243).
323. The PSC had little effect, where it provided strategic guidance (e.g., in further design, asking for a capacity building plan) or requests reporting quality. The information shared in PSC meetings was not always reliable, with a tendency to amplify results.
324. **Conclusion 6. Human Rights and Gender considerations** - Many of the LEDS propositions in the project, for pilot projects and modelling, were in the Agriculture, Forestry and Land Use (AFOLU) sectors. Without context analyses, synergy with other initiatives was indeed lacking e.g. the Evaluation found opportunities missed to use the gender expertise of the Clean Cooking Alliance, or to consider land tenure implications (Ghana agroforestry, Côte d'Ivoire SRI).

B. Summary of findings and ratings

Table 11: Summary of performance ratings

Criterion	Rating
A. Strategic Relevance	MU
<i>1. Alignment to UNEP MTP, POW and Strategic Priorities</i>	MS
<i>2. Alignment to EU strategic priorities</i>	MU
<i>3. Relevance to regional, sub-regional and national environmental priorities</i>	MU
<i>4. Complementarity with existing interventions</i>	U
B. Quality of Project Design	HU
C. Nature of External Context	MF
D. Effectiveness¹²²	U
<i>1. Availability of outputs</i>	U
<i>2. Achievement of project outcomes</i>	U
<i>3. Likelihood of impact</i>	U
E. Financial Management	S
<i>1. Adherence to UNEP's financial policies and procedures</i>	MU
<i>2. Completeness of project financial information</i>	MS
<i>3. Communication between finance and project management staff</i>	S
F. Efficiency	MU
G. Monitoring and Reporting	U
<i>1. Monitoring design and budgeting</i>	U
<i>2. Monitoring of project implementation</i>	U
<i>3. Project reporting</i>	U
H. Sustainability	U
<i>1. Socio-political sustainability</i>	U
<i>2. Financial sustainability</i>	U
<i>3. Institutional sustainability</i>	U
I. Factors Affecting Performance¹²³	U
<i>1. Preparation and readiness</i>	U

¹²² Where a project is rated, through the assessment of Project Design Quality template during the evaluation inception stage, as facing either an Unfavourable or Highly Unfavourable external operating context, ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together.

¹²³ While ratings are required for each of these factors individually, they should be discussed within the Main Evaluation Report as cross-cutting issues as they relate to other criteria. Catalytic role, replication and scaling up should be discussed under effectiveness if they are a relevant part of the TOC.

Criterion	Rating
2. <i>Quality of project management and supervision</i> ¹²⁴	MU
3. <i>Stakeholders participation and cooperation</i>	U
4. <i>Responsiveness to human rights and gender equity</i>	HU
6. <i>Environmental, social and economic safeguards</i>	HU
5. <i>Country ownership and driven-ness</i>	MU
7. <i>Communication and public awareness</i>	U
Overall Project Rating: 2.24	U

UNEP uses a six-point rating scale to assess performance: 1 = Highly Unsatisfactory (HU); 2 = Unsatisfactory (U); 3 = Moderately Unsatisfactory (MU); 4 = Moderately Satisfactory (MS); 5 = Satisfactory (S) and 6 = Highly Satisfactory (HS). The criteria for Sustainability and Likelihood of Impact are labelled as 'likelihood' and Nature of External Context is rated based on a similar six-point scale labelled for 'favourability'.

C. Lessons learned

The lessons here are derived from participants in the four validation meetings.

Lesson Learned #1:	To produce credible and useful modelling outcomes, detailed project design is needed for modelling-for-LEDS-policy projects (and for that, more time and TA).
Context/comment:	In all 3 pilot project countries, it was found to be a huge challenge to 'translate' LEDS concepts and expectations in the country action plan to a logical modelling plan. Various suggestions combined, suggest that such a plan include: identification of policy gaps, identification of existing/feasible/proven/established LEDS practices, and more comprehensive identification of stakeholders along the value chain (Cameroon, Côte d'Ivoire and DRC validation meetings, Final validation meeting) <i>This relates to conclusions 1 and 6</i>
Lesson Learned #2:	It is crucial that project participants all understand what the overall goal or purpose of the project is, and to focus on outcomes.
Context/comment:	The project focus on activities led to participants not understanding the larger context and what had to change, what impact was expected. The pathway of change was not clear (Cameroon validation meeting, Final validation meeting) <i>This relates to conclusion 1</i>
Lesson Learned #3:	Intersectoral collaboration is a critical success factor for integration of LEDS/CCAM in policy across sectors, and for composition of LEDS modelling teams.
Context/comment:	Project performance was affected by weak multisectoral institutions and/or insufficient leadership from the Ministry of Planning / political leaders (DRC and Cameroon validation meetings, Final validation meeting) <i>This relates to conclusion 2</i>
Lesson Learned #4:	Communication with, and engagement from, policy makers as an integral part of the planning process is important at design stage and for communication of results.
Context/comment:	Politicians need to define the need and scope for modelling projects. In Cameroon it was highlighted that project design should follow the national

¹²⁴ In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the Executing Agency and the technical backstopping provided by UN Environment, as the Implementing Agency.

	<p>planning system and identify specific policy (gaps) for which a modelling project is designed. (Côte d'Ivoire and Cameroon validation meeting, Final validation meeting) <i>This relates to conclusions 2 and 4</i></p>
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Lesson Learned #5:	For peer learning, it is important to strengthen collaboration between parties (e.g. AfLP, LEDS GP, UNEP and EU)
Context/comment:	<p>During project implementation some of that collaboration was established, but for sustained learning to continue this collaboration needs further strengthening (Final validation meeting) <i>This relates to conclusion 4</i></p>

D. Recommendations

Most of the lessons learned (section 6.3) have been taken further in the recommendations here.

Project recommendations (applying primarily to UNEP)

Recommendation #1:	Inclusion of policy shakers (civil society, private sector) in key roles of project design and implementation (in the PSC, as Implementing Partners, at country level too)
Challenges/problem to be addressed by the recommendation:	<ul style="list-style-type: none"> • The challenge is that modelling alone will not easily influence policy makers, unless modelling results are amplified by drivers of change; a project should provide or work with a strong platform for drivers of change, including civil society, including private sector. This is not only a challenge for the Africa LEDS project (also for AfLP). <p><i>This relates to conclusion 1</i> NB: there are numerous examples of opportunities:</p> <ul style="list-style-type: none"> • Many public-private partnerships in the energy/agricultural sector • Kenya advocacy groups campaigning against coal fired plants¹²⁵ • Influential movements like Insulate Britain, to better isolate homes
Priority level:	Critical
Type of recommendation	UNEP Africa regional office
Responsibility:	Programme formulation needs to design this into projects: country partners are responsible for stakeholder analysis and engaging drivers for change: consult them on the scope of modelling to increase support for modelling outcomes.
Implementation time-frame:	Immediate for any project aiming at policy change
Recommendation #2:	Bring in expertise, e.g. from Mozambique, on how policy processes are transformed to mainstream CCAM; situate modelling in the policy cycle (where need for policy change is identified and demand for modelling projects created).
Challenges/problem to be addressed by the recommendation:	<p>Where policy processes remain sectoral, any modelling outcome will be difficult to implement. Comparing policy processes (and in what ways these are transformed) should be a key subject in regional peer-learning (whereas exchange of particular LEDS practices should take place at a different level) <i>This relates to conclusion 1 and recommendation 2</i></p>
Priority level:	Important
Type of recommendation	UNEP Africa regional office

¹²⁵ <https://www.business-humanrights.org/en/latest-news/kenya-how-advocacy-groups-successfully-campaigned-against-the-construction-of-proposed-amu-powers-coal-fired-plant/>

Responsibility:	Programme formulation needs to design this into projects
Implementation time-frame:	Immediate for any project aiming at policy change

Institutional recommendations (applying to UNEP and partners)

Recommendation #3:	Country leaders could review and transform policy processes to mainstream CCAM (including LEDS) – not just strengthen intersectoral collaboration but also opening space for civil society ('policy shakers'). With such transformation, a need for LEDS modelling can be better articulated, as well as the need for (adapting) indicators that the modelling needs.
Challenges/problem to be addressed by the recommendation:	When transformation of policy processes is not on the agenda, there remains a weak link of modelling <i>to respond to a demand</i> - and to the use of modelling outcomes (translating into policy). <i>This relates to conclusion 4</i>
Priority Level:	Critical
Type of recommendation:	Institutional
Responsibility:	Country-level partners who identify and lead the modelling
Implementation time-frame:	n.a.
Recommendation #4:	Modelling projects could consider a path away from growth. For mainstreaming Climate Change Adaptation and Mitigation , it is suggested to that some reflection take place on whether partner countries' fixation on growth is relevant or helpful, and what are alternatives. This reflection also takes place in the EU currently. ¹²⁶
Challenges/problem to be addressed by the recommendation:	There are risks to modelling built on single-issue LEDS practices, and to demonstrate macro-level growth-oriented benefits only. Examples provided in this report indicate that positive or negative (un)-intended effects elsewhere in a value chain or lifecycle could be ignored. <i>This relates to conclusion 2</i>
Priority Level:	Critical
Type of recommendation:	UNEP Africa regional office
Responsibility:	Country-level partners (policy makers and shakers) who identify modelling needs
Implementation time-frame:	n.a.
Recommendation #5:	Improve UNEP Project Management competence – or ensure that competence is available and mobilised through Implementing Partners. The suggestion is to build capacity on project cycle management and communication.
Challenges/problem to be addressed by the recommendation:	The Africa LEDS Project was to effect changes in countries' policy making processes (for more, or mainstreaming of Pro-LEDS policy). The challenge is to mobilise experts that could assist countries to identify the basis for any LEDS policy discussion and modelling: <ul style="list-style-type: none"> i. LEDS-relevant challenges or opportunities in society, and to address these, nail down what change of behaviour of particular stakeholders would be desirable ii. How current or intended policy empowers-or-disempowers which stakeholders towards changing their behaviour in the desired direction, and/or policy with negative effects, or ineffective policy. It need not be overly theoretic or lengthy to identify desired change for LEDS; and there are various tools to help with context analysis; in this project, tools

¹²⁶ <https://www.eea.europa.eu/publications/growth-without-economic-growth>

	<p>that analyse stakeholders along value chains or lifecycles are particularly relevant (consider the concept for circular economy). It is important to ensure this competence on context analysis, down to country level, for modelling projects are eventually to change the minds of policy makers and shakers (civil society). Examples:</p> <ul style="list-style-type: none"> • Reaching UK net zero target cheaper than we thought, says climate adviser https://www.theguardian.com/environment/2020/nov/12/reaching-uk-net-zero-target-cheaper-than-we-thought-says-climate-adviser It shows policy analysis (independent critique), suggesting policy gaps, referring to specific stakeholders groups (the poor). • The Association of Biogas Contractors in Kenya lobbies for biogas standards • The Kenya Association of Manufacturers lobbying for policy enabling energy producers to connect to the main grid • In many countries, civil society lobbying for land governance rights of local communities and/or indigenous people, and would advocate for certified sustainable charcoal and improved cookstoves). <p>This relates to conclusion 1</p>
Priority Level ¹²⁷ :	Critical
Type of recommendation ¹²⁸	UNEP Africa regional office
Responsibility:	Resource Efficiency programme
Implementation time-frame:	Immediate for any project aiming at policy change

¹²⁷ Select type of recommendation from these categories: Select priority level from these three categories:

Critical recommendation: address significant and/or pervasive deficiencies in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of programme objectives.

Important recommendation: address reportable deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance might be at risk regarding the achievement of programme objectives. Important recommendations are followed up on an annual basis. **Opportunity for improvement:** comprise suggestions that do not meet the criteria of either critical or important recommendations, and are only followed up as appropriate during subsequent oversight activities.

¹²⁸ **Project:** where the actions of those UNEP staff managing the evaluation and can address the recommendation or the underlying problem independently. **UNEP-wide:** (i) where the actions of those UNEP staff managing the evaluation cannot address the recommendation or the underlying problem independently or (ii) where the actions to be taken to resolve the problem, which could have been caused by systemic issues or gaps in UNEP's operational requirements, require approval/leadership from UNEP senior management and/or coordination among several different parts of UNEP. In such a case, the Evaluation Office would need to pass on the UNEP-wide recommendation to the responsible entity).

Project and UNEP-wide: where the UNEP staff managing the evaluation and can address the recommendation or the underlying problem insofar as it affects their work and where staff in other parts of UNEP are required to act to either avoid future occurrences of the same underlying issues or to support those managing the evaluation to respond to the recommendation. In such a case, the problem to be addressed will be presented twice, once with the project level recommendation and again with the UNEP-wide recommendation. The Evaluation Office would need to pass on the UNEP-wide recommendation to the responsible entity).

Oh, it's not always monetized

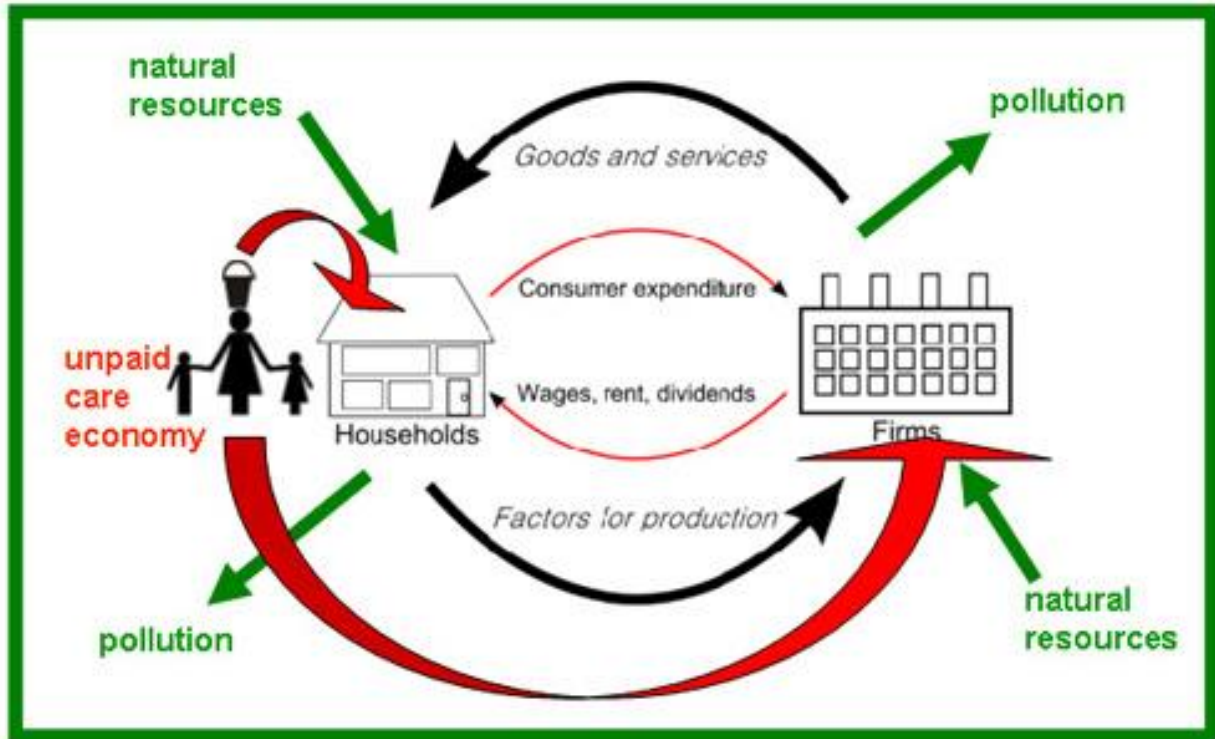


Figure 3: Modelling towards value (source: What is Economics? Kate Raworth)

Annex I – Response to stakeholder comments not fully resolved within the report

Place in text	Comment	Evaluator's Response
	UNEP	
	<i>Over 150 comments were received from a single source, the majority of which did not present additional material but relate to the differences described in para 5a. Responses from the evaluation consultant were provided to the respondent on all 151 comments. One substantive comment is recorded here for transparency.</i>	
148 Paragraph 303-313	The evaluator reached misrepresented conclusions by neglecting the key results area of the project (ditto para 13, 20 etc.) and by altering the revised ToC unilaterally (Para 33 etc.) to reflect the erroneous understanding of the project displayed throughout this evaluation report.	Previous TOC approved during the Evaluation Inception Report has been reintroduced and a paragraph explaining the lack of a demonstrated causal pathway between the project's modelling and NDCs explained further (Section 4, from para 63)
	IMPLEMENTING PARTNERS	
Executive summary Evaluation	<ul style="list-style-type: none"> the evaluator failed to realise that the country priority was NDCs as the primary LEDS plans. The project focus was therefore on NDCs as the foundational LEDS plans of the country. Seeking to fine pathways towards the implementation of NDC The evaluator also failed to consider that these NDCs priorities were analysed and narrowed down to the most representational ones which were the focus of project intervention. The project intervention was informed by the gaps of the Cameroon. To that effect, the core gap was countries needing support to implement the country's NDC because the project tried to consolidate the entire low emissions development priorities for Cameroon. These priorities were clearly communicated at the inception meetings. 	<p>The Evaluator responded to these comments under three main issues:</p> <ol style="list-style-type: none"> 1) The lack of a consistent interpretation of the project's results is clear from correspondence exchanged as early the project's inception. This fed into a challenging evaluation in which a consistently agreed (i.e. agreed between UNEP, EU, PSC, Implementing Partners and the documentation provided to the evaluation team) project result with regard to NDCs could not be established. 2) The project's formal commitment towards influencing NDC
Annexe VI Validation and sense making	Saying that participants validated all the findings is a lie, me personally I didn't attend the validation meeting	In the Description of the Action there are two different formulations of the objective; on p1 it is:
Comment 19	We had a women's cooperative of up to 500 persons engaged in the ground demonstration. Gender consideration was part of what we did. It is not a "suspected" but was done. Country report captures this.	[to assist partner African countries] in defining, building support, and launching implementation of inclusive, low emission, climate-resilient, and resource efficient socio-

	Ngoulmakong cooperative only have more than 1000 members.	<p>economic development pathways <i>while also building local research, knowledge, expertise and capacity to develop and implement NDCs'</i></p> <p>on p4 it is: [to assist partner African countries] in <u>developing local knowledge and expertise</u> to formulate, build support for, establish necessary implementation capacity and then establish and <u>implement concrete LEDS policies and plans</u> for low emission, climate-resilient, and resource efficient socio-economic development, <i>while also enhancing knowledge and capacity to support development and implementation of NDCs.</i></p> <p>The <u>underlined</u> parts are what the Funding Partner was expecting as results to be achieved; the “<i>while also</i>” elements (i.e. capacity development/knowledge building) looks like added on.</p> <p>I have correspondence in which the Chair of the PSC makes it clear that ‘<i>this [NDC process] is not a process by which to judge this project</i>’. The project ended in 2019 and the NDCs revision took place in 2020 so there would have needed to be a strong causal chain to demonstrate contributing influence. Similarly, I hold correspondence from the Funding Partner that also indicates an expected emphasis on the underlined parts of the text, although I note that there is also correspondence at a country level that refers to an expectation on the capacity building.</p> <p>At most, the project could have been expected to contribute to <i>NDC implementation</i>, but that would still be by showing results <i>on the ground</i> and reporting to what element of the NDC it is specifically contributing. I found from the fieldwork (also directly hearing it from the policy team in Côte d’Ivoire), policy makers do expect</p>
Comment 98 : In Cameroon the hydropower demonstration did not engage the private sector	This could not happen without the private sector as they are the one to do technical rehabilitation and to construct the transport line. Many of them where engaged.	
Comment 107 'we did have access to the transformer formerly used' (and verified in the field: no cabling was extended and the transformer has issues'	The cables are on the field. They were installed. May be it could be verify by satellite. The problem with this evaluation was the difficulty to access the site by the evaluator due to the war.	
Comment 108	The photo 2 on BAU is not correct because the BAU was use of charcoal/firewood drying. We shared a video to show the transition from charcoal to solar dryers and with the beneficiaries speaking on it.	
Comment 117	We did not plant trees but supported the country to demonstrate agro forestry, which is what was agreed at inception meeting as a narrowed down action tied to NDCs	
Comment 118	We worked with a women cassava cooperative with over 500 members to do the agro-forestry demonstration. Agro forestry was established during the country inception meetings analysis where we narrowed down to project level actions. Ngoulmakong cooperative have at least 1000 members with 90% women.	
Comment 119	The tree plantation was not done to convert de cassava plantation as in the case of Cocoa farm, but to surrounding the farm each 20m and 08m-10m between two trees. We choose the trees generally used by the farmers. There is a difference between Mixed-cropping and Alley-farming. We are not practicing mixed-cropping. Generally we find the direction of the sun from East to West to plant the trees.	
Comment 120	The BAU was use of firewood to dry food. This is what was substituted by solar dryers to lower emission and increase drying	

	efficiency.	from the project some concrete (convincing) demonstrations and they had not yet seen.
Comment 146	The model developed by Cameroon forecasted the impact of greening agro-value chains using agro-forestry, ICT, and clean energy – which is what was demonstrated on the ground under component 1.	To change policy, you need to present reliable and convincing evidence, if you focus on the 3 countries where evidence was to be demonstrated <i>on the ground</i> , then it is not there.
Comment 167	Policy taskforces took up project results and compiled their reports. Project results were also used to inform implementation of the ICT strategy.	I did not find evidence of any concrete LEDS policy or plan that the project can really show it substantially contributed to.
Comment 183, In Cameroon, it is hard to understand what the modelling work represents. The BAU are not clear, the indicators are not clear	“the modelling baseline data was generated from component 1 ground actions and from other projects in Cameroon which were implemented in silos. The modelling amalgamated areas that were previously undertaken in silos. The project report shared with all stakeholders elaborates. Also, the country understood the modeling and results and the ministry of environment took up the modelling work to inform NDCs revisions.”	3) Country level performance The responses are appreciated and here is a consolidated response. While there is a lot of emphasizing that <i>activities</i> were done (training was done, modelling was done, we all agree) but this does not necessarily lead to the agreed results.
Comment 242	Project demonstration sites were completed and operationalised, and beneficiaries spoke on this on video recordings which I have and have shared with UNEP	- From Kenya the worries about financial reporting; not sure what the point is, how that relates to my report? - If training reports do not mention how many people were trained (and no participant list), that is a fact; there’s no point in sending me a list of participants now - Hydropower: our consultant established then that the hydropower did not work, had not worked yet. If it now works, is not clear from the comments; I read two phrases, the first does not say since when microhydro started powering their mills, the second is vague and may be about something else (experimenting..).
Annex VI on validation and sense making	The statement “participants validated all findings of the presentation” is not capturing the fact that many participants disagreed with the evaluation team on their findings.	Microhydro "In Jakiri the microhydro was rehabilitated and cables installed to bring the electricity. Population experimented the use of clean energy." Same with SRI:
BOX3: suggests clean energy solutions that the project did not demonstrate.	In Ngoulmakong the Diesel engine was replaced with electrical engine. But 2 machines remained with Diesel to prevent the case where there is electricity shortage. The Charcoal dryer was replaced by a solar dryer. In Jakiri the microhydro was rehabilitated and cables installed to bring the electricity. Population experimented the use of clean energy.	
Output 2.2 – Country Teams (7) have practiced LEDS analysis (using & adapting modelling tools):	I wish to disagree with the statement highlighted in yellow for at no time were we asked to provide the agenda and list of participants. Even the report I had provided had a list of participants in the annex, ((see attached-Africa-LEDS_Kenya component2 report), and we have all the agenda and list of participants signed for each workshop folder	

<p>Page 34. 143. The documentation available for the evaluation does not provide information on Capacity Needs Assessments, and little about modelling training, e.g. the Kenya report notes that there were 6 workshops (totalling 18 days) on modelling, but no participant list or numbers, nor details on the agenda</p>	<p>that we held in hard copy, which I can scan and send to you once I am the office Examples of agenda/ programme that was followed also attached.</p>	<p>no report then, that assessed the advantages <i>and challenges</i> of introducing SRI, from users' perspective.</p> <p>The BAU The business as usual is what you see people using, generally. The reports were not clearly describing it, and the consultant saw farmers sun-drying their cassava on raised beds (a good practice, and yes, could be further improved).</p>
<p>Page 40 187. In Kenya, the modellers have themselves concluded that the results so far are unreliable and can therefore not (yet) be used to influence policy</p>	<p>it is not fairly true, Some of the work and some of the team members and even the main expert that trained the Kenyan team on LEAP, has continued to play a key role in the Long Term Low Emission Strategy (LEDS) formulation for Kenya. See attached LTS draft for Kenya and some of the work improved from the LEDS modelling.</p>	<p>I can also buy myself a mercedes Benz and praise myself for reducing emission because I could have bought a more gas-guzzling Ferrari. But if the rest of the neighbourhood (the other 99%) goes from family-car to electric bicycles and shared electric cars, the modelling should look into that too.</p>
<p>Page 42 203. A causal pathway from modelling/evidence-based LEDS measures and policy decisions (Project Outcome 2.1) towards strengthening NDC implementation could not be established. First, because Outcome 2.1 results could not be established. Second, because the evaluation could not establish that policy makers were intentionally and systematically using Africa LEDS modelling results to inform specific parts of NDCs; one difficulty was also that no documentation was available on draft versions of the second NDCs in spite of repeated efforts</p>	<p>As much as your conclusion on whether policy makers were intentionally and systematically using Africa LEDS modelling results to inform specific parts of NDCs could be OK, it is not fairly true.</p> <p>"that no documentation was available on draft versions of the second NDCs"</p> <p>To be fair enough you did not ask at any time for the draft NDC, which I could have provided.</p> <p>Please note that in Kenya for example the NDC update is a highly summarized document, but I have attached the detailed NDC document which informed the summarized submitted NDC-some of the items where modeled under LEDS- where you can see under mitigation in energy include - reduction of system losses- Development and Distribution of 4.55 Million Improved Biomass Cook stoves and 3.84 Million Clean CookStoves Between 2020 and 2030. Some of the technical teams that were trained have continued to play a major roles in representing their Sectors during the NDC formulation. The Key expert who was engaged in the LEDS</p>	<p>I have seen how much it takes to bring a LEDS innovation to a higher level and believe there is value in the report's recommendation, that any modelling be firmly grafted on real cases, on the ground, to make a concrete point to policy makers (e.g., divert 10% of the chemical fertilizer subsidy towards compost).</p>

<p>by the consultant to be provided such.</p>	<p>training has also played a key role in advancing the modeling in the Development of Kenya's Long term low emission strategy LTS (which is about to be validated) to achieve NET-ZERO emissions. I have attached a draft of the Long term strategy (Not for sharing)- Which will inform subsequent NDCs moving forward.</p>	
<p>Page 43 Table 8: Subcontracts Kenya: MENR, Start date End -No date dat May 2018 No- Financial report</p>	<p>The Kenya project had a start date on 27 Feb 2018 following the (see Report on the scoping meeting on Low Emissions Development Strategies (LEDS) Modelling Support – Kenya held on 22 Feb 2017 and Report on 1 day workshop held on 27Feb2018)</p> <p>End date was in March 2020, and the accounting institution that received money was the IGAD Climate Predication Centre (ICPAC)- (see contract-attached)</p> <p>At no time did you ask for financial report and in any case 1st report (see attached-Africa-LEDS_Kenya component2 report) had a financial expenditure for the Reporting period: from JAN 2018 to March 2019. The above report was not the final report for the project, since the project continued with activities upto March 2020. I Have added an additional report including for the additional work done upto March 2020 (see attached final report LEDS_KENYA-31_10-2020)</p> <p>Attached also is the imprest surrender (expenditure) forwarding letters for some of the 9 workshops that were held to the accounting institution (ICPAC). The original receipts and signed participants lists are in hard copy and may need to be scanned if needed</p>	
<p>Page 122, Table 23: Kenya final report: dates of modelling skills workshops (no information on participants, or learning objectives).</p>	<p>I wish to disagree with the statement highlighted in yellow for at no time were we asked to provide the agenda and list of participants. Even the report I had provided had a list of participants in the annex, (see attached-Africa-LEDS_Kenya component2 report)), and we have all the agenda and list of participants signed for each workshop folder that we held in hard copy, which I can scan and send to you once I am the office. Examples of agenda/ programme that was followed also attached.</p>	

Annex II – People consulted during the evaluation

Table 12: Resource persons

Organization	Name, position (peach colour: those named in attendance of PSC meetings)	Online	Mission	Validation
UNEP	Richard Munang, Africa LEDS Project Manager (PM), PSC Secretary, Coordinator Climate Change Sub-programme (all 3 PSC)	27/5, 10/8, 25/11/2020, @@, 7/12/2021		
	Robert Mgendi, Project Assistant			
	Stephen Ndeti, Fund Management Officer (FMO)	18/6/20, @31/10/21		
	Dr Juliette Biao – PSC, Africa regional Director, PSC chairperson (1st PSC)	14/12		
	David Ombisi, UNEP (all 3 PSC)	Invite @8/11/20		
	Kouadio N'goran, Côte d'Ivoire, policy actor (all 3 PSC), Mohamed Atani, UNEP (all 3 PSC)	Invite @8/11/20		
	Frank Turyatunga, Deputy Regional Director, direct line manager of Africa LEDS PM			
	Mohamed Atadni (1st PSC)			
	Ermina Fida (Martin Kaspar talked to her, copied her in 22/12/2016 email on Inception Report)			
	Soraya Smaoun, Sub-programme Coordinator of the Resource Efficiency Sub-programme	@18/11/20		
	Lowri Angharad Rees, Reviewed PoW Project 1721 (moved to UN Women)	@16/6: not involved		
	Moses Ako (IT)	@8/12/21 no reply		
Patrick Mwesigye, PoW Project 1721 project manager (in the Resource Efficiency SP)	8/6, @s			
EC	Martin Kaspar, PSC, Africa LEDS Project Focal (all 3 PSC)	10/6, @s		
	Caroline Ofenhammer (financial administration for this project)	@9/12/2021		
EC representative in Cameroon	Steven Rault & Emilie Wattelier	26/11/20, @s		
EC representative in DRC	Arnold Jacques de Dixmude (pour DRC)	08/12/20		
TA, Implementation Partners	Name, position	Online 2020	Mission	Validation
National Renewable Energy Laboratory (NREL)	Ron Benioff – PSC (all 3 PSC)	2/9/20		
	Thomas Peterson, Centre for Climate Strategies (CCS) (3rd PSC)			
	Sadie Cox, Africa LEDS Project Focal (1st PSC)	2/9/20, @s		
ECN	Francesco Dallalonga (supporting modelling in Ghana, Mozambique)	17/9/20		
Center for Climate Strategies (CCS)	Arianna Ugliano, contact person for Côte d'Ivoire analysis and support http://www.climatestrategies.us/supporting-modelling-in-Côte-d'Ivoire	10/9/20		
Kwame Nkrumah University of Science and Technology (KNUST)	Dr. Edward Awafo, Africa LEDS Project Focal (2nd PSC, 3rd PSC) = KNUST presence on behalf of AfLP not noted	16/9/20		
	Gabriel Takyi (1st PSC)			

Organization	Name, position (peach colour: those named in attendance of PSC meetings)	Online	Mission	Validation
	Emmanuel Ramde (2 nd PSC, 3 rd PSC)			
Africa Centre for Technology Studies (ACTS), Nairobi	Prof. Tom Peter Migun Ogada, Executive Director	7/9, @8/9/20		
	Pheles Ngovo Dir of Finance			
	C. Bwire			
AfLP	Nobody replied yet, who leads its AFOLU CoP?	@18 & 25/11/20		
Cameroon	Name, position	Online 2020	Mission	Validation
Ministry of Environment, Nature Protection & Sustainable Development (MINEPDED)	Valentin Wagnoun, former Ministry Focal point UNFCCC (all 3 PSC), inspector, important for modelling (all PSC)		15/09	17/09
	John Gounes Tougoulou, LEDS focal point National/policy planner, Policy Task Force		11/09	17/09
	Barthélémy Ndongou, Inspecteur Général			
	Prudence Galega, Secretary General			
	Timothée Kagonbe, NDC coordinator, Member of modelling team, National/policy planner			
	Boris Elanga, Member modelling team Policy making support staff		11/09	
Action for Equitable, Integrated & Sustainable Development (ADEID)	Michel Takam, Africa LEDS project Manager, lead operational level actor (ADEID)	23/07	07/09	17/09
PWC	Stéphane Tapboda, architect consultant			17/09
MINEPAT	Borel N. Ntsafack, CEA			17/09
National Observatory on Climate Change (ONACC), SubDepartment of Ecological and Climate Modelling (SDECM)	Patrick Forghab Mbomba, Deputy Director, member of modelling team, National/policy planner		14/09	17/09
	Lucas Bembong, Member of the modelling team		14/09	
TKSwift (private sector)	Ulrich Tsamo, Directeur, Afroshop modelling team		11/09	17/09
	Claude Yannick Plong, member of modelling team			
University of Yaoundé	Prof. Appolinaire Dertini, Team member LEDs Model development Expert important pour les modèles			
	Josias Tami Nelino, Team member LEDS modelling expert, important for modelling, also TKSwift		16/09	17/09
LRCC/INC/MINRESI	Prof. Zéphirin Yepdo Djomou, Team member LEDS Model development expert		16/09	17/09
Enseignant/Univ. de Dschang	Dr. Roger Njila, Team member LEDS Model development Expert important pour les modèles		07/09	
Expert-Consultant Climat	Blaise Bignom, consultant, team member LEDS modelling, climate aims, important for modelling		15/09	17/09
Expert-Consultant Stratégie	André Nguesseu, Team member LEDS Model development Expert, Clean energy integration		14/09	17/09
Expert-Consultant solaire	Fofie Otis, Team member LEDS Model development, Clean energy integration			17/09
Ministry of Agriculture and Rural Development (MINADER)	Emmanuel Djoro, Africa LEDS inter-ministerial task force lead, Modelling team, policy making support staff		11/09	

Organization	Name, position (peach colour: those named in attendance of PSC meetings)	Online	Mission	Validation
SOCOPROMAN Coopérative	Philipe Edimengo, Directeur		10/09	
Coopérative de Ngoulemakong	Angeline Akoa, Présidente		10/09	
	Abessolo, member		10/09	
	Abraham Elama, member		10/09	
Jakiri Cooperative	Florence Shey, member, cassava grower	by WhatsApp	08/09	
Côte d'Ivoire	Name, position	Online 2021	Mission	Validation
Ministère de l'Environnement et du Développement Durable (MINED)	Dr. Alain Serges Kouadio, Africa LEDS project Manager (2 nd PSC, 3 rd PSC) Économiste de l'environnement, Directeur de l'Économie Verte et de la Responsabilité Sociétale		18/10	22/10/ 2021
	Marc Daubrey (2 nd PSC)			
	Assie Richemond, UNFCCC focal point (1st PSC)			
National Agency for Agricultural Supervision (ANADER), coordinating with the Ministry of Environment & Sustainable Development (MINEDD)	Dragori, Directeur Régional de San Pédro, ANADER		19/10	21/10
	Kouassi, Chef de Zone Gagnoa, ANADER		19/10	21/10
	Dr Bamouan Jean-Pierre, Directeur RDC, et ANADER-Zone		19/10	21/10
	Kouassi M. Seydou, ANADER		19/10	21/10
	Gbo D. Amin, ANADER au siège			22/10
Administration Régionale (Gagnoa)	Bagrou Guéda, Directeur Régional de l'Environnement		19/10	21/10
	Philbert Layon, Directeur Régional de l'Agriculture		19/10	
Rice producers Tipadipa	55 participants, of which 48 are producers of rice (29f, 19m)		20/10	
Rice producers Tiétiékou	16 participants, of which 8 producers of rice (8m), only 4 producers (4m) were trained by the project		20/10	
Productrice briquettes	Amata Coulibali		20/10	
Développement Communautaire	Oppo (concernant les briquettes) = Yannick Aboh, Responsable DD? De CGECI?		20/10	
Experts modélisation	Sylvel Gnamun, expert LEAP (concernant briquettes)			22/10
Université Nangui Abrogoua /UFR SGE (UNA)	Prof. Ignace Kouassi Kouadio, expert modélisation, expert Ex-Act (concernant SRI)			22/10
	Jean-Claude Ndri, MSc student			22/10
Équipe politique	Jean-Claude Koya, président de l'équipe politique, aussi secrétaire d'ANADER, président d'Ebafoa Afrique-HQ (that is a platform supported by UNEP, also engaged in AfLP, using Anacardium for biocarbon/cement)			22/10
Direction de Lutte contre les Changements Climatiques (DLCC)	Dr Eric Assamoi, Directeur, Political task force			22/10
FAO	Bivoko Guillaume, Coordinator for the FAO project on SRI	04/11/2021		
DRC	Name, position	Online 2020	Mission	Validation
Ministry of Environment and Sustainable Development, DSD	Aimé-Médard Mbuyi Kalombo, Chef Division CC, UNFCCC point focal, Africa LEDS project Manager (1 st PSC, 2 nd PSC)		01/10	
	François Mubilayi, CB/IGES		07/06	10/10/20
	Samuel Madragule, Directeur Environnement/SG Hydrocarbures			

Organization	Name, position (peach colour: those named in attendance of PSC meetings)	Online	Mission	Validation
DDD	Jean Wily Ndoko, expert CC			10/10
Centre for Integrated Rural Development and Adaption, University of Kinshasa	Onesphore Mutshail Kavul, Expert Voir 2 ^{ème} modélisation		02/10	10/10
Green Space Network	Roliane Kayiba , responsable		07/10	10/10
BioDec (NGO), Global consult	Alphonse Bangila, 3B av des forces armées, Locaux Ogec/Gombe		08/10	
NCBR	Jean Claude Kabamba, réviseur			10/10
Centre National d'Énergie, MERH	André Kabwe Bibombe, Adaptation Expert, manuel de mise en œuvre des activités du projet pilote		02/10	10/10
	Joseph Kuabi Bavueza, Système d'information en énergie/ Secrétariat général, expert		02/10	10/10
Université de Kinshasa	Théodore Kasanda Kalonjji, climate modelling expert			10/10
	Dr. Prof. Jean Paul Kibambe, Étude sur l'impact de la chaine de valeur sur la chaine de décision		05/10	
ISTA: Higher Institute of Applied Technologies, Centre for Study & Research in Renewable Energy	Dr. Bernard Ndaye Nkanka, Clean energy expert		01/10, 02/10	10/10
	Augustin Lomena Mulenda, energy efficiency R&D		07/06	10/10
Centre for Integrated Rural Development and Adaption, CADRI	Bertin Bapinga Muselu, Modelling, expert on Geographic Information Systems (GIS), scénario socio-économiques		06/10	
	Nicky Kingunia, Projet de Cartographie et modélisation de carbone, expert quantification carbone des forêts, groupe de travail politique de réduction des émissions			
Ghana	Name, position	Online 2020	Mission	Validation
Environmental Protection Agency (EPA)	Kyekenye Opong-Boadi, Director and UNFCCC Focal Point (2 nd PSC, 3 rd PSC) Africa LEDS project Manager	1/10, @15/10/2020		
	Dr. Daniel Tutu, LEDS Model development leader	9/10		
Kenya	Name, position	Online	Mission	Validation
Ministry of Environment and Forestry (MEF), or Ministry of Environment, Water and Natural Resources (MEWNR)	Dr. Charles Mutai, Director and UNFCCC Focal – Retired (2 nd PSC) Climate Change Directorate (CCD), Africa LEDS project manager	Refers to Adegü		
	David Adegü, Climate Change Directorate (CCD) now to the Kenya Meteo. Dept. (KMD) – resource person	7/8/2020		
	Peter Omenyi, CCD Lost due to Covid 19; he pushed for CCD to take up this work			
	Stephen Kinguyu, CCD (2 nd PSC)			
Stockholm Environmental Institute (SEI)	Calvin Mbeo (LEAP Software EXPERT) – resource person			
CCD/LECRD (Low Emission Climate Resilient Development)	Yvonne Nyokabi			
Min. of Energy	Nicholas Maundu, Energy Team modeller			
Min. of Energy	Peter Maneno , Energy Team modeller			
CCD/LECRD	Purity Kendi, Energy Team modeller			
CCD/LECRD	Lilian Ndunge, Energy Team modeller			

Organization	Name, position (peach colour: those named in attendance of PSC meetings)	Online	Mission	Validation
DRSRS (Department of Resource Surveys and Remote Sensing)	Merceline Ojwala, Agroforestry Team modeller			
KFS (Kenya Forest Service)	George K.Tarus, Agroforestry Team modeller			
Forest Action Network	Dominic Olubengo	10/11		
Mozambique	Name, position	Online 2020	Mission	Validation
Ministry for the Coordination of Environmental Affairs (MICOA)	Prof. Almeida Siteo, Africa LEDS project Manager UEM institutional coordinator	30/9/2020		
Ministerio da Terra, Ambiente e Desenvolvimento Rural (MITADER)	Marilia Telma Manjate, MITADER, Africa LEDS Government Focal (2 nd PSC, 3 rd PSC)	@28/9, @1/10		
	Francisco Sambo (2 nd PSC, 3 rd PSC)			
Zambia	Name, position	Online 2020	Mission	Validation
Ministry of Lands and Natural Resources (MLNR), Climate Change and Natural Resources Management Department (CCNRMD)	Prof. Yamba, Africa LEDS project Manager and CEEEZ ...	09/10/2020		
	Carol Mwape Zulu, Chief CC Officer - Africa LEDs Government focal (3 rd PSC)	09/10		
	Ephraim Mwephya Shitima (3 rd PSC)			
	Beausic Chongo, Principal CC Officer-Mitigation	20/11		
Morocco	Name, position	Online 2020	Mission	Validation
Ministry of Environment State Secretariat for Sustainable Development	Naima Oumoussa, Africa LEDS project Manager, Chargée de l'Adaptation au Changement Climatique, et inventorisatrice chargée des Procédés.	@28/9, @1/10, no response		

Annex III – Key sources consulted

ToR

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Guidelines

Document	Name https://www.unenvironment.org/about-un-environment/evaluation/our-evaluation-approach	URL link
1	Evaluation Process Guidelines for Consultants	Link
2	Evaluation Consultants Team Roles (Principal Evaluator and Evaluation Specialist)	Link
3	List of documents required in the evaluation process	Link
4	Evaluation Criteria (summary of descriptions, as in these terms of reference)	Link
5	Evaluation Ratings Table (only)	Link
6	Matrix Describing Ratings by Criteria	Link

Document	Name https://www.unenvironment.org/about-un-environment/evaluation/our-evaluation-approach	URL link
7	Weighting of Ratings (excel)	Link
8	Project Identification Tables	Link
9	Structure and Contents of the Inception Report	Link
10a	Template for the Assessment of the Quality of Project Design (Word template)	Link
10b	Template for the Assessment of the Quality of Project Design (Excel tool)	Link
11	Guidance on Stakeholder Analysis	Link
12	Gender Note for Evaluation Consultants	Link
13	Use of Theory of Change in Project Evaluations https://wedocs.unep.org/bitstream/id/8b45f5ff-c37b-4aac-b386-6b6b8e29aaed/	Link
14	Assessment of the Likelihood of Impact Decision Tree (Excel)	Link
15	Possible Evaluation Questions	Link
16	Structure and Contents of the Main Evaluation Report	Link
17	Cover Page, Prelims and Style Sheet for Main Evaluation Report	Link
18	Financial Tables	Link
19	Template for the Assessment of the Quality of the Evaluation Report	Link

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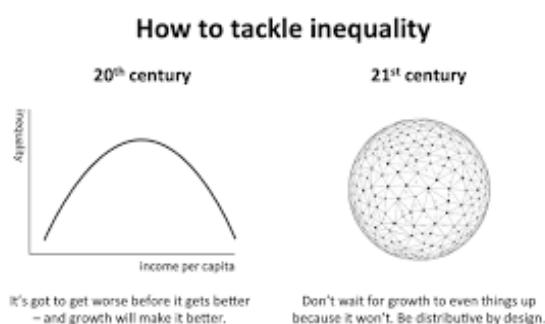
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Annex IV – Evaluation Terms of Reference (ToR 133117)

Section 1. PROJECT BACKGROUND AND OVERVIEW

1. Project General Information

Table 1. Project summary

UNEP PIMS ID:	A sub-component of the UNEP Programme of Work Project PIMS 1721 – Operationalizing Green Economy Transition in Africa		
Implementing Partners	Africa LEDS Partnership (AfLP), LEDS Global Partnership (LEDS GP) ¹²⁹		
Relevant SDGs and indicators:	SDG 13, 13.3.2, 13.b.1		
Sub-programme:	Resource Efficiency	Expected Accomplishment(s):	2014/15 - 6:1 2016/17 - 6:1 2018/19 - 6:1
		Programme of Work Output(s):	2014/15 - 6:15 2016/17 - 6:14 2018/19 - 6:18
UNEP approval date:	15 March 2016	DG Climate Action approval date	12 April 2016
<i>Expected</i> start date:		Actual start date:	12 April 2016
<i>Planned</i> completion date:	April 2019	Actual operational completion date:	12 October 2019
<i>Planned</i> project budget at approval:	EUR 3,420,000	Actual total expenditures reported as of [20 November 2019]:	US\$ 3,754,914.19
<i>Planned</i> Environment Fund allocation:	Only in-kind (post)	Actual Environment Fund expenditures reported as of [date]:	n/a
<i>Planned</i> Extra-Budgetary Financing (European Commission):	EUR 3,420,000	Secured Extra-Budgetary Financing:	EUR 3,420,000
		Actual Extra-Budgetary Financing expenditures reported as of [date]:	US\$ 3,754,914.19
First disbursement:	13 April 2016	Planned date of financial closure:	
No. of formal project revisions:	1	Date of last approved project revision:	March 2019
No. of Steering Committee meetings:	3	Date of last/next Steering Committee meeting:	Last: Dec 2018 Next: n/a
Mid-term Review/ Evaluation (<i>planned date</i>):	At project mid-point	Mid-term Review/ Evaluation (actual date):	Not conducted
Terminal Evaluation (<i>planned date</i>):	2019	Terminal Evaluation (actual date):	2020
Coverage - Countries:	Cameroon, Democratic Republic of Congo (DRC), Ghana, Ivory Coast, Kenya,	Coverage - Region(s):	Africa

¹²⁹ Mitigation Action Plans and Scenarios (MAPS) Africa was also identified as an implementing partner at project design.

	Mozambique, Zambia ¹³⁰		
Dates of previous project phases:		Status of future project phases:	

2. Project Rationale

Africa's growth has been reported as strong, but despite the high growth figures, Africa still faces challenges of persistent poverty, growing inequalities and low human development. These challenges will be further compounded by ecosystem degradation, climate change and economic disruption, which disproportionately impact the poor and most vulnerable. The Africa Ministerial Conference on the Environment (AMCEN) held in Cairo in 2015, just a few months before the Conference Of Parties, COP21 in Paris, concluded with the Cairo Declaration. This declaration called for the need to keep average global temperature rise within 1.5°C relative to pre-industrial levels by 2050, signalling an ambitious mitigation call from the continent. It also called for parity in treatment of both adaptation and mitigation. These common continental positions were captured in the Paris Agreement including in Articles 1 and 7 and reflected in the continent's commitments to this agreement expressed in country Nationally Determined Contributions (NDCs). A common denominator in these commitments is their framing in the context of accelerating socioeconomic development priorities of countries – particularly, achieving food security, creation of income and enterprise opportunities and expansion of macro-economic growth. This is a convergence of a multiplicity of global and continental blueprints that Africa ascribed to, including the Sustainable Development Goals (SDGs), the African Union Agenda 2063, the Common African Position on the on the post-2015 development agenda (CAP) on the UN Conference on Sustainable Development (Rio+20) among key ones. Cumulatively, they underscore the need for the continent to develop sustainably – protecting its ecosystems and abating emissions toward enhancing an inclusive Green Economy and transition to the low emissions development pathway.

The Paris Agreement reiterates support for design and implementation of low emission development strategies, which provide an essential long-term foundation for realisation of NDC commitments. Within this context, the Africa LEDS project, whose implementation began in 2016 at the backdrop of Conference Of Parties, COP22, was to provide a key vehicle to support implementation of Paris Agreement objectives. This was to be through targeted, country-led support for Low Emission Development Strategies (LEDS) and NDC planning, implementation and modelling.

The Africa LEDS project was to support in-country teams undertaking LEDS assessments and designing implementation policies and measures. The assessments were to be driven by country governments through multi-ministerial Steering Committees and as such, based on individual country needs and interests. This project focused on supporting countries put in place structure for optimal implementation that maximises both climate and socioeconomic benefits. This project was implemented as a sub-component of a UNEP PoW project "Operationalizing green economy in Africa" (PIMS ID 1721).

This project was to be complementary to several ongoing (at the time of project design) programmes including the work program of the EU-Africa Partnership and the AMCEN, and was to draw from experience and lessons learned from the implementation of Technology Needs Assessments (TNA), Facilitating Implementation and Readiness for Mitigation (FIRM), the Mitigation Action Plans and Scenarios (MAPS) Africa Feasibility study, and the MAPS Latin American Programme and Nationally Appropriate Mitigation Actions (NAMA) efforts. Specifically, work was to build on established progress in countries – including existing modelling and policy frameworks for low emissions

¹³⁰ Morocco was included among the participating countries at the onset, but later discontinued the project.

planning and decision making at the strategic level. Work was also to build on ongoing operational level investments in key NDC and low emissions areas as were to be prioritised by countries during the scoping missions. Project lessons were also to be shared continentally including through high level policy frameworks of the AMCEN.

3. Project Objectives and Components

The overall objective of the project was described in the ‘Description of the Action’ -document as “to assist partner African countries in defining, building support, and launching implementation of inclusive, low emission, climate-resilient, and resource efficient socio-economic development pathways while also building local research, knowledge, expertise and capacity to develop and implement Nationally Determined Contributions (NDCs)”. The Description of the Action also identified a set of three other objectives, namely i) Strengthen networking and peer-to-peer exchange and learning and support on climate change issues across African countries and enhancing regional cooperation in communicating the co-benefits of action by countries to pursue climate resilient low emission development paths; ii) Develop local research capacity knowledge and expertise and a related evidence base on the economic, social, and environmental benefits of low emission development, conducting programs to communicate these benefits to political leaders and stakeholders, supporting development and implementation of low emission, climate-resilient action plans; and iii) Engage the partner countries in training and peer exchange with other African countries that are leaders in this area.

The project comprised of two components; 1) LEDS planning and implementation support (Cameroon, DRC, Ivory Coast), which was to focus on development and/or implementation of LEDS plans or mainstreaming climate priorities within development plans; and 2) LEDS modelling support (Cameroon, DRC, Ivory Coast, Mozambique, Zambia, Ghana, Morocco, Kenya), which was to focus on an analysis of LEDS options, adapting and utilizing select models to inform LEDS policy decisions, evaluate and design climate resilient low emission development actions. The project Final Report also included a third component “peer learning and lessons exchanges” which was to focus on peer exchanges and lessons sharing to catalyse continent-wide replication and upscaling of project results. In the logframe, these aspects of the project were structured under Component 2 (output 4 under Component 2).

In terms of expected contribution towards UNEP Programme of Work, the project was to contribute to UNEP Resource Efficiency Sub-programme (Table 2).

Table 2. UNEP Expected Accomplishments that the project was expected to contribute to

PoW period	EA
2016-2017	EA(a) Cross-sectoral scientific assessments, research and tools for sustainable consumption and production and the green economy in the context of sustainable development and poverty eradication are developed, shared and applied by policymakers, including in urban practices
	EA(b) Uptake of sustainable consumption and production and green economy instruments and management practices in sectoral policies and in business and financial operations across global supply chains is increased, in the context of sustainable development and poverty eradication
	EA(c) Enabling conditions for promoting more sustainable consumption choices and lifestyles are enhanced

The Description of the Action presents a Logical Framework (logframe) with project outputs, indicators, means of verification and UNEP PoW Outputs (Table 3). The logframe does not present project outcomes. As described above, this Africa LEDS project was implemented as a component of the UNEP PoW Project 1721 “Operationalizing green economy in Africa” which had one expected outcome formulated as “The participating African countries are capacitated to translate national Green Economy transition strategies and/or action plans into concrete implementation plans at the subnational level”. According to project 1721 progress reporting in PIMS, the Africa LEDS

component has contributed towards this outcome and the corresponding outcome indicator (added to the Project 1721 logframe at Revision in 2018) was defined as “Number of countries implementing low emissions development (LEDS) informed climate action decisions through utilising LEDs modelling tools” (Baseline 0, Target 3).

Table 3. Africa LEDS Project Components, Outputs and Output Indicators, and expected contribution to UNEP Programme of Work (source: Africa LEDS Description of the Action)

Project Outputs	Indicators	UNEP PoW Outputs
Component 1. LEDS planning and Implementation Support		
New ¹³¹ LEDS initiatives developed or improved	3 partner countries develop or improve LEDS plans	EA(a) PoW output 4: Economic, legal and policy assessments and tools, technical assistance and capacity-building provided to countries and regions to develop and implement green economy and sustainable consumption and production policies
Implementation of specific LEDS measures initiated	3 partner countries initiate formulation and implementation of LEDS measures for key emissions sectors or economy wide	EA(b) PoW output 2: Technical guidance, tools and best practices developed and provided to financial services and capital markets stakeholders to improve the integration of environmental and social considerations in their business practices
Enhanced global and regional knowledge of LEDS planning and implementation	At least 5 non-partner African countries actively participating in peer forums More than 1 non-partner country formulating LEDS plans based on shared project knowledge Non-partner countries develop and implement LEDS measures based on shared project knowledge	EA(b) PoW output 4: Economic analysis, technical and policy guidance developed and provided to Governments, businesses and other stakeholders to adopt and implement more resource-efficient practices across and in selected food supply chains and improve the sustainability of food systems from production to consumption
LEDS champions cultivated	At least 3 institutions identified as LEDS champions to lead LEDS and implementation peer learning efforts LEDS training and equipping of identified champions Partnerships formed between champions to facilitate peer learning	EA(c) PoW output 1: Research on behaviour with regard to sustainable lifestyles and related policy assessments provided to Governments and stakeholders to support decision-making EA(c) PoW output 3: Lifecycle based information tools and methodologies developed with, and provided to, Governments, businesses and individual consumers to enable and motivate them to make informed choices
Component 2. LEDS Modelling Support		
LEDS actions prioritization and decision-maker support for priority LEDS measures significantly enabled	Priority LEDS actions identified for 8 partner countries At least 8 countries with strengthened LEDS process as a result of prioritization process	EA(a) PoW output 1: Resource use assessments and related policy options developed and provided to countries to support planning and policymaking EA(b) PoW output 3: Economic analysis, technical and policy guidance provided to construction stakeholders and Governments to develop, adopt and implement policies and standards on resource efficiency in buildings and construction practices and related materials through the supply chains
Strengthened analysis and communication of LEDS benefits	At least 8 countries with strengthened stakeholder support for LEDS process as a result of improved analysis and communication of LEDS benefits A LEDS in Africa website in place as continental LEDS knowledge management platform	EA(c) PoW output 2: Global partnership, tools and technical and policy support provided to Governments and other stakeholders to develop and implement sustainable public procurement

¹³¹ The word “new” in this output statement has been omitted from the project progress reporting.

Project Outputs	Indicators	UNEP PoW Outputs
Improved LEDS modelling capacity	LEDS models adapted for target high emissions sectors / economy wide Training of relevant personnel to lead LEDS modelling actions Partner country technical institutes conducting analysis with adapted models	
Improved regional and global knowledge	At least 2 non partner countries report improved LEDS process due to peer learning forums and project knowledge products Non partner countries participate actively on LEDS modelling through knowledge platforms All 8 partner countries actively involved in LEDS modelling peer training & knowledge sharing	

4. Project Executing Arrangements

The UNEP Regional Office for Africa was to manage the Africa LEDS project. The project implementation strategic direction and internal governance was to be under the overall guidance of a “Project Steering Committee” (PSC)¹³². The PSC was to be comprised of the European Commission, LEDS Global Partnership, AfLP and MAPS Africa¹³³.

The AfLP was to lead and coordinate the regional training activities under the project in partnership with leading regional institutions in West, East, Central, Northern and Southern Africa. Contracts with the African partner institutions were to be administered through the AfLP in collaboration with other African Institutes including the Africa Centre for Technology Studies (ACTS). AfLP was also to support the inception phase of the project.

The LEDS GP was to lead the implementation of country-specific support activities in partnership with lead country representatives and technical institutions in the eight participating countries. The country-specific support was to be delivered in collaboration with a technical team comprised of MAPS Africa, the Energy Research Centre of the Netherlands, the Stockholm Environment Institute, the Pacific Northwest National Laboratory and other technical institutions.

For Francophone partners, communication with national stakeholders was to occur primarily in French with the support of translators where needed.

5. Project Cost and Financing

The project was funded by the EC DG Climate Action. The total cost of the Action was estimated as EUR 3,420,000 (Tables 4 and 5). The Description of the Action or budget do not identify other sources of funding, including in-kind resources. In November 2019 the actual project expenditure was reported as US\$ 3,754,914, leaving a positive balance of US\$ 283,647. The project was planned for 36 months, and then extended to 42 months.

Table 4. Planned budget by project component

	Component 1	Component 2	Evaluation	Total (EUR)
Project budget	1,952,750	1,413,750	53,500	3,420,000

Table 5. Planned budget by calendar year (as per the Description of the Action)

	Year 1	Year 2	Year 3	Total in Euros
Project budget	2,100,000	827,800	492,200	3,420,000

¹³² Both terms; ‘Steering Committee’ and ‘Advisory Committee’ have been used in project documentation.

¹³³ The actual composition of the PSC during project implementation seems to have differed from the one initially planned, for instance, by participation of UNEP.

6. Implementation Issues

The PoW Project 1721, as introduced above, comprised of three separate funding agreements: US\$ 2,313,930 from Germany (IKI) for 2014-2018; EUR 3,420,000 from the EC April 2016 – October 2019 which is now subject to this evaluation; and CAD\$ 1,670,000 from Canada for 2017-2020. Both, the funding from EC and Canada were commissioned to support the LEDS component, the Canada funding having been used, according to the project manager, on activities related to waste management, and the remaining of the Canada funding being transferred into a new project document to be launched in 2020. The original PoW Project 1721 project document was approved in April 2014. That project document was revised three times; in November 2015 to include the EC funding; in January 2018 to include the Canada funding; and in March 2019 to extend the project until October 2019.

Each of the three agreements had their respective donor-specific project documents and reporting, whilst the reporting in PIMS was prepared for the entire PoW Project 1721. Therefore, specific progress reporting on this Africa LEDS project is not available in PIMS but instead, PIMS progress reporting combines progress of all of the PoW Project 1721 components implemented through the different donor agreements. Some documentation specifically regarding the LEDS project was, however, available in PIMS. Specific reporting regarding the Africa LEDS project can be found from the progress reports, and the final project report to the EC, although some concerns over the quality of the reporting were raised. These reports provide progress against the logframe outputs and output indicators, as well as specify activities completed in the project countries. The progress reports do not specify contribution towards the UNEP Expected Accomplishments and PoW outputs which were included in the logframe presented in the project document. The project did not undergo a Mid-Term Review.

The Africa LEDS project duration as stated in the signed agreement with the EC was 36 months (12 April 2016 – 12 April 2019). The project was granted one no-cost extension in 2019 (approved by DG CLIMA 27 February 2019; approved by UNEP 4 March 2019) extending the project duration to 42 months to October 2019. The need for an extension might have been derived from the delays during the early stages of the project, specifically between the date of official contract signing and the actual availability of funds occasioned by internal due diligence processes.

The project was conceptualized, designed and project document finalised before the adoption of the Paris Agreement, but the project implementation begun when the Agreement had just been adopted. This, according to the project team provided an opportunity for the project to refocus project alignment with country low emissions development priorities, as documented in the NDCs submitted prior to the COP21 and partially updated thereafter. Thus, establishing NDCs implementation as the focus of the project.

Section 2. SCOPE AND OBJECTIVE OF THE EVALUATION

7. Scope of the Evaluation

This terminal evaluation will concern the EC-funded project component “EU-UNEP Africa Low Emissions Development Strategies Modelling, Planning and Implementation Project” – the Africa LEDS project - implemented under the UNEP PoW Project 1721.

8. Objective of the Evaluation

In line with the UNEP Evaluation Policy¹³⁴ and the UNEP Programme Manual¹³⁵, the Terminal Evaluation is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP, the EC, the participating countries and main project partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation, especially where a second phase of the project, or similar interventions in the future are being considered.

9. Key Evaluation Principles

Evaluation findings and judgements will be based on sound evidence and analysis, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) as far as possible, and when verification is not possible, the single source will be mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.

The “Why?” Question. As this is a terminal evaluation but similar interventions are envisaged for the future, particular attention will be given to learning from the experience. Therefore, the “Why?” question should be at the front of the consultants’ minds all through the evaluation exercise and is supported by the use of a theory of change approach. This means that the consultants need to go beyond the assessment of “what” the project performance was and make a serious effort to provide a deeper understanding of “why” the performance was as it was (i.e. what contributed to the achievement of the project’s results). This should provide the basis for the lessons that can be drawn from the project.

Attribution, Contribution and Credible Association: In order to attribute any outcomes and impacts to a project intervention, one needs to consider the difference between what has happened with, and what would have happened without, the project (i.e. take account of changes over time and between contexts in order to isolate the effects of an intervention). This requires appropriate baseline data and the identification of a relevant counterfactual, both of which are frequently not available for evaluations. Establishing the contribution made by a project in a complex change process relies heavily on prior intentionality (e.g. approved project design documentation, logical framework) and the articulation of causality (e.g. narrative and/or illustration of the Theory of Change). Robust evidence that a project was delivered as designed and that the expected causal pathways developed supports claims of contribution and this is strengthened where an alternative theory of change can be excluded. A credible association between the implementation of a project and observed positive effects can be made where a strong causal narrative, although not explicitly articulated, can be inferred by the chronological sequence of events, active involvement of key actors and engagement in critical processes.

¹³⁴ <https://www.unenvironment.org/about-un-environment/evaluation-office/policies-and-strategies>

¹³⁵ <https://wecollaborate.unep.org>

Communicating evaluation results. A key aim of the evaluation is to encourage reflection and learning by UNEP staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the evaluation process and in the communication of evaluation findings and key lessons. Clear and concise writing is required on all evaluation deliverables. Draft and final versions of the main evaluation report will be shared with key stakeholders by the Evaluation Manager. There may, however, be several intended audiences, each with different interests and needs regarding the report. The consultant(s) will plan with the Evaluation Manager which audiences to target and the easiest and clearest way to communicate the key evaluation findings and lessons to them. This may include some, or all, of the following; a webinar, conference calls with relevant stakeholders, the preparation of an evaluation brief or interactive presentation.

10. Key Strategic Questions

In addition to the evaluation criteria outlined in Section 11 below, the evaluation will address the **strategic questions** listed below. These are questions of interest to UNEP and to which the project is believed to be able to make a substantive contribution:

1. To what extent did the project assist partner African countries in the implementation of NDCs?
2. To what extent did the project demonstrate practical pathways for Nationally Determined Contributions (NDCs) and low emissions, climate-resilient, and resource efficient development implementation actions?
3. To what extent are the project results sustained; how likely is the sustainability of the pilot projects, and how likely are the partner countries continuing the use of the GHG modelling tools?
4. To what extent was the peer exchange successful in promoting uptake and replication of project approaches in African countries, beyond those directly involved in the project?
5. What implications accrued to the project from being implemented as part of the UNEP PoW Project 1721? To what extent, did it support building on synergies?

11. Evaluation Criteria

All evaluation criteria will be rated on a six-point scale. Sections A-I below, outline the scope of the criteria and a link to a table for recording ratings is provided (Annex 1). A weightings table will be provided in excel format (link provided in Annex 1) to support determination of an overall project rating. The set of evaluation criteria are grouped in 9 categories: (A) Strategic Relevance; (B) Quality of Project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the provision of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability and (I) Factors Affecting Project Performance. The consultant can propose other evaluation criteria as deemed appropriate.

A. Strategic Relevance

The evaluation will assess *'the extent to which the activity is suited to the priorities and policies of the target group, recipient and donor'*. The evaluation will include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. Under strategic relevance an assessment of the complementarity of the project with other interventions addressing the needs of the same target groups will be made. This criterion comprises four elements:

i. Alignment to the UNEP Medium Term Strategy¹³⁶ (MTS) and Programme of Work (PoW) and Strategic Priorities

The evaluation should assess the project's alignment with the MTS and PoW under which the project was approved and include, in its narrative, reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and PoW.

UNEP strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology and knowledge between developing countries.

ii. Alignment to UNEP / Donor Strategic Priorities

Donor strategic priorities will vary across interventions. The evaluation will assess the extent to which the project responded to the European Commission's strategic priorities with respect to Resource Efficiency and the promotion of a Circular/Green Economy, among others.

iii. Relevance to Regional, Sub-regional and National Environmental Priorities

The evaluation will assess the extent to which the intervention is suited, or responding to, stated environmental concerns and needs of the countries, sub-regions or regions where it is being implemented. Examples may include; the African Ministerial Conference on the Environment (AMCEN) at the continental level and country national or sub-national development plans, and low emissions development strategies, including NDCs etc.

iv. Complementarity with Existing Interventions

An assessment will be made of how well the project, either at design stage or during the project inception or mobilization, took account of ongoing and planned initiatives (under the same sub-programme, other UNEP sub-programmes, or being implemented by other agencies) that address similar needs of the same target groups. The evaluation will consider if the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided duplication of effort. Examples may include United Nations Development Assistance Frameworks (UNDAF) or One UN programming. Linkages with other interventions should be described and instances where UNEP's comparative advantage has been particularly well applied should be highlighted. Factors affecting this criterion may include:

- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven-ness.

B. Quality of Project Design

The quality of project design is assessed using an agreed template during the evaluation inception phase, ratings are attributed to identified criteria and an overall Project Design Quality rating is established. This overall Project Design Quality rating is entered in the final evaluation ratings table as item B. In the Main Evaluation Report a summary of the project's strengths and weaknesses at design stage is included, while the complete Project Design Quality template is annexed in the Inception Report. Factors affecting this criterion may include (at design stage):

- Stakeholders participation and cooperation

¹³⁶ UNEP's Medium Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes. <https://www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/un-environment-documents>

- Responsiveness to human rights and gender equity.

C. Nature of External Context

At evaluation inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval¹³⁷). This rating is entered in the final evaluation ratings table as item C. Where a project has been rated as facing either an Unfavourable or Highly Unfavourable external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

D. Effectiveness

i. Availability of Outputs¹³⁸

The evaluation will assess the project's success in producing the programmed outputs and making them available to the intended beneficiaries as well as its success in achieving milestones as per the Project Design Document (Description of the Action). Any *formal* modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the Description of the Action, reformulations may be necessary in the reconstruction of the ToC. In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The availability of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their ownership by, and usefulness to, intended beneficiaries and the timeliness of their provision. The evaluation will briefly explain the reasons behind the success or shortcomings of the project in delivering its programmed outputs and meeting expected quality standards. Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision.¹³⁹

ii. Achievement of Project Outcomes¹⁴⁰

The achievement of project outcomes is assessed as performance against the project outcomes as defined in the reconstructed¹⁴¹ ToC. These are outcomes that are intended to be achieved by the end of the project timeframe and within the project's resource envelope. As with outputs, a table can be used where substantive amendments to the formulation of project outcomes is necessary. The evaluation should report evidence of attribution between UNEP's intervention and the project outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UNEP's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the project outcomes realised. Factors affecting this criterion may include:

- Quality of project management and supervision
- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Communication and public awareness.

¹³⁷ Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management of the project team.

¹³⁸ Outputs are the availability (for intended beneficiaries/users) of new products and services and/or gains in knowledge, abilities and awareness of individuals or within institutions (UNEP, 2019)

¹³⁹ Refers to supervision and guidance provided by UNEP to implementing partners and national governments

¹⁴⁰ Outcomes are the use (i.e. uptake, adoption, application) of an output by intended beneficiaries, observed as changes in institutions or behavior, attitude or condition (UNEP, 2019)

¹⁴¹ All submitted UNEP project documents are required to present a Theory of Change. The level of 'reconstruction' needed during an evaluation will depend on the quality of this initial TOC, the time that has lapsed between project design and implementation (which may be related to securing and disbursing funds) and the level of any formal changes made to the project design.

iii. Likelihood of Impact

Based on the articulation of long-lasting effects in the reconstructed ToC (*i.e. from project outcomes, via intermediate states, to impact*), the evaluation will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the ToC, possibly as intermediate states or long-term impacts. The Evaluation Office's approach to the use of ToC in project evaluations is outlined in a guidance note available on the Evaluation Office website, <https://www.unenvironment.org/about-un-environment/evaluation>, and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from project outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed ToC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

The evaluation will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects. Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental, Social and Economic Safeguards (ESES).¹⁴²

The evaluation will consider the extent to which the project has played a catalytic role or has promoted scaling up and/or replication¹⁴³ as part of its ToC and as factors that are likely to contribute to longer term impact.

Ultimately UNEP and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-term or broad-based changes. However, the evaluation will assess the likelihood of the project to make a substantive contribution to the long-lasting changes represented by the SDG, and/or the intermediate-level results reflected in UNEP's Expected Accomplishments and the strategic priorities of funding partner(s). Factors affecting this criterion may include:

- Quality of Project Management and Supervision (including adaptive management)
- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven-ness
- Communication and public awareness.

E. Financial Management

Financial management will be assessed under three themes: adherence to UNEP's financial policies and procedures, completeness of financial information and communication between financial and project management staff. The evaluation will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output/component level and will be compared with the approved budget. The evaluation will verify the application of proper financial management standards and adherence to UNEP's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted. The evaluation will record where standard financial documentation is missing, inaccurate, incomplete or unavailable in a timely manner. The evaluation will assess the level of communication between the Project Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach. Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision.

¹⁴² Further information on Environmental, Social and Economic Safeguards (ESES) can be found at <http://wedocs.unep.org/handle/20.500.11822/8718>

¹⁴³ *Scaling up* refers to approaches being adopted on a much larger scale, but in a very similar context. Scaling up is often the longer term objective of pilot initiatives. *Replication* refers to approaches being repeated or lessons being explicitly applied in new/different contexts e.g. other geographic areas, different target group etc. Effective replication typically requires some form of revision or adaptation to the new context. It is possible to replicate at either the same or a different scale.

F. Efficiency

The evaluation will assess the extent to which the project delivered maximum results from the given resources. As feasible, the evaluation will examine value for money of the main project components, particularly the pilot projects and activities under Component 2. The evaluation of efficiency will include an assessment of the cost-effectiveness and timeliness of project execution. Focussing on the translation of inputs into outputs, cost-effectiveness is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. Timeliness refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The evaluation will also assess to what extent any project extension could have been avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The evaluation will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

The evaluation will give special attention to efforts by the project teams during project implementation to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency. The evaluation will, as feasible, assess the extent to which the project attempted to avoid any double financing with other donors or national financing sources. The evaluation will also consider the extent to which the management of the project minimised UNEP's environmental footprint.

The factors underpinning the need for any project extensions will also be explored and discussed. As management or project support costs cannot be increased in cases of 'no cost extensions', such extensions represent an increase in unstated costs to implementing parties. Factors affecting this criterion may include:

- Preparation and readiness (e.g. timeliness)
- Quality of project management and supervision
- Stakeholders participation and cooperation.

G. Monitoring and Reporting

The evaluation will assess monitoring and reporting across three sub-categories: monitoring design and budgeting, monitoring implementation and project reporting.

i. Monitoring Design and Budgeting

Each project should be supported by a sound monitoring plan that is designed to track progress against SMART¹⁴⁴ results towards the provision of the project's outputs and achievement of project outcomes, including at a level disaggregated by gender, vulnerability or marginalisation. In particular, the evaluation will assess the relevance and appropriateness of the project indicators as well as the methods used for tracking progress against them as part of conscious results-based management. The evaluation will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for mid-term and terminal evaluation/review should be discussed if applicable.

ii. Monitoring of Project Implementation

The evaluation will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards projects objectives throughout the project implementation period. This assessment will include consideration of whether the project gathered relevant and good quality baseline data that is accurately and appropriately documented. This should include monitoring the representation and participation of disaggregated groups in project activities. It will also consider how information generated by the monitoring system during project implementation

¹⁴⁴ SMART refers to results that are specific, measurable, achievable, relevant and time-oriented. Indicators help make the results measurable.

was used to adapt and improve project execution, achievement of outcomes and ensure sustainability. The evaluation should confirm that funds allocated for monitoring were used to support this activity.

iii. Project Reporting

UNEP has a centralised Project Information Management System (PIMS) in which project managers upload six-monthly progress reports against agreed project milestones. This information will be provided to the Evaluation Consultant(s) by the Evaluation Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team. The evaluation will assess the quality of the reporting and the extent to which both UNEP and donor reporting commitments have been fulfilled. Consideration will be given as to whether reporting has been carried out with respect to the effects of the initiative on disaggregated groups. Factors affecting this criterion may include:

- Quality of project management and supervision
- Responsiveness to human rights and gender equity (e.g. disaggregated indicators and data).

H. Sustainability

Sustainability¹⁴⁵ is understood as the probability of project outcomes being maintained and developed after the close of the intervention. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the endurance of achieved project outcomes (ie. 'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an assessment of bio-physical factors that may affect the sustainability of project outcomes may also be included.

i. Socio-political Sustainability

The evaluation will assess the extent to which social or political factors support the continuation and further development of project outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. In particular the evaluation will consider whether individual capacity development efforts are likely to be sustained.

ii. Financial Sustainability

Some project outcomes, once achieved, do not require further financial inputs, e.g. the adoption of a revised policy. However, in order to derive a benefit from this outcome further management action may still be needed e.g. to undertake actions to enforce the policy. Other project outcomes may be dependent on a continuous flow of action that needs to be resourced for them to be maintained, e.g. continuation of a new resource management approach. The evaluation will assess the extent to which project outcomes are dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where a project's outcomes have been extended into a future project phase. Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.

iii. Institutional Sustainability

The evaluation will assess the extent to which the sustainability of project outcomes (especially those relating to policies and laws) is dependent on issues relating to institutional frameworks and governance. It will consider whether institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. are robust enough to continue delivering the benefits associated with the project outcomes after project

¹⁴⁵ SMART = Specific, Measurable, Attainable, Relevant & Time-bound. As used here, 'sustainability' means the long-term maintenance of outcomes and consequent impacts, whether environmental or not. This is distinct from the concept of sustainability in the terms 'environmental sustainability' or 'sustainable development', which imply 'not living beyond our means' or 'not diminishing global environmental benefits' (GEF STAP Paper, 2019, Achieving More Enduring Outcomes from GEF Investment)

closure. In particular, the evaluation will consider whether institutional capacity development efforts are likely to be sustained. Factors affecting this criterion may include:

- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity (e.g. where interventions are not inclusive, their sustainability may be undermined)
- Communication and public awareness
- Country ownership and driven-ness.

I. Factors and Processes Affecting Project Performance and Cross-Cutting Issues

(These factors are rated in the ratings table but are discussed within the Main Evaluation Report as cross-cutting themes as appropriate under the other evaluation criteria, above. Where the issues have not been addressed under other evaluation criteria, the consultant(s) will provide summary sections under the following headings)

i. Preparation and Readiness

This criterion focuses on the inception or mobilisation stage of the project (ie. the time between project approval and first disbursement). The evaluation will assess whether appropriate measures were taken to either address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation. In particular the evaluation will consider the nature and quality of engagement with stakeholder groups by the project team, the confirmation of partner capacity and development of partnership agreements as well as initial staffing and financing arrangements. (*Project preparation is included in the template for the assessment of Project Design Quality*).

ii. Quality of Project Management and Supervision

In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP to implementing partners and national governments while in others, it will refer to the project management performance of the executing agency and the technical backstopping and supervision provided by UNEP. The evaluation will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining productive partner relationships (incl. PSC, etc.); communication and collaboration with UNEP colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive management should be highlighted.

iii. Stakeholder Participation and Cooperation

Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs and target users of project outputs and any other collaborating agents external to UNEP and the implementing partner(s). The assessment will consider the quality and effectiveness of all forms of communication and consultation with stakeholders throughout the project life and the support given to maximise collaboration and coherence between various stakeholders, including sharing plans, pooling resources and exchanging learning and expertise. The inclusion and participation of all differentiated groups, including gender groups should be considered. The evaluation will examine the extent to which partner-ships envisaged in the project document were realized, and assess implications of any changes to project delivery.

iv. Responsiveness to Human Rights and Gender Equity

The evaluation will ascertain to what extent the project has applied the UN Common Understanding on the Human Rights-Based Approach (HRBA) and the UN Declaration on the Rights of Indigenous People. Within this human rights context the evaluation will assess to what extent the intervention adheres to UNEP's Policy and Strategy for Gender Equality and the Environment¹⁴⁶. In particular the

¹⁴⁶ https://wedocs.unep.org/bitstream/handle/20.500.11822/7655/-Gender_equality_and_the_environment_Policy_and_strategy-2015Gender_equality_and_the_environment_policy_and_strategy.pdf.pdf?sequence=3&isAllowed=y

evaluation will consider to what extent project implementation and monitoring have taken into consideration: (i) possible inequalities (especially those related to gender) in access to, and the control over, natural resources; (ii) specific vulnerabilities of disadvantaged groups (especially women, youth and children) to environmental degradation or disasters; and (iii) the role of disadvantaged groups (especially those related to gender) in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

v. Environmental and Social Safeguards

UNEP projects address environmental and social safeguards primarily through the process of environmental and social screening at the project approval stage, risk assessment and management (avoidance, minimization, mitigation or, in exceptional cases, offsetting) of potential environmental and social risks and impacts associated with project and programme activities. The evaluation will confirm whether UNEP requirements¹⁴⁷ were met to: *review* risk ratings on a regular basis; *monitor* project implementation for possible safeguard issues; *respond* (where relevant) to safeguard issues through risk avoidance, minimization, mitigation or offsetting and *report* on the implementation of safeguard management measures taken. UNEP requirements for proposed projects to be screened for any safeguarding issues; for sound environmental and social risk assessments to be conducted and initial risk ratings to be assigned are evaluated above under Quality of Project Design). The evaluation will also consider the extent to which the management of the project minimised UNEP's environmental footprint.

vi. Country Ownership and Driven-ness

The evaluation will assess the quality and degree of engagement of government / public sector agencies in the project. While there is some overlap between Country Ownership and Institutional Sustainability, this criterion focuses primarily on the forward momentum of the intended projects results, i.e. either a) moving forwards from outputs to project outcomes or b) moving forward from project outcomes towards intermediate states. The evaluation will consider the engagement not only of those directly involved in project execution and those participating in technical or leadership groups, but also those official representatives whose cooperation is needed for change to be embedded in their respective institutions and offices (e.g. representatives from multiple sectors or relevant ministries beyond Ministry of Environment). This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long term impact to be realised. Ownership should extend to all gender and marginalised groups.

vii. Communication and Public Awareness

The evaluation will assess the effectiveness of: a) communication of learning and experience sharing between project partners and interested groups arising from the project during its life and b) public awareness activities that were undertaken during the implementation of the project to influence attitudes or shape behaviour among wider communities and civil society at large. The evaluation should consider whether existing communication channels and networks were used effectively, including meeting the differentiated needs of gendered or marginalised groups, and whether any feedback channels were established. Where knowledge sharing platforms have been established under a project the evaluation will comment on the sustainability of the communication channel under either socio-political, institutional or financial sustainability, as appropriate.

Section 3. EVALUATION APPROACH, METHODS AND DELIVERABLES

The Terminal Evaluation will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used as appropriate to determine project achievements

¹⁴⁷ For the review of project concepts and proposals, the Safeguard Risk Identification Form (SRIF) was introduced in 2019 and replaced the Environmental, Social and Economic Review note (ESERN), which had been in place since 2016. In GEF projects safeguards have been considered in project designs since 2011.

against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the evaluation implementation phase in order to increase their (and other stakeholder) ownership of the evaluation findings. Where applicable, the consultant(s) will provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g. sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.).

The findings of the evaluation will be based on the following:

(a) **A desk review** of (but not limited to):

- Relevant background documentation, inter alia relevant UNEP MTS and PoW documents, relevant UNEP policies (including related to Bali Strategic Plan, south-south collaboration, gender and marginalized groups) relevant documentation related to the context of the participating countries;
- Africa LEDS Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget, legal agreements, sub-contracts with partners such as those with NREL and Ghana Technical University;
- Africa LEDS Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, country-specific reporting, meeting minutes, relevant correspondence etc.;
- UNEP PoW Project 1721 design documents and revisions, as well as its reporting in PIMS;
- Documentation of project outputs, such as case studies prepared on project demonstration activities;
- Evaluations/reviews of similar projects.

(b) **Interviews** (individual or in group) with (but not limited to):

- UNEP Project Manager (PM); Fund Management Officer (FMO); Coordinator of the Resource Efficiency Sub-Programme
- Project Manager of the Project 1721 “Operationalizing Green Economy in Africa”
- Project Management Team
- National Implementation Units and relevant staff at technical institutions in the participating countries;
- Members of the Steering Committee
- Relevant staff at the European Commission
- Planned and actual project partners as relevant, including relevant individuals at the AfLP, Global LEDS Partnership, Africa Centre for Technology Studies, the Energy Research Centre of the Netherlands, the Stockholm Environment Institute (SEI), the Global LEDS Pacific Northwest National Laboratory and other relevant technical institutions, as well as relevant individuals related to MAPS Africa
- Relevant individuals at the regional institutions in West, East, Central, Northern and Southern Africa who led and coordinated the regional training activities
- An inclusive representation of project beneficiaries, including members of communities participating in the demonstration activities, individuals trained
- Other relevant resource persons.

(c) **Surveys;** The evaluation might use surveys to collect evidence beyond the evaluation interviews. Possibly, a survey could be designed to collect evaluation evidence among the AFOLU Community of Practice regarding the peer-to-peer exchange promoted by the project. The Inception Report will describe details of the potential surveys

(d) **Field visits;** The country visits will be determined during the evaluation inception phase and will be contingent on the status of the existing Coronavirus (COVID-19) pandemic. If the

COVID-19 situation subsides and existing travel restrictions are lifted, the evaluation is likely to visit Cameroon, DRC and Cote d'Ivoire, and possibly Kenya. The evaluation could consider visiting at least two countries that focused on both project components i.e. Cameroon and Cote d'Ivoire, and one or two that focused on one component – Mozambique and possibly Kenya.

- (e) **Other data collection tools;** The inception report will clarify the use of any other data collection tools.

12. Evaluation Deliverables and Review Procedures

The evaluation team will prepare:

- **Inception Report:** (see Annex 1 for links to all templates, tables and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, evaluation framework and a tentative evaluation schedule.
- **Preliminary Findings:** typically in the form of a PowerPoint presentation, the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings. In the case of highly strategic project/portfolio evaluations or evaluations with an Evaluation Reference Group, the preliminary findings may be presented as a word document for review and comment.
- **Draft and Final Evaluation Report:** (see links in Annex 1) containing an executive summary, both in English and French, that can act as a stand-alone document; detailed analysis of the evaluation findings organised by evaluation criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table.

An **Evaluation Brief** (a 2-page overview of the evaluand and evaluation findings) for wider dissemination through the UNEP website may be required. This will be discussed with the Evaluation Manager no later than during the finalization of the Inception Report.

Review of the draft evaluation report. The consultant(s) will submit a draft report to the Evaluation Manager and revise the draft in response to their comments and suggestions. Once a draft of adequate quality has been peer-reviewed and accepted, the Evaluation Manager will share the cleared draft report with the Project Manager/Implementing Partner, who will alert the Evaluation Manager in case the report contains any blatant factual errors. The Evaluation Manager will then forward the revised draft report (corrected by the evaluation consultant(s) where necessary) to other project stakeholders, for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Evaluation Manager for consolidation. The Evaluation Manager will provide all comments to the evaluation consultant(s) for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.

Based on a careful review of the evidence collated by the evaluation consultants and the internal consistency of the report, the Evaluation Manager will provide an assessment of the ratings in the final evaluation report. Where there are differences of opinion between the evaluator and the Evaluation Manager on project ratings, both viewpoints will be clearly presented in the final report. The Evaluation Office ratings will be considered the final ratings for the project.

The Evaluation Manager will prepare a **quality assessment** of the first draft of the main evaluation report, which acts as a tool for providing structured feedback to the evaluation consultants. The quality of the final report will be assessed and rated against the criteria specified in template listed in Annex 1 and this assessment will be appended to the Final Evaluation Report.

At the end of the evaluation process, the Evaluation Office will prepare a **Recommendations Implementation Plan** in the format of a table, to be completed and updated at regular intervals by

the Project Manager. The Evaluation Office will track compliance against this plan on a six-monthly basis.

13. The Evaluation Team

For this evaluation, the Evaluation Team will consist of a Principal Evaluator and one Evaluation Specialist who will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager [Natalia Acosta], in consultation with the UNEP Project Manager [Richard Munang], Fund Management Officer [Stephen Ndeti] and the Sub-programme Coordinator of the Resource Efficiency Sub-programme, [Soraya Smaoun, a.i.]. The consultant will liaise with the Evaluation Manager on any procedural and methodological matters related to the evaluation, including travel. It is, however, each consultants' individual responsibility to arrange for their visas and immunizations as well as to plan meetings with stakeholders, organize online surveys, obtain documentary evidence and any other logistical matters related to the assignment. The UNEP Project Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultants to conduct the evaluation as efficiently and independently as possible. The Principal Evaluator will be hired over a period of 8 months; 15 May to 30 December 2020 and should have: an advanced university degree in environmental sciences, international development or other relevant political or social sciences area; a minimum of 10 years of technical / evaluation experience, including evaluating projects and using a Theory of Change approach; a good/broad understanding of green economy issues is desired. English and French are the working languages of the United Nations Secretariat. For this consultancy, fluency in oral and written English is a requirement and proficiency in French is desirable, along with excellent writing skills in English. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The work will be home-based with possible field visits.

Due to the COVID-19 situation, In-Country Evaluators might be hired over a period of 2 months to support data collection in the selected pilot countries. In-Country Evaluators should have: an undergraduate university degree in environmental sciences, international development or other relevant political or social sciences area; a minimum of 5 years of technical/monitoring/evaluation experience; an understanding of development issues in their respective countries and experience in data collection through interviews, focus groups or administration of questionnaires/surveys. For this consultancy, fluency in oral and written English is a requirement and proficiency in French is desirable for francophone countries. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The work will be home-based with possible field visits.

In close consultation with the Evaluation Manager, the Principal Evaluator, with support from In-Country Evaluator(s), as might be required, will be responsible for the overall management of the evaluation and timely provision of its outputs, described above in Section 12 Evaluation Deliverables. The consultant will ensure that all evaluation criteria and questions are adequately covered. More specifically:

Inception phase of the evaluation, including:

- preliminary desk review and introductory interviews with project staff;
- draft the reconstructed Theory of Change of the project;
- prepare the evaluation framework;
- develop the desk review and interview protocols;
- draft the survey protocols (if relevant);
- develop and present criteria for country and/or site selection for the evaluation mission;
- plan the evaluation schedule;
- prepare the Inception Report, incorporating comments until approved by the Evaluation Manager.

Data collection and analysis phase of the evaluation, including:

- conduct further desk review and in-depth interviews with project implementing and executing agencies, project partners and project stakeholders;
- (where appropriate and contingent on the COVID-19 situation) conduct an evaluation mission(s) to selected countries, visit the project locations, interview project partners and stakeholders, including a good representation of local communities. Ensure independence of the evaluation and confidentiality of evaluation interviews.
- regularly report back to the Evaluation Manager on progress and inform of any possible problems or issues encountered and
- keep the Project Manager informed of the evaluation progress.

Reporting phase, including:

- draft the Main Evaluation Report, ensuring that the evaluation report is complete, coherent and consistent with the Evaluation Manager guidelines both in substance and style;
- liaise with the Evaluation Manager on comments received and finalize the Main Evaluation Report, ensuring that comments are taken into account until approved by the Evaluation Manager
- prepare a Response to Comments annex for the main report, listing those comments not accepted by the Evaluation Consultant and indicating the reason for the rejection; and
- (where agreed with the Evaluation Manager) prepare an Evaluation Brief (2-page summary of the evaluation and the key evaluation findings and lessons).

Managing relations, including:

- maintain a positive relationship with evaluation stakeholders, ensuring that the evaluation process is as participatory as possible but at the same time maintains its independence;
- communicate in a timely manner with the Evaluation Manager on any issues requiring its attention and intervention.

14. Schedule of the Evaluation

The table below presents the tentative schedule for the evaluation.

Table 3. Tentative schedule for the evaluation

Milestone	Tentative Dates
Evaluation Initiation Meeting	May 2020
Inception Report	June 2020
Evaluation Mission	July - August 2020
Telephone interviews, surveys etc.	July - August 2020
PowerPoint/presentation on preliminary findings and recommendations	August 2020
Draft report to Evaluation Manager (and Peer Reviewer)	September 2020
Draft Report shared with UNEP Project Manager and team	October 2020
Draft Report shared with wider group of stakeholders	November 2020
Final Report	December 2020
Final Report shared with all respondents	December 2020

15. Contractual Arrangements

Evaluation consultants will be selected and recruited by the Evaluation Office of UNEP under an individual Special Service Agreement (SSA) on a “fees only” basis (see below). By signing the service contract with UNEP/UNON, the consultant(s) certify that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) with the project’s executing or implementing units. All consultants are required to sign the Code of Conduct Agreement Form.

Fees will be paid on an instalment basis, paid on acceptance by the Evaluation Manager of expected key deliverables. The schedule of payment is as follows:

Schedule of Payment for the Principal Evaluator:

Deliverable	Percentage Payment
Approved Inception Report (<i>as per annex document 7</i>)	30%
Approved Draft Main Evaluation Report (<i>as per annex document 13</i>)	30%
Approved Final Main Evaluation Report	40%

Schedule of Payment for In-Country Evaluators, if recruited:

Deliverable	Percentage Payment
Approved Primary Data from interviews and questionnaires	50%
Approved additional inputs on collected data	50%

Fees only contracts: Air tickets will be purchased by UNEP and 75% of the Daily Subsistence Allowance for each authorised travel mission will be paid up front. Local in-country travel will only be reimbursed where agreed in advance with the Evaluation Manager and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

The consultants may be provided with access to UNEP's Programme Information Management System (PIMS) and if such access is granted, the consultants agree not to disclose information from that system to third parties beyond information required for, and included in, the evaluation report. In case the consultants are not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by the UNEP Evaluation Office, payment may be withheld at the discretion of the Director of the Evaluation Office until the consultants have improved the deliverables to meet UNEP's quality standards.

If the consultant(s) fail to submit a satisfactory final product to UNEP in a timely manner, i.e. before the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants' fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

ToR Annex: Tools, Templates and Guidance Notes for use in the Evaluation

Moved to Annex 3: Documentation consulted (can also be found here:

www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/templates-and-to

Annex V – Assessment of the quality of the evaluation report

Evaluand Title:

EU-UNEP Africa Low Emissions Development Strategies Modelling, Planning and Implementation Project

All UNEP evaluations are subject to a quality assessment by the Evaluation Office. This is an assessment of the quality of the evaluation product (i.e. evaluation report) and is dependent on more than just the consultant's efforts and skills.

	UNEP Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
<p>Quality of the Executive Summary:</p> <p>The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations.</p>	<p>Final report:</p> <p>All elements are adequately covered in a concise manner.</p> <p>The summary of Conclusions is particularly useful for learning.</p>	5
<p>I. Introduction</p> <p>A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (sub-programme, Division, regions/countries where implemented) and coverage of the evaluation; date of PRC approval and project document signature); results frameworks to which it contributes (e.g. Expected Accomplishment in POW); project duration and start/end dates; number of project phases (where appropriate); implementing partners; total secured budget and whether the project has been evaluated in the past (e.g. mid-term, part of a synthesis evaluation, evaluated by another agency etc.)</p> <p>Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings?</p>	<p>Final report:</p> <p>All elements are adequately covered in a concise manner.</p>	5
<p>II. Evaluation Methods</p> <p>A data collection section should include: a description of evaluation methods and information sources used, including the number and type of respondents; justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face); any selection criteria used to identify respondents, case studies or sites/countries visited; strategies used to increase stakeholder engagement and consultation; details of how data were verified (e.g. triangulation, review by stakeholders etc.).</p> <p>Methods to ensure that potentially excluded groups (excluded by gender, vulnerability or marginalisation) are reached and their experiences captured effectively, should be made explicit in this section.</p>	<p>Final report:</p> <p>The report was at an advanced stage before UNEP Evaluation Office introduced new guidance on strengthening the methods section and does not have a table of respondents.</p>	5

	UNEP Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
<p>The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described.</p> <p>It should also address evaluation limitations such as: low or imbalanced response rates across different groups; gaps in documentation; extent to which findings can be either generalised to wider evaluation questions or constraints on aggregation/disaggregation; any potential or apparent biases; language barriers and ways they were overcome.</p> <p>Ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected and strategies used to include the views of marginalised or potentially disadvantaged groups and/or divergent views. Is there an ethics statement?</p>		
<p>III. The Project</p> <p>This section should include:</p> <ul style="list-style-type: none"> • <i>Context:</i> Overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses). • <i>Results framework:</i> Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised) • <i>Stakeholders:</i> Description of groups of targeted stakeholders organised according to relevant common characteristics • <i>Project implementation structure and partners:</i> A description of the implementation structure with diagram and a list of key project partners • <i>Changes in design during implementation:</i> Any key events that affected the project's scope or parameters should be described in brief in chronological order • <i>Project financing:</i> Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing 	<p>Final report:</p> <p>All elements are adequately covered in a concise manner.</p>	5
<p>IV. Theory of Change</p> <p>The <i>TOC at Evaluation</i> should be presented clearly in both diagrammatic and narrative forms. Clear articulation of each major causal pathway is expected, (starting from outputs to long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors.</p> <p>This section should include a description of how the <i>TOC at Evaluation</i>¹⁴⁸ was designed (who was involved etc.) and applied to the context of the project? Where the project results as stated in the project design documents (or formal revisions of the project design) are not an accurate reflection of the project's intentions or do not follow UNEP's definitions of different results levels, project results may need to be re-phrased or reformulated. In such cases, a summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/ revised</p>	<p>Final report:</p> <p>This project operated as a grant under the PIMS project 1721 Operationalizing Green Economy Transition in Africa and did not, therefore, have a results framework that was reviewed by the Project Review Committee. The scope of work was presented as the 'Description of the Action' and did not have Outcome level results described within it. This led to a substantial</p>	4

¹⁴⁸ During the Inception Phase of the evaluation process a *TOC at Evaluation Inception* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions), formal revisions and annual reports etc. During the evaluation process this TOC is revised based on changes made during project intervention and becomes the *TOC at Evaluation*.

	UNEP Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
<p>Prodoc logframe/TOC and b) as formulated in the <i>TOC at Evaluation</i>. <i>The two results hierarchies should be presented as a two-column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'.</i></p>	<p>reconstruction to generate a Theory of Change against which to assess the project's performance.</p> <p>Given the amount of detail and explanation that has to be provided with such a reconstruction, the text is challenging for the reader to follow, although all the material is provided.</p>	
<p>V. Key Findings</p> <p>A. Strategic relevance: This section should include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. An assessment of the complementarity of the project at design (or during inception/mobilisation¹⁴⁹), with other interventions addressing the needs of the same target groups should be included. Consider the extent to which all four elements have been addressed:</p> <ul style="list-style-type: none"> v. Alignment to the UNEP Medium Term Strategy (MTS) and Programme of Work (POW) vi. Alignment to Donor/GEF Strategic Priorities vii. Relevance to Regional, Sub-regional and National Environmental Priorities viii. Complementarity with Existing Interventions 	<p>Final report:</p> <p>A thorough discussion of all sub-categories.</p>	5
<p>B. Quality of Project Design To what extent are the strength and weaknesses of the project design effectively <u>summarized</u>?</p>	<p>Final report:</p> <p>The assessment of project design quality is presented in summary form with main weaknesses highlighted.</p> <p>The fact that this project/grant was not submitted for approval by the PRC had a significant effect on the gaps in its results framework, which are evident throughout the evaluation.</p>	4
<p>C. Nature of the External Context For projects where this is appropriate, key <u>external</u> features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval¹⁵⁰), and how they affected performance, should be described.</p>	<p>Final report:</p> <p>The ratings are mixed because of the different country situations but none of the countries faced</p>	5

¹⁴⁹ A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity during project implementation is considered under Efficiency, see below.

¹⁵⁰ Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management of the project team.

	UNEP Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
	unexpected external factors that could be said to have limited the potential performance.	
<p>D. Effectiveness</p> <p>(i) Outputs and Project Outcomes: How well does the report present a well-reasoned, complete and evidence-based assessment of the a) availability of outputs, and b) achievement of project outcomes? How convincing is the discussion of attribution and contribution, as well as the constraints to attributing effects to the intervention.</p> <p>The effects of the intervention on differentiated groups, including those with specific needs due to gender, vulnerability or marginalisation, should be discussed explicitly.</p>	<p>Final report:</p> <p>Outputs: The report gives detailed discussion of the status of outputs and justifies its rating of Unsatisfactory. The rating is in keeping with the UNEP Evaluation Office guidance.</p> <p>Outcomes: The evidence for the assessment of performance at outcome level is provided and the reasoning for the rating discussed.</p>	5
<p>(ii) Likelihood of Impact: How well does the report present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact?</p> <p>How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed?</p> <p>Any unintended negative effects of the project should be discussed under Effectiveness, especially negative effects on disadvantaged groups.</p>	<p>Final report:</p> <p>The assessment of the likelihood of impact focuses on an assessment of indications that the Intermediate States are emerging. Consideration of assumptions and drivers is sometimes only implicit in the discussion.</p>	4
<p>E. Financial Management</p> <p>This section should contain an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table.</p> <p>Consider how well the report addresses the following:</p> <ul style="list-style-type: none"> • <i>Adherence</i> to UNEP's financial policies and procedures • <i>completeness</i> of financial information, including the actual project costs (total and per activity) and actual co-financing used • <i>communication</i> between financial and project management staff 	<p>Final report:</p> <p>All elements are adequately covered.</p>	5
<p>F. Efficiency</p> <p>To what extent, and how well, does the report present a well-reasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including:</p> <ul style="list-style-type: none"> • Implications of delays and no cost extensions • Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe • Discussion of making use during project implementation of/building on pre-existing institutions, agreements and 	<p>Final report:</p> <p>All elements are adequately covered.</p>	5

	UNEP Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
<p>partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc.</p> <ul style="list-style-type: none"> The extent to which the management of the project minimised UNEP's environmental footprint. 		
<p>G. Monitoring and Reporting How well does the report assess:</p> <ul style="list-style-type: none"> Monitoring design and budgeting (<i>including SMART results with measurable indicators, resources for MTE/R etc.</i>) Monitoring of project implementation (<i>including use of monitoring data for adaptive management</i>) Project reporting (<i>e.g. PIMS and donor reports</i>) 	<p>Final report: Weaknesses in this area are discussed in detail.</p>	5
<p>H. Sustainability How well does the evaluation identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved project outcomes including:</p> <ul style="list-style-type: none"> Socio-political Sustainability Financial Sustainability Institutional Sustainability 	<p>Final report: The three sub-categories are adequately addressed.</p>	4
<p>I. Factors Affecting Performance These factors are <u>not</u> discussed in stand-alone sections but are integrated in criteria A-H as appropriate. Note that these are described in the Evaluation Criteria Ratings Matrix. To what extent, and how well, does the evaluation report cover the following cross-cutting themes:</p> <ul style="list-style-type: none"> Preparation and readiness Quality of project management and supervision Stakeholder participation and co-operation Responsiveness to human rights and gender equity Environmental and social safeguards Country ownership and driven-ness Communication and public awareness 	<p>Final report: All elements are adequately addressed.</p>	4
<p>VI. Conclusions and Recommendations</p> <p>i. Quality of the conclusions: The key strategic questions should be clearly and succinctly addressed within the conclusions section.</p> <p>It is expected that the conclusions will highlight the main strengths and weaknesses of the project and connect them in a compelling story line. Human rights and gender dimensions of the intervention (e.g. how these dimensions were considered, addressed or impacted on) should be discussed explicitly. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report.</p>	<p>Final report: The conclusions are derived from the analysis.</p>	4
<p>ii) Quality and utility of the lessons: Both positive and negative lessons are expected and duplication with recommendations should be avoided. Based on explicit evaluation findings, lessons should be rooted in real project experiences or derived from problems encountered and mistakes made that should be avoided in the future. Lessons are intended to be adopted any time they are deemed to be relevant in the future and must have the potential for wider application (replication and generalization) and use and should briefly describe the context from which they are derived and those contexts in which they may be useful.</p>	<p>Final report:</p>	4

	UNEP Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
<p>iii) Quality and utility of the recommendations:</p> <p>To what extent are the recommendations proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results? They should be feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when.</p> <p>At least one recommendation relating to strengthening the human rights and gender dimensions of UNEP interventions, should be given.</p> <p>Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations.</p> <p>In cases where the recommendation is addressed to a third party, compliance can only be monitored and assessed where a contractual/legal agreement remains in place. Without such an agreement, the recommendation should be formulated to say that UNEP project staff should pass on the recommendation to the relevant third party in an effective or substantive manner. The effective transmission by UNEP of the recommendation will then be monitored for compliance.</p> <p>Where a new project phase is already under discussion or in preparation with the same third party, a recommendation can be made to address the issue in the next phase.</p>	<p>Final report:</p> <p>The recommendations need further work to make them actionable in the absence of a second phase of this project.</p>	3
VII. Report Structure and Presentation Quality		
<p>i) Structure and completeness of the report: To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete?</p>	<p>Final report:</p> <p>Evaluation Office guidelines applicable at the time of starting the draft report have been followed.</p>	5
<p>ii) Quality of writing and formatting:</p> <p>Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines?</p>	<p>Final report:</p> <p>The report is properly structured and written.</p>	5
OVERALL REPORT QUALITY RATING		4.5

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1. The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.

At the end of the evaluation, compliance of the evaluation process against the agreed standard procedures is assessed, based on the table below. *All questions with negative compliance must be explained further in the table below.*

Evaluation Process Quality Criteria	Compliance	
	Yes	No
Independence:		
1. Were the Terms of Reference drafted and finalised by the Evaluation Office?	Y	
2. Were possible conflicts of interest of proposed Evaluation Consultant(s) appraised and addressed in the final selection?	Y	
3. Was the final selection of the Evaluation Consultant(s) made by the Evaluation Office?	Y	
4. Was the evaluator contracted directly by the Evaluation Office?	Y	
5. Was the Evaluation Consultant given direct access to identified external stakeholders in order to adequately present and discuss the findings, as appropriate?	Y	
6. Did the Evaluation Consultant raise any concerns about being unable to work freely and without interference or undue pressure from project staff or the Evaluation Office?		N
7. If Yes to Q6: Were these concerns resolved to the mutual satisfaction of both the Evaluation Consultant and the Evaluation Manager?	N/A	
Financial Management:		
8. Was the evaluation budget approved at project design available for the evaluation?	Y	
9. Was the final evaluation budget agreed and approved by the Evaluation Office?	Y	
10. Were the agreed evaluation funds readily available to support the payment of the evaluation contract throughout the payment process?	Y	
Timeliness:		
11. If a Terminal Evaluation: Was the evaluation initiated within the period of six months before or after project operational completion? Or, if a Mid Term Evaluation: Was the evaluation initiated within a six-month period prior to the project's mid-point?		N
12. Were all deadlines set in the Terms of Reference respected, as far as unforeseen circumstances allowed?	Y	
13. Was the inception report delivered and reviewed/approved prior to commencing any travel?	Y	
Project's engagement and support:		
14. Did the project team, Sub-Programme Coordinator and identified project stakeholders provide comments on the evaluation Terms of Reference?	Y	
15. Did the project make available all required/requested documents?	Y	
16. Did the project make all financial information (and audit reports if applicable) available in a timely manner and to an acceptable level of completeness?	Y	
17. Was adequate support provided by the project to the evaluator(s) in planning and conducting evaluation missions?	Y	
18. Was close communication between the Evaluation Consultant, Evaluation Office and project team maintained throughout the evaluation?	Y	
19. Were evaluation findings, lessons and recommendations adequately discussed with the project team for ownership to be established?		N
20. Did the project team, Sub-Programme Coordinator and any identified project stakeholders provide comments on the draft evaluation report?	Y	
Quality assurance:		
21. Were the evaluation Terms of Reference, including the key evaluation questions, peer-reviewed?	Y	
22. Was the TOC in the inception report peer-reviewed?	Y	
23. Was the quality of the draft/cleared report checked by the Evaluation Manager and Peer Reviewer prior to dissemination to stakeholders for comments?	Y	
24. Did the Evaluation Office complete an assessment of the quality of both the draft and final reports?	Y	
Transparency:		
25. Was the draft evaluation report sent directly by the Evaluation Consultant to the Evaluation Office?	Y	
26. Did the Evaluation Manager disseminate (or authorize dissemination) of the cleared	Y	

draft report to the project team, Sub-Programme Coordinator and other key internal personnel (including the Reference Group where appropriate) to solicit formal comments?		
27. Did the Evaluation Manager disseminate (or authorize dissemination) appropriate drafts of the report to identified external stakeholders, including key partners and funders, to solicit formal comments?	Y	
28. Were all stakeholder comments to the draft evaluation report sent directly to the Evaluation Office	Y	
29. Did the Evaluation Consultant(s) respond adequately to all factual corrections and comments?	Y	
30. Did the Evaluation Office share substantive comments and Evaluation Consultant responses with those who commented, as appropriate?	Y	

Provide comments / explanations / mitigating circumstances below for any non-compliant process issues.

Process Criterion Number	Evaluation Office Comments
19.	The challenges faced during this evaluation are described in the Executive Summary. The wide divergence in understanding around the expected results contributed to low ownership of the findings of the evaluation.

Annex VI – Validation and sense making

Cameroon, on 17 September 2020

Participants: 12 men

Validation

Participants validated all findings in the presentation.

Factors affecting performance

- i. It was a huge challenge to 'translate' LEDS concepts and expectations in the country action plan, to imagine a concrete, logical pathway, via modelling, towards policy change, to lead to concrete LED actions.
- ii. For some, the link to higher level results was not clear.
- iii. Limited financial resources, and the short timeframe also forced the focus on modelling alone.
- iv. Insecurity affected implementation in Jakiri where, unfortunately, the larger chunk of funding was invested.

Conclusions

- i. The LEDS project was a first in Cameroon to attempt to assess carbon emission and socioeconomic benefits along a particular value chain.
- ii. A modelling tool was developed to assess benefits from green investments; it was applied to pilot activities along the cassava value chain. Doing this, modelling capacity was built, in terms of i) mobilising a multidisciplinary modelling team, ii) working together and come out with results accepted by all.
- iii. However, the tool has to be further improved in terms of accuracy and validated for use in designing sectoral development strategies; this will need some time.
- iv. The pilot activities produced encouraging and relevant results, but also had some weaknesses in terms of design and M&E. The result is therefore, at this stage, insufficient for uptake at the policy level.

Lessons learned

Youth talent played a very important role in the modelling team.

Recommendations

Recommendation #1:	Better project design: clear logical framework linking project activities and higher-level results the project design should be checked for feasibility (in terms of time and resources) especially important for projects with ambition to influence policy, the design should consider that it follow a national planning system, and take more effort to identify specific policy that an action (proposed by modelling) is to influence.
Context/comment:	This is a recommendation from implementing partners to UNEP (from the Cameroon workshop where findings were discussed)
Priority level:	4
Responsibility:	UNEP
Implementation time-frame:	
Recommendation #1:	Strengthen the multisectoral collaboration at higher policy level (higher-level engagement from NDC-relevant sectors), and adapt the planning framework to ensure that LEDS analyses inform planning
Context/comment:	Participants validated this recommendation from the consultant
Priority level:	5
Responsibility:	Ministry of Planning
Implementation time-frame:	Immediate
Recommendation #1:	While modelling capacity is building (and modelling is further refined), it is already time to check with the Ministry of Planning, for guidelines on integrating LEDS in policy making, planning, M&E

Context/comment:	Participants validated this recommendation from the consultant
Priority level:	3
Responsibility:	Ministry of Environment (MINEPDED)
Implementation time-frame:	Immediate

Côte d'Ivoire, on 2 October 2021

Participants: 1 woman; 5 men

Validation

Participants validated all findings in the presentation from the visit to Gagnoa; it was then updated during the meeting as more interviews took place; and a final version of the presentation was sent by email on 29/10/2021 (no comments received).

Factors affecting performance

Briquettes - As briquettes for cooking remained a challenge (smoke), modelling then assumed the briquettes would be used by industries (but no estimate yet of how many candidate industries, replacing how much and what fuel).

On the ground, the research on the composition of briquettes is to continue, no conclusion yet. The briquette enterprise has stalled because of that and has no business plan yet.

SRI – There was no adequate programme that would address water management in the catchment and in the lowlands ('bas-fond' or bottomland, shallow water). Hence SRI could not be applied for the most part.

Conclusions

The briquettes and SRI projects did not demonstrate a feasible LEDS practice; 'insufficiently solid for modelling and policy change'.

The project may still have had an impact on the National Development Plan (PND) or the new CDN version, but this could not be verified as the documentation is not available yet.

Lessons learned

Mainly, to demonstrate credible LEDS practices, more time is needed.

Recommendations

Mainly, to develop credible LEDS practices, close interdisciplinary collaboration is needed at all levels, to **ensure framework conditions for a practice to work**. In case of SRI, for example, this would require addressing water management in catchments, and in lowlands, access to credit for equipment, and securing land rights for farmers using the land (most of them not owners of the land), to secure more longer-term user rights that enable them to invest in water management.

Working with politicians, it is important to formalise the policy team, and make that team collaborate with sector specialists, for **politicians to define the need and scope for modelling projects**.

DRC, on 10 October 2020

Participants: 1 woman; 9 men

Validation

Participants (1 femme, 10 hommes) ont validés tous les constats/ résultats des entretiens, dans la présentation lors de la réunion de restitution

Factors affecting performance

Les participants à la réunion de restitution ont relevé que les facteurs affectant la performance ou la réussite des projets pilotes LEDS sont entre autre :

- Le climat d'insécurité, surtout dans la partie Est de la RDCongo.

- En plus de cela, le niveau de revenu faible de la population (pour l'acquisition des foyers améliorés et des briquettes)
- Ainsi que le manque de budget/financement du gouvernement pour les initiatives LEDS, constituent encore des contraintes majeures dans des régions qui ne sont pas dans de troubles armés.
- Faible collaboration et synergie entre les équipes de travail (groupe d'experts)
- Faible engagement des autres experts pertinents (p.ex. de la société civile).

Conclusions

En RDC, les activités du projet LEDS focalisées sur les énergies domestiques pour la cuisson (foyers améliorés, briquettes et Biogaz ainsi que la projection des scénarios des émissions en utilisant les combustibles disponibles), se sont bel que bien alignées parmi les secteurs prioritaires les plus émetteurs de CO2 où le gouvernement compte consacrer ses efforts dans le cadre de CDN.

Le choix des activités LEDS a été basé sur les réflexions des initiatives antérieures notamment :

- Les efforts d'appui du secteur d'énergie de cuisson propre du CNE et MECDD
- NAMA, REDD, PIF et autres initiatives qui ont travaillé sur l'inventaire des secteurs clés émetteurs et les stratégies de réduction de leurs émissions

Lessons learned

L'absence de synergie, de communication et collaboration intersectorielle ne permettent pas une large diffusion des innovations LEDS et affecte la performance et les attentes du projet d'une manière générale.

Recommendations

Recommandation #1:	L'équipe de gestion du projet LEDS au niveau local devrait mieux faire au préalable l'analyse poussée des parties prenantes dans la chaîne de valeur « énergies domestiques » pour y ressortir les acteurs clés qui guideront une analyse participative, inclusive et élargie du cout-bénéfice dans ce secteur.
Context/comment:	Recommandation lors de la réunion de restitution du fait de manque d'information sur les aspects liés au cout-bénéfice.
Priority Level:	Critique
Responsibility:	Équipe de projet au niveau national
Proposed implementation time-frame:	Immédiatement ou avant toute mise en œuvre d'une prochaine initiative dans le secteur de l'énergie domestique de cuisson
Recommandation #2:	Le Prof. Ndaye a sollicité l'implication élargie d'autres acteurs socio-économiques tels que l' <i>Alliance Congolaise pour les Foyers et Combustibles Améliorés</i> (ACFCA) qui a une connaissance des contraintes de vulgarisation et d'adoption des foyers améliorés et briquettes
Context/comment:	Lors de la réunion de restitution, l'importance de l'implication de ACFCA dans les initiatives antérieures, telles que PIF (fond d'investissement forestier) a été évoqué pour promouvoir l'utilisation à grande échelle des foyers améliorés et des briquettes
Priority Level:	Opportunité d'améliorer
Responsibility:	Équipe de projet
Proposed implementation time-frame:	Durant la mise en œuvre du projet
Recommandation #3:	Le Prof Ndaye aimerait que le projet fasse: <ul style="list-style-type: none"> • Intégrer ses acquis dans d'autres programmes sectoriels. Élaborer une vraie démarche scientifique de planification énergétique et mise en place des politiques énergétiques
Context/comment:	Recommandation lors de la réunion de restitution du fait de manque d'information sur les aspects liés au cout-bénéfice.
Priority Level:	Important
Responsibility:	Décideurs politiques
Proposed implementation time-frame:	Durant la mise en œuvre du projet

Recommendation #4:	Les décideurs politiques doivent renforcer les mécanismes de communication et créer des synergies entre experts, chercheurs, décideurs et utilisateurs des innovations ...
Context/comment:	Recommandation lors de la réunion de restitution du fait de manque d'information sur les aspects liés au cout-bénéfice
Priority Level:	Important recommandation
Responsibility:	Décideurs politiques
Proposed implementation time-frame:	Durant la mise en œuvre du projet

Online (MS Teams), on 13 December 2021

Juliette Biao (Africa Regional Director), Richard Munang (Project Manager), Robert Mgendi (Project Assistant), Edward Awafo (KNUST, Project Focal), Francis Kemausuor (Director of Energy Centre KNUST), Ron Benioff (NREL), Tim Reber (CCS National Renewable Energy laboratory), Janet Wildish (UNEP Evaluation Office), Carol Mwape (Zambia Government Focal), Beausic Chongo (Zambia Principal Officer Climate Change mitigation)

The EU was invited, first Martin Kaspar on 6/12/2021 when the date for the meeting was discussed (it was found that his email address was not anymore used), then a round of asking who in UNEP knows a person in EU who could be asked for this meeting; this did not yield any suggestions. Meanwhile Juliette Biao and Richard Munang had confirmed their preference for Monday 13th (instead of Tuesday 14th). The Evaluation decided to invite the EU person in charge of the financial management of the project (the name provided by the FMO, Ms Offenhammer) and the final evaluation was sent on 9/12/2021.

Stakeholder engagement - About ownership: government priorities were documented in the NDC. Project countries were consulted. Inception meetings were all-inclusive. Value chain stakeholders: these are outside the project scope. This is a country-driven project, opportunity was there for countries to share what they achieved.

Cameroon: involvement of communities and informal sector was very important.

Quality of project design - (gaps in) country strategic documents were referenced in all the reports. The goal was to implement NDCs without silos.

M&E - design: what is said about monitoring plans is misrepresentational.¹⁵¹

Roles & responsibilities, implementation partners – there were clear roles and responsibilities. KNUST was contracting the countries, NREL was training, UNEP doing the logistics. The countries chose the LEDS.

Five aspects not identified (by Ron Benioff): 1. Strongly country-driven, recognising the context, strong country teams, they set their priorities. These teams were connected with NDC leaders and with those implementing on the ground. 2. There was feedback that informed the leaders. 3. Modelling work was unique (new) with value added aspects. 4. There was peer learning and exchange of information, strong collaboration between AfLP, LEDSGP, UNEP, EU. Concluding, things could have been improved and that should have been brought out.¹⁵²

TA - TA had added value. KNUST coordinated contracts and logistics and also the Accra final workshop.

Payments were clear and delivered.

Juliette Biao: (it is a result of the project that) Canada is financing a same project in Côte d'Ivoire (African Development Bank); the project should not be evaluated taking in the context of Covid-19. Briquettes: what were the resources given to these people? We as PSC have wasted our time, completely misled.

JW: major results?

1. Through the demonstrations, sectors are brought together
2. Solar power irrigation in Mozambique, a big result
3. Modelling outputs, the modelling shows job creation and this in turn informs the NDCs how LEDS helps create jobs¹⁵³
4. Cameroon: ICT tool is in place, young people at the University of Yaoundé use it.
5. Cameroon modelling was built on existing initiatives: agroforestry, solar driers, hydropower¹⁵⁴.
6. Inter-agency modelling taskforces were created
7. Inter-agency policy task forces have been created; ('whether they took up modelling results is beyond our control').
8. Ghana: Modelling results were used to review the NDC ("see Ghana report").¹⁵⁵

¹⁵¹ The Team Leader refers to country work plans as being the project monitoring plans (interview 07/12/2021).

¹⁵² The presentation did not cover recommendations (or conclusions or lessons learned). It only covered findings.

¹⁵³ The Evaluation established that job creation was indeed modelled; as the scope was limited, the modelling did not consider jobs lost further up or down the value chain as a result of LEDS. In Côte d'Ivoire, the NAMA project did that too, and presented a more comprehensive picture (earlier).

¹⁵⁴ The Evaluation established that there was a local government project planning to produce hydropower, but it was not yet operational and also the project was not able to change that.

¹⁵⁵ Ghana report, 3.1: The existing national w.g. for NDCs doubles as the policy taskforce for the Africa LEDS project. But the sectors energy and forestry were selected by the technical/modelling/LEDS team ('aligned to NDCs and national priorities'), and that team did further selection (woodfuel

9. Côte d'Ivoire: pilot projects feed into model analysis → 70% of NDC is about clean energy.¹⁵⁶ CI is limiting deforestation.
10. Côte d'Ivoire: teaching students on modelling, combining the agricultural sector with clean energy.
11. Mozambique: UEM achieved that modelling was taken up in education.
12. Zambia: modelling informed pipeline forestry, ecosystem-based adaptation, CSA policy change (documentation to follow).

More generally the project was showing an operational way to implement NDC, in the energy/agriculture sector, and more people talk about it now, whereas in 2016 this idea was fairly new.

plantations in grassland, improved cookstoves), see p.14. Section 3.4: "there would be additional value when it is incorporated into policy and investment decisions. But this does not come easy. It requires a carefully thought through strategy to drive the assimilation process. [...] Ghana plans to use both model results and methodology to improve on its next NDCs. [...] In this regard, the role of the working group would be extremely useful. [...] The lessons and the key messages from the review will inform the scope and ambition level of the clean cooking and tree plantation measures in the NDCs." Section 4.2 Way forward: synthesise key results into key messages, continue improve data quality for future modelling, use results to inform revision of Ghana's NDC. The Evaluation did not get any concrete suggestion on where the NDC was changed as a result of this project. The new version (Sept. 2021, published in November 2021, recognises contributions from projects and donors, but not Africa LEDS and no EU. The NDC, in the agricultural sector, proposes CSA, SLM, eco-tourism, maintenance of the vegetation or landscape, renewable energy to back the strengthening and full-scale deployment of the disease surveillance system and climate early warning systems.
<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ghana%20First/Ghana%27s%20Updated%20Nationally%20Determined%20Contribution%20to%20the%20UNFCCC%202021.pdf>

¹⁵⁶ The latest NDC from Côte d'Ivoire is the NDC from 2016.

Annex VII – Overview of context analyses

Table 13: Overview of context analyses

Type of analysis:	Scope: value chain, product cycle	Policy analysis	Stakeholder analysis	BAU vs LED practice, -feasibility, cost-benefit	Comments
Cameroon	Brief justification briefly why Cassava is a pilot crop (present in most areas, developed value chain, relevant for CC resilience) (FG)* Products: garry, flour, starch (FR)*	¹⁵⁷	¹⁵⁸ TKSwift identified for ICT, local council as producer of micro-hydro power. ¹⁵⁹ (AP)*	9 studies, Incomplete cost-benefit analysis (FR) ¹⁶⁰ The cassava LED practice is experimental, still in research stage (no ref.), tested 50ha in Ngoulemakong <i>with trees added</i> In Jakiri, 3ha for multiplication, 30kW hydro plant (FR)	<ul style="list-style-type: none"> • There are 4 feasibility studies (not 9). • Interventions in the cassava cropping system is lacking justification; introduction of the improved variety is easy to justify, but the Climate Smart Agriculture (CSA) experiment is not explained nor referred (documentation) and the addition of fruit trees <i>in</i> the cassava field raises various questions: <ul style="list-style-type: none"> ○ Soil loss - Cassava soil loss is extreme (and causing emissions); trees are not the more (cost-)effective measure to reduce soil loss; FAO and especially CIAT (based on farmer-validated packages that honour Conservation Agriculture principles)¹⁶¹ recommend: i) intercropping: double-rows peanut between cassava, along semi-permeable Vetiver contour hedges (effective within a year, reducing soil loss $\pm 67\%$¹⁶²; low-cost and quick return on investment); and ii) soil cover: the hedges provide durable mulch¹⁶³. ○ Gender - Tree planting has land tenure and gender implications; with weak control over land, women may not be allowed to plant trees in a farm; also will women also engage in, benefit from beekeeping? • Solar drying: the justification is unclear; research is inconclusive on open air drying <i>on raised beds</i> vs solar drying; raised beds are cheaper¹⁶⁴ and there is no direct emission reduction in this

¹⁵⁷ FG: just mentions emission target -32%, greening value chain of two pilot crops. No policy analysis.

¹⁵⁸ Stakeholders are listed (not analysed): Stakeholders listed: ministries, research institutes, private sector, civil society, some technical and financial partners (in commissions, working groups, task forces).

¹⁵⁹ The Country action plan calls for organisations that already implement(ed) similar initiatives, but also limits this by suggesting to engage especially government, stakeholders present in the inception workshop. The report does not mention that ADEID itself already completed a €500,000 EU-funded projects to install micro-hydro plants. Email 28/11/2020 (EU). In ADEID's presentation July 2016 (EBAFOSA EBAFOSA Africa LEDS Michel Takam.ppt) partners are mentioned (UNEP, UA, PNUD, FAO, MINADER) but not EU. Not hydro-power.

¹⁶⁰ The report mentions at least 9 studies.

¹⁶¹ https://sriafriquedelouest.files.wordpress.com/2014/06/regards_ac_2005.pdf Conditions in West Africa are deemed favourable for CA. Another publication: Tchawa, P. Évolution des techniques traditionnelles de conservation des sols en pays Bamiléké. Dans: Rey, C. et al. 1996. Techniques traditionnelles de conservation de l'eau et des sols. By CTA, CDCS, Karthala <http://www.commodafrica.com/20-05-2016-une-application-pour-calculer-la-sequestration-du-carbone-dans-les-sols> or <https://www.karthala.com/108-techniques-traditionnelles-de-conservation-de-leau-et-des-sols-en-afrique-9782865376964.html> Page 319-327 Traditionally, live hedges and intercropping are already used. Trees in farms are mostly fruit trees and banana.

¹⁶² 2004? CIAT. Farmers Decide: A Participatory Approach to the Development and Dissemination of Improved Cassava Technologies that Increase Yields and Prevent Soil Degradation. Summary from several documents obtained in the final international workshop of the Nippon Foundation project in SE Asia (Vietnam, Thailand, Indonesia & China) 1994 – 2003 Slide presentation.

¹⁶³ CIAT's work is still very well acknowledged, e.g. in <http://www.fao.org/3/a-i3278f.pdf> where the importance of mulching fits the emphasis on CA nowadays. 'Dans divers pays d'Asie, les agriculteurs protègent leurs champs avec des haies de vétiver (*Vetiveria zizanioides*, une herbe), de *Tephrosia candida* (un arbuste), de *Paspalum atratum* (une herbe) et d'ananas planté serré. Le vétiver est particulièrement recommandé pour réduire une érosion sévère affectant un terrain déjà dégradé. Un avantage supplémentaire de l'utilisation de haies est qu'en les taillant régulièrement, elles apportent un paillis in situ, ce qui rend ces systèmes particulièrement efficaces contre l'érosion et demande moins de travail que l'apport de paillis à partir de l'extérieur.'

¹⁶⁴ <https://pdfs.semanticscholar.org/1863/9c1c772c1cda8eadccf72da58b05ef095fa1.pdf> <https://medcraonline.com/MOJFPT/MOJFPT-08-00241.pdf>

Type of analysis:	Scope: value chain, product cycle	Policy analysis	Stakeholder analysis	BAU vs LED practice, -feasibility, cost-benefit	Comments
					<ul style="list-style-type: none"> • Micro-hydro plant for milling: in a launch workshop there is a call for policy to favour private sector energy production and -transport¹⁶⁵; this plant is local council. • Cooperative business¹⁶⁶ proposes the cooperative pay 10%, the project 50% of the investment rehabilitating the micro-hydro plant.
Côte d'Ivoire	The effect of cutting-wood-for-cooking on deforestation ¹⁶⁷ And SRI (FR)	-	-	BAU: brief description, no figures Demo: baseline studies (outcome not reported) SRI is used but without reference (FR) ¹⁶⁸	<ul style="list-style-type: none"> • No FG report? Baseline study report? • The deforestation effect of cutting wood-for-cooking seems is over-stated, out of context. In Gagnoa, the main cause of deforestation is agricultural expansion (then firewood is a by-product); after also deducing for mining and infrastructure, just 15% is forest exploitation, and 15% of that used for charcoal¹⁶⁹: 2.25% • No evidence that a stakeholder analysis was done; key actors (Cookstove Alliance, WHO, UNDP) were not consulted? • UNDP has a project 'Greening the Charcoal Value Chain in Côte d'Ivoire'¹⁷⁰ Its report shows i) there was already a NAMA approach that included use of agricultural waste for briquettes (and a factory already doing this); ii) that report proposes concrete policy changes, to an inter-ministerial Steering Committee, for greening the charcoal value chain; iii) these proposals are based on a comprehensive, balanced value chain approach, that avoids unintended negative effects (like job losses or undermining the position of communities governing forests), and identifies a wider set of LED opportunities (charcoal eco-labels, improved kilns, transport reform, public education). • The policy proposition is to reduce deforestation and emissions, focus on the entire charcoal value chain; it includes charcoal-based products with agricultural waste mixed-in (re. Tassouma enterprise). It starts an eco-label chain with Community Forest Management (MALEBI example). <ul style="list-style-type: none"> ○ Tassouma SARL produces since 2013, now 80,000 briquettes/y, from wood waste and ag. waste ○ MALEBI (women's CSO) started in 2004, promotes sustainable forest products, focus on charcoal. Partner of SODEFOR since 2011, it manages 4500 ha forest in Dimbokro (for the community), has 4 efficient industrial kilns.

¹⁶⁵ [ATELIER DE LANCEMENT DU PROJET DE STRATEGIE DE DEVELOPPEMENT A FAIBLE EMISSION EN AFRIQUE.pdf](#)

¹⁶⁶ Business plan of the Jakiri district cooperative society of cassava producers (Jakiri Coop CA) 2017-2022. [Jakiri COOP.pdf](#), summarised in Annex 3.

¹⁶⁷ "Indeed, as agricultural countries whose deforestation rate is one of the highest in the world due to the cutting of wood for cooking purposes, CI must promote the briquette production sector [...] to significantly reduce this rate. (FR)

¹⁶⁸ SRI is a well known EBA practice, documented by FAO and others (<http://sri.cifad.cornell.edu>, http://www.iwmi.cgiar.org/iwmi-tata/PDFs/2012_Highlight-44.pdf).

¹⁶⁹ REDD+ CI, BNEDT, EtcTerra, RONGEAD, UNU-REDD (FAO, UNDP, UNEP), 10 Nov. 2016. L'Analyse qualitative des facteurs de la déforestation et de la dégradation des forêts en Côte d'Ivoire

https://www.nitidae.org/files/b24e760c/161216081210_161214_analyse_facteurs_def_deg_ci_rapport_final.pdf

¹⁷⁰ UNDP, A. Soezer, MDG Carbon, www.mdgcarbon.org, Nov. 2015. Greening the Charcoal Value Chain in Côte d'Ivoire – a NAMA approach

[Ivory_infographic_6.pdf](http://www.undp.org/content/undp/en/home/ilibrarypage/environment-energy/mdg-carbon/NAMAs/greening-the-charcoal-value-chains-of-ghana-and-cote-divoire--a.html) sourced in: <https://www.undp.org/content/undp/en/home/ilibrarypage/environment-energy/mdg-carbon/NAMAs/greening-the-charcoal-value-chains-of-ghana-and-cote-divoire--a.html>

Type of analysis:	Scope: value chain, product cycle	Policy analysis	Stakeholder analysis	BAU vs LED practice, -feasibility, cost-benefit	Comments
					<ul style="list-style-type: none"> It proposes 8 Policy actions including rules for each forest type, (incentives for) community managed (owned) forests, enforcement, taxes. It also highlights policy gaps: the Energy Strategic Development Plan does not cover cooking; when it will include cooking energy, it needs quantitative targets.
DRC	Product identified (briquettes w ag. residue & wood processing, saw-mill waste (chips) in energy production), no value chain analysis (availability: abundant) (FR)	- Just the notion that policy largely ignores cookstove energy (FR)	-	Advantages of briquettes and biogas described. The effect on deforestation is not referenced.	<ul style="list-style-type: none"> The justification is not elaborated. Waste-to-briquettes tests in DRC could save up to 5000ha of natural forest (if scaled-up, replicated nationally*). But Wikipedia puts <i>annual</i> deforestation at 311,000 ha (the main drivers not being cooking fuel). And from UNEP itself¹⁷¹ there is more information about the wood value chain: selective removal starts with high value resources, ends with indiscriminate resource harvesting (charcoal), to clear for agriculture. That makes firewood a by-product of timber and farmland clearing, and it requires that briquettes fit in a more comprehensive value chain / project cycle approach, similar to the one described in the UNDP report (see Côte d'Ivoire section above). Waste-to-briquettes may be economic in farm, near urban areas. Analysing this is necessary <i>before</i> setting up a pilot project, and <i>before</i> entering data in in models. The baseline indicators for cost-benefit analysis are not clear. The report does not do a cost-benefit analysis at the level of users, to justify the choices for households. And as criteria favourable for adoption it names price (sure) and 'visual quality', <i>before</i> naming less smoke; smoke is not elaborated further, even though WHO and others indicate this is by far the <i>most important criteria for successful adoption</i>. Without stakeholder analysis, the project overlooks relevant initiatives, among others the WWF programme "Eco-Makala", to reduce deforestation in Virunga (cookstoves feature), and the Congolese Cookstove Alliance ('Alliance Congolaise pour les Foyers et Combustibles Améliorés', ACFCA, it works with a World Bank funded forestry investment programme).
Ghana	Clean energy and woodfuel plantations to restore degraded/ grassland (FR)	-	-	Cookstove indicators macro-level (jobs, investment decisions), micro-level: health. In the same §: no indicators for woodfuel plantations. (FR)	<p>It is assumed the choice for cookstoves does not need further justification at micro-level as it is already established policy to promote millions of cookstoves (policy context unknown). For woodfuel plantations: there should be policy analysis, which may cover SLM, land tenure, forest policy, gender. And then a justification.</p> <p>Missing is a reference to UNDP's work¹⁷² (and this work also does not mention UNEP, LEDS). The UNEP report provides a stakeholder, policy and value chain analysis, basis for an approach to Develop a Sustainable Charcoal Value Chain, and policy propositions: i) sustainable biomass management policy, data needed on forest type, management and governance, forest taxation changes (incentives for communities), community ownership and governance of forests.</p>

¹⁷¹ https://postconflict.unep.ch/publications/UNEP_DRC_PCEA_EN.pdf

¹⁷² UNDP, 2018. NAMA study for a sustainable charcoal value chain in Ghana, http://gh-sustainability.com/wp-content/uploads/2018/08/183_245-nama-study-ghana-final.pdf AusAID funded the study.

Type of analysis:	Scope: value chain, product cycle	Policy analysis	Stakeholder analysis	BAU vs LED practice, -feasibility, cost-benefit	Comments
					Planting trees on degraded land is an investment with very slow returns in terms of carbon fixation, as well as economically. Rehab of degraded land often requires more than simply planting trees. Here also: the BAU is not clear, the improved practice is not convincing. And who's land is this?
Kenya	Clean cooking solutions, various including Liquified Petroleum Gas (LPG); (no value chain analysis) Agroforestry (FR)	NCCRS (CC Response Strategy), 2015 energy bill, NCCAP (CC Action Plan) 2018-22 Agric. land act '09 (FR)	'employment' section (p15) considers gains /losses for various stake-holders	Section 'family income' (p15) estimates annual savings at household level (FR)	In the Kenya AFOLU sector the project started off with the choice for the 2009 agroforestry law (as basis for modelling); this law has been controversial (unpopular among smallholders) ¹⁷³ , and so far rather ineffective (it does not much to enable agroforestry by smallholders). Eventually the modelling for this subject was dropped altogether due to 'lack of data'; in Kenya there is no agreed definition of tree cover (and no tree cover inventory protocol), farm cover, and no systematic data collection on forest cover. The project could instead have used the controversies to inform its selection of, and modelling on currently debated policy propositions that would enable agroforestry, among which the community land act (land tenure devolution), fit-for-purpose land administration, and completion of the forest sector devolution process.
Mozambique	-	- (but policies named)		AFS profitability quantified	There is conversion of land, profitability is quantified, but the costs, and who control the benefits, would need further analysis (incl. gender).
Zambia	Household energy quantified, & Sust. Agric. (FR)	Barriers and -removal (FR 2.1.4, 2.2.3)	- (only households)	Impact of cookstoves on households (f,m,y), emission, ecosystem.	2.3.3 Barriers and -removal: here policy is mentioned, vague: "gaps in the regulatory framework" Tables 6, 11, 23 Socioeconomic impacts: would be needed <i>before</i> the modelling, to justify the modelling. Clearly, the justification seems to come as an after-thought.

*: Sources: Country 'Rollout' Action Plan (AP), Focus Group Discussion report (FG) and Country Final Report (FR)

¹⁷³ <https://landportal.org/library/resources/lex-faoc101360/agriculture-farm-forestry-rules-2009-cap-318>, <http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/AgricultureActCap318.pdf>
<https://www.researchgate.net/publication/338124018> The Impact of Legislation on Sustainability of Farm Forests in Kenya The Case of Lugari Sub-County in Kakamega County Kenya

Annex VIII – Country level findings in detail

Cameroon

Table 14: Cameroon results - Component 1: LEDS Planning & Implementation Support

Planned result (revised)	Final report	Additional findings
<p>Project Outcome 1 Policy taskforce, LEDS champions translated LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures / policies, and initiated implementation</p> <p><i>KNUST-ADEID contract deliverable 2: policy analysis building on demo lessons, to inform policy for large scale EBA-agro-industry zones powered by clean energy</i></p>		<ul style="list-style-type: none"> No policy amended yet (i.e. no integration of LEDS in any existing policy) Modelling results were insufficient, so far, to feed a reflection on, and formulate concrete LEDS options for policy makers
<p>Direct Outcome 1 Local socioeconomic actors validated socioeconomic and/or environmental benefits from the pilot projects</p> <p><i>KNUST-ADEID contract deliverable 3: CNA for 'LEDS champions operating demonstration' (NB: the demo partners, i.e. socioeconomic actors)</i></p>	-	<p>Results validation was not done formally, and could not be done, as there was no complete cost-benefit analysis to inform a validation. Evaluation interviews indicate:</p> <p>Jakiri: the high-yielding variety is appreciated</p> <p>Ngoulemakong:</p> <ul style="list-style-type: none"> Processing: positive validation for solar energy based cassava processing Cassava farming system: rather negative for tree planting in a cassava field; the project's explanation for this is that farmers do not understand ('not enough sensitisation'). <i>Evaluation comments: this disregards any reason farmers could have.</i>¹⁷⁴
<p>Output 1.1 Local socioeconomic actors implement LEDS pilot projects; results demonstrated and shared</p> <p>KNUST-ADEID contract deliverable 1: demo EBA-agro-industry powered by clean energy and enhanced access to markets</p>	<p>Jakiri: 9 studies, training</p> <p>Cassava farming system:</p> <ul style="list-style-type: none"> 50 ha agroforestry (20 plum trees/ha, 2 hives/ha). Result: +100 short-term 100\$ jobs; cassava yield 25 t/ha, 21.25 l honey/hive High-yielding variety introduced, and 'SAPGA method' (no details) 	<p>Jakiri:</p> <p>Cassava farming System: Farmers used a cassava high-yielding variety (variety unknown), and manure.</p> <p>Processing: connection to hydro-electricity plant not completed; the hydro-site was too far to link it up with cables, to the processing site of the cooperative (and insecurity caused delays).</p> <p>Transport: could not be verified (due to insecurity no mission to Jakiri was done)</p> <p>Evaluation: for each job created, 4 'opeps' or 'clandestine jobs' are lost, this is not taken into account. And why are these jobs clandestine, and should they be?</p>

¹⁷⁴ Agroforestry is extremely rare in cassava cropping systems. CIAT generally prioritises soil conservation and recommends contour planting, association with peanut and hedgerows and (vetiver) grass or maize mulch http://ciat-library.ciat.cgiar.org/Articulos/Ciat/cassava_in_third_millennium_1.pdf <http://ciat-library.ciat.cgiar.org/Articulos/Ciat/biblioteca/The%20Cassava%20Handbook%202011.pdf> The 2nd picture (front page) is an example where Vetiver is the grass (the most effective grass for soil loss reduction). In Cameroon, Vetiver is available, and as well as CBOs with a long track record of extension of Vetiver Systems for agriculture; e.g. <https://www.beruda.org/projects.html>

Planned result (revised)	Final report	Additional findings
	<p>Processing: Sieves upgraded, electrical engines placed, but issues with transformer, cabling not resolved. Result: <i>if working</i>, capacity increase from 150 to 360 t cassava flour/year (but fuel changed to electricity; -costs not assessed). Job numbers raised from 60 to 150, and - costs from 1800 to 5000\$. Energy cost reduced fr 1379 to 1080 USD</p> <p>Transport structure modified. This reduced emission 35%. No jobs created, clandestine jobs destroyed (1 truck = 5 opeps)</p> <p>Ngoulemakong: 5 studies, training Cassava farming system: Trees introduced on 50 ha (25 plans/ha), biochar and organic fertilizer, improved cassava 'seeds' (cuttings), workers paid. Result: income increase <i>not clear (income raise, or raise of bag of safou? And what is the baseline? See p. 19)</i>; production cost reduced 156\$/ha (<i>baseline?</i>)</p> <p>Processing: Mixed solar dryer developed (capacity to dry cassava 750 t/y, electricity 1 kW, manufacturing 2110\$ for 9 jobs) Replacing BAU: wood dryer emitting 98 tCO₂/y (capacity 950 t/y, wood 14t cost 2700\$, manufacturing 1550\$ for 5 jobs)</p>	<p>Ngoulemakong:</p> <ol style="list-style-type: none"> 1 Farmers planted trees in a 4 ha demo <i>cassava</i> farm. The tree planting rationale is primarily to produce fruit (and Calliandra for nitrogen) – as such, cassava production at this site had no issues; <i>the farmers were not convinced of the idea to plant trees in the cassava farm</i> 2 Pressing: the BAU of hand-pushing pieces into the press was replaced by a hydraulic press 3 Drying: the BAU of open air drying <i>on raised</i> beds was replaced with a solar dryer.
<p>Output 1.2 LEDS champions increased their capacities and actively shared LEDS results regionally and globally</p>		<p>No interventions from champion institutions from outside Cameroon. The “LEDS Champions” concept was understood to be (local) organisations inside the country that promote LEDS, e.g. municipal councils involved in renewable energy actions.</p>
<p>Project Outcome 2.1 Policy actors translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions</p>		<p>- (in the Accra close-out meeting it was suggested that policies be developed to import electric motorcycles and enhance ICT in agricultural value chains)</p>
<p>Direct Outcome 2.1 Policy actors endorsed LEDS for policy analysis</p>		<p>There are some ideas but no concrete plans or policy decisions yet. Policy actors confirm the importance of LEDS analysis in all sectors mentioned in the NDC.</p>

Planned result (revised)	Final report	Additional findings
Direct Outcome 2.2 Country teams conducted LEDS analysis with adapted models/tools		An intelligent model was developed for LEDS analysis, and tested with data from the agricultural sector. The model is based on the Autoregressive Integrated Moving Average (ARIMA) statistical analysis model that uses time series data to predict trends.
Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment		
Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions		The action plan is produced. This is analysed in B. Quality of project design, Error! Reference source not found.
Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling		Presumably, modelling activities increased modellers' experience with modelling. The CNA (STRATEGIES FOR « LEDS » CAPACITY BUILDING IN CAMEROON.pdf, 16 pages) is mostly off-subject. Table 2, line 10, briefly notes a general need for "Good management of methods of inventorying GHG emissions". It adds that there is "Insufficient legal framework for capacity building", and for Universities: "Applied research insufficient". Evaluation: As the reporting does not correspond to the need identified here ("insufficient legal framework for capacity building"), it cannot be easily established what capacity was strengthened.
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling		No documentation provided on this (interviews refer to a workshop in Cameroon, in which there was sharing with high level policy actors engaged in IND).
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online		

Table 15: Cameroon analysis of the LEDS cycle

LEDS cycle deliverables	Country action plan	Cameroon final report	Observations
Identification: IDENTIFY A CASE, IN A CONTEXT: A COMPELLING SET OF LEDS, and/or - PRACTICES	a. scope: green agro-value chains: • EBA agriculture, limiting deforestation • ICT for transport (market info) • clean energy processing Value chain not identified yet b. approach: work with on-going initiatives (GO, CSO) c. context analysis: policy analysis in energy, agriculture, transport, infrastructure, industry, trade, finance, lands	a. LEDS task force choice: cassava (flour), 2x5 feasibility studies b. on-going initiative: the council building a micro-hydro plant; TKSswift for ICT c. context analysis: some limited market analysis identifies garry, flour, starch.	a. Implementation: 3 studies done b c. Country action plan proposes a very wide-scope policy analysis; no reference to product lifecycle or value chain analyses (not done).

LEDS cycle deliverables	Country action plan	Cameroon final report	Observations
<p>Planning: DESCRIBE EXPECTED COST-BENEFITS, - and micro- and macro-level indicators - and plan modelling (ToR)</p>	<p>a. Modelling team to work with project technical partners in establishing / updating Cameroons emissions baseline, development of monitoring indicators and reporting framework.</p> <p>b. ..</p> <ul style="list-style-type: none"> • emission baseline inventory • CNA for upscaling LEDS: report, manuals for LEDS capacity builders, for (waste to) energy systems, research on transport • training on modelling • mobilise stakeholders: especially GO, those in inception workshop <p>c. Indicators: emission trends, cost-benefit analysis</p>	<p>a. Experts propose:</p> <ul style="list-style-type: none"> • plant material • intro fruit trees, hives • SAPGA¹⁷⁵ cassava farming, not described • solar drying • ICT for marketing <p>b. –</p> <p>c. Socioeconomic variables appear: investment (labour, water, manure, trees, hives, transport) and yield; labour also expressed in jobs-numbers and value (\$); sales revenue</p>	<p>Justification for pilot projects lacks a value chain or user-level perspective.</p> <p>b. Nothing reported on modelling CNA, training, - content.</p>
<p>Implementation: PRODUCE, AND COMMUNICATE SUPPORTING EVIDENCE</p>	<p>Identify, contract implementation partners (GO, CSO), document case studies</p>	<p>a. all done</p> <p>Jakiri: 4 case studies: 1. production method: yield benefits, job costs, emission; 2. fruit trees: yield, job costs, carbon fixation, total investment, 5y revenue; 3. Solar drying: job costs, emission, energy costs; 4. emission, transport cost (unit incomplete)</p> <p>Ngoulemakong: lots of figures, BAU not clear, figures not separated by economic unit</p> <p>b. projections done with Cameroon LEDS model (no ToR)</p> <p>c. -</p>	<p>Emission not relevant for user level cost-benefit</p> <p>User-level cost-benefit analyses incomplete</p> <p>User-level cost-benefit analysis is unclear (and merged)</p> <p>Projection based on experiments (not necessarily established good practice): adoption?</p> <p>There is no separate, communicable documentation of case studies.</p>

¹⁷⁵ Automated management tool for cassava farming, developed by students from University of Yaoundé I, to reduce farm losses by 50-80% (source: SMARTER 2020 ICT MODEL, no link given, not found online). The only detail about SAPGA is that an unknown amount of pork manure is adapted to be applied in cassava farming.

LEDS cycle deliverables	Country action plan	Cameroon final report	Observations
Creating change	Design LEDS policy planning analytical framework a. amend policies to facilitate inter-ministerial collaboration on LEDS. b. amend sectoral policies depending on forest ecosystems (integrate forest protection, afforestation)	- (no result)	

Côte d'Ivoire

Table 16: Côte d'Ivoire results - Component 1: LEDS Planning & Implementation Support

Planned outcome (revised)	Final report	Additional findings
Project Outcome 1 <i>Policy taskforce, LEDS champions</i> translated LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures / policies, and initiated implementation <i>KNUST-ADEID contract deliverable 2: policy analysis building on demo lessons, to inform policy for large scale EBA-agro-industry zones powered by clean energy</i>	Lessons helped develop 3 major strategies for NDC implementation: REDD+ national strategy, domestic cooking energy: now including bioenergy production based on agricultural waste Investment framework renewable energy (particularly electric power generation): the project result on briquettes convinced national actors on the need to integrate biomass (from agricultural waste) for cooking. "Indeed, as agricultural countries whose deforestation rate is one of the highest in the world due to the cutting of wood for cooking purposes, Côte d'Ivoire must promote the briquette production sector as a real track to significantly reduce this rate. The integrated model developed as part of this project contributes to the drafting of a concept note for NDC revision (incl. MRV).	Data from the demos was supposed to feed the modelling; however, it is not explained what (if any) user-level results are used, to extrapolate for macro-economic modelling.
Direct Outcome 1 <i>Local socioeconomic actors</i> validated socioeconomic and/or environmental benefits from the pilot projects	-	

Planned outcome (revised)	Final report	Additional findings
<i>KNUST-ADEID contract deliverable 3: CNA for 'LEDS champions operating demonstration' (NB: the demo partners, i.e. socioeconomic actors)</i>		
Output 1.1 Local socioeconomic actors implement LEDES pilot projects; results demonstrated and shared KNUST-ADEID contract deliverable 1: demo EBA-agro-industry powered by clean energy and enhanced access to markets	Pilot projects of 87 beneficiaries (20 f, 129 m) from 2 communities near Gagnoa: 1a. Rice-husk for briquettes production; BAU: for animal feed, -bedding 1b. Improved cookstoves Rice-husk biofertilizer, combined in SRI: 2a. replace NPK, urea (100, 200 kg/ha) with 2 t/ha compost 2b. intermittent irrigation; BAU: 2-3 month continuous irrigation: high methane emission 2c. different seed 2d. earlier transplantin, wider spacing (25x25cm)	1a. Briquettes: this (incl. hh study) is delivered by the FAO project. Africa LEDES took data from it, to feed modelling. 1b. Cookstoves: – (no result, this is FAO) 2a. Biofertilizer: manure distributed to demo and farmers, SRI training incl. compost (not ruling out chemical fertilizer) 2b. SRI/ water management: SRI training for 23 producers , demo 2c. SRI/seed: new variety distributed to demo and farmers (50 ha) 2d. SRI/ crop management training for 93 producers (11f, 82h) There was a pre-project diagnostic study but no documentation on this; no evidence that a stakeholder analysis was done; key actors in the cookstove/fuel subsector (Cookstove Alliance, WHO, UNDP) were not consulted, the briquettes work relied entirely on FAO applied research. Cost-benefit analysis of (BAU vs LED practice) at user level was not possible for briquettes (still in research stage) and now decided it will be for small industry and not hh level). But for SRI this analysis is also lacking. 3. SRI is a well-known EBA practice, documented by FAO and others (http://sri.ciifad.cornell.edu , http://www.iwmi.cgiar.org/iwmi-tata/PDFs/2012_Highlight-44.pdf), this choice entirely fits LEDES: relevant.
Output 1.2 LEDES champions increased their capacities and actively shared LEDES results regionally and globally		Claims linking charcoal to deforestation are incorrect (also confirmed by a NREL expert). This raises questions on the modelling result quality – as this builds on such claims.
Project Outcome 2.1 Policy actors translate LEDES analyses/modelling results into improved, evidence-based LEDES measures/policy decisions		- (in the Accra close-out meeting it was suggested that policies be developed to develop a master-plan for land use by 2030 and to promote EBA/land-intensive farming practices)
Direct Outcome 2.1 Policy actors endorsed LEDES for policy analysis		The political task force and the modelling task force are yet to be formalized.
Direct Outcome 2.2 Country teams conducted LEDES analysis with adapted models/tools	The result of LEDES modelling is extensively covered in the report. 'unsustainable removal of wood from the forest for use as cooking fuel is a key driver of deforestation and forest degradation'	The quantification of the effect of domestic use of firewood use in Gagnoa is not entirely clear; from other sources it is found that 2.7% of deforestation is attributed to firewood-charcoal, that would be 770 ha annually. Farming, forest exploitation and

Planned outcome (revised)	Final report	Additional findings
		mining together are good for 90% of deforestation. ¹⁷⁶ This is the kind of context that the project would describe, and politicians would justify the focus and choice of LEDS modelling assignments. A focus on improving the charcoal value chain (as did the UNDP project) could – through Community forest governance – have a much greater effect?
Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment		
Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions	- p.23: 'political task force should be involved' and 'ongoing development of the concept note for NDC revision'	No plans. Component 2 activities: 2.1 inventory of climate models for climate, GHG, socioeconomic impact (ag., climate, energy, waste, forest): siled and sectoral 2.2 Build integrated model 2.2.1 Capacity building modelling team 2.2.2 Integrated modeling - still ongoing (work available in coming weeks) Teams expressed needs 2.3.1 Political task force chair and some members from forestry, waste and energy sectors are associated with all modeling team meetings, provided the necessary data for modelling 2.3.2 Political task force asked to contribute to development of: i) National Strategy for CSA ii) Concept note for NDC revision: contributed iii) establishment of National Commission on Climate of CI. + convincing World Bank, AfDB REDD on including domestic cooking in energy sector: bioenergy on ag. waste + World Bank stimulates private investment in renewable energy/electricity, convinced to include bioenergy + MRV for monitoring NDC, measuring progress
Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling	-	As evidenced in the country report, modelling capacity was strengthened, exercising with the data available (sourced mostly from sources other than the demonstrations in Gagnoa). The modelers interviewed (3) confirm this.

¹⁷⁶ Evaluation: calculation on p. 9 confuses coal and wood; and a "0" is added in the division; and all firewood use is directly and 100% connected to deforestation – the project is to half this (see slides) – source: AfricaLEDS_ExperienceSharingWorkshop_Component1presentation COTE D'I VOIRE.pptx: 71 ha forest preserved → 3,000 t CO2 sequestered in forests. "reduce deforestation [...] by 50%" can be misunderstood. Estimate (source: https://www.nitidae.org/files/b24e760c/161216081210_161214_analyse_facteurs_def_deg_ci_rapport_final.pdf, South West region (where Gagnoa lies): 15%*18%= only 2.7% of deforestation is attributed to firewood-charcoal. Deforestation 1.9%/y = 28,500 ha*2.7% = 770 ha annually, for charcoal. Half of that is 385 ha. The region is not very populated, but farming, forest exploitation and mining together are good for 90% of deforestation, with charcoal as by-product. No doubt that a cookstove project can reduce deforestation locally, around Gagnoa town. But how is this extrapolated nationwide?

Planned outcome (revised)	Final report	Additional findings
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling	- p.23: 'political task force should be involved'	There was no exchange of experiences between countries, no feedback to the AfLP secretariat.
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online		No materials. There is no separate, communicable documentation of case studies.

DRC

Table 17: DRC results - Component 1: LEDS Planning & Implementation Support

Planned outcome (revised)	Final report	Additional findings
Project Outcome 1 Policy taskforce, LEDS champions translated LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures / policies, and initiated implementation <i>KNUST-MECNND contract deliverable 2.2: forestry policy updated, strategy & action plan to operationalise</i>	-	-
Direct Outcome 1 Local socioeconomic actors validated socioeconomic and/or environmental benefits from the pilot projects	-	- (without cost-benefit analysis, local socioeconomic actors cannot really validate the result)
Output 1.1 Local socioeconomic actors implement LEDS pilot projects; results demonstrated and shared <i>KNUST-MECNND contract deliverable 2.1: enhance transition to low-emission domestic energy options to complement agriculture, forestry, (hh bio-)waste management</i>	Improved cookstoves and briquettes (made of waste: rice bran, sawdust): quantified results on briquette energy production (favourable compared to charcoal), and the effect on charcoal consumption. The cookstove price is not affordable for poor households (the traditional cookstove only costs 1 USD). Biogas: The project <i>identified and surveyed</i> 6 units producing biogas and biofertilizer. Only 2 of 6 units still operational and no plans to restart biogas in the month to come.	Improved cookstoves and briquettes: the users (food vendors and households) did not have an opportunity to validate and share the results (incl. cost-benefit analysis). The baseline indicators for cost-benefit analysis are not clear. The report does not do a cost-benefit analysis at the level of users. And as criteria favourable for adoption it names price and 'visual quality', <i>after</i> naming less smoke; smoke is not elaborated further, even though WHO and others indicate this is by far the most important criteria for successful adoption. Technical information on biogas is reproduced (presumably for modelling). So not really a demonstration as these biogas initiatives were from existing projects.

Planned outcome (revised)	Final report	Additional findings
Output 1.2 LEDS champions increased their capacities and actively shared LEDS results regionally and globally	-	-
Project Outcome 2.1 Policy actors translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions	-	- (in the Accra close-out meeting it was suggested that policies be developed to reduce wood-fuel dependency, increase renewables and invest in low-carbon infrastructure) Various sections of MECDD provide recommendations to the hierarchy on reducing GHG emission (source: interview; not documented ¹⁷⁷)
Direct Outcome 2.1 Policy actors endorsed LEDS for policy analysis <i>KNUST-MECNND contract deliverable 2.2: LEDS policy planning analytical framework established</i>	-	There is apparently no policy task force involved, that would validate and use the results from pilot projects and modelling. On the policy side, the suggestion is that the project ended without them being aware.
Direct Outcome 2.2 Country teams conducted LEDS analysis with adapted models/tools	Various scenarios for emission, linked to more or less emitting energy sources, taking into account variables like the evolution of demand for cooking energy, level of adoption of improved cookstoves, availability of solid agricultural and household waste, household energy sources, etc.	The CADRI team effectively carried out the modelling, with tools like MAED.
Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment	-	- (UEM was not involved here)
Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions <i>KNUST-MECNND contract deliverable 2.1: update emission baseline inventory, indicators and reporting framework</i>	-	The country action plan was produced.

¹⁷⁷ [THE ACCRA ACTION AGENDA ON AFRICA LOW EMISSIONS DEVT 31052019 1Added.pdf](#) resolves to request AMCEN to take note of Africa LEDS results (for climate action to address socioeconomic priorities), to use this project's policy planning studies, to leverage the policy harmonisation taskforces for policy implementation. And it resolves to ask donors to support NDC implementation to maximise climate & socioeconomic aims, as demonstrated by the Africa LEDS project. None of the presenters in the workshop (in as far as identified from the presentations) are policy makers (but some are UNFCCC focal points). Minutes of the Accra close-out meeting were not available.

Planned outcome (revised)	Final report	Additional findings
Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling		Based on the results reported, and a visit to the lab, it appears that CERERK/ISTA did strengthen their capacities to analyse and quantify carbon emissions. Also the CADRI modelling teams increased their capacity to use modelling software and produce scenarios based on available data. A modelling team had been formed and it learned lessons on the importance (and weaknesses) of data availability and quality. Given these weaknesses, and weaknesses in data collection methods, the reliability of the projections is questioned. Sharing of results is limited, occasionally in workshops, and through technical briefs (not made available to the evaluator) for the Direction for Sustainable Development (of MECDD). No document was produced for policy makers. A main point of weakness is the documentation: it is scarce and the quality of writing is weak.
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling	-	There is no evidence that policy makers use and share the reports.
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online	-	- (there is no site) There is no separate, communicable documentation of case studies.

Ghana

Table 18: Delivery of outputs, direct outcomes and project outcomes - Component 2: LES Modelling Support

Planned outcome (revised)	Final report	Additional findings
Project Outcome 2.1 Policy actors translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions		- Modelling results have been communicated to NCCC (report asked ¹⁷⁸). No specific policy recommendations developed yet; <i>the plan is</i> to brief the policy team on ways to assimilate results into policy discussions.
Direct Outcome 2.1 Policy actors endorsed LEDS for policy analysis	-	- Interview about result: <ul style="list-style-type: none"> modelling result amplified what is already existing; NDC now has more analytical precision on projected effect of its plan more knowledge on LEDS amplified the investment potential of LEDS; but it needs finance 'to ensure that we implement in the various areas' LEDS is yet to integrate in National Planning Development Commission (NDPC) 4y planning cycle (district-regional-national level → annual work plans).

¹⁷⁸ [Report- NCCSC_2020.docx](#) was provided, but it has no reference to modelling, or the project.

Planned outcome (revised)	Final report	Additional findings
<p>Direct Outcome 2.2 Country teams conducted LEDS analysis with adapted models/tools</p>	<p>Improved cookstoves wood-fuel plantation (in the restoration of grasslands in transitional zones) are from the NDC (it proposes distribution of 2 million stoves (p.28 last §). For details on this selection see FGD (no report). Modelling tools selection (LEAP, REDD ABACUS): lengthy justification. Modelling done with these key indicators: CO2 savings, job creation, cost savings, health benefits (avoided death).</p>	<p>Modellers made a work plan. Slide presentation on FGD Ghana LEDs modeling support.pptx about roles, per sector (no details to justify selection of concrete LED practices for modelling). The modelling produces results for some socioeconomic indicators, but not no complete cost-benefit analysis at user level. The sharing of results: AFRICA LEDS EXPERIENCE SHARING_Ghana.pptx Very little in clear facts.</p> <p>1. Cookstoves: context missing: BAU not mentioned; if improved cookstoves are already established policy, why do modelling on this? What is improved about the cookstoves, is it using charcoal more efficiently, is it replacing firewood with charcoal, is it both, or adding another fuel (e.g. household waste and/or farm waste, biogas)? IF accepting that elsewhere the good practice is to transform the value chain, and combine improved stoves with improved production of the fuel for stoves, why not here? If in Côte d'Ivoire</p> <p>2. Woodfuel tree planting on 12,000 ha degraded grassland</p>
<p>Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment</p>	-	-
<p>Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions</p>	-	<p>The country action plan was produced, and a ToR for NDC Task Force / modelling team (on their responsibilities to do modelling, ex-ante assessment of benefits).</p>
<p>Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling</p>	-	<p>Interview, on results: some gained experience with linking models, learn-by-doing (no numbers provided). Lessons:</p> <ol style="list-style-type: none"> 1. LEAP cannot disaggregate benefits by gender, or demography 2. soft-linking across sectors is good practice 3. socioeconomic benefits are often neglected, yet needed to make a compelling case, for politicians AND general public, to build support for NDC. <p>Evaluation: to communicate socioeconomic benefits to the public, one needs a 'typical' case that the public can identify with: with cost-benefits comparing LEDS-practice with BAU, and discussing users' concerns e.g. individual and community tenure implications when converting grassland to wood-fuel plantation. That case is not described; modelling remains at macro-level.</p>

Planned outcome (revised)	Final report	Additional findings
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling	-	AfLP May 2020 Webinar presentation ¹⁷⁹ : NDC review → development of Agriculture LTS by national experts & partners → review NDC → implementation thru 5y NDC. The status now: "Ghana has engaged a consultant to start the Situational analysis.". And also: "Ghana integrated NDCs into the Medium Term Development Plan (MTDP)". Ghana is to complete NDC review by end Oct. 2020.
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online	-	- There is no separate, communicable documentation of case studies.

Kenya

Table 19: Delivery of outputs, direct outcomes and project outcomes - Component 1: LEDS Planning & Implementation Support – Kenya

Planned outcome (revised)	Final report	Additional findings
Project Outcome 2.1 Policy actors translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions	-	
Direct Outcome 2.1 Policy actors endorsed LEDS for policy analysis	- (policy taskforce formation may be beyond technical modelling team mandate, we hope it will be taken up by Climate Change Directorate (CCD)/ Ministry of Environment, NCC updating and also for our first NDC reporting)	- There is no evidence of sustained commitment from government, for LEDS modelling, when it sees so much lacking (local expertise, data, experience from other countries, and it 'require significant investment from government and development partners').
Direct Outcome 2.2 Country teams conducted LEDS analysis with adapted models/tools <i>KNUST-MENR/Kenya contract deliverable 1: a. baseline in the priority sectors, b. indicators and reporting framework, c. capacity building</i> <i>KNUST-MENR/Kenya contract deliverable 2: a. LEDS policy planning analytical framework; b. adapted models; c. capacity built (incl. software, hardware) in relevant line ministries, departments; d. modelling done</i>	-	Respondent indicates that <i>modelling</i> work on mitigation options in the energy sector continues (slowed down due to Covid and lack of funds), because <i>presenting the cookstoves case as it is now will not be convincing to any policy maker.</i>

¹⁷⁹ <https://africaledspartnership.org/wp-content/uploads/2020/05/Kingsley-presentation.pdf>

Planned outcome (revised)	Final report	Additional findings
<i>(on cook stoves, domestic and commercial use)</i>		
Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment	-	
Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions	The final report (Chapter 2. Actual results) does not cover this output.	The country action plan was produced.
Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling	The final report (Chapter 2. Actual results) does not cover this output. Kenya final report: dates of modelling skills workshops (no information on participants, or learning objectives).	Adegu: We started with a large group, remained with 8-10 modellers, due to limited funds, no local project management unit, but I had to mix my technical work with some of my colleagues to plan for modelling workshops when I was at the Climate Change Directorate (NB Later I transferred to the Kenya Met. Dept.). LEAP and ABACUS software were really difficult, as no team members had any basic modelling skills working with these tools (needs more prolonged training to build these skills). ABACUS software modelling results for Agroforestry team remained unsatisfactory due to lack of a local expert. Use of LEAP (with support from SEI local expert) to model clean cooking solutions.
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling	The final report (Chapter 2. Actual results) does not cover this output.	AfLP May 2020 Webinar participation presentation ¹⁸⁰ : Sector baseline, LED policy assessment , modelling, the NDC update is on-going. It is known that modelling related to irrigation and biowaste was done in other countries, respondent indicates that information is needed from these 3 countries.
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online	The final report (Chapter 2. Actual results) does not cover this output.	- (There is no separate, communicable documentation of case studies)

Mozambique

Table 20: Delivery of of outputs, direct outcomes and project outcomes - Component 2: LES Modelling Support

Planned outcome (revised)	Final report	Additional findings
Project Outcome 2.1 Policy actors translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions		
Direct Outcome 2.1 Policy actors endorsed LEDS for policy analysis	Govt. of Mozambique is preparing documents reporting to UNFCCC: the NDC,	Mozam MoA "is preparing proposals to scale out solar powered irrigation across the country based on the modelling results."

¹⁸⁰ <https://africaledspartnership.org/wp-content/uploads/2020/05/Veronica-presentation.pdf>

Planned outcome (revised)	Final report	Additional findings
	<p>the Biennial Update Report (BUR), National Communication (CR), GHG inventory.</p> <p>(way forward: It is necessary to inform policy makers about LEDS benefits)</p> <p>Check the report: how did it follow the MNCCM indicators or contribute to formulation of these indicators?</p>	<p>MITADER, Minister: Mozambique has progressed from NDC to NDC (November 2018) and prepares reporting to UNFCCC: NDC, the Biennial Update Report (BUR), National Communication (NC), GHG inventory. The results of this report have potential to inform these processes in term of emissions and emission reduction potential.¹⁸¹</p> <p>MITADER produced a presentation presenting the M&E for CC, to integrate impact and process indicators in mainstream planning systems (in Portuguese).¹⁸²</p> <p>Mozambique Team, Mozambique National Climate Change Monitoring and Evaluation System https://www.climateinvestmentfunds.org/sites/cif_enc/files/Mozambique_National_Climate_Change_Monitoring_and_Evaluation.pdf It monitors progress on integrating CC in sectoral planning and (understandably) predominantly about adaptation, it includes mitigation. It clearly refers to NDC 2020-2030 and the NCAMS. It has mitigation INDICATORS for 4 sectors: energy (16), industrial processes (3), AFOLU (10), residuals (3).</p>
<p>Direct Outcome 2.2 Country teams conducted LEDS analysis with adapted models/tools</p>	<p>Materials and methods chapter includes an overview of parameters. Options: i) replace fuel power by solar powered irrigation; ii) replace SAB by agroforestry; soft-linking, socioeconomic benefits.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1 Comprehensive data gathering (suggestions for irrigation and agroforestry), also on national use 2 Make appealing policy options, based on socioeconomic <i>and</i> environmental benefits, <i>and how they are linked</i> 	<p>Modelling done.</p> <p>And results sharing: Mozambique modelling team, no date. Low Emissions Development Strategies (LEDS) Modelling Support - Mozambique https://ledsgp.org/wp-content/uploads/2018/04/Mozambique-LEDS-presentation_Final.pdf Deforestation 4% by wood fuel, 65% by 'slash-and-burn (SAB) agriculture'. 1. Replacing fuel w solar pumps 100%. 2. Replacing SAB/maize with AFS 50%.</p>
<p>Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment</p>		
<p>Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions</p>		<p>The country action plan was produced.</p>

¹⁸¹ [NDC MOZ Plano Operacional \(see Appendix IV\).pdf](#), Final report Mozambique.pdf, p. 50 last §. and Module 1 Adaptation and Agriculture.pdf

¹⁸² [M&E for adaptation in Mozambique Marilia Telma Manjate.pdf](#) Marilia Telma Manjate, June 2020. O Sistema Nacional de Monitoria e Avaliação de Mudanças Climáticas (18 slides)

Mozambique National Climate Change Monitoring and Evaluation System for mainstream planning, with **3 pillars: resilience (adaptation), mitigation, and institutional and human capacity building.**

Planned outcome (revised)	Final report	Additional findings
Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling	Capacity built on LEP, REDD Abacus, biggest challenge is data, notably on land use insufficient systematic data collection. Yet to address: 1. Institutional coordination; 2. Training local technicians on GHG data collection/ inventories; 3. Systematic data collection system for land use. (p. 49 last §) Most limiting factor: data availability.	A brief from the Minister recognises the impact as capacity built, "Our in-country expertise for climate modelling was enhanced". UEM did much for Mozambique's activities for the project, bringing several institutions into a team, and reporting modelling to a large array of stakeholders from different sectors, who provided important feedback. Success factors (according to UEM): 1. it was the right time in the policy cycle; 2. existence of direct inter-ministerial collaboration; 3. Politicians involved at all stages.
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling	Policy recommendation (p. 50 first §): 1. LEDS needs to be understood and supported by <i>local</i> stakeholders → policy makers need info on socioeconomic as well as environmental (emission) benefits. 2. Systematic data collection for modelling	
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online		- (There is no separate, communicable documentation of case studies)

Zambia

Table 21: Delivery of outputs, direct outcomes and project outcomes - Component 2: LES Modelling Support

Planned outcome (revised)	Final report	Additional findings
Project Outcome 2.1 Policy actors translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions	-	
Direct Outcome 2.1 Policy actors endorsed LEDS for policy analysis	- (presentation of the structure through which policy actors are to be engaged; along with barriers and -removal strategies to support these options' implementation; the strategies do mention stakeholders, implementers of a strategy).	"Results were reported to higher level policy makers at Steering Committee and Council of Ministers". 20/11: policy brief did not yet take place due to Covid; the written brief for the Steering Committee is nearly completed (a draft was promised to be sent the following week, but not received).

Planned outcome (revised)	Final report	Additional findings
Direct Outcome 2.2 Country teams conducted LEDS analysis with adapted models/tools	<p>Results of modelling presented:</p> <ul style="list-style-type: none"> • Cooking energy: off-grid mini-hydros, solar panels, and improved firewood cookstoves* • Maize (Climate Smart Agriculture) • Forest regeneration: improved charcoal kilns and selective coppicing (Alternate Coupe and Shelterbelt Strip System, ACOSSS) <p>*: Barrier removal strategies include public awareness raising, marketing, flexible payment terms. Socioeconomic benefits: impact indicators: health (smoke), education (light), gender equality (women save time), food security (this refers to preserving biodiversity).</p>	<p>A ToR was developed for the CEEZ modelling <i>team</i>¹⁸³. This suggests LEDS options to be taken from the NDC (and on-going projects), outlines the modelling roles and responsibilities, requires macro- and micro-analysis (no indicators provided). Primary audience: ZEMA (Zambia Environment Management Agency), Ministries for energy, AFOLU.</p> <p>There were data challenges: converting, separating, etc. data from different Ministries, was difficult, it was hard to get data on grassland-to-forest conversion.</p> <p>The report does not specify which "gaps in the regulatory framework" but suggests incentives for technologies, awareness raising and TA.</p>
Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment	-	The modelling team chose forest natural generation and Conservation Agriculture. The modelling team will establish (technical, tactical & technological) capacity gaps. The process includes a 'consensus on approach' and a 'kick-off webinar with all stakeholders'.
Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions	-	Country action plan produced. From this plan onward, the modelling team had themselves to identify LED practices to use for modelling (the Ministries helped), and itself it choose the socioeconomic indicators e.g. yield, fuel consumption, natural regeneration (for the LED practice where communities manage forests (assisted natural regeneration: selective coppicing). Policies were not analysed but existing policies/projects <i>used as a basis for modelling</i> .
Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling	Technical Working Group (with/for the Technical Committee on Climate Change) used I-JEDI, LEAP, DIA and AFOLU models/tools to produce scenarios for three NAMA (LEDS) options: off-grid energy, AFOLU/SA, AFOLU/ natural forest enhancement/ regeneration.	Capacity built by NREL and in-country experts. NREL input is assessed as excellent (both resource persons confirm). About 20 people were trained (of which about 5 were women). Of these, about 15 are still doing work on modelling. KNUST input is the contract; no Technical Assistance.

¹⁸³ [Zambia Africa LEDS Modelling Team Technical TORs bmc.docx](#) (obtained from Carol Mwape on 14/10)

Planned outcome (revised)	Final report	Additional findings
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling	-	The CoP (with UEM) has not been very active, not in action. This is shared via LEDS GP: Yamba, F.D. and N. Ng'oma, 28/6/2018. Low Emissions Development Strategies (LEDS) modelling support, Zambia. Jobs and Economic Development Impact Assessment across the AFOLU and energy sectors - Adapting the I-JEDI model https://ledsgp.org/wp-content/uploads/2018/04/Africa-LEDS-Modeling-presentation.Zambia.28-June.pdf And this via AfLP: Morton Mwanza (no date). Developing long term strategy for Zambia's agricultural sector https://africaledspartnership.org/wp-content/uploads/2020/05/Morton-presentation.pdf Prepared for the UEM workshop that was set to take place in May 2020. It is about detailing the agricultural component of the NDC (successive NDCs to aid LTS implementation) ¹⁸⁴ .
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online	-	- (There is no separate, communicable documentation of case studies)

Results from regional / global peer learning

Table 22: Delivery of of outputs, direct outcomes and project outcomes - Component 2: LEDS Modelling Support / regional and global

Planned result (revised)	Final report	Additional findings
Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment	-	The leveraging is done by the project, not UEM. See Output 2.3 below.
Direct Outcome 2.3 LEDS champions, country teams created a regional and global peer network	UEM is appointed as LEDS peer learning champion (especially on solar water pumps) Cultivation of other champion institutions is done through CoP in webinar exchanges. The report assumes the CoP will continue.	The Peer-to-Peer Learning and Knowledge Sharing Forum Work Plan ¹⁸⁵ <ul style="list-style-type: none"> establish subregional hubs (coordinating institutions, focal points, host, technical persons) prepare material for learning events, organise regional workshop and 2-day regional training No subregional hubs were established. The 2-day regional training

¹⁸⁴ <https://africaledspartnership.org/wp-content/uploads/2020/05/Morton-presentation.pdf> Developing long term strategy for Zambia's agricultural sector.

¹⁸⁵ [AfricaLEDS component 3 ActionPlan_27March2017.docx](#) obtained on 4 December 2021

Planned result (revised)	Final report	Additional findings
	Two other champion institutions emerge through the CoP: CEEZ Zambia (expertise on modelling with I-JEDI), and Côte d'Ivoire Ministry of Environment on rice husk briquette activities.	
<p>Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling</p>	<p>-</p> <p>KNUST final report: Knowledge products compiled in collaboration with NREL. LEDS capacity needs assessed from LEDS training reporting; lack of data is the most limiting factor (especially on land use).</p> <p>UEM report to KNUST: Championing regional peer learning activities with other African countries.§</p> <p>The final report 'Component 3':</p> <ul style="list-style-type: none"> • AFOLU CoP established (Mozambique advised Ghana on Redd Abacus, LEAP models; UEM became lead champion) with 4 peer learning sessions in 2018 • Project close-out meet, Accra (5/2019) to improve final reports, share experience, identify needs for scale up • AMCEN breakfast meeting, Durban high-level policy decision makers (Nov. 2019) • African Carbon Forum (4/2018): lessons sharing. <p>Adoption of policy positions</p> <ul style="list-style-type: none"> • Dec. 2017 Innovative Environmental Solutions at the 3rd UN Environment Assembly (UNEA 3) • Sept. 2018 Instruments to implement climate action to accelerate 	<p>The AfLP May webinar identified needs, including:</p> <ol style="list-style-type: none"> 1 Increase understanding on LEDS: about mainstreaming: combining climate mitigation, -adaptation, resilience (& growth), not 'setting aside funds' 2 Governments need to develop LEDS-appropriate indicators, adapt mainstream M&E e.g. to make hard-to-get land-use data available 3 There is no recognised approach (yet) to identify LEDS options (Evaluation: stakeholder participation?, value chain approach? policy gaps analysis? Endorsement of a ToR/scope for modelling, by politicians?). (source: mostly from Question 26). <p>The UEM-KNUST contract (signed April 2019) does not require reporting. The contract ended in May 2020; a May scheduled Training of Trainers (ToT) workshop was cancelled due to Covid; materials for this ToT have been prepared (12 in total). And: Peer learning across countries is challenging, 'policy makers respond very little'; for the webinar, they produced no indicators.</p> <p>The documentation provided refers to three events:</p> <ol style="list-style-type: none"> 1. EC workshop (= Africa LEDS culmination workshop?) 2. Accra workshop ('close-out meeting') 3. AMCEN breakfast meeting <p>Cameroon did not take part in the AFOLU CoP. Kenya team, and ACTS asks for information from Cameroon, Côte d'Ivoire, DRC.</p> <p>Policy suggestions in the Accra presentations: Cameroon: i) use modelling to strengthen evidence-based policy making; ii) national data collection strategy to monitor adaptation and mitigation activities, impact; iii) reduce transport emission by importing electric motorcycles; iv) enhance use of ICT in agriculture value chains Côte d'Ivoire: i) master-plan land use in 2030; ii) promote EBA/land-intensive practices DRC: i) reduce dependency on wood-fuel, replace by renewables (biogas, hydro, solar, wind, biomass); ii) invest in low-carbon infrastructure; iii) consider effects of energy transition on community development and employment. Ghana: - Kenya: - Zambia: -</p>

Planned result (revised)	Final report	Additional findings
	<p>socioeconomic transformation in Africa at the 7th Special AMCEN</p> <ul style="list-style-type: none"> May 2019 Accra Action Agenda on Low Emissions Development Strategies (LEDS), urging adoption of lessons and outcomes of the Africa LEDS project. 	<p>Mozambique: i) Include agroforestry and solar-powered irrigation as emission reduction; ii) promote debate among stakeholders, on NDC; iii) more systematic data collection for LEDS modelling</p> <p>AMCEN: 30 participants, presentations¹⁸⁶: peer learning on how to integrate LEDS in mainstream planning, and link to NDC. Consensus: LEDS to fit into mainstream planning; no separate budget. Unclear: a. what guides selection of LED options (involvement of stakeholders)?; b. who/when decide on indicators?</p>
<p>Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online</p>	<p>Media coverage of results presented in Accra close-out meeting.</p> <p>And: Twitter, project website, and other sites (e.g. CDLinks).</p>	<p>The project published three videos on Youtube, and one project brief was published on the UNEP website and on Reliefweb. A summary of the AMCEN breakfast meeting (its record is one of the videos) is also reported in the UNEP website. In addition to that, 'Modern Ghana' online news reports on a peer learning event in Accra.</p> <p>Twitter @Africa_LEDs started in August 2016, has 893 followers; various retweets and likes, quite active till 2019. In 2020, 7 entries on 12/6/2020.</p> <p>The project has its own website, it is an attractive presentation of the project, it is not a platform where participants provide contributions on their experiences.</p> <p>The AfLP website does not reflect on the Africa LEDS project, or link to its website.</p> <p>At country level no communication products have been developed, beyond the slide presentations used in international workshops; Mozambique is again the exception – it communicates policy propositions (indicators, planning cycle re-design, etc.).</p>

Results from KNUST

Table 23: KNUST deliverables overview

Planned result (ToC)	Deliverables in the contracts	Findings in KNUST documentation	Evaluation findings
<p>Project Outcome 1 Policy taskforce (3) and LEDS champions (3-5 institutes) translated LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures / policies (linked to NDC priorities) and initiated implementation of LEDS plans</p>			<p>These are the countries' Roll-out strategies for project implementation, not thereafter</p> <p>No separate report, this is supposed to be covered by the Cameroon final report that ADEID produced. However, that is reporting on activities and does not clearly refer to the 3 deliverables in the ADEID contract.</p>

¹⁸⁶ <https://africaledspartnership.org/wp-content/uploads/2020/05/Kingsley-presentation.pdf>, <https://africaledspartnership.org/wp-content/uploads/2020/05/Veronica-presentation.pdf>, <https://africaledspartnership.org/wp-content/uploads/2020/05/Morton-presentation.pdf>

Planned result (ToC)	Deliverables in the contracts	Findings in KNUST documentation	Evaluation findings
<p>Direct Outcome 1 Local socioeconomic actors (3 primary partner countries, various stakeholder groups¹⁸⁷) validated socioeconomic and/or environmental benefits obtained from the pilot projects</p>		-	This was not formally done/checked, until this evaluation.
<p>Output 1.1 Local socioeconomic actors (3 countries) implemented new/ improved LEDS pilot projects, and results are demonstrated and shared</p>		<p>Cameroon, Côte d'Ivoire and DRC have roll-out strategies w detailed work plans, into subcontracts, that are successful and completed.</p> <p>Monitoring plans developed.</p> <p>Cameroon, Côte d'Ivoire & DRC worked w EBAFOSA country teams to create synergies</p> <p>Côte d'Ivoire created synergies w FAO Fundraising proposals</p> <p>Cameroon:</p> <ul style="list-style-type: none"> • task force established • implementation completed <p>Côte d'Ivoire:</p> <ul style="list-style-type: none"> • political working group established • climate smart rice production in Gagnoa <i>has begun</i> <p>DRC:</p> <ul style="list-style-type: none"> • Technical Consultative Platform established • ISTA subcontracted 	<p>The roll-out action plans have identical deliverables and indicative activities. Nearly all 'next steps' (activities) in the action plan table are also identical, and those responsible are always NREL/AfLP/LEDS GP/UNEP together.</p> <p>No monitoring plans.</p> <p>Nothing on EBAFOSA in the Cameroon final report.</p> <p>Why fundraising proposals?</p> <p>Cameroon:</p> <ul style="list-style-type: none"> • modelling team; no sharing on political level • implementation not completed <p>Côte d'Ivoire:</p> <ul style="list-style-type: none"> • results are shared, but are based on complete work (briquettes) or SRI that most farmers find hard to adopt • ... <p>DRC:</p> <ul style="list-style-type: none"> • That does not yet connect with policy makers: there is no idea yet how to engage these, and what would be their need in terms of LEDS modelling, for what scenario

¹⁸⁷ Stakeholder analysis is to identify current and potential actors along the value chain, with special attention to vulnerable groups, gender, and communities that are (in whatever way) governing land and natural resource linked to it.

Planned result (ToC)	Deliverables in the contracts	Findings in KNUST documentation	Evaluation findings
Output 1.2 LEDS champions (3-5) increased their capacities and actively shared LEDS results			
Project Outcome 2.1 Policy actors (8 partner countries) translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions		LEDS prioritization and decision-maker support for priority LEDS measures significantly enabled	
Direct Outcome 2.1 Policy actors (8 countries) endorsed LEDS for policy analysis			
Direct Outcome 2.2 Country teams (8) conducted LEDS analysis with adapted models/tools		Significantly strengthened LEDS through rigorous modelling support, and Greatly improved LEDS modelling capacity complemented by a sustainable peer learning approach.	No peer learning approach documented.
Project Outcome 2.2 LEDS champions (3-5 institutions) leverage country experience and mobilised sustained LEDS commitment among 8+ partner- and non-partner countries, both regionally and globally		LEDS champions cultivated to carry forth and lead LEDS planning and implementation peer learning efforts in the Africa region	Idem It is not clear here who are the LEDS champions. The only one named is UEM (subcontracted by KNUST).
Direct Outcome 2.3 LEDS champions (3-5 institutions), country teams (8 partner countries) created a regional and global peer-to-peer network			
Output 2.1 Country teams (8 partner countries) have plans to analyse policies for LEDS, with prioritised actions	Contracts 1&3, Output 2: LEDS planning and implementation support	Subcontracts (for roll-out strategies and detailed action plans, <i>with high government buy-in</i>) monitored, implemented in each partner country. Implementation of action plans completed, final reports submitted.	The roll-out action plans have identical deliverables and indicative activities. Nearly all 'next steps' (activities) in the action plan table are also identical, and those responsible are always NREL/AfLP/LEDS GP/UNEP together (not clear who leads what). Country final reports do not report on deliverables as per their contract with KNUST

Planned result (ToC)	Deliverables in the contracts	Findings in KNUST documentation	Evaluation findings
Output 2.2 Country teams (8) have strengthened capacities for LEDS analysis and modelling	Contracts 1 & 3, Output 1: Coordination of LEDS modelling support to country teams	Knowledge products compiled in collaboration with NREL	
Output 2.3 Policy actors (in 8 partner countries) communicate / share LEDS benefits and (peer) learn on LEDS policy and modelling	Contract 2, Output 2: Regional and global knowledge sharing, peer learning, networking (quarterly), adaptation of training materials	<p>Regional networking by sharing countries' quarterly reports, and: Accra technical meeting, May 2019 Presentations in Conference Of Parties COP22 and SBSTA50 in Bonn</p> <p>UEM (Mozambique) subcontracted for regional peer learning, training Regional and subregional peer learning work plans. Delivered:</p> <ul style="list-style-type: none"> • Progress reports • Webinar report • Meeting reports • Modelling data and tools repository <p>Côte d'Ivoire: collaboration with IREN to engage Francophone institutions: subregional and regional initiatives identified and collaborated with</p>	<p>Quarterly reports were sent by email.</p> <p>Presentations for meetings and workshops</p> <p>Report?</p> <p>Materials? Work plans?</p> <p>Not existing No contract seen; which institutions, collaborating on what?</p>
Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online	Contract 2, Output 3: Communication products developed (incl. case studies)	Case studies (in collaboration w NREL) Facts sheets Flyers	Case studies produced; there is no separate, communicable documentation of case studies. One case study is presented inside the Cameroon country final report.

Results from ACTS

Table 24: Results from ACTS

Planned outcome (from contracts)	Final report ACTS ¹⁸⁸	Findings
ACTS		
1. Enterprise collaborations in decentralising clean energy and EBA agro-approaches to green agro-value chains established with demonstrable youth empowerment	Kenya – EBAgroPamoja enterprise supported 60 youth in Kirinyaga county to build solar dryers for cassava and rice, now used by >100 farmers in Kirinyaga county, projected to expand. EBAgroPamoja website offers web based services (in development, modelled after AgroShop, Cameroon). EBAgroPamoja with Rafiki bank opened an Innovative Financing facility for start-ups and established enterprises to upscale clean energy solutions (incl. food processing with clean energy, cassava fuel briquettes); so far >100 agro-value chain actors engaged.	ACTS ('role: to upscale') took lessons on solar drying technology from Kenya and Cameroon, on how cooperatives can drive, and finance the uptake of LED (EBA/agro-forestry & solar dryers). It includes approaches involving youth, social enterprise. This means that the technology is now being upscaled in Uganda (cassava), Kenya (maize) and Nigeria (tomatoes). Looking for potential funders, to upscale.
2. Risk Sharing Facility to drive innovative financing for NDCs and low emissions development established	EBAgroPamoja with Rafiki bank opened an Innovative Financing facility for start-ups and established enterprises to upscale clean energy solutions (incl. food processing with clean energy, cassava fuel briquettes); so far >100 agro-value chain actors engaged.	Outcome (indirectly): lessons on the role of cooperatives motivated Rafiki microfinance to include solar dryers into their financing portfolio.
3. Market incentives leveraged for scaling up of EBA and clean energy established and operationalised	Uganda - cassava farmers apply EBA, and improved variety: cassava yield +400%. Cassava farmers ordered 12 dryers, Africa Youth Agro-Industrialisation Academy (AYAI Academy) trained 60 youth, they produced 15 dryers, have orders worth @1200. Dryers were tested; more tests planned for UNBS adoption. Nkoba Zambogo and POWESA microfinance facilities approached 100-400 cassava farmers, target \$15,000 for solar dryers.	Ogada: Grants provided, 10 dryers built Offered: https://www.ebagropamoja.org/choose?from=6
4. ICT tools to enhance efficiency of enterprise collaborations for low emissions actions as demonstrated in Cameroon expanded and replicated in Kenya	Nigeria - EBAPreneurs Solutions (company) created following example of EBAgroPamoja (targeting tomato, cassava value chains).	

¹⁸⁸ [ACTS Final progress report.pdf](#), ACTS report covers 3 months 2019, but ended 3/2020.

Planned outcome (from contracts)	Final report ACTS ¹⁸⁸	Findings
	Standards Organisation of Nigeria (SON) testing solar dryers, for minimum moisture standard for tomato (for official adoption). Bureaux of Standards in Uganda and Nigeria exchanged on standards for solar drying.	
5. inter-ministerial policy coherence for implementation taskforces take-up above low emissions operational lessons into policy decision making	Uganda - UNBS: published Market Incentives Guide for agro-industrialisation - Compliance guideline ¹⁸⁹ (to be EBA, NDC conform = LEDS) Nigeria - SON adopted Kenya's lessons, shared with EBAPreneurs Solutions Nigeria (youth, company) tomato value chain: testing	Ogada: Standards development is a very good way to get government drive LEDS. No policy briefs yet. After the Market Incentives Guide for agro-industrialisation - compliance guideline (UNBS) aims to restructure existing standards, to be bundled: one standard for sustainable low-emission practices along a value chain (instead of cascading, siloed standards from different agriculture and energy sectors). UK Aid supported several projects on standards with UNBS. Its National standardization strategy 2019-2022 ¹⁹⁰ , produced just when ACTS started, clearly gives no priority to environment. Also, the August 2020 Guidelines for SME ¹⁹¹ covers a lot on product quality and safety, but nothing about environment, emission. Evaluation discussion: see section A-iii.

*: Description of the action: formally identify capacity needs of lead government agencies and technical institutions and sub-contract to "5 regional modelling hubs".

ACTS: The reporting on solar dryers lacks clarity; solar drying is not itself reducing emission if the Business as Usual (BAU, drying on the floor, in the sun) is also using energy from the sun. There is an emission advantage when post-harvest loss is reduced (and quality improved), but research shows that good practices using raised beds can be equally effective (or even better in avoiding mould), and more accessible¹⁹².

ACTS' work with the private sector is not linked to modelling or policy, but enables some exchange between Kenya, Uganda and Nigeria.

ACTS' work with Uganda's bureaux of standards (producing the Market Incentives Guide for agro-industrialisation - Compliance guideline) suggests that these bureaux may create favourable conditions for pro-LEDS policy; however, also at that level it proved to be a challenge to mainstream LEDS: the latest UNBS publication (Guidelines for SME) does not refer to emission or environment-related standards: a mainstreaming missed opportunity.

¹⁸⁹ UNBS, 2020. Uganda Standard - Climate action market incentives for agro-industrialisation — Compliance guideline, first edition, ref. US 2241: 2020 [Climate Action Market Incentive for Agro-industrialization - Compliance guideline.pdf](#)

¹⁹⁰ UNBS, 2019. National standardization strategy 2019/2020 to 2021/2022 <https://unbs.go.ug/attachments/menus/27/UNBS-National-Standardization-Strategy-2019-2022.pdf>

¹⁹¹ UNBS, 13/8/2020. UNBS Rolls Out Simplified Standards Guidelines For SMEs <https://www.unbs.go.ug/news-highlights.php?news=155&read>

¹⁹² In 2017, research shows that for smaller farmers, the open air drying (on raised racks, under the sun but not 'solar') is a more accessible solution. Later research shows that there may be no need for solar dryers, where raised beds are already a good post-harvest loss reducing practice, and it may be equal or better in avoiding mould. <https://pdfs.semanticscholar.org/1863/9c1c772c1cda8eadccf72da58b05ef095fa1.pdf>
<https://medcraveonline.com/MOJFPT/MOJFPT-08-00241.pdf>

NDC overview

Table 25: NDC overview

Country	Environmental ceilings					remarks
	Land use change & Biodiversity loss	Climate change	Chemical pollution	Freshwater use	Coastal management	
Cameroon	<ul style="list-style-type: none"> - Sustainable Land Management (SLM), Natural Resource Management (NRM), including land tenure strategies - agricultural intensification, innovations (soil, silage) - rehabilitation of degraded land, reforestation 	<ul style="list-style-type: none"> - power plant (grid) energy efficiency - energy efficiency policy - rural smart mini-grids, Rural Electrification Fund (FER) - gas-powered combined cycle - industries: energy audits, regulations, standards, pricing, incentives, SME audits - building codes, certification, low-consumption construction/renovation - appliances regulation, labelling - RE in electricity - RE investment incentives, agency, study - RE community projects - efficient cookstoves - commodity transport logistics, infrastructure, low-emission vehicles - urban mass transport, spatial planning 	<ul style="list-style-type: none"> - agricultural waste to energy, composting - sewage treatment - waste management policies 			
Côte d'Ivoire	<ul style="list-style-type: none"> - agriculture intensification, mechanization - animal production - soils, fertilizers, SWC - livestock - LULUCF (Land Use, Land Use Change and Forestry), REDD+, sustainable forest management, conservation - reforestation 	<ul style="list-style-type: none"> - carbon market, -tax - power plant energy mix from natural gas combined, renewables, and regional interconnection - urban, rural mass transport planning, rail - industries - organise the wood energy sector 	<ul style="list-style-type: none"> - agricultural waste - solid waste - waste water - reuse, reduce, recycling - air quality management 	<ul style="list-style-type: none"> - fisheries & aquaculture - river water flow management 	<ul style="list-style-type: none"> - regulate sand extraction, coastal protection works 	<ul style="list-style-type: none"> - DRM

Country	Environmental ceilings					remarks
	Land use change & Biodiversity loss	Climate change	Chemical pollution	Freshwater use	Coastal management	
	<ul style="list-style-type: none"> - restore degraded land - Watershed management, agro-dams, new irrigation sites, irrigation efficiency 					
DRC	<ul style="list-style-type: none"> - forest management - plant 3 million ha forest by 2025 - agricultural resilience, agro-ecological production 	<ul style="list-style-type: none"> - transport & energy 			<ul style="list-style-type: none"> - coastal erosion work, Disaster Risk Management (DRM) 	<ul style="list-style-type: none"> - social equity: resilience of women, children - livelihoods of communities
Ghana	<ul style="list-style-type: none"> - SLM: forest management, agriculture <p>Methods: IPCC AFOLU accounting with Comprehensive Mitigation Assessment Process (COMAP)¹⁹³ and FCPF</p>	<ul style="list-style-type: none"> - power plant energy efficiency - industry energy efficiency, green cooling - efficient mass transportation - upscale renewable energy penetration (in households: rural lighting, cleaner cooking) <p>Method: LEAP</p>	<ul style="list-style-type: none"> urban solid waste management <p>Method: IPCC waste model (methane)</p>	<ul style="list-style-type: none"> Integrated Water Resource Management (IWRM) 		<ul style="list-style-type: none"> - social equity: resilience for gender and the vulnerable - DRM, climate resilient infrastructure
Kenya	<ul style="list-style-type: none"> - land reform for climate adaptation - adaptation in urbanisation and housing - strengthening the tourism value chain resilience - adaptation in the extractive sector - country planning and Disaster Risk Management (DRM)/drought strategy - climate resilient infrastructure, urban areas, human settlements, tourist & coastal zones 	<ul style="list-style-type: none"> - expansion geothermal, solar and wind, other clean energy options - enhancement energy and resource efficiency across the different sectors - 10% of land in tree cover - clean energy technology to reduce reliance on wood fuels - low carbon and efficient transportation systems - Climate Smart Agriculture (CSA) - sustainable waste management systems - climate proofing infrastructure 		<ul style="list-style-type: none"> - climate change adaptation in the National Water master Plan 		<p>Total GHG emission at 73 MtCO₂eq (2010), of which 75% from LULUCF and agriculture sectors. Other significant emissions: energy and transport sectors (waste and industry contribute negligible amounts). GHG emissions cut by 30% by 2030 relative to the BAU scenario of 143 MtCO₂eq.</p> <ul style="list-style-type: none"> - adaptation in health, informal private sector, public sector reform, climate information services

¹⁹³ Comprehensive Mitigation Assessment Process, 1999. Ernest Orlando Lawrence Berkeley National Laboratory, USA.

Country	Environmental ceilings					remarks
	Land use change & Biodiversity loss	Climate change	Chemical pollution	Freshwater use	Coastal management	
Mozambique	<ul style="list-style-type: none"> - Integrated Water Resource Management (IWRM), hydraulic infrastructure - land use, spatial planning floodplains, coastal areas - resilience of agriculture, livestock, fisheries, reduce soil degradation, plant trees for local use - biodiversity protection 	<ul style="list-style-type: none"> - energy strategy - biofuel strategy - renewable energy strategy - biomass energy strategy - natural gas mater plan - energy feed-n tariff regulation - urban solid waste management, methane from solid waste landfills 				<ul style="list-style-type: none"> - Early Warning Systems, DRM - Increase adaptive capacity of the most vulnerable groups - reduce vulnerability to vector-borne (cc-related) disease - prediction / modelling to show cost/benefits, private sector participation
Zambia	<ul style="list-style-type: none"> - Sustainable Forest Management (SFM): reforestation, Community Forestry - conservation / smart agriculture 	<ul style="list-style-type: none"> - improved charcoal stoves, biomass, ethanol, LPG, electric stoves - rural biogas, biomass to electricity - fuel switch (biodiesel, mini-hydro) - biofuel blending - off grid RE rural areas (P.V. & wind) - grid extension through inter-basin water transfer 				<p>NDC is to reduce emission 38,000GgCO2eq or 47% against 2010 as a base year NDC is being reviewed, expected in June 2020</p>

Annex IX – LEDS policy cycle

This Annex presents further details in support of, and referred to in the main text.

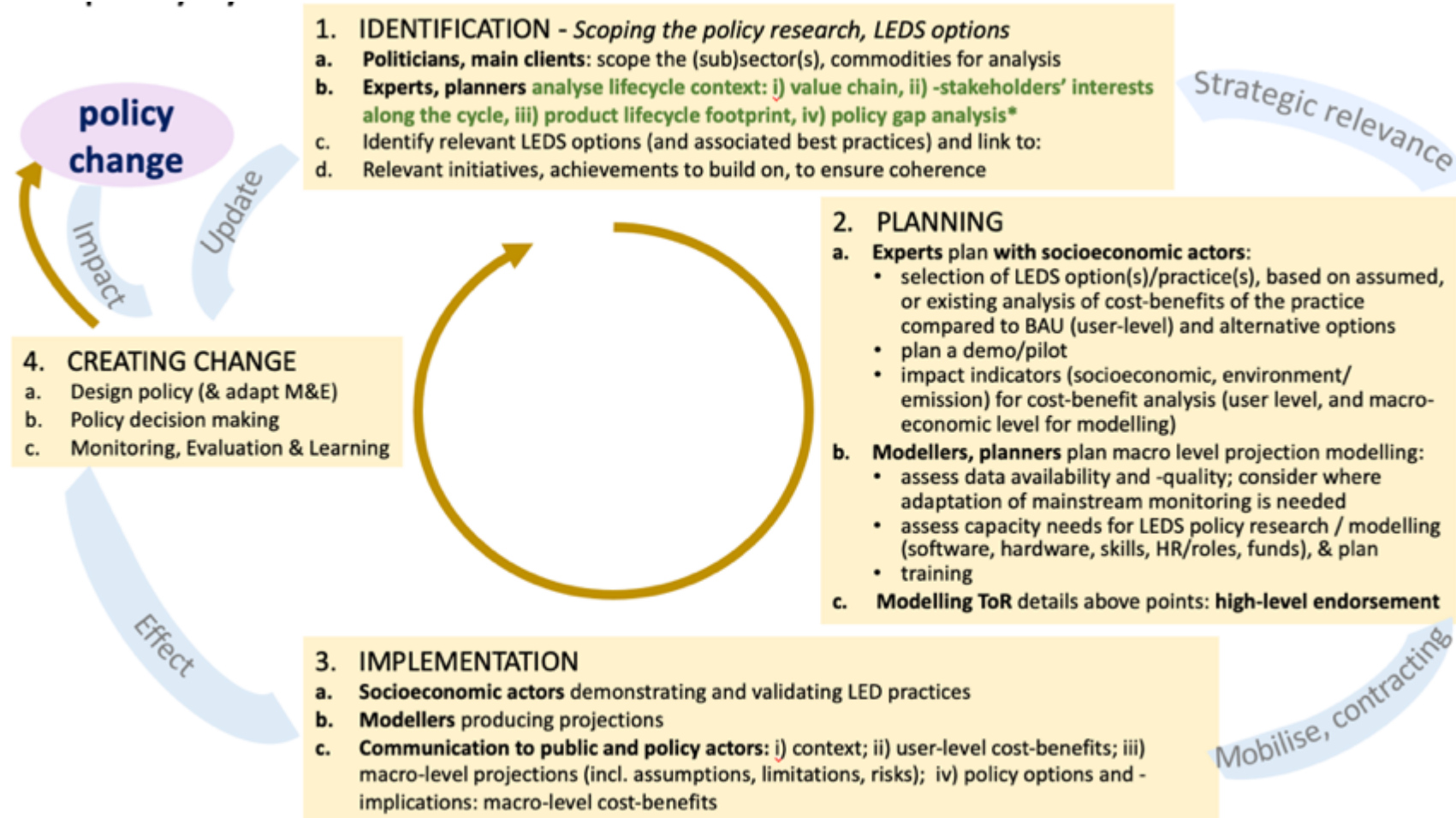


Figure 4: LEDS Policy Cycle

*: Following EU's Circular Economy strategy, analyses are put in the context of product lifecycles

Annex X – ToC versions

Below version of the ToC was produced by the Africa LEDS Project Team Leader after the project ended. It helped to understand how the Team Leader understood the ToC, but did not meet the needs of an evaluation. It was decided that the Evaluation produce a version based on its understanding of the Description of the Action.

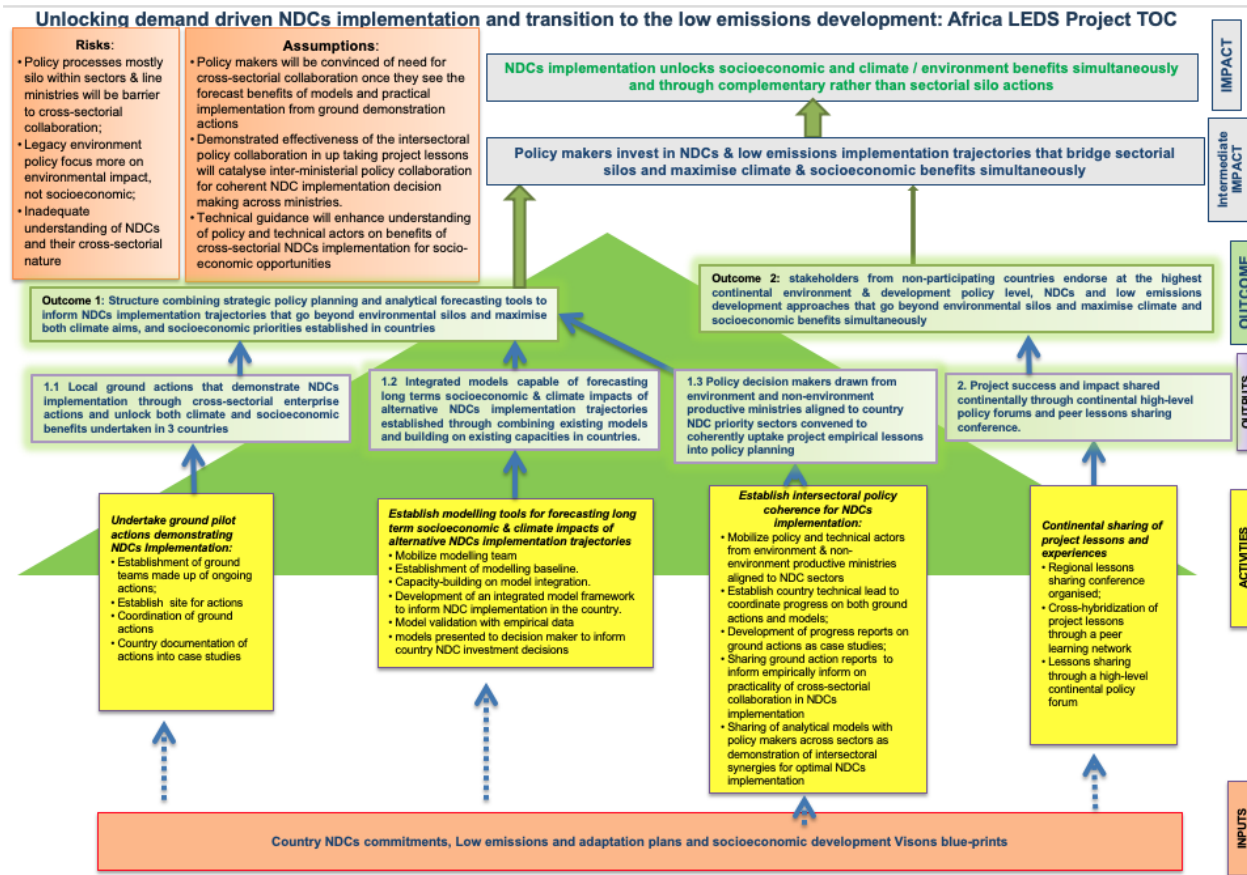


Figure 5: ToC – version from Team Leader

Table 26: ToC at inception compared with results as in final report

Result level	ToC at Evaluation Inception	Results in final report (Ch. 2) – outputs identical to those in the Description of the Action
Environmental Impact	Reduced Emissions Ecosystem health and biodiversity preserved	
Socioeconomic Impact	Inclusive Green Economy (engaging poor, vulnerable) leads to socioeconomic benefits, reduced inequality, increased resilience	
Intermediate States (IS)	IS I: Transformation: Socioeconomic actors ¹⁹⁴ engaged in the pilot projects and at wider scale are empowered, and apply LEDS, good practices beyond project end	
	IS II: Policy actors (3 primary partner countries) fully implement a set of LEDS policies and plans within a collaborative regional context	
	IS III: Policy actors (8+ partner countries) used LEDS evidence as a foundation to strengthen NDCs implementation	
	IS IV: Policy actors (5 partner- & 2 non-partner countries at least) endorsed and used the LEDS evidence-base to develop concrete LEDS policies, and some countries initiate implementation	
Component 1 – LEDS Planning & Implementation Support (3 countries)	Project Outcome 1 Policy actors (3 primary partner countries) and LEDS champions (3-5 institutes) translated LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures / policies (linked to NDC priorities) and initiated implementation of LEDS plans	Implementation of specific LEDS measures initiated (infusing lessons into policy planning)
	Direct Outcome 1 Local socioeconomic actors (3 primary partner countries, various stakeholder groups) validated socioeconomic and/or environmental benefits obtained from the pilot projects	
Outputs	Output 1.1 Local socioeconomic actors (3 countries) implemented new/ improved LEDS pilot projects, and results are demonstrated and shared	LEDS initiatives developed or improved
	Output 1.2 Established LEDS champions institutions (3-5) increased their capacities and actively shared LEDS country results regionally and globally (i.e. to benefit Component 2, outputs 2.2, 2.3 and 2.4)	
Component 2 LEDS Modelling Support	Project Outcome 2.1 Policy actors (8 partner countries) translated LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions	
	Direct Outcome 2.1 Policy actors (8 countries, incl. lead government- and technical agencies, UNFCC focal points) endorsed LEDS for policy analysis	
	Direct Outcome 2.2 Country teams (8) conducted LEDS analysis with adapted models/tools	
	Project Outcome 2.2 LEDS champions (3-5 institutions) leveraged country experience and mobilised sustained LEDS commitment among 8+ partner- and non-partner countries, both regionally and globally	Enhanced global and regional knowledge of LEDS planning and implementation (in non-partner countries)
	Direct Outcome 2.3 LEDS champions (3-5 institutions), country teams (8 partner countries) created a regional and global peer-to-peer network	LEDS champions cultivated (at least 3 institutions), to facilitate peer-learning

¹⁹⁴ These are actors along the value chain implicated in pilot projects; current and potential actors along the value chain, with special attention to vulnerable groups, gender, and communities that are (in whatever way) governing land and natural resources providing to value chains.

Result level	ToC at Evaluation Inception	Results in final report (Ch. 2) – outputs identical to those in the Description of the Action
Outputs	Output 2.1 Country teams (8) have agreed plans to analyse policies for LEDS, with prioritised actions	LEDS actions prioritization and decision-maker support for priority LEDS measures significantly enabled
	Output 2.2 Country teams (8) have strengthened capacities for LEDS analysis and modelling	Improved LEDS modelling capacity
	Output 2.3 Policy actors (in 8 partner countries) communicate / share LEDS benefits and (peer) learn on LEDS policy and modelling	Strengthened analysis and communication of LEDS benefits
	Output 2.4 Global stakeholders accessed LEDS training materials, case studies and experiences online	Improved regional and global knowledge

Table 27: Analysis of indicators

Indicator in Description of the Action Logical Framework	Suggested indicator
Outcome 1.1	Participants' scores for socioeconomic results, environmental results
Outcome 1.2	Concrete LEDS plans, based on evidence from LEDS pilot project, modelling (SoV: national or sectorial policy docs)
Output indicators	Case studies materials distributed and shared online
3 partner countries develop or improve LEDS plans	No. of case studies distributed
3 partner countries initiate formulation and implementation of LEDS measures for key emissions sectors or economy wide	
- At least 5 non-partner African countries actively participating in peer forums - More than 1 non-partner country formulating LEDS plans based on shared project knowledge - Non-partner countries develop and implement LEDS measures based on shared project knowledge	
- At least 3 institutions identified as LEDS champions to lead LEDS and implementation peer learning efforts - LEDS training and equipping of identified champions - Partnerships formed between champions to facilitate peer learning	
Outcome 2.1	
Outcome 2.2	Endorsements
Outcome 2.3	Concrete LEDS plans, based on evidence from LEDS pilot projects (in 3 countries), modelling (SoV: national or sectorial policy docs)
Output indicators	No. of website hits from outside the 8 countries
- Priority LEDS actions identified for 8 partner countries - At least 8 countries with strengthened LEDS process as a result of prioritization process	Survey: Participants' appreciation (score) of peer learning and training: i) content; ii) presentation, materials; iii) use: if and how did it contribute to (better) LEDS modelling frameworks, (better) LEDS plans, and/or NDCs? Disaggregate per country, and type of participant (policy/level, modeller) (SoV: survey) Is there monitoring of training and workshops?
- At least 8 countries with strengthened stakeholder support for LEDS process as a result of improved analysis and communication of LEDS benefits - A LEDS in Africa website in place as a continental LEDS knowledge management platform	No. of models adapted, and used
- LEDS models adapted for target high emissions sectors / economy wide - Training of relevant personnel to lead LEDS modelling actions - Partner country technical institutes conducting analysis with adapted models	(Workplans for) LEDS policy adaptation, level of government buy-in for these plans (expressed by provision of adequate resources)
- At least 2 non partner countries report improved LEDS process due to peer learning forums and project knowledge products - Non partner countries participate actively on LEDS modelling through knowledge platforms - All 8 partner countries actively involved in LEDS modelling peer training & knowledge sharing	No. of communication products (online): case studies, policy briefs, modelling briefs, webinars, reports, newsflashes

Table 28: Testing report statements

Planned result (revised)	Final report	Other findings
<p>Project Outcome 1 <i>Policy taskforce, LEDS champions</i> translated LEDS pilot projects, modelling results into concrete (endorsed) LEDS measures / policies, and initiated implementation</p>		
<p>Direct Outcome 1 <i>Local socioeconomic actors</i> validated socioeconomic and/or environmental benefits from the pilot projects</p>		
<p>Output 1.1 <i>Local socioeconomic actors</i> implement LEDS pilot projects; results demonstrated and shared KNUST-ADEID contract deliverable 1: demo EBA-agro-industry powered by clean energy and enhanced access to markets</p>	<p>Cameroon demonstrations finalised, operationalised, and case studies finalised.</p> <p>Côte d'Ivoire demonstrations on biofertilizer and briquettes completed, case studies developed and these inform national LED plans.</p> <p>DRC waste-biogas and -briquettes completed and lessons compiled into a case study.</p>	<p>Jakiri: only the hydraulic press is operational; the milling is still done by hand.</p> <p>Ngoulemakong: some (not specified) cassava farming practices have been adopted (no agroforestry). To be observed, during visit</p> <p>There is no separate, communicable documentation of case studies. Inside the Cameroon country final report is a brief description of a case.</p> <p>Cost-benefit analyses incomplete.</p> <p>Biogas cooker: only 2 out of 6 are operational.</p> <p>Briquette/cookstoves: users find the cookstoves expensive, advantage in terms of reduced smoke not elaborated.</p>
<p>Output 1.2 <i>LEDS champions</i> increased their capacities and actively shared LEDS results regionally and globally</p>		<p>No interventions from champion institutions from outside Cameroon. The “LEDS Champions” concept was understood to be (local) organisations <i>inside the country</i> that promote LEDS, e.g. municipal councils involved in renewable energy actions.</p>
<p>Project Outcome 2.1 <i>Policy actors</i> translate LEDS analyses/modelling results into improved, evidence-based LEDS measures/policy decisions</p>	<p>P27: Across the countries, inter-ministerial and modelling teams briefed decision-makers and other stakeholders on benefits and socio-economic impacts of actions (as a key aspect of the modelling work and activities overall). These briefings helped to build support for action implementation and</p>	<p>Project results were shared in the Accra workshop and the AMCEN high level / ministerial breakfast meeting in Durban (slide presentations). There is no evidence on any briefings, no clear</p> <p>Cameroon: results <i>will be</i> handed over to policy makers (no specific policy propositions reported)</p> <p>Côte d'Ivoire: concept note for NDC revision <i>currently underway</i> (proposition: scale up SRI, REDD+; include bioenergy for domestic cooking)</p>

Planned result (revised)	Final report	Other findings
	<p>scale-up through policymaking and investment.</p> <p>P29: Inter-ministerial policy teams coordinated development of case studies from the demonstrations, that summarise key lessons 'to infuse into policy structures'.</p> <p>P101: Successes gleaned from this project were used to make a case to convince ministers to endorse policy positions towards premising environment as a solution to achieve socioeconomic growth.</p>	<p>DRC: Integrated approaches to mobilize ministries (notably energy, forestry and agriculture) in their sectoral policies have been <i>analyzed</i>. Interview: the policy task force is yet to be involved.</p> <p>Ghana: To incorporate modelling results into policy decisions <i>requires a carefully thought through strategy [...] results must be credible.. there must be a clear channel for adoption.. need to beef up communication</i>.</p> <p>Kenya: modelling is first to continue, current result 'not convincing to any policy maker'</p> <p>Mozambique: data needed to deal with minimum requirements for modelling. It is necessary to inform policy makers about benefits of available options. Results from this report <i>have potential to inform policy processes</i>.</p> <p><i>A new climate change M&E plan includes indicators for both mitigation and adaptation</i></p> <p>Zambia: results 'reported to higher level policy making at Steering Committee and Council of Ministers' but minutes obtained from that meeting do not mention anything about the project, - results.</p> <p>Policy propositions are very general, not for specific LED/sectors: policies are adequate, but harmonization of regulatory framework needed; proposed: i) financing mechanisms, incentives and TA to 'encourage acquisition of the necessary technologies'; and ii) awareness creation, demonstration of benefits.</p>
Direct Outcome 2.1 Policy actors endorsed LEDS for policy analysis		There are some ideas but no concrete plans or policy decisions yet. Policy actors confirm the importance of LEDS analysis in all sectors mentioned in the NDC.
Direct Outcome 2.2 Country teams conducted LEDS analysis with adapted models/tools		An intelligent model was developed for LEDS analysis, and tested with data from the agricultural sector. The model is based on the Autoregressive Integrated Moving Average (ARIMA) statistical analysis model that uses time series data to predict trends.
Project Outcome 2.2 LEDS champions leverage country experience and mobilise sustained LEDS commitment		
Output 2.1 Country teams have plans to analyse policies for LEDS, with prioritised actions		The country action plan is produced. This is analysed in 5.B. Quality of project design
Output 2.2 Country teams have strengthened capacities for LEDS analysis and modelling		
Output 2.3 Policy actors communicate / share LEDS benefits, (peer) learn on LEDS policy, modelling		No documentation provided on this (interviews refer to a workshop in Cameroon, in which there was sharing with high level policy actors engaged in IND).

Planned result (revised)	Final report	Other findings
<p>Output 2.4 <i>Global stakeholders</i> accessed LEDS training materials, case studies and experiences online</p>		<p>There is no separate, communicable documentation of case studies. The Evaluation understands that, what is reported in Africa LEDS project country reports, chapter 2. Achievement, section 2.2 Modelling (elaborating on BAU, modelling tools, methods and outcomes) is considered (also) as 'the case studies'.</p>

Annex XI – Assessment of Project Design Quality - revised

An important part of the Project Design was to take place in a two-phase inception. This means that the Project Design Quality assessment in this report is a revised version of the one in the Inception report, where the result of design done in the Inception Phase is taken into account.

Table 29: Assessment of Project Design Quality

	Design area	YES/NO	Comments/Implications for the evaluation design (e.g. questions, ToC assumptions and drivers, methods and approaches, key respondents, etc.)	Rate ²	
A	Operating Context				
1	Does Description of the Action identify any unusually challenging operational factors (e.g. conflict, disaster, change of government) that are likely to negatively affect project performance? <i>Criterion is rated for whether the operational factors have been assessed, not on the favourability of the operating context.</i>	i) Ongoing / high likelihood of conflict? No ii) Ongoing / high likelihood of natural disaster? No iii) Ongoing / high likelihood of change in national government? No	This is discussed separately, in 5.C.		
B	Project Preparation				
2	Does the Description of the Action entail clear and adequate situation analyses?	No	There is still little baseline information and context analysis → gender issues not identified, no criteria for gender → Private sector is overlooked → No integrated approach to human rights (e.g., land use change effects) There is no mandating process: the partners are chosen because representing AfLP and LEDS GP.	1	
3	Does the Description of the Action include a clear and adequate stakeholder analysis, including by gender/minority groupings or indigenous peoples?	No			
4	<i>If yes to Q3:</i> Does Description of the Action provide a description of stakeholder consultation during project design process? (If yes, were any key groups overlooked: government, private sector, civil society and those who will potentially be negatively affected)	n.a. Not applicable because this is an Action under PoW Project 1721			
5	Does the Description of the Action identify concerns with respect to human rights, including in relation to differentiated gender needs and sustainable development? (e.g. integrated approach to)	i) Sustainable development in terms of integrated approach to human / natural systems			No/yes
		ii) Gender			No

	Design area	YES/NO	Comments/Implications for the evaluation design (e.g. questions, ToC assumptions and drivers, methods and approaches, key respondents, etc.)	Rate ²	
	human/natural systems; gender perspectives, rights of indigenous people)	iii) Indigenous peoples	No		
C	Strategic Relevance - Is the project document clear in terms of its alignment and relevance to strategic priorities of:				
6	Is the project document clear in terms of its alignment and relevance to:	i) UNEP: • MTS 2014-2017 • PoW Resource Efficiency / PoW Project 1721 • Bali Strategic Plan for Technology Support and Capacity Building (BSP) • South-South Cooperation (S-SC): exchange of resources, technology and knowledge between developing countries • SDG		This is discussed separately, in 5.A	
ii) EU: • Resource Efficiency • Circular/ Green Economy • others?					
iii) Regional, sub-regional and national environmental priorities: AMCEN, NDCs, etc.					
iv) Complementarity with other interventions, including UNDAF, One UN programming		Yes/No			
D	Intended Results and Causality				

	Design area	YES/NO	Comments/Implications for the evaluation design (e.g. questions, ToC assumptions and drivers, methods and approaches, key respondents, etc.)	Rate ²
7	Are the causal pathways from project outputs (goods and services) through outcomes (changes in stakeholder behaviour) towards impacts (long lasting, collective change of state) clearly and convincingly described in either the log frame or the ToC? If no ToC in Description of the Action, reconstruct ToC.	No	Same weaknesses, not resolved during inception, in country-level of design: i. The context: there is only limited problem analysis, no ToC, no stakeholder analysis ii. LEDS: There is no definition iii. The Logical Framework is incomplete: no long-term impacts, no outcomes iv. The project objective: various versions appearing in different reports show different interpretations v. Outputs in the contracts are not clear vi. The outputs ¹⁹⁵ are not 'SMART', or not clear ¹⁹⁶ on who are the intended beneficiaries, users vii. Some results are formulated as activities; some are only clear when read with indicators.	1
8	Are impact drivers and assumptions clearly described for each key causal pathway?	No	As just explained above, hypotheses or assumptions are not presented, also not clear for the modelling projects.	
9	Are the roles of key actors and stakeholders clearly described for each key causal pathway?	No	No or little stakeholder identification, no analysis.	
10	Are the outcomes realistic with respect to the timeframe and scale of the intervention?		There are no outcomes in the contracts.	
E Logical Framework and Monitoring				
11	Does the Logical Framework:		At level of implementing partners, and at country level, the plans are not presented in logframes, no indicators e.g. on number of people trained (f,m).	1
12	Is there baseline information in relation to key performance indicators?			
13	Has the desired level of achievement (targets) been specified for indicators of outputs and outcomes?			
14	Are the milestones in the monitoring plan appropriate and sufficient to track progress and foster management towards outputs and outcomes?			
15	Have responsibilities for monitoring activities been made clear?			

¹⁹⁵ In UNEP terminology (Final Glossary of Results definitions_13.11.2019_clean.docx) Outputs are viewed from the perspective of the intended beneficiary or user of the output rather than the provider.

¹⁹⁶ [11 Use of Theory of Change in Project Evaluation 26.10.17.pdf](#) Among other things, it is required that main stakeholders involved in the change processes be identified (and their role they play in the changes and/or how they are affected by the changes).

	Design area	YES/NO	Comments/Implications for the evaluation design (e.g. questions, ToC assumptions and drivers, methods and approaches, key respondents, etc.)	Rate ²
16	Has a budget been allocated for monitoring project progress?			
17	Is the workplan clear, adequate and realistic? (e.g. adequate time between capacity building and take up etc.)			
F. Governance and Supervision Arrangements				
18	Is the project governance and supervision model comprehensive, clear and appropriate? (<i>Steering Committee, partner consultations etc.</i>)	No	Consultations between partner countries and KNUST are not clear, or little detailed in the plans. But partner countries take part in PSC meetings.	3
19	Are roles and responsibilities within UNEP clearly defined?	Yes		
G Partnerships				
20	Have the capacities of partners been adequately assessed? (CHECK if partner capacity was assessed during inception / mobilisation where partners were either not known or changed after project design approval)	No		2
21	Are the roles and responsibilities of external partners properly specified and appropriate to their capacities?	No	IP contracts list activities/outputs, but it is not clear what is KNUST-responsibility and what is country-responsibility; the reporting duplicates.	
H Learning, Communication and Outreach				
22	Does the project have a clear and adequate knowledge management approach?	Yes	The knowledge management approach is not elaborated further, the peer learning plan comes in the end.	3
23	Has the project identified appropriate methods for communication with key stakeholders during the project life? (If yes, do the plans build on an analysis of existing communication channels and networks used by key stakeholders?)	Yes	The use of internet (website of the project, AfLP website, Twitter) is appropriate.	
24	Are plans in place for dissemination of results and lesson sharing at the end of the project? If yes, do they build on an analysis of existing communication channels and networks?	Yes		

	Design area	YES/NO	Comments/Implications for the evaluation design (e.g. questions, ToC assumptions and drivers, methods and approaches, key respondents, etc.)	Rate ²
I	Financial Planning / Budgeting			
25	Are the budgets / financial planning adequate at design stage? (coherence of the budget, do figures add up etc.)	No	Given that UNEP does the supervision missions, it is not clear why KNUST is awarded a large budget for the same (KNUST is to supervise the implementation in the countries?).	3
26	Is the resource mobilization strategy reasonable/realistic? (If it is over-ambitious it may undermine the delivery of the project outcomes or if under-ambitious may lead to repeated no cost extensions)	n.a.	This project is an Action under the PoW Project 1721; any resource mobilization strategy would be at the level of the PoW.	
J	Efficiency			
27	Has the project been appropriately designed in relation to the duration and/or levels of secured funding?	No	With this budget, one could expect better planning at country level.	3
28	Does the project design make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency?	No	At country level there is some use of existing institutions, mostly locally, but with stakeholder analysis lacking, other relevant ones are missed.	
29	Does the project document refer to any value for money strategies (i.e. increasing economy, efficiency and/or cost-effectiveness)?	Yes	The communication online is cost-effective. The country supervisory missions are not cost-effective considering that these missions do not report on results.	
30	Has the project been extended beyond its original end date? (If yes, explore the reasons for delays and no-cost extensions during the evaluation)	Yes	Just 6 months added.	
K	Risk identification and Social Safeguards			
31	Are risks appropriately identified in both the ToC/logic framework and the risk table? (If no, include key assumptions in reconstructed ToC)	No	The Description of the Action has no risk identification.	2
32	Are potentially negative environmental, economic and social impacts of the project identified and is the mitigation strategy adequate? (consider unintended impacts)	No		
33	Does the project have adequate mechanisms to reduce its negative environmental foot-print? (including in relation to project management)	No		

	Design area	YES/NO	Comments/Implications for the evaluation design (e.g. questions, ToC assumptions and drivers, methods and approaches, key respondents, etc.)	Rate ²
L	Sustainability / Replication and Catalytic Effects			
34	Did the design address any/all of the following: socio-political, financial, institutional and environmental sustainability issues?	Yes/no	Environmental sustainability is of course the reason for this project, but not critically explored in a value chain or lifecycle context. Institutional sustainability was designed at country level, and. Financial sustainability is linked to that.	3
35	Was there a credible sustainability strategy and/or appropriate exit strategy at design stage?	Yes	In two ways sustainability is enabled: i) building capacity of local/national Research institutes is in itself creating conditions for more sustainability of the results; ii) working within regional collaboration frameworks (AU, AMCEN) and supporting sharing of lessons and practices at that level will also help sustainability.	
36	Does the project design present strategies to promote/ support scaling up, replication and/or catalytic action? (If yes, capture this feature in the reconstructed ToC at Evaluation Inception)	Yes	Scaling up is integral part of the project support for LEDS: with more LED policies, strategies and plans, the pilot experiences are to be scaled up.	
M	Identified Project Design Weaknesses/Gaps			Rate ²
37	Were there any major issues not flagged by PRC?	n.a.		Not rated
38	What were the main issues raised by PRC that were not addressed?			
N	UNEP Gender Marker Score			
39	What is the Gender Marker Score applied by UNEP during project approval? (applies for projects approved from 2017 onwards)	1 (or 0)	A Gender marker is not applicable for this project as it was approved prior to 2017.	No rating

NOTES

1. For Terminal Evaluations/Reviews where a revised version of the project was approved based on a Mid-Term Evaluation/Review, then the revised project design forms the basis of this assessment.

2. Rating: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1.