Accelerating sustainable energy transition for decarbonization of micro, small and medium manufacturing enterprises in India

Review PIF and Make a recommendation

Basic project information

GEF ID

11758

Countries

India

Project Name

Accelerating sustainable energy transition for decarbonization of micro, small and medium manufacturing enterprises in India

Agencies

UNIDO

Date received by PM

9/19/2024

Review completed by PM

10/3/2024
Program Manager

Remy Ruat
Focal Area

Climate Change
Project Type

FSP

GEF-8 PROJECT IDENTIFICATION FORM (PIF) REVIEW SHEET

1. General Project Information / Eligibility

a) Does the project meet the criteria for eligibility for GEF funding?

b) Is the General Project Information table correctly populated?

Secretariat's Comments

Cleared

RR (10/24/2024):

1. Cleared.

2. See follow up in sections below

RR (10/3/2024):

1. Please remove the "Innovation" tag - this is not a taxonomy tag for innovative projects but a project modality classification for projects selected under the GEF innovation window, which is not the case for the present project.

2. On eligibility, please see comments under the project description section, there is a point to address at technical level - as currently presented the project would not be eligible - put there is potential to address this issue in project design.

Agency's Comments

21/10/2024 (UNIDO):

Removed innovation tag.

2. Project Summary

Does the project summary concisely describe the problem to be addressed, the project objective and the strategies to deliver the GEBs or adaptation benefits and other key expected results?

Secretariat's Comments

Cleared

RR (11/04/2024):

Cleared

RR (10/24/2024):

1,2,3,4. Thank you for the shortened summary. MSMEs are not a sector, but a category of economic actors. Please revise the last sentence of the first paragraph to clarify this. for example this could read like the following : "This initiative aims to facilitate the decarbonization of the industrial sector through support to MSMEs, by enhancing energy and material efficiency, promoting industrial circularity, and integrating sustainable energy technologies."

RR (10/3/2024):

1. The summary seems to present this project with an energy efficiency entry point - but this project strikes from project description as an industrial decarbonization project, broader than energy efficiency. This is not a problem, GEF-8 programming directions address industrial decarbonization in the context of energy and material efficiency and circularity, which is broader than energy efficiency. Please reflect the adequate rationale for the project in the project summary and title, relating it to the GEF programming directions themes.

2. The summary is longer than expected (close to 500 words instead of 250) and could be shortened. For example, the long paragraph on expected results could be shortened to focus only on the key GEB determining eligibility (GHG emission reductions, without mentionning the justification in the summary, that can be made in the core indicator and project description sections). The last paragraph does not add tangible information either and can be deleted. The detailed description of phases can also be summarized.

3. With space made available, please add one sentence clarifying the importance of the targetted industrial segment in country GHG emissions and related targets, building on project rationale (currently the summary only refers to economic rationale for choice of these segments).

4. Please see other comments on project rationale and description and reflect in the summary as needed based on revisions to project design.

Agency's Comments

31/10/2024 (UNIDO):

1,2,3,4: Done.

21/10/2024 (UNIDO):

India's Micro, Small, and Medium Enterprises (MSMEs) play a pivotal role in the national economy, employing over 36 mi
approximately 33% to the country's manufacturing output. Despite their significance, MSMEs encounter substantial challenges
leading to high energy consumption and considerable greenhouse gas (GHG) emissions. This initiative aims to facilitate the dec
by enhancing energy and material efficiency, promoting industrial circularity, and integrating sustainable energy technologies

The project directly supports the GEF-8 focal area strategy for climate change, particularly the objective of accelerating the eff
(CCM 1.1) and enabling the transition to decarbonized power systems (CCM 1.2) and it also aligns with India's Nationally D
under the Paris Agreement.

The focus will be on eight critical industrial sectors: Textiles, Sponge & Iron and Steel Re-Rolling, Chemicals, Food Proc
Forging, Bricks, Light Engineering, and Glass & Ceramics. These sectors are responsible for a substantial portion of India?s in
nearly 50% of total industrial GHG emissions in the country. Addressing emissions from these sectors is essential for meetin
under the Paris Agreement.

The project will implement and scale decarbonization interventions across 14,280 MSME and Expected outcomes include an e
323,610 tonnes of CO2 annually. Additionally, the project aims to enhance capacity by training 1,250 professionals and
individuals (with over 30% being women), thereby fostering long-term sustainability within the MSME sector.

*Above text has been incorporated into the revised Project Identification Form (PIF) to reinforce the rationale concerning GE
has been condensed to approximately 250 words, emphasizing the significance of the targeted industrial sectors.*

3 Indicative Project Overview

3.1 a) Is the project objective presented as a concise statement and clear?
b) Are the components, outcomes and outputs sound, appropriate and sufficiently clear to achieve the project objective and the core indicators per the stated Theory of Change?

Secretariat's Comments

Cleared

RR (11/4/2024):

1. Cleared

2. Cleared. Thank you for the proposed revision in budget balancing , which should materialize in increased GEBs as well.

RR (10/24/2024):

1. Noted - please consider specifying that these MSMEs operate in the industrial sector, for consistency with project logframe. Just adding "in the industrial sector" would do.

2. Please see follow up questions in core indicator and project description sections. The increase in investment is welcome. Please see comments on potential redundancy of some TA and KM activities and explore possibility to further increase. Also, this increase in investment budget was not reflected in an increase in units/beneficiaries covered in the estimate of GEBs shared further below, hence there is potential for further increase of targetted impact on that front.

RR (10/3/2024):

1. The project objective includes two sentences which makes it longer than it needs to be. The second sentence can be deleted, and the issues of productivity, competitiveness, and resilience possibly integrated in the first one.

2. Please see comments in project description and rationale. The current GEBs targetted by this project are too low to consider it as eligible for GEF financing under CCM focal area programming. The approach is not cost-effective. This is a result of a project design where most of the weight of the components and underlying outputs are based on technical assistance and knowledge and engagement work, with insufficient focus on investment to deliver tangible GEBs. The only component with investment focus seems to misrepresent the budget allocated to these efforts by mixing in the same component technical assistance and investment work. This type of design is related to the issue of agency self-execution requested here, which is not warranted at this stage either. Please thoroughly reinforce the investment dimension of project design, including through involvement of financial partners, in order to reach significantly higher amounts of GHG emission reductions, to deliver cost-effective mitigation options in the targetted industrial sectors (which, given the segments mentionned, are all highly emitting sectors where the potential is very large - we are therefore confident that the project can be revised towards eligibility). Please see project description for follow up on avenues to maximize impact.

Agency's Comments

31/10/2024 (UNIDO):

1. Done. Project objective is now: The project aims to support the decarbonization and reduction of energy consumption in Indian MSMEs in the industrial sector by implementing integrated energy efficiency measures, promoting energy substitution, and introducing innovative solutions to minimize environmental impacts while enhancing productivity, competitiveness, and business resilience.

2. To enhance investment impact and address potential redundancies in Technical Assistance (TA) and Knowledge Management (KM) activities, the following changes are proposed:

1. **Assessment of TA and KM Activities:** The project has critically evaluated all TA and KM activities to eliminate redundancies, ensuring efficient resource use and alignment with measurable outcomes. Efforts will be continued to be made to explore additional funding avenues to expand the project's reach and benefits for MSMEs.
2. **Project Rationale (Page 11):** A new paragraph has been added to acknowledge the increased investment, commitment to maximizing its impact, and the intention to assess TA and KM activities for redundancies while aligning financial inputs with measurable outcomes.
3. **Previous Initiatives Impact (Pages 12-14):** Page 12 now includes insights on past GEF initiatives and their limitations in achieving tipping points. Page 13 discusses existing policy gaps and how this project aims to address them, while Page 14 outlines the aspects of additionality demonstration.
4. **Theory of Change (Page 29):** The "Proposed Theory of Change" section now emphasizes the importance of continuous evaluation and streamlining of TA and KM activities for maximum efficiency and impact.
5. **Knowledge Management Commitment (Page 28):** A new paragraph at the end of the Knowledge Management section highlights the commitment to reviewing and optimizing KM activities, consolidating efforts, and clearly defining roles and responsibilities.
6. **Budget Revision (Page 2):** The budget allocation table has been updated to reflect revised figures, showing reduced allocations for Components 1 and 4, alongside an increased allocation for Component 3.

Based on suggested comments, the following budget realignment has been proposed:

Reductions:

•**Component 1 (Policy Development and Market Transformation):** The GEF allocation has been reduced from $800,000 to $600,000 due to substantial existing co-financing and potential overlap with other initiatives.
•**Component 4 (Knowledge Management and Learning):** The GEF allocation has been decreased from $440,000 to $300,000, as there are redundancies with knowledge management activities in other components and this component has a lower impact compared to direct investments in sustainable energy.
Increase:

•**Component 3 (Implementation of Sustainable Energy Solutions):** The GEF allocation has been increased from $5,764,000 to $6,104,000. This core investment component is crucial for generating global environmental benefits (GEB) and enhancing the project's impact on greenhouse gas (GHG) emission reductions.
Revised Budget Allocation:

Component	GEF (Revised) in USD	Co-financing in USD
Component 1	600,000	2,000,000
Component 2	1,400,000	3,000,000
Component 3	6,104,000	60,305,500
Component 4	300,000	1,200,000
Component 5	150,000	1,200,000
Subtotal	8,554,000	67,705,500
Project Management Cost (PMC)	468,420	3,484,500
Total Project Cost	8,982,420	71,190,000

21/10/2024 (UNIDO):

1. *The objective has been revised as* - The project aims to support the decarbonization and reduction of energy consumption among Indian MSMEs by implementing integrated energy efficiency measures, promoting energy substitution, and introducing innovative solutions to enhance productivity, competitiveness, and business resilience while minimizing environmental impacts.

2. *Response:* The project acknowledges the necessity of maximizing Global Environmental Benefits (GEBs) and ensuring cost-effectiveness in its design. While the initial estimate of 542860 tCO2 annual reductions from the first 3,280 factories indicates significant potential, the project is committed to enhancing its investment dimension and leveraging financial partnerships to achieve even greater GHG reductions. To strengthen the investment aspect, the project will implement the following strategies:

? **Scaling Up**: *While a precise quantification would be carried at the PPG phase, the project's potential for indirect emission reductions is substantial. The 11,000 enterprises targeted in the second scale-up phase, along with other MSMEs influenced by the project's knowledge products and capacity-building efforts, represent a significant opportunity for further decarbonization. The project's focus on high-impact, high-return-on-investment interventions will likely encourage replication and scaling up, leading to sustained emission reductions beyond the project's timeframe. The project's contribution to policy development and market transformation will create a favourable environment for the adoption of sustainable energy practices, further amplifying its indirect impact. It is strongly believed that the proposed Knowledge Management structure and component for this nature of project would be befitting to the project objective, where 11,000 factories will be supported in implementing decarbonization interventions based on learnings from*

the pilot and first scale-up phases, broad assessment could be made on the basis of the prevailing or historical conversion rate. The percentage of industries that convert capacity-building efforts into actual implementation of energy efficiency measures in India varies significantly depending on several factors, such as industry type, size, regional focus, and the specific capacity-building programs undertaken. From available data on past capacity-building initiatives by organizations like the Bureau of Energy Efficiency (BEE), UNIDO, and Energy Efficiency Services Limited (EESL), implementation rates typically range between ***20% to 40%*** *of industries that participate in capacity-building exercises. This is largely because of the following reasons:*

- ***Financial Constraints****: Many industries, especially small and medium enterprises (SMEs), face financial limitations in investing in energy-efficient technologies.*
- ***Awareness and Expertise****: While industries may receive training, the level of in-house expertise to execute energy efficiency measures varies widely.*
- ***Technology and Supply Chain Readiness****: Availability of relevant technologies and vendors also plays a role, with industries waiting for market conditions to be more favorable.*
- ***Regulatory and Market Incentives****: Industries that have access to incentives such as subsidies or favorable regulatory frameworks show higher conversion rates.*

While ***30-40%*** *of the industries might move toward partial implementation, the percentage of industries adopting comprehensive and long-term energy efficiency strategies can be lower, often falling between* ***10% and 20%****. Therefore, outreach and capacity building are important, but financial and structural support mechanisms are equally crucial to increasing implementation rates. Keeping the conservative percentage of 10% conversion, the total number of industries that can be expected to be converted for adoption of SES, could be roughly 1100, which would mean a total of* ***136,000 tCO2*** *reduction from the second phase of the implementation.*

- **Indirect Emissions**: The project will quantify indirect emission reductions from improved supply chain efficiency, reduced waste generation, and circular economy principles. A conservative multiplication factor of 2 will be applied to these indirect benefits, further enhancing overall GEBs.
- **Investment Focus**: Component 3 will be revised to emphasize investment more clearly. This includes:
  - Budget Breakdown: A detailed budget will be developed during the PPG phase to distinctly separate technical assistance from investment components within Component 3. However as of now the investment component is proposed to be enhanced from previously pledged 1 million to 1.5 million.
  - Financial Partnerships: The project will strengthen collaborations with SIDBI and other financial institutions to facilitate MSME access to finance. This may

involve innovative financing mechanisms such as credit enhancements and risk-sharing facilities to stimulate private sector investment in decarbonization technologies.

- Investment Mobilization: Efforts will be made to mobilize investments from beneficiary factories through equity contributions and loans from commercial banks, ensuring that GEF funding effectively leverages significant co-financing.

By implementing these strategies, the project is confident in its ability to achieve substantially higher GEBs and deliver cost-effective mitigation options in the targeted industrial sectors. The PPG phase will play a crucial role in refining the investment strategy, bolstering financial partnerships, and accurately quantifying the full potential for GHG emission reductions.

3.2 Are gender dimensions, knowledge management, and monitoring and evaluation included within the project components and appropriately funded?

Secretariat's Comments

Cleared

RR (10/24/2024):

1. and 1.bis. Cleared. Thank you for the elaboration and confirmation. This is noted.

2. See follow up comments in related sections.

RR (10/3/2024):

1. A target for women beneficiaries of 30% is noted in the PIF. This seems low, although industrial sectors are known for this issue in women representativity. The PIF notes that data is not available for women representation in the specific segment of industrial MSMEs as a baseline situation in the country (at MSME level this is reported to be between 20 to 25%). Can you confirm that the PPG will establish a more specific baseline so that it will be possible to elaborate on how this project would seek to improve upon it? As avenues to consider during PPG, the GEF programming directions note on industrial decarbonization that projects will "take into account women?s and men?s differentiated knowledge of, access to, and use of energy-efficient technologies, as well as their attitudes towards the risks and benefits associated with adopting new technologies. Projects will also support the development of skills and training to promote women?s participation in the development and deployment of energy efficient technologies and services and relevant decision-making processes." Thank you.

1.bis. Please ensure that the gender dimensions are analyzed and addressed in the outputs under Outcomes 3.1 and 3.2, including on capturing results and impacts. In Component 4 (KM and dissemination), please ensure that KM products capture lessons learned and best practices in advancing gender equality in the project, and these products are widely disseminated. Please ensure that under M&E, gender-specific results are monitored and reported on.

2. KM is well represented in project components and the robust KM approach is arguably the strongest selling point of this project - but paradoxically too much funding goes to it, at the expense of investments and tangible GEB generation which affects project eligibility. Please see comments above and below on this issue and address.

Agency's Comments

21/10/2024 (UNIDO):

1 : women beneficiaries

We appreciate the Secretariat's feedback regarding the target of 30% women beneficiaries in the project and recognize the necessity of establishing a more precise baseline for women's representation in the industrial MSME sector. The Project Preparation Grant (PPG) will undertake a comprehensive assessment to gather data on the current representation of women within the targeted industrial MSMEs, aiming to establish a clear baseline that will enable effective measurement of progress and improvement in women's participation. It is essential to acknowledge that women's participation varies significantly across different sectors. For example, the textile industry typically exhibits higher levels of female involvement, while sectors such as sponge iron and steel show markedly lower representation. The baseline assessment will consider these sectoral differences, allowing for tailored actions and targets to be developed during the PPG phase. In alignment with GEF programming directions on industrial decarbonization, we will ensure that the project addresses the differentiated knowledge, access, and attitudes of both women and men regarding energy-efficient technologies. This will include:

? Collecting Sex-Disaggregated Data: To identify specific needs and challenges faced by women and men in accessing and utilizing energy-efficient technologies.

? Developing Gender-Sensitive Indicators: To effectively track and measure the project's impact on women's empowerment and gender equality.

? Promoting Gender-Responsive Solutions: To ensure that interventions are tailored to meet the distinct needs and priorities of both genders.

Additionally, we will support initiatives aimed at enhancing skills and training specifically designed to increase women's involvement in developing and deploying energy-efficient technologies. This will encompass:

? Providing Training and Mentorship Opportunities: To equip women with the necessary skills and knowledge for participation in the sustainable energy sector.

? Creating a Supportive Environment: To encourage women's leadership and decision-making roles within the sector.

? Promoting Gender Equality and Women's Empowerment: Throughout all project activities and interventions.

By implementing these strategies, we aim not only to meet the target of 30% women beneficiaries but also to foster lasting improvements in women's participation and empowerment within the industrial MSME sector.

2 : Gender Dimensions in Project Outputs:

We are committed to analyzing and addressing gender dimensions explicitly in the outputs/activities under Outcomes 3.1 and 3.2. This will involve capturing results and impacts related to women's participation in the project's initiatives.

In Component 4 (Knowledge Management and Dissemination), we will ensure that knowledge management (KM) products document lessons learned and best practices related to advancing gender equality within the project. These products will be disseminated widely to ensure that insights are shared and integrated into future projects.

Furthermore, under the Monitoring and Evaluation (M&E) framework, we will incorporate gender-specific indicators to monitor and report on results related to women's participation and empowerment throughout the project lifecycle.

3 : Knowledge Management Budget:

We appreciate the Secretariat's recognition of the robust KM approach in this project. *While a precise quantification would be carried at the PPG phase, the project's potential for indirect emission reductions is substantial. The 11,000 enterprises targeted in the second scale-up phase, along with other MSMEs influenced by the project's knowledge products and capacity-building efforts, represent a significant opportunity for further decarbonization. The project's focus on high-impact, high-return-on-investment interventions will likely encourage replication and scaling up, leading to sustained emission reductions beyond the project's timeframe. The project's contribution to policy development and market transformation will create a favourable environment for the adoption of sustainable energy practices, further amplifying its indirect impact.*

It is strongly believed that the proposed Knowledge Management structure and component for this nature of project would be befitting to the project objective, where 11,000 factories will be supported in implementing decarbonization interventions based on learnings from the pilot and first scale-up phases, broad assessment could be made on the basis of the prevailing or historical conversion rate. The percentage of industries that convert capacity-building efforts into actual implementation of energy efficiency measures in India varies significantly depending on several factors, such as industry type, size, regional focus, and the specific capacity-building programs undertaken. From available data on past capacity-building initiatives by organizations like the Bureau of Energy Efficiency (BEE), UNIDO, and Energy Efficiency Services Limited (EESL), implementation rates typically range between ***20% to 40%*** *of industries that participate in capacity-building exercises. This is largely because of the following reasons:*

1. ***Financial Constraints****: Many industries, especially small and medium enterprises (SMEs), face financial limitations in investing in energy-efficient technologies.*
2. ***Awareness and Expertise****: While industries may receive training, the level of in-house expertise to execute energy efficiency measures varies widely.*
3. ***Technology and Supply Chain Readiness****: Availability of relevant technologies and vendors also plays a role, with industries waiting for market conditions to be more favorable.*
4. ***Regulatory and Market Incentives****: Industries that have access to incentives such as subsidies or favorable regulatory frameworks show higher conversion rates.*

*While **30-40%** of the industries might move toward partial implementation, the percentage of industries adopting comprehensive and long-term energy efficiency strategies can be lower, often falling between **10% and 20%**. Therefore, outreach and capacity building are important, but financial and structural support mechanisms are equally crucial to increasing implementation rates. Keeping the conservative percentage of 10% conversion, the total number of industries that can be expected to be converted for adoption of SES, could be roughly 1100, which would mean a total of **136,000 tCO2** reduction from the second phase of the implementation.*

3.3 a) Are the components adequately funded?

b) Are the GEF Project Financing and Co-Financing contributions to PMC proportional?

c) Is the PMC equal to or below 5% of the total GEF grant for FSPs or 10% for MSPs? If the requested PMC is above the caps, has an exception (e.g. for regional projects) been sufficiently substantiated?

Secretariat's Comments

Cleared

RR (11/5/2024):

1. Cleared

RR (10/24/2024):

1. See follow up comments in related section.

2. Cleared - PMC contributions are now proportional.

RR (10/3/2024):

1. See comment on logical framework. The proportion going to investments seems inadequate as is.

2. PMC is below 5%, but contribution from GEF project financing and co-financing are not proportional, with about 2% for co-financing. Under the current percentage of 5% for GEF funds,

the expected amount allocated to PMC from a co-financing of US$ 69,690,000 million would be US$ 3,484,500 instead of US$1,500,000. As the costs associated with the project management must be covered by the GEF portion and the co-financing portion allocated to the PMC, the GEF contribution and the co-financing contribution must be proportional, which means that the GEF contribution to PMC might be decreased and the co-financing contribution to PMC might be increased to reach a similar level. This being said, as noted in the co-financing section of this review sheet, the total co-financing is likely to be overestimated at this stage, and therefore revised co-financing may be closer in terms of proportionality of contribution to PMC. Depending on final revised co-financing amounts, please consider that contribution to PMC should be proporitional and adjust accordingly, either by increasing the co-financing portion and/or by reducing the GEF portion contributing to PMC. A more definitive estimation of PMC will be presented and adjusted at CEO Endorsement stage.

Agency's Comments

21/10/2024 (UNIDO):

We appreciate the Secretariat?s observation regarding the proportion of funding allocated to investments. We acknowledge that ensuring adequate investment is crucial for achieving the desired outcomes of the project. In response to this comment, we have revised the co-financing in Table 1 of the PIF as advised above.

Components	Original			Revised	
	GEF	Co-financing		GEF	Co-financing
Component 1	800,000	2,000,000		800,000	2,000,000
Component 2	1,400,000	3,000,000		1,400,000	3,000,000
Component 3	5,764,000	62,290,000		5,764,000	60,305,500
Component 4	440,000	1,200,000		440,000	1,200,000
Component 5	150,000	1,200,000		150,000	1,200,000
Subtotal	8,554,000	69,690,000		8,554,000	67,705,500
PMU	428,420	1,500,000		428,420	3,484,500
Total project cost	8,982,420	71,190,000		8,982,420	71,190,000

4 Project Outline

A. Project Rationale

4.1 SITUATION ANALYSIS

a) is the current situation (including global environmental problems, key contextual drivers of environmental degradation, climate vulnerability) clearly and adequately described from a systems perspective?

b) Are the key barriers and enablers identified?

Secretariat's Comments

Cleared

RR (11/6/2024):
0. Cleared - although some of the text still appears in tables with bullet points out of margins, at least the use of black text is now prioritized.
3. Cleared.
N.B. Ideally, the barrier analysis and baseline information should arrive before the section on justification for the project.

RR (11/4/2024):
Please see #3 for removal of redundant wordings, and #0 on format.
0. With revisions, the PIF now has inconsistent formatting of sections under project rationale. Could you please adjust the use of black text/titles and numbers, so that it is easier to read (ideally using black text only for section titles for example) ? Also adjusting how the bullet points appear so that they are not out of margins. Thank you.
1. Cleared. PM concludes from the absence of response by the agency that further quantitative data is not available on this at this stage. Please address during PPG.
2. Cleared.
3. Thanks, this helps to answer the question. Please note however that writing "The detailed additionality of the project will be described during PPG phase" is not acceptable, as additionality of the project is the reason for approving the PIF in the first place, as opposed to rejecting it. This is why all these details have been requested, as additionality was unclear. Please remove references to additionality being further assessed at PPG stage (under potential for socioeconomic benefits section). You also do not need to use the title " Additionality demonstration" for the section below policy gaps - the title enclosed of "Building on Past Efforts and Rapid Up-scaling" is enough.
4. Cleared. This point has potential for further elaboration on PPG stage, in particular in connection with the supply chain approach mentionned in comments on the project justification below.

RR (10/24/2024):
1. Please see comment above about MSMEs not being a sector. Could you please also provide any quantification possible based on data available, following a similar style as what you did for point 2 below (for example in terms of estimated adoption rates > this type of information is

available to some extent in the GHG calculation section)? A sense of justification should be there in this description - why would existing environmental regulations be insufficiently enforced without the project? Why is the current situation of lack of technologies by these actors expected to continue in spite of ongoing efforts? Why would ongoing efforts be expected to be insufficient? Simply hinting at difficulties in accessing finance is not really answering this question. This is somehow connected to points 3 and 4 below.
2. Thank you for the useful data, the justification is adequate. Please see also comment about MSMEs not being a sector - this is a quick fix. Also, the two first paragraph included under potential for socioeconomic benefit seem like they rather fit as part of the quantitative data and sectoral trends as well (possibly as an introduction to it).
3. This has not really been addressed - the list of programmes and initiatives from the government is useful - but what is the strategy for the sector? Are there targets, laws, regulation governing how the ministry engages with MSMEs and its goals for industrial decarbonization? any connection with energy master plans? any industrial development roadmap where this fits into a longer term vision?
4. Thank you for the elaboration. This clarifies policies in place for large scale industrial customers and why they are not a right fit for MSMEs. This is useful information. However support to policy development on this specific issue and segment of MSMEs has already been provided and continues to be, as components under previous GEF funded, UNIDO implemented support in India on this matter. The PIF seems to consider that there is a blank slate / blind spot on MSMEs, but this is at odds with the pre-existence of multiple projects which were justified by the same issue and committed to address it. Further, it is noted that "the proposed project aims to address more thematic sectors and a larger number of MSME units for decarbonization, facilitating rapid scaling"; but why? why would more thematic sector entry points, as compared to baseline multilateral and bilateral cooperation initiatives already in place (+ the GEF supported ones), further facilitate scaling? Why would this sufficiently address the shortfalls in effectiveness of existing policies?
5. Cleared.

RR (10/3/2024):
1. Can you please expand on how the drivers of environmental degradation would be expected to evolve in the baseline scenario without the project? This is not addressed and is therefore missing in the project justification and incremental reasonning.
2. Can you also provide some quantitative data similar to the data provided in the introductory paragraphs, regarding sectoral trends and their expected evolution? There are some hints here and there (" MSMEs, which consume over 100 million tons of oil equivalent" - so about 10% of national demand per data presented in the first paragraph) but not presented in a coherent manner that would allow to assess the respective importance of the issue in the sector, and accross the board for the country. Elaboration on this would be useful as it constitutes the core of the problem to be addressed. On the same line, would be useful also to elaborate on the potential for socio-economic co-benefits of targetting the MSME segment.
3. Please provide elaboration on government strategies and targets pertaining to MSMEs and industrial decarbonization - currently the rationale mostly describes ad hoc programmes so that

there seems to be no justification for this project rather than just adding funding to existing initiatives.
4. The list of barriers mentions insufficient policies - but these policies are not mapped in the PIF - given that several cycles of GEF project identified similar issues, and given the fact the main executing partner is the ministry dedicated to MSMEs, one would expect some policies and enabling regulatory environment to be in place. Please describe those and then clarify why there are currently not meeting the needs identified by the project.
5. It seems that the list titled "Underlying Causes Hindering the Acceleration of Sustainable Energy" is redundant with the list of barriers above, which also deals with capacity/skills gap, lack of awareness, access to technology, market demand; and could therefore be merged/integrated as further bullet points under these categories in this barriers table.

Agency's Comments

06/11/2024 (UNIDO):

#3 and #0 have been addressed.

31/10/2024 (UNIDO):

2. Revised.

3. To incorporate a comprehensive analysis of India's MSME decarbonization landscape and policy gaps into the PIF following has been incorporated in the PIF document

1. Project Rationale (Page 10)

We have expanded the "Policy and Regulatory Challenges" section (Page 13, after the first paragraph): After mentioning the Energy Conservation Act, we have elaborated on the existing initiatives and programs (PAT Scheme, ZED Certification, CGFEE, NCEF, State-level initiatives). Then, clearly we have articulated the identified gaps in policy implementation, such as the lack of a dedicated MSME decarbonization strategy, regulatory and financial barriers, awareness and capacity challenges, and data gaps.

In page 25 in the barrier analysis section and subsection ?policy and regulatory challenges? we have added : *"While the Energy Conservation Act provides a framework, a comprehensive strategy specifically targeting MSME decarbonization with clear targets and timelines is needed. Several initiatives exist, such as the Perform, Achieve and Trade (PAT) scheme, Zero Defect Zero Effect (ZED) certification, and the Credit Guarantee Fund Scheme for Energy Efficiency (CGFEE). However, these initiatives lack a unifying framework with specific targets for MSMEs. Furthermore, regulatory barriers, limited financial support, lack of awareness, and capacity challenges hinder effective MSME decarbonization."*

2. Policy Redressal (Page 15)

In this section we have detailed how the proposed project will address the gaps identified in the rationale. Specifically, we have discussed how the project will:

- Map existing policies and their limitations.
- Build on previous GEF projects and other initiatives.
- Justify the project's additionality and demonstrate its incremental value.

We have added the following text: *"This project will map existing policies and their limitations, building on lessons learned from past projects to ensure greater impact and sustainability. The project's additionality lies in its focus on strengthening policy coherence, fostering innovation, and enhancing sustainability, thereby filling critical gaps in the current landscape."*

3. Alignment with GEF-8 Programming Strategies and Country/Regional Priorities (Page 44)

- **We have expanded the discussion of India's Nationally Determined Contributions (NDCs) (within the existing paragraph):** Connecting the project's objectives with India's national priorities on industrial decarbonization and MSME development, we have highlighted how the project contributes to achieving those priorities and aligns with relevant national strategies, such as "Make in India."
- *" This project directly supports India's NDC targets, which include reducing the emissions intensity of its GDP by 45% by 2030 from 2005 levels and achieving 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030. By promoting energy efficiency and renewable energy adoption within the MSME sector, a significant contributor to national emissions, the project actively contributes to achieving these targets. This focus on decarbonizing MSMEs is also crucial for India's long-term goal of achieving net-zero emissions by 2070.*
- *Furthermore, by fostering green growth within this vital economic segment, the project aligns with India's broader sustainable development goals. It contributes to promoting economic growth, creating jobs, and improving environmental quality, supporting national priorities like "Make in India," which aims to boost domestic manufacturing and create jobs. By promoting sustainable practices within MSMEs, the project enhances their competitiveness and environmental responsibility, contributing to a more sustainable and resilient industrial sector."*

We have added to "Policy and Regulatory Challenges" in page 13

? While India has made progress in promoting energy efficiency and renewable energy, a comprehensive strategy with clear targets and timelines for MSME decarbonization is still emerging. Several initiatives exist, such as the Perform, Achieve and Trade (PAT) scheme, Zero Defect Zero Effect (ZED) certification, and the Credit Guarantee Fund Scheme for Energy Efficiency (CGFEE). However, these initiatives lack a unifying framework with specific targets for MSMEs. Furthermore, regulatory barriers, limited financial support, lack of awareness, and capacity challenges hinder effective MSME decarbonization. This project aims to address these gaps by...

For "Addressing the PIF's Policy Gaps" we have added the following sentences (page-14)

This project recognizes the limitations of existing policies and builds upon previous efforts to provide a more targeted and comprehensive approach to MSME decarbonization. It will map existing policies and their limitations, building on lessons learned from past projects to ensure greater impact and sustainability. The project's additionality lies in its focus on strengthening policy coherence, fostering innovation, and enhancing sustainability, thereby filling critical gaps in the current landscape.

4. For strengthening the PIF's justification by explicitly addressing how it builds on previous efforts and differentiates itself to achieve greater impact, we have incorporated the following points into the document:

1. Project Rationale (Page 11)

We have expanded the "Building on Past Efforts for Rapid Scaling" section: After acknowledging previous GEF projects, we have explicitly mentioned the need to address remaining gaps, scale up successful approaches, and enhance sustainability. We have briefly described how the project will achieve these goals.

o *This project recognizes the need to build upon previous efforts while addressing persistent challenges. It will identify and address remaining policy gaps and implementation challenges, scale up successful approaches from past interventions, and enhance the sustainability of project outcomes by promoting their integration into national policies.*

2. Justification (Page 13)

•**Within the " Policy and Regulatory Challenges " section:**
•**Acknowledge previous interventions:** We have clearly listed previous GEF and other relevant projects, briefly mentioning their achievements and limitations. The Table 2 on page 17 for a list of past projects has been referred.
•**Justifying the need for further action:** We have explained why previous efforts haven't reached a tipping point, drawing on the factors listed in our input (scale and scope, lack of policy support, financial constraints, capacity gaps, market barriers, and data gaps).
•**Demonstrate additionality:** We have clearly articulated how this project will take a different approach and drive transformative change. We have highlighted the aspects mentioned in our PIF input (increased scale and scope, enhanced policy support, innovative financing mechanisms).
•**Clearly map existing policies:** We have provide a brief overview of existing policies and their limitations in addressing MSME decarbonization. We have drawn on the information you provided earlier about the PAT scheme, ZED certification, CGFEE, etc.
We have added following text to " Additionality Demonstration : Building on Past Efforts for Rapid Scaling"

In the absence of the project, the energy consumption and greenhouse gas (GHG) emissions of the Micro, Small, and Medium Enterprises (MSME) sector are projected to rise significantly. Based on current trends and growth projections, it is estimated that the sector?s energy consumption could

increase to 135 million tonnes of oil equivalent (MTOE) by 2030, marking a 35% rise from the current level of 100 MTOE. This escalation in energy use would correspondingly elevate GHG emissions, potentially reaching 400 million tonnes of CO2 equivalent annually. Several factors contribute to this anticipated increase. First, the MSME sector is expected to experience growth at an average annual rate of 6-7% in the coming years, driven by rising domestic demand and expanding export opportunities.

This natural growth trajectory will lead to greater energy consumption and emissions. Additionally, a significant technology gap persists within many MSMEs, which continue to rely on outdated and inefficient technologies. This reliance results in higher energy consumption and emissions per unit of output; without intervention, this gap is likely to remain, impeding the sector's decarbonization efforts. Financial constraints also play a critical role, as MSMEs often struggle to access financing for investments in energy efficiency and renewable energy technologies. This limitation curtails their ability to adopt cleaner and more sustainable practices. Furthermore, while India has made strides in developing policies that promote energy efficiency and renewable energy, gaps still exist in effective implementation and enforcement, particularly at the MSME level.

This project will take a different approach and drive transformative change by:

? Increased scale and scope: The project will target a wider range of MSMEs across diverse sectors and regions, significantly expanding the reach of decarbonization efforts. We aim to reach at least 5000 MSMEs directly and indirectly impact over 20,000 MSMEs through policy influence and market transformation.

? Enhanced policy support: The project will work closely with policymakers to strengthen existing policies and develop new instruments that incentivize MSME decarbonization. This will include advocating for clear targets, streamlined regulations, and financial incentives for technology adoption.

? Innovative financing mechanisms: The project will pilot and scale up innovative financing mechanisms, such as blended finance facilities and risk-sharing instruments, to overcome financial barriers and mobilize private sector investment. We will leverage public funds to catalyze private investment and create a sustainable financing ecosystem for MSME decarbonization.

? Capacity building and knowledge sharing: The project will implement comprehensive capacity building programs for MSMEs, technology providers, and financial institutions. This will include training on energy auditing, technology assessment, project development, and financial management.

? Market development and technology transfer: The project will support the development of a robust market for energy efficiency products and services by promoting technology transfer, fostering innovation, and addressing market barriers.

? Data collection and analysis: The project will establish a robust data collection and analysis system to monitor progress, evaluate impact, and inform decision-making. This will involve developing a comprehensive database on MSME energy consumption, emissions, and technology performance.

21/10/2024 (UNIDO):

1. Environmental degradation ?

In the absence of project interventions, we anticipate that the drivers of environmental degradation will continue to intensify due to several factors. The MSME sector is projected to grow, resulting in higher emissions and resource consumption. Without intervention, energy-intensive processes and fossil fuel reliance will exacerbate environmental degradation. Many MSMEs currently lack access to energy-efficient technologies, leading to inefficient resource utilization and waste generation. As industrial activity expands, existing environmental regulations may be insufficiently enforced, further contributing to pollution and resource depletion.

This text is included in project justification under the drivers.

2. Quantitative Data on Sectoral Trends:

MSMEs and Energy Consumption: Micro, Small, and Medium Enterprises (MSMEs) consume approximately 100 million tons of oil equivalent (MTOE) annually, accounting for about 10% of India's total energy demand. This substantial consumption underscores the sector's significant impact on national energy usage, primarily driven by inefficient boilers and thermal energy systems prevalent in industries such as textiles, chemicals, and food processing.

Industrial Sector Contribution to Emissions: The industrial sector in India is responsible for roughly 33% of the nation?s total greenhouse gas (GHG) emissions. Within this sector, MSMEs contribute significantly due to their inefficient energy usage, which results in a high carbon footprint. Enhancing energy efficiency and adopting cleaner technologies could lead to considerable reductions in emissions.

Energy Intensity of the Indian Economy: India?s energy intensity stands at around 0.30 tons of oil equivalent per $1,000 of GDP, which is higher than global averages. The country aims to reduce this energy intensity by 33-35% by 2030 as part of its Nationally Determined Contributions (NDCs) under the Paris Agreement. Improving energy efficiency in MSMEs is crucial for achieving this goal.

Growth in Industrial Energy Demand: As the Indian economy expands, industrial energy demand is projected to grow significantly. By 2040, total energy consumption in India could double, with the industrial sector being a key driver. Addressing current inefficiencies is urgent to ensure that future energy demand remains sustainable.

Renewable Energy Adoption: India has set a target to achieve 450 GW of renewable energy capacity by 2030. Integrating renewable energy systems?such as solar and biomass?into MSME operations can help reduce reliance on fossil fuels and support national renewable energy objectives.

Potential for Emission Reductions: Research indicates that enhancing energy efficiency within the MSME sector could reduce GHG emissions by 25-30%. For instance, transitioning to more efficient boilers and optimizing thermal energy systems could decrease fuel usage by up to 15-20%, leading to significant reductions in CO2 emissions.

This text is included in the sectoral trend section.

Potential for socio-economic co-benefits

In the absence of the project, the energy consumption and greenhouse gas (GHG) emissions of the Micro, Small, and Medium Enterprises (MSME) sector are projected to rise significantly. Based on current trends and growth projections, it is estimated that the sector?s energy consumption could increase to 135 million tonnes of oil equivalent (MTOE) by 2030, marking a 35% rise from the current level of 100 MTOE. This escalation in energy use would correspondingly elevate GHG emissions, potentially reaching 400 million tonnes of CO2 equivalent annually. Several factors contribute to this anticipated increase. First, the MSME sector is expected to experience growth at an average annual rate of 6-7% in the coming years, driven by rising domestic demand and expanding export opportunities.

This natural growth trajectory will lead to greater energy consumption and emissions. Additionally, a significant technology gap persists within many MSMEs, which continue to rely on outdated and inefficient technologies. This reliance results in higher energy consumption and emissions per unit of output; without intervention, this gap is likely to remain, impeding the sector's decarbonization efforts. Financial constraints also play a critical role, as MSMEs often struggle to access financing for investments in energy efficiency and renewable energy technologies. This limitation curtails their ability to adopt cleaner and more sustainable practices. Furthermore, while India has made strides in developing policies that promote energy efficiency and renewable energy, gaps still exist in effective implementation and enforcement, particularly at the MSME level.

The project's focus on the MSME segment presents significant potential for socio-economic co-benefits. One major advantage is job creation; the project is expected to generate new green jobs in areas such as the installation, maintenance, and operation of renewable energy systems, energy-efficient equipment, and resource recovery and recycling. It is estimated that the project could directly create between 1,500 and 2,000 green jobs while indirectly supporting several thousand additional jobs through the growth of sustainable energy-related businesses. Moreover, training programs centered on energy efficiency, renewable energy, and circular economy practices will enhance the skills of MSME workers, thereby improving their employability and income potential. This enhancement can lead to higher wages and improved living standards for MSME workers and their families. Additionally, improvements in energy efficiency can significantly lower energy costs for MSMEs, boosting their profitability and competitiveness. Such advancements may result in increased sales, market share, and export opportunities for MSMEs, contributing positively to economic growth and development.

The project also emphasizes social inclusion by specifically targeting women's participation in training and capacity-building activities. This focus promotes gender equality and women's empowerment within the MSME sector, fostering greater economic opportunities and social inclusion for women in the industrial workforce. Finally, implementing cleaner energy technologies and processes can reduce air and water pollution in and around MSME workplaces. This reduction leads to improved health outcomes for workers and nearby communities while lowering healthcare costs and enhancing overall quality of life.

3. Government Strategies and Targets for MSMEs and Industrial Decarbonization:.
The **Micro & Small Enterprises Cluster Development Programme (MSE-CDP)** aims to promote green and sustainable manufacturing technologies within industry clusters.b.
The **Assistance to Training Institutions (ATI)** scheme provides support to national-level training institutions under the Ministry of MSME, including the National Institute for Micro, Small and Medium Enterprises (which is already a partner in promoting energy efficiency in the boiler project), Khadi Village and Industries Commission, Coir Board, Tool Rooms, National

Small Industries Corporation, and Mahatma Gandhi Institute for Rural Industrialization. c. The **MSME Competitive (LEAN) Scheme** focuses on optimizing resources such as water, energy, and natural resources. d. The **Raising and Accelerating MSME Performance (RAMP)** scheme aims to enhance MSME performance by promoting technology upgrades, innovation, digitization, market access, credit facilities, and greening initiatives through active participation from state governments. The above text is included in the PIF in Table 2.

4. Mapping Policies and Barriers: Several policies are outlined in Table 2. It is important to note that the schemes under the Ministry of MSME include greening initiatives, energy efficiency, and training. However, unlike the mandatory regime applicable to large factories under the Perform Achieve Trade (PAT) scheme?specifically for Designated Consumers (DCs) defined by a threshold in Tonnes of Oil Equivalent (TOE)?MSMEs are not subject to such requirements. For instance, DCs must conduct energy audits and meet specific energy-saving targets within a defined PAT cycle, typically three years. If they exceed these targets, they can earn Energy Saving Certificates. In contrast, MSMEs, being smaller in scale, do not fall under this mandatory framework and often lack the resources to incorporate decarbonization into their operations. Nonetheless, existing schemes encourage MSMEs to improve resource efficiency and initiate greening efforts, effectively promoting decarbonization. Various bilateral and multilateral development agencies, along with governmental organizations, are providing technical assistance to help MSMEs invest in decarbonization. Previous projects have targeted fewer sectors with a limited number of MSMEs; however, the proposed project aims to address more thematic sectors and a larger number of MSME units for decarbonization, facilitating rapid scaling. During the project period, it is expected to achieve a second scale-up involving 11,000 factories following an initial pilot scale-up involving 3,280 factories.

5**. Underlying Causes Hindering the Acceleration of Sustainable Energy:** This section has been merged with the analysis of barriers, with relevant points included in Table 3. Included the relevant text in Table 3 of PIF.

4.2 JUSTIFICATION FOR PROJECT

a) Is there an indication of why the project approach has been selected over other potential options?

b) Does it ensure resilience to future changes in the drivers?

c) Is there a description of how the GEF alternative will build on ongoing/previous investments (GEF and non-GEF), lessons and experiences in the country/region?

d) are the relevant stakeholders and their roles adequately described?

Secretariat's Comments

Cleared (see formatting issue below)

RR (11/4/2024):

Cleared. could you please reformat the table that you inserted in your response to this section of the review sheet, as it currently appears out of margins (about a third of the last column is cropped)? you may also remove the table altogether as it is already in the PIF.
2. Cleared.
3. Cleared - noted that this will be explored at PPG stage, and was noted in the PIF.
4. Cleared. This point, as noted also in section 4.1, will merit further elaboration during PPG stage.
5. Cleared.

RR (10/24/2024):
1. Cleared. Thank you, this is an adequate clarification.
2. Thank you for the clarification which is useful but for other reasons than those of this comment. The intent is rather to please clarify how the project approach will promote resilience to future changes in underlying drivers of emissions - meaning, changes to socio-economic trends and incentives affecting MSMEs and/or government and related stakeholders (or environmental if relevant, similar to the above points on climate vulnerabilities) and their ability to adopt technologies, access funding, prioritize the objectives of the project.
3. Your answer below is interesting as it seems to make the case for a need for more policy coherence and coordination in this landscape, which is one of the areas of focus of GEF-8 programming directions. Could you please elaborate on how the two ministries noted (Bureau of Energy Efficiency (BEE), under the Ministry of Power, and Ministry of New and Renewable Energy (MNRE)) will be actively associated in the project (possibly acting as partial executing partner for the policy work) so that this coordination can help to address some of the policy gaps outlined earlier in the document. Please emphasize how some strategic framework and consistency could help ensure long term sustainability - as the GEF cannot keep providing funding to ad hoc initiatives of an executing partner that does not prioritize decarbonization and without an underlying long term vision for transformation; this is simply not in line with the GEF mandate.
4. Thank you, this is useful. On lack of "sector specific solutions", I believe you mean "supply-chain specific solutions". Value chain engagement is one of the key systems transformation approach in the GEF integrated programming vision for GEF-8. Please elaborate on how supply chains will be engaged beyond the client side of things (MSMEs), in order to leverage the potential for transformation through other actors of the chain as well. Please take initial note of the potential other ministries or organizations/coalitions that would have to be engaged during PPG to achieve this.
5. Thank you for the clarification. As previously noted, these are not objectives, but causal chains or levers of transformation ; or in other words, strategies. Please simply replace the term objectives by whichever term is more adequate. Also, please note biomass would not be eligible as such without a thorough assessment of source, scale, leakage risks and targetted energy uses. Solar on the other hand is eligible. Also, as noted in point 3 above, interesting point made on need for instutionalizing coherence accross institutions and ministries - but the project logical framework does not currently clarify how this is addressed : would it be through committees, through establishing a coordinated roadmap, or other means?
6. Cleared.

RR (10/3/2024):
1. On resilience, the PIF notes that "the project enhances climate resilience by minimizing carbon footprints and reducing environmental impacts". This is repeated further below in the description of drivers in terms of climate change. Understood that mitigation contributes indirectly to resilience, but could you please illustrate the issues around climate vulnerabilities in a more direct manner, drawing from the information noted in the Risk table under climate risks (which itself should be informed by the climate risk screening)?
2. Resilience is addressed in terms of economic and business resiliences for MSMEs, but not in terms of how the project ensures long term resilience to future changes in the drivers of described environmental problems. Can you please elaborate on this, drawing from details regarding the drivers of GHG emitting practices in the covered industrial sectors.
3. Several notes are made of how UNIDO has implemented related investments in the past, but about government of india's experience on the matter. Given that this project is executed by the MoMSME and should reflect consistency with national priorities, please elevate this aspect in your justification, outlining as well how this articulates with government strategies on industrial decarbonization and MSMEs.
4. Among the justification for the additionality of this project in spite of previous GEF investments targetting decarbonization of MSMEs is their sheer number. This is a bit short. Can you please elaborate on why efforts so far have not enabled to reach a tipping point in the transition of this segment and why this project presents a different approach that learned from these baseline initiatives?
5. What are described as the objectives of the project are rather a description of the levers of transformation of systems and markets that the project will leverage to attempt reaching its targetted impact. Please revise wording accordingly as these are not objectives (although they are important in the project theory of change and related causal chains).
6. The role of relevant stakeholders is not described, apart from the ministry. Please elaborate on this.

Agency's Comments

06/11/2024 (UNIDO):

Table has been removed from the review sheet.

31/10/2024 (UNIDO):

2. ? We have added the following sentence in the "Proposed Theory of Change (TOC)" section on page 26 that explicitly mentions the project's aim to foster resilience to future changes in emissions drivers.

"The project will not only support immediate emission reductions but also foster resilience to future changes in emissions drivers by promoting adaptability, building capacity, fostering innovation, and integrating climate risk management into MSME operations."

? We have added following paragraph under the "Core-indicator" section on page 35 that discusses the key drivers of GHG emissions in the targeted sectors of the MSME industries and how the project will address these drivers to ensure long-term resilience.:

"Key drivers of GHG emissions in the targeted MSME sectors include energy consumption, process emissions, waste management, and transportation. To ensure long-term resilience, the project will promote energy-efficient technologies, renewable energy adoption, cleaner production processes, and efficient logistics, enabling MSMEs to adapt to evolving emission reduction requirements and technological advancements."

? We have expanded: Sustainability Plan on page 52 to explicitly address long-term resilience. This now includes a discussion of how the project will promote adaptability, build capacity, foster innovation, and integrate policy considerations to ensure that MSMEs can withstand future changes in the economic, regulatory, and environmental landscape.:

"The project will promote long-term sustainability and resilience by supporting MSMEs in adopting flexible and adaptable technologies, enhancing their capacity to manage climate risks, fostering innovation in energy-efficient solutions, and advocating for policies that incentivize decarbonization. This multifaceted approach will equip MSMEs with the tools and knowledge needed to navigate future changes in the economic, regulatory, and environmental landscape.

To enhance adaptability, the project will prioritize technologies and practices that can be adjusted to suit evolving needs and circumstances. This includes promoting modular and scalable solutions that can be expanded or modified as businesses grow and technology advances. Additionally, the project will foster a culture of continuous improvement by encouraging MSMEs to regularly assess their energy performance, identify opportunities for enhancement, and adapt their strategies accordingly.

Capacity building will be central to promoting resilience. The project will provide training and technical assistance to MSMEs on various aspects of sustainable energy management, including energy auditing, technology assessment, and climate risk mitigation. By equipping MSMEs with the knowledge and skills to make informed decisions and implement effective solutions, the project will empower them to proactively address climate-related challenges and capitalize on emerging opportunities.

Fostering innovation is essential for ensuring long-term resilience. The project will support research and development of new energy-efficient technologies and practices tailored to the specific needs of MSMEs. This will involve collaborating with research institutions, technology providers, and industry associations to identify promising innovations and facilitate their adoption. By encouraging the development and deployment of cutting-edge solutions, the project will help MSMEs stay ahead of the curve and maintain their competitiveness in a rapidly evolving market.

Integrating policy considerations is crucial for creating an enabling environment for long-term resilience. The project will advocate for policies that incentivize decarbonization, promote energy efficiency, and support the adoption of renewable energy technologies. This will involve working closely with policymakers to develop and implement supportive regulations, standards, and financial incentives. By creating a policy landscape that favors sustainable practices, the project

will help ensure that MSMEs have the necessary support to invest in long-term resilience and contribute to a low-carbon and climate-resilient economy.

This comprehensive approach to promoting adaptability, building capacity, fostering innovation, and integrating policy considerations will ensure that project outcomes endure beyond the project's lifetime and contribute to lasting resilience within the MSME sector."

? We have included a part in the risks:

"Risk: Changes in socio-economic trends or government priorities could affect MSMEs' ability to prioritize and sustain decarbonization efforts. Mitigation: The project will promote policy integration and advocate for stable regulatory frameworks that incentivize long-term decarbonization. It will also build MSME capacity to adapt to evolving market demands and climate risks."

3. ? Within the justification section of the PIF, we have added the following: During the PPG phase of the project, discussions will be held with BEE and MNRE along with MoMSME regarding some executing activities.

The following has been added to the Sustainability Plan section of the PIF: Institutional Capacity Building: Capacity building will be central to promoting resilience. The project will strengthen the capacity of relevant government agencies, MSME industry associations and service providers by providing training and technical assistance on various aspects of sustainable energy management, including energy auditing, technology assessment, and climate risk mitigation.

4.
5. ? We have replaced the term "objectives" with "strategies" or "levers of transformation" throughout the PIF document (Sections 1 and 2, Pages 14-18) to better reflect the project's systemic approach to MSME decarbonization. This change clarifies that the project aims to achieve its impact by influencing these levers, rather than the levers themselves being the ultimate objectives.
? Two paragraphs have been added after table 3 in the PIF, to clarify the eligibility of solar energy as a renewable energy solution and the need for a thorough assessment of biomass sustainability.

? We have added a paragraph in the "stakeholder engagement" section to elaborate on how the project will institutionalize coherence across ministries. This includes mentioning the use of inter-ministerial committees, coordinated roadmaps, and collaborative workshops to foster communication, align strategies, and ensure a cohesive approach to MSME decarbonization.

? We have also added a sentence under "Component 5: Monitoring and Evaluation" to highlight the importance of a strong M&E framework with performance indicators to track collaboration and impact. This emphasizes the project's commitment to measuring and evaluating the effectiveness of its coordination mechanisms.

21/10/2024 (UNIDO):

1. Climate Vulnerabilities and Resilience: Direct issues around climate vulnerabilities include disruptions in supply chain (fuel, raw materials, finished products) due to climate induced events like floods. They may lead to productivity losses and delivery disruptions.

This text is included in Table 7, PIF.

2. GHG emissions practices: The MSME considered under the project consume mostly fossil fuels in the form of coal, furnace oil, and electricity (over 70% of which is generated in power plants through coal). The thematic sectors considered for the project contribute to about 50% GHG emissions of the industrial GHG contribution. The decarbonization measures present an opportunity to reduce GHG emissions.

Two paras under drivers/justification for the project - Environmental degradation is included based on an earlier comment and GHG emissions practices are included in PIF.

3. India is home to a vast number of micro, small, and medium enterprises (MSMEs), exceeding 60 million. As a result, these enterprises have become a focal point for bilateral and multilateral agencies, including UNIDO, which aims to encourage MSMEs to adopt decarbonization measures. While the Ministry of Micro, Small and Medium Enterprises (MoMSME) does not prioritize decarbonization, the Bureau of Energy Efficiency focuses on energy efficiency, and the Ministry of New and Renewable Energy concentrates on renewable energy and hydrogen initiatives.

The following text is included in project justification section of PIF.

Focus on Decarbonization in MSMEs: The Ministry of Micro, Small and Medium Enterprises (MoMSME) is the lead ministry responsible for the overall development of MSMEs in India. In addition to its role in business, market, and capacity development, MoMSME has begun integrating energy and resource efficiency, along with greening initiatives, into its programs (see Table 2 for details). Furthermore, key agencies such as the Bureau of Energy Efficiency (BEE), under the Ministry of Power, focus on enhancing energy efficiency and promoting energy conservation, thereby contributing to decarbonization efforts. The Ministry of New and Renewable Energy (MNRE) also plays a vital role by advocating for renewable energy sources and hydrogen technologies, which further assist MSMEs in adopting cleaner energy solutions. The interventions and insights gained from this project will provide valuable support to these entities, facilitating the acceleration of strategies aimed at fast-tracking decarbonization across the MSME sector.

4. Justification for the additionality of the project

The previous GEF and other investments targeting MSME sectors, though have contributed in creating awareness, pockets of demonstrations, small scale up, several challenges have prevented these efforts from having a widespread, transformational impact. This project presents a more holistic, more visible scale (14280 nos.) across 9 thematic sectors in 20 clusters, by addressing the gaps in past initiatives and leveraging lessons learned. The detailed additionality of the project will be described during PPG phase. Some of the factors preventing widespread impact are as follows;

Scale and complexity of the MSME sector: India has over 63 million MSMEs, a vast and diverse sector ranging from micro to small to medium sized industries spread across urban and rural areas.

Limited awareness and technical capacity: Despite efforts in promoting energy efficiency, many MSMEs remain unaware of the long-term benefits of decarbonization or do not have the technical knowledge to adopt such practices. The proposed interventions also are rapidly changing ? for example, in a previous intervention efficient way of handling/burning coal was key focus, however, now phasing out coal both from national/ international perspective is critical.

Lack of integration between policy and implementation: There appears gap in focus of different government agencies, as can be seen, MoMSME focus is promote MSME business, market while BEE focus on EE & EC and MNRE focus on Renewable Energy, Hydrogen. These needs to be amalgamated into the policies and schemes of MoMSME. The project supports such inclusion.

High upfront costs and limited access to finance: Though the payback on investments are estimated good, MSME often find it hard to mobilise the upfront capital costs. Unlike large industries, MSME struggle to leverage finances.

Lack of sector-specific solutions: Different sectors need different set of solutions; without them it is difficult to standardize and offer as ready/ cost-effective solutions. Past interventions were focused at fewer sectors and fewer factories, without resulting into standardized solutions.

Multiple agencies and Cross-sectoral involvement: With different agencies Ministry of MSME, BEE, MNRE and MoEFCC, holding different focus areas, there is a need for greater institutional linkages and coordination mechanisms for industry centric solutions.

This project offers this additionality which have prevented the MSME sector from achieving a tipping point in decarbonization. By combining sector-specific solutions, innovative financial models, stronger institutional coordination, and large-scale capacity-building efforts, this project moves beyond the limitations of previous GEF investments and targets a more comprehensive, scalable transformation of the MSME sector.

This text is also included in the PIF in the Justification for the Project in PIF.

5. The project aim is revised and the below text is replaced in Table 1 of PIF.

The project aims to support the decarbonization and reduction of energy consumption in Indian MSMEs by implementing integrated energy efficiency measures, promoting energy substitution, and introducing innovative solutions to minimize environmental impacts while enhancing productivity, competitiveness, and business resilience.

The text under the objective of the project in PIF is also revised as below

The project aims to support the decarbonization and reduction of energy consumption in Indian MSMEs by implementing integrated energy efficiency measures, promoting energy substitution, and introducing innovative solutions to minimize environmental impacts while enhancing

productivity, competitiveness, and business resilience. The aim of the project is achieved through a set of following objectives, they are,

- ? Promote energy efficiency by implementing energy efficient (EE) technologies and practices (Energy Conservation - EC)) across MSMEs to reduce energy consumption and operational costs
- ? Facilitate adoption of Renewable Energy to encourage MSMEs to transition from fossil fuels to RE sources such as solar, biomass, wind to reduce their carbon footprint
- ? Introduce Low-Carbon technologies including the new technologies like Hydrogen, etc. tailored to MSMEs in the selected sectors to enable sustainable manufacturing
- ? Reduce GHG emissions by helping MSMEs lower their emissions through EE/EC, RE, LCT and new technologies
- ? Enhance business competitiveness by reducing energy costs, increasing resource efficiency and aligning with global sustainability standards
- ? Capacity building and training MSME stakeholders with the knowledge and skills needed to intervene with decarbonization measures and access facilitate financial support to decarbonization
- ? Strengthen institutional framework by collaborating with government bodies like Ministry of MSME, Bureau of Energy Efficiency (BEE), and Ministry of New and Renewable Energy (MNRE) to align policy frameworks, leverage schemes support, financial incentives, and technical assistance for faster decarbonization of the MSME sector
- ? Support Climate Resilience to ensure MSMEs become more resilient to the impacts of climate change by integrating sustainability into their operations, and reducing resource dependency.

6. A table is already included in the PIF. More stakeholders along with their role is included and the table is titled as ?Table 8. Stakeholders and their role? in the PIF.

5 B. Project Description

5.1 THEORY OF CHANGE

a) Is there a concise theory of change that describes the project logic, including how the project design elements will contribute to the objective, the expected causal pathways, and the key assumptions underlying these?

b) Are the key outputs of each component defined (where possible)?

Secretariat's Comments

Cleared

RR (11/6/2024):
Cleared
On 4h, please reconfirm scope at endorsement stage.

RR (11/5/2024):
Please see #4g and #4h.

2. If you have time to make the outputs on the TOC diagram in a bigger font so that they can be easier to read, would be great.
4a. Cleared. Appreciating the two phased approach.
4c. Cleared
4d. Cleared. Thank you, this is one of the strengths of the proposal and it is now clearer.
4e. and 4f. Cleared. This would also merit further elaboration during PPG stage.
4g. This is not adequate. The critiera for eligibility in the GEF CCM programming direction are as follows : "In the manufacturing sector, industrial energy supply has traditionally depended on subsidized heavy fuels, and many micro, small and medium sized industrial & manufacturing enterprises (industrial MSMEs) are still inefficient in the use of heat and energy (boilers, furnaces, motors, etc.). The GEF will support mitigation measures in this sector including sectoral medium-and long-term roadmaps, electrification of heat uses and wider adoption of digital technologies, harmonized benchmarks for low- and zero-carbon products and associated certification schemes, aggregating demand for low- and zero-carbon products, and technology transfer of new innovations in this space. The GEF may also consider supporting the demonstration of net-zero industrial parks or clusters through integrated zero-carbon technologies and application of circular economy practices." In summary, the eligibility criteria should be aligned with those noted in comment 11 below. Please replace your proposed criteria by an indication of this point.
4h. "explore carbon market opportunities" still appears under outcome 3.3. Please remove.
5. Cleared. How this value chain approach translates into engagement with relevant stakeholders during implementation would benefit from elaboration at PPG stage.
6. Cleared
7. Cleared. Please note that these challenges rather point to the need for credit lines to be complemented by adequate TA, not necessarily to replace them by grants, which risks crowding them out. Please consider this aspect during PPG, including through consultations with other partners that are providing these types of loans.
9. Noted.
11. All noted - cleared.

RR (10/24/2024)
Thank you for the extensive clarifications provided. Please see follow up questions for some of the items below.
1. Cleared.

2. Cleared. However the TOC diagram appears as very small in the PIF which makes it difficult to read - could you please adjust its size?
3. Noted this addition as introductory note. Please see comments below on how this is reflected in the components.
4a. Again, as currently formulated, this reads as something that should be done as part of the PPG to inform project design. Including also the gender aspect. Would make more sense as part of project itself to review the Indian policy environment for any conflicting incentives (or lack thereof) on the sector accross institutions and strategies, and develop on this basis a long term coordinated roadmap for the decarbonization of the sector(s), including policy support identified as missing to ensure enhanced adoption rate by MSMEs - as ultimately this is the problem statement by project proponents. Please consider comments made in the justification section about involvement of various ministries concerned with this issue. Please clarify what will be assessed at PPG stage, and what will be done during the project.
4b. Noted
4c. If output 1.1 is revised as noted above, you may not need to merge these outputs, but articulation would be necessary, as it would not make sense to engage in developing the roadmap without having done the underlying assessment and provided related policy direction and long term vision.
4d. Is this notion of inclusive schemes designed to address the issues you mentioned in the rationale, such as that MSMEs are not eligible to energy saving certificates and related payments which target larger consumers? If yes this would be relevant to clarify.
4e. Noted - you may consider during PPG to consolidate, be it only for the sake of clarity and manageability of the logical and results framework. Further, how is this different than this specific resource which comes from a project under MSME ministry, involving TERI https://www.sameeeksha.org/index.php?option=com_content&view=article&id=108&Itemid=489 ; how would the GEF intervention articulate with these existing efforts?
4f. Thanks for the details - please add the reference to benchmarking in the title of output as this is currently missing. Also, what is the difference between the proposed website portal, and this existing one which was used as a source for the GHG calculaction https://www.sameeeksha.org/ and which looks like it does exactly the same thing as what is described under this output.
4g. This looks like a cleantech incubator - which UNIDO does a lot, but GEF does not finance anymore. Please clarify criteria of eligibility for such type of innovations that would be supported as a result of the audits, based on the GEF programming directions (you may wish to connect this more simply to your answer to to comment 11 below).
4h. If any emission reductions to be generated through this project by MSMEs is to be directed to carbon offsets or compliance requirements, then this intervention would not be eligible to GEF financing as by design it would yield no net GEBs. If this is indeed the case, then please remove this output.
5. Comment was misunderstood by the agency - please clarify the specific sectors of interventions - MSMEs are not a sector > please clarify the value chains /market segments covered by these clusters.

6. Please include this definition in the PIF. Please also confirm that this definition does not entail any non renewable sources (you mention that it includes renewable energy and reduced fossil fuel reliance, but unclear if this means concretely renewable energy exclusively).
7. This has not been fully addressed, including in the rationale. Please clarify, in the project rationale section, what are the alternative sources of financing available to MSMEs today (e.g. for example commercial banks, industry associations, some of which you mentionned will be cofinanciers), and why these sources of financing are inadequate to address MSME financial constraints in investing in decarbonization (and please do not simply refer to an issue of access, as this is precisely what we are trying to unpack in more details here), and finally, in the description of this component, why these financial actors would not be crowded out by the provision of this subsidy.
8. Noted
9. Can you also confirm wether the co-financing from SIDBI is the same as the baseline financing identified in the rationale as coming from KfW in partnership with SIDBI or if it is a different initiative?
10. Noted, along with the increase in investment budget noted earlier in the review sheet.
10.b. Noted
11. Thank you for the useful clarifications. This is noted on the removal of glass sector, which makes sense for the reasons you mentionned.
- The GEF cannot fund any form of hydrogen other than 100% green, nor a blending with fossil fuels. Please therefore either remove hybrid hydrogen from the scope or replace it by 100% green hydrogen.
- Biomass/biogas for energy generation or industrial use would not be eligible as such without a thorough assessment of sourcing, scale, leakage risks and targetted energy uses. As described, from agricultural waste, these questions are important to answer from a safeguards perspective. See for biomass boilers, biogas, biomass energy.
- The GEF also cannot finance waste-to-energy. Waste heat recovery is fine.
- Several references are made to activities that minimize the use of fossil fuel, but may still involve the use of fossil fuels. This is similar as the case of fossil fuel based furnaces/boilers for the glass segment mentionned above. It should be removed. Please see under bricks kilns for example. Also an unclear reference on this in chemicals manufacturing processes.
- Can you clarify what renewable energy systems would look like - are we talking about captive generation to power industrial operations of MSMEs directly? If yes then this is fine.
- Integrated Zero-Carbon Technologies: what does this mean, concretely, in terms of technology? If it is unknown, then please remove.
- Can you please also confirm that CCUS has been taken out of the design.
Please note that the types of technologies should be set already at PIF stage that this project will support so that eligibility can be assessed. This cannot be a provisional list with unclear categories that can be reinterpreted at CEO ER stage to change the scope of funding.

RR and WL (10/3/2024):
1. The core problem statement is a repetition of the project barriers (which are a repetition of project components) - which takes the GEF TOC approach from the wrong end. In line with successful project design good practice, please revise the problem statement to read as an

affirmative problem - such as for example : "In spite of past piloting initiatives, the energy transition and decarbonization within the industrial MSME sector is not reaching a tipping point in systems/sectoral transformation because a supportive ecosystem has so far not been comprehensively established". This would also better clarify the added value of the project compared to the baseline.
2. The theory of change diagram (figure 1) is unclear - the arrows start from the impact, to go to the objective, then outcomes, and outputs/barriers. It does not show main assumptions, drivers/enabling factors and how they articulates with the various causal pathways leading to expected impact, and looks currently more like a visual rendering of the logical framework. Thank you for clarifying/revising.
3. The financial and investment dimension of systems change and of supporting scaling up of efforts should be strengthened in the theory of change (see comments above on this in project overview section, and below at component level). Thank you for revising accordingly.
4. Please clarify, for every output, what the purpose of these preliminary areas of activities are.
4a. For example. Output 1.1.1 (apart from the "preparing policies" part) looks like the type of baseline information that should be assessed at PPG stage, not as part of project implementation. Could you please clarify? And how is this connected to the similar assessment under 2.2.1?
4b. Other example, for output 1.3.4 : what is the purpose of developing the carbon footprint for different sectors product? Is this, like output 1.1.1, not something that should already be a baseline information to be assessed at PPG stage?
4.c. Please clarify the articulation between component 1.1 and 1.2 (otherwise component 1.1 seems like an ad hoc analysis with no added value for the project - it should be clear what this gap analysis will be used for).
4.d. output 1.3.3 seems like a merging of several sentences and the meaning is difficult to understand. Could you reword and clarify what this correponds to? Is it a training module, or a financial package through SIDBI, or something else? Also, is this not redundant with component 2.1?
4.e. What is the difference between output 2.1.1, 2.1.2, 2.2.5 and 3.3.2? They read the same for now (and similar to 1.3.3 too).
4.f. What type of digital asset are you thinking of for 2.1.3? Is this a reference to a website platform to support the establishment of a community of practice?
4.g. What form of support to innovation would be supported under 2.2.4? GEF cannot finance pure R&D.
4.h. What do you mean in output 3.3.5 by "Bundling and leveraging GHG reduced in ?India Carbon Market? and other carbon markets"? reference is made in the energy efficiency act to a mandate to develop a domestic carbon market, is this a reference to this process? Would the project support India to develop its domestic carbon market as it relates to the industrial sector? or would this be a project specific approach to turn results from this project into credits? Thank you for clarifying.
5. Component 1: please clarify the scope regarding whether specific SME sectors or clusters or SMEs in general will be addressed for each output. See comments below regarding the need to clarify the specific technologies and practices to be supported and to ensure eligibility. Please consider to include policy coherence in the design, including by better identifying linkages with targetted market segments and related sectoral decarbonization pathways, and by better building

on the assessment of policies involved in these sectors that might affect the sustainability of proposed interventions.
6. Component 2 title contains grammatical typos, thank you for revising to make it clearly readable. See also comments below on the need to clarify the scope of supported interventions ("sustainable energy solutions").
7. Component 3 : can you please clarify the economic rationale for the incentive model used to finance the pilots (this is understood as a subsidy, please confirm)? Including, clarifying how a process will be ensured to avoid crowding out other interventions following maximum concessionality principles, and ensure transparency and fairness in the selection process. Please connect this consideration with the comment made below to significantly strengthen the financial investment aspect of this project throughout the theory of change and its outputs, in particular in component 3. This should also be reinforced in the project rationale.
8. Component 3: during the PPG, the agency is strongly encouraged to work with SIDBI and/or identify and partner with other financial institutions that have a significant portfolio of manufacturing SMEs borrowers, to (1) ensure that the design of this component covers the identification/criteria of bankable SMEs and projects for which financing of Sustainable Energy Solutions is available from FIs and to (2) promote enhanced access to finance for the SMEs seeking decarbonization through confirmed co-financing from the FIs, e.g. in the form of credit lines for example.
9. Can you also confirm wether the co-financing from SIDBI is the same as the baseline financing identified in the rationale as coming from KfW in partnership with SIDBI? In such case these two institutions should be identified as co-financiers.
10. Please also clarify the specific share of budget to be targetted to investment itself, given that the component and its outputs are mixing investment and TA.
10. Component 3 and 4: please clarify how the SME beneficiaries and decarbonization solutions under this project are not duplicated from or similar to those SMEs and decarbonization solutions benefited from those initiatives identified in Table 2, and accordingly the impacts are not double counted (and that there is a confirmed additionality of GEF financing). Please elaborate how components 3 and 4 can create synergy with and progress further than those similar initiatives.
11. Most importantly, please clarify the specific interventions that the project will support for MSMEs in terms of practices and technologies, so that eligibility can be confirmed at PIF stage. The terms "sustainable energy solutions" or "innovative technologies", "clean technologies", sustainable technologies" (as noted in the TOC) should have a clearly defined scope in the context of this project with no room left for misinterpretation on what will be covered in the financing - already at PIF stage. Green hydrogen is eligible, energy efficiency, switching for electrified uses for examples for furnaces/boilers, also eligible (energy efficiency on fossil fuel based furnaces/boilers, not eligible). CCUS on the other hand is not and should be removed. Same case for biofuels and for hydrogen other than from renewable sources. Simply grid connected renewables beyond captive usage in industrial parks, also not. Heat pumps for high energetic industrial application would be eligible, but for application in the building sector this is a mature technology (same rationale as renewables) so a more sectoral and integrated approach to net zero at building level would be needed. Resource efficiency is welcome, but the covered materials should be clarified (material efficiency and circularity is eligible). And there should be no technology involving the use of fossil fuels.

Please therefore confirm a final scope of technologies and practices to be supported, relating it to programming directions, and revise PIF wording accordingly throughout the description - as a reminder, under objective CCM 1.1, per GEF programming directions, "In the manufacturing sector, industrial energy supply has traditionally depended on subsidized heavy fuels, and many micro, small and medium sized industrial & manufacturing enterprises (industrial MSMEs) are still inefficient in the use of heat and energy (boilers, furnaces, motors, etc.). The GEF will support mitigation measures in this sector including sectoral medium-and long-term roadmaps, electrification of heat uses and wider adoption of digital technologies, harmonized benchmarks for low- and zero-carbon products and associated certification schemes, aggregating demand for low- and zero-carbon products, and technology transfer of new innovations in this space. The GEF may also consider supporting the demonstration of net-zero industrial parks or clusters through integrated zero-carbon technologies and application of circular economy practices." And for green hydrogen covered under objective CCM1.2, it is clarified that only applications for green hydrogen produced by renewable energy sources through electrolysis are considered, not grey hydrogen - please clarify what "hybrid hydrogen" means in that regard in the PIF, and if it involves other forms of hydrogen than green hydrogen, revise to make this consistent with programming directions. Please also clarify what "WHR energy storage" refers to, as this seems to refer to actions at a grid level under objective CCM1.2 - unclear if this is a MSME level intervention.

Agency's Comments

06/11/2024 (UNIDO):

4g: We have given due consideration for the GEF CCM programming directions as suggested. GEF grants will be used in supporting the adoption of innovative low and zero carbon technologies for MSMEs and for the application of circular economy practices. This doesn?t include any incubator related activities.

4h: Has been removed.

31/10/2024

4a. *The project recognizes the importance of a thorough policy review to inform the development of a long-term coordinated roadmap for MSME decarbonization. To ensure this is conducted comprehensively and strategically, the policy review will be carried out in two phases:*

During the PPG stage: A preliminary assessment of key policies and regulations relevant to MSME decarbonization will be conducted. This will involve identifying major gaps and barriers based on readily available information and initial consultations with key stakeholders. This preliminary assessment will inform the project design and justify the need for a more in-depth analysis during the project implementation phase.

During project implementation: A comprehensive review of the Indian policy environment will be conducted, including an assessment of potential conflicting incentives or lack thereof across different institutions and strategies. This will involve mapping existing policies, analyzing the

institutional framework, and conducting a gender analysis to identify any gender-specific barriers or opportunities.

Based on this comprehensive review, a long-term coordinated roadmap for MSME decarbonization will be developed. This roadmap will articulate a clear vision, outline specific policy actions, propose a coordinated inter-ministerial approach, and incorporate gender-responsive measures. It is firmly believed that the above approach would ensure that the policy analysis is conducted thoroughly and strategically, informing the development of a long-term roadmap that addresses the core problem statement and promotes a coordinated approach to MSME decarbonization.

4c. Output 1.1.1: Study policies, situation (especially gender), and growth, particularly pertaining to Sustainable Energy Transition for decarbonization in other relevant countries. Based on the study and considering the specific context of India, prepare policies conducive to decarbonization in MSMEs.

? Output 1.1.2: Assess energy consumption (power and process heat) in different MSME sectors and their classification. This assessment will provide the foundation for developing targeted policy interventions and roadmaps for decarbonization.

? Output 1.2.1: Based on the policy recommendations from Output 1.1.1 and the energy consumption assessment from Output 1.1.2, develop sectoral roadmaps for sustainable energy transition for decarbonization in MSMEs. Ensure gender inclusivity and stakeholder engagement in the roadmap development process.

4d. ? Yes, the notion of inclusive schemes is indeed designed to address the issue of MSMEs being excluded from energy saving certificates and related payments.

? Currently, many energy saving schemes and incentives primarily target larger consumers due to their higher energy consumption and potential for significant savings. This leaves MSMEs at a disadvantage, as they may not have the resources or scale to participate in these programs.

? Inclusive schemes aim to level the playing field by:

- Providing tailored incentives: These schemes could offer incentives specifically designed for MSMEs, considering their unique needs and constraints. This might involve smaller-scale projects, different eligibility criteria, or targeted financial support.

- Simplifying processes: The application and participation process for energy saving schemes can be complex and burdensome, particularly for smaller businesses. Inclusive schemes could streamline these processes, making it easier for MSMEs to access and benefit from them.

- Capacity building and awareness: Many MSMEs lack awareness of energy efficiency measures and available support. Inclusive schemes could incorporate capacity building and awareness components to educate and empower MSMEs to adopt energy-saving practices.

? By addressing the specific barriers faced by MSMEs, inclusive schemes can promote wider participation in energy efficiency initiatives and ensure that the benefits are distributed more equitably. This can lead to greater overall energy savings, reduced emissions, and a more sustainable energy future for all.

The above is incorporated in TOC.

4e. We have added a paragraph to emphasize how the project will differentiate itself from existing initiatives, such as TERI's projects with the Ministry of MSME, by addressing gaps identified in prior assessments and adding new dimensions rather than duplicating efforts. The following has been added: ?Additionally, this project will set itself apart from existing initiatives, such as those undertaken by TERI, BEE and other development agencies in collaboration with the Ministry of MSME. This approach would focuses on addressing gaps identified in previous assessments and introducing new dimensions, rather than merely replicating existing efforts.?

4f. We have revised Output 2.1.3 to include "benchmarking," now reading "Develop digital assets (e.g., website, platform, mobile app) for awareness creation, sensitization, training, knowledge sharing and benchmarking for MSMEs."

•We have added a paragraph in the "Component 4" section to differentiate the proposed website portal from the existing SAMEEKSHA platform, highlighting its specific functionalities and target audience.

4g. To clarify the eligibility criteria for innovations seeking support as a result of the audits, we have given due consideration to the current GEF programming directions that emphasize: Demonstrable environmental benefits, Sustainability, Country ownership, Innovation and scalability and Private sector engagement. In the context of the audits, eligible innovations therefore

•Directly address the gaps and needs identified by the audits.

•Align with GEF's new programming directions, including the focus areas mentioned above.

•Demonstrate additionality, going beyond business-as-usual and providing added value to existing efforts.

While the specific criteria may vary depending on the nature of the audit findings and the specific GEF program, these overarching principles will guide the evaluation and selection of eligible innovations. We recognize the importance of initiatives like cleantech incubators in fostering innovation and entrepreneurship in the clean technology sector. We will explore opportunities to leverage these platforms strategically within the framework of GEF's current priorities and funding guidelines. We appreciate your insights and will ensure that the eligibility criteria are clearly communicated to all stakeholders involved in the innovation process.

•4h. We fully understand the GEF funding requires projects to generate *new* global environmental benefits and If emission reductions are solely used for existing carbon offsetting or compliance schemes, they don't qualify as *additional* benefits. In this specific project we have considered the project that are part of existing carbon offsetting project or under any compliance schemes. Accordingly we have removed output 3.3.5: Explore opportunities for bundling and leveraging

GHG emission reductions in carbon markets (e.g., the India Carbon Market) to create additional financial incentives for MSMEs. It would be ensured that all projects that would be considered are additional in nature.
To incorporate the clarifications and revisions related to project design, policy integration, and output differentiation, following points has been integrated into the PIF, :

- We have added a paragraph in the "Component 2: Creating demand for and enhancing the supply chain of Sustainable Energy Solutions (SES) for decarbonization" section on Page 18 to clarify the eligibility criteria for innovations, emphasizing sustainability impact, scalability, and policy alignment.
- We have added a sentence in page 16 the "Justification" section on under "Building on Past Efforts for Rapid Scaling" to emphasize how the project will differentiate itself from existing initiatives, such as TERI's projects with the Ministry of MSME, by addressing gaps identified in prior assessments and adding new dimensions rather than duplicating efforts.
- We have added a sentence in the "Gender Equality and Women's Empowerment" section on Page 46 to confirm that a gender lens will be applied across all assessments, policy reviews, and roadmap developments, ensuring the project's impact is equitable and promotes inclusivity within the MSME workforce.
- 5. As suggested, we have attempted to clearly specifying the sectors and value chains is crucial for the project's clarity and impact by incorporating the following -

We have added a sentence in the "Project Description" section on Page 25 to explicitly state the targeted sectors and their significance to India's industrial GHG emissions: *"This project focuses on eight key industrial sectors?Textiles, Steel Re-Rolling, Chemicals, Food Processing, Pulp & Paper, Foundry & Forging, Bricks, and Light Engineering?which are representative of the diversity within India's MSME landscape and contribute significantly to the country's industrial greenhouse gas (GHG) emissions."*

These specific industrial sectors were selected due to their significant contributions to national GDP, export earnings, and employment. They represent a mix of energy-intensive industries and those with high growth potential, offering opportunities for substantial impact in terms of energy conservation and GHG reduction.

Here's why these sectors are important:

- **Value Chains:** These sectors are interconnected within the broader industrial ecosystem. Improvements in energy efficiency and GHG reduction in one sector can have cascading positive effects on others. For example, increased efficiency in steel re-rolling can benefit downstream industries like light engineering and construction.

- **Energy Conservation Potential:** The table demonstrates varying levels of energy saving potential across sectors, ranging from 9% in light engineering to 50% in chemicals. This indicates significant opportunities to optimize energy consumption through technology upgrades, process improvements, and better energy management practices.

- **GHG Reduction Potential:** Given their energy consumption patterns, these sectors contribute significantly to industrial GHG emissions. By implementing energy efficiency measures and

adopting cleaner technologies, substantial reductions in GHG emissions can be achieved, contributing to national climate goals.

Focusing on these sectors allows for a targeted approach to maximize the impact of interventions and leverage synergies across different industries. This strategy not only promotes environmental sustainability but also enhances economic competitiveness and contributes to sustainable industrial development.

6. To clarify the definition of Sustainable Energy Solutions (SES) and confirm the exclusion of non-renewable sources in the PIF, we have incorporated the following -

•In page 26 just after the TOC diagram, SES has been defined as Technologies that are innovations that involves renewable energy, energy efficiency and conservations which has significant potential to reduce greenhouse gas emissions. These technologies prioritize sustainable practices, considering both environmental and social impacts, and demonstrate a favourable cost-to-benefit ratio. Furthermore, they utilize novel approaches or apply existing technologies in innovative ways, ensuring alignment with national climate strategies and international agreements.

•

•7. To clarify the economic rationale for the incentive model and address concerns about crowding out other financing sources, following has been incorporated. We have added following paragraph in the "Project Rationale" section on Page 12 under "Financial Challenges" to clarify the alternative sources of financing available to MSMEs, including commercial banks, industry associations, and government schemes. This paragraph also explains why these sources are often inadequate, citing high-interest rates, collateral requirements, limited focus on decarbonization, and complex processes as key barriers.

The financing sources currently available to Micro, Small, and Medium Enterprises (MSMEs) include commercial banks, industry associations, and government schemes. However, these sources often prove inadequate due to several key barriers. High-interest rates pose a significant challenge for Micro, Small, and Medium Enterprises (MSMEs), as elevated loan costs strain their financial resources and hinder growth opportunities. Compounding this issue, many financial institutions require collateral, which smaller enterprises often lack, limiting their access to essential funding. Furthermore, existing financing options typically overlook the need for investments in decarbonization technologies, leaving MSMEs eager to adopt sustainable practices at a disadvantage when searching for suitable financial products. The complexity of loan application processes adds another layer of difficulty; lengthy documentation and stringent eligibility criteria can deter these businesses from pursuing necessary financing. Additionally, a lack of financial education among MSME owners hampers their ability to navigate the financing landscape effectively, leading to poor financial decisions and missed opportunities. Finally, the inadequate credit history common among MSMEs creates hesitancy among lenders, further obstructing access to capital for new or smaller businesses striving to grow and innovate. These challenges highlight the need for more accessible and supportive financing solutions that cater specifically to the unique needs of MSMEs, particularly those focused on sustainability and growth in a competitive market environment.

Following paragraph is added in page ? 16

The project is designed to avoid crowding out other financing sources by employing a targeted approach that complements existing financial mechanisms. The project aims to enhance financing for MSMEs focused on decarbonization by offering targeted incentives that complement traditional funding sources rather than displace them. By leveraging existing government and industry initiatives, the project maximizes resource efficiency and effectiveness, ensuring that current programs are fully utilized. Emphasizing financial sustainability, it encourages MSMEs to develop economically viable business models that can thrive independently of ongoing subsidies. To foster trust and participation, the project will implement a transparent subsidy allocation process, ensuring equal access for eligible MSMEs without undermining other financing options. Additionally, it will actively seek co-financing from private investors and financial institutions to increase total funding and demonstrate confidence in the supported initiatives. By providing technical assistance, the project will help MSMEs create high-quality proposals that are attractive to lenders, thereby enhancing their chances of securing financing. Finally, the initiative will explore innovative funding mechanisms such as green bonds and blended finance models to diversify funding sources and reduce reliance on any single type of financing. Through these strategies, the project aims to create a supportive ecosystem for MSME financing that enhances existing resources and promotes sustainable practices without crowding out other funding options.

•

•9. *The co-financing from SIDBI is part of a broader initiative that includes partnerships with various funding sources, including KfW. However, the co-financing from SIDBI is not the same as the baseline financing identified in the rationale as coming from KfW in partnership with SIDBI. KfW's involvement typically focuses on specific projects aimed at promoting sustainable practices and energy efficiency within MSMEs, while SIDBI's co-financing may encompass a wider range of financial products and initiatives to support MSMEs across different sectors. Therefore, while both sources aim to enhance financing for MSMEs, they represent distinct initiatives within the broader context of MSME financing and development.*

11. *Following section is incorporated in the paragraph that has been incorporated in page 39 of the core indicator section.*

We understand that the types of technologies supported by this project are clearly defined at the Project Identification Form (PIF) stage to facilitate eligibility assessment.

? **Hydrogen Funding***: The project will exclusively focus on 100% green hydrogen, in line with GEF guidelines. Any references to hybrid hydrogen or blending with fossil fuels will be removed to ensure compliance.*

? **Biomass/Biogas Eligibility***: Biomass and biogas for energy generation or industrial use will not be included unless a thorough assessment of sourcing, scale, leakage risks, and targeted energy uses is conducted. This assessment is crucial for safeguarding practices, particularly concerning agricultural waste.*

? **Waste-to-Energy Exclusion***: The project will not finance waste-to-energy initiatives. However, waste heat recovery technologies will be considered eligible.*

? **Fossil Fuel Minimization***: Activities that may still involve fossil fuels, such as fossil fuel-based furnaces or boilers in the glass segment, will be removed from the project scope. This also applies to any unclear references in chemical manufacturing processes.*

? **Renewable Energy Systems***: The project will focus on renewable energy systems designed for captive generation to directly power industrial operations of MSMEs. This approach aligns with GEF objectives and supports sustainable practices.*

? **Integrated Zero-Carbon Technologies***: If the specific technologies under "Integrated Zero-Carbon Technologies" are not clearly defined at this stage, this category will be removed from the project scope to maintain clarity and compliance with GEF requirements.*

? **CCUS Confirmation***: Carbon Capture, Utilization, and Storage (CCUS) technologies have been excluded from the project design, ensuring alignment with GEF funding criteria.*

21/10/2024 (UNIDO):

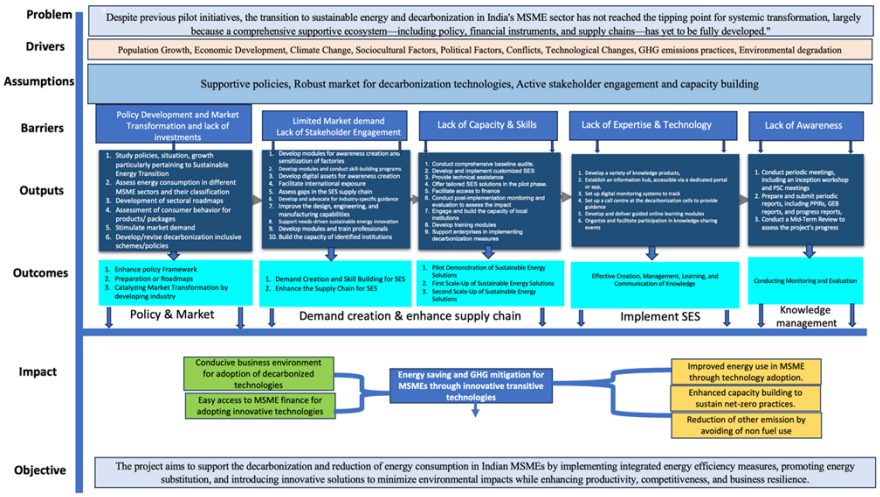
Revised Theory of Change

1. Problem Statement:

"Despite previous pilot initiatives, the transition to sustainable energy and decarbonization in India's MSME sector has not reached the tipping point for systemic transformation, largely because a comprehensive supportive ecosystem?including policy, financial instruments, and supply chains?has yet to be fully developed."

This statement is inserted by replacing the earlier one in the PIF.

2. Theory of Change Diagram (Revised):



Revised TOC is inserted in the PIF.

3. Revised ToC inserted in PIF. Inserted a paragraph on the financial and investment dimension inserted in PIF under TOC.

The financial and investment dimension

The financial and investment dimension of of systems change focuses on ensuring adequate resources and funding are available to support and scale up initiatives. Strategies to attract investment, ensuring financial sustainability, and mobilizing capital for long-term growth include (i) creating visual impact with large number factories under the project so that more factories get attracted & invest and (ii) involving specialised bank like SIDBI and other lead banks in the clusters.

4a. Output 1.1.1 and Output 1.1.3 are merged to work on policy. The statement is as given below

Output 1.1.1. Study policies, situation (especially gender), growth particularly pertaining to Sustainable Energy Transition for decarbonization in other relevant countries and preparing policies conducive to decarbonization in MSME

4b. **Output 1.3.4: is deleted**.

Deleted in PIF

4c. There is no Component 1.1 and 1.2. However, if Outcome 1.1 and 1.2 are the points of reference, the former refers to policy, energy usage analysis and prepare policies aimed at decarbonization. A separate treatment is given to Roadmap which details out steps to be taken on technology, capacity, market, benchmark, policy and schemes to prepare separate thematic wise roadmaps for all nine sectors considered for interventions. However, during the PPG phase gap analysis will be carried out for both these outcomes and if required merged.

4d. **Output 1.3.3. is revised for clarity. The new text is included in PIF and reproduced below.**

Output 1.3.3. Develop decarbonisation inclusive schemes under MoMSME for MSMEs

4e. Outputs 2.1.1 and 2.1.2 are different outputs cater to different target groups (owners, plant managers, foremen, technicians), with different modules with varying module types and lengths. Output 2.2.5 is aimed at professionals who would contribute to providing consultancy inputs. This target group may be the consultants in the cluster, Certified Energy Auditors/ Certified Energy Managers, Trainers, etc. Though there is an option to put them all as activities under one output, it loses focus and hence they are listed as separate outputs.

Outcome 3 is aimed at second scale up. Accordingly, Outputs and activities are listed. They may appear similar to capacity building under pilot and first scale up under Outcome 2 (Outcome 2 deals with outputs and activities for pilot and fist scale up of 3280 factories). But the type of modules, delivery, technical team training the owners of over 11,000 factories will be different. Hence, 3.3.2 is listed as separate output.

Output 1.3.3. is slightly revised for clarity now. This output is aimed at enhancing scheme and policies support under the Ministry which has been also pointed out in the earlier sections by GEF Secretariat.

Output 1.3.3. Develop/revise decarbonisation inclusive schemes/policies under MoMSME for MSMEs

4f. The digital assets include portal that will host all about the project, vendors, products, costs, schemes pertaining to MSME, all training modules to be converted to on-line training modules. It will also include an app which will be made available to owners, plant managers, technicians. They can compare their plant performance with set benchmark for energy and CO2 generation. This helps them to take corrective actions.

4g. Output 2.2.4. is more targeted innovation. Some of the solutions such as energy efficient motors, refractory bricks, insulation material, waste heat recovery, may be tested and proven. Whereas, during the baseline audit and customized solutions, one might identify newer and simple solutions which can be tested, piloted and scaled up during the project period. Such innovation will be taken up.

4h. Bureau of Energy Efficiency has initiated India Carbon Market. The Indian Carbon Market Framework has two key mechanism ? Compliance mechanism which aims to address the emissions from its energy use and industrial sectors and offset mechanism to incentivize the voluntary actions from entities (not covered under compliance) for GHG reduction, thus providing a comprehensive approach to

decarbonization of the economy (more details are available in web link https://beeindia.gov.in/en/programmes/carbon-market). The project envisages to provide technical assistance to project factories to leverage the carbon market. In addition the project will also help the project factories to leverage VER markets. As the project factories are MSME, (smaller factories) this support will be helpful. During the PPG, more discussions will be held with stakeholders of Carbon Market and list down activities that are required to help the project factories.

5. The scope of project is MSME ? Micro Small and Medium Enterprises. The definition for the MSME is as per the definition provided by the MOMSME given in web link https://msme.gov.in/know-about-msme . Advise of GEF Secretariat is noted to include policy coherence in the design, including by better identifying linkages with targeted market segments and related sectoral decarbonization pathways and by better building on the assessment of policies involved in these sectors that might affect the sustainability of proposed interventions. PPG phase will be used to detail out the proposed interventions.

6. Title of Component 2 is revised and included in PIF

Component 2: Creating demand for and enhancing the supply chain of Sustainable Energy Solutions (SES) for decarbonization

Sustainable Energy Solutions (SES) refer to technologies and strategies that provide energy in ways that are environmentally friendly, renewable, and support long-term sustainability. These include renewable energy sources mainly solar, as well as energy-efficient systems and energy conservation measures. SES aim to reduce reliance on fossil fuels, minimize greenhouse gas emissions, and promote decarbonization, contributing to global climate goals and creating a more sustainable energy infrastructure for the future.

7. The selection of project factories will be on a transparent basis. An open advertisement will be made in the selected clusters. The project will formulate set of criteria to select project factories and expression of interest will be sought. The project factories that fulfil the criteria will be selected.

As for the subsidy/ incentives are concerned, it is a small amount of investment made in eligible decarbonisation interventions identified by the project. The subsidy acts as great encouragement to project factories to participate, participate quickly and invest in decarbonisation. It will also enhance their confidence as the partial investment is coming from other credible agencies like GEF-UNIDO in partnership with MoMSME.

8. UNIDO will coordinate closely with SIDBI and other financial institutions as advised by the GEF Secretariat.

9. At present the project is envisaging co-financing from SIDBI. However, during PPG, the partnership with agencies like KfW will also be explored.

10. Most of GEF budget will be for baseline audit, Technical Assessment and post implementation measurement. The GEF budget of about 1 million USD will be targeted to investment. However, this will be analysed, detailed in PPG. The subsidy/ incentive will be provided only for interventions under the pilot and first scale up project factories.

10. We will include declaration along with Expression of Interest they are not beneficiaries of similar interventions under any other project to avoid duplication. Component 3 will focus on facilitating intervention in project factories taken up in pilot and first scale up of 3280 nos. and second scale up of 11,000 nos. The Component 4 will not only capture the project results, and impacts but acts as digital system for tracking progress, inform the factories through portal and assets.

11. Aligning to this statement ? ?energy efficiency on fossil fuel-based furnaces/boilers, not eligible?, we have revised the sectors for interventions. Instead of nine sectors, we have reduced it to 8 sectors. We have removed Glass and ceramics as we find it is highly fossil fuel based. This sector requires very high temperature and alternatives to fossil fuels are not yet well developed and at best they are in R&D. The GEF funds cannot be used for R&D. Hence, we have dropped Glass and ceramics sector. We have however, maintained same number of factories for interventions adjusting the gap created by removing Glass and Ceramics to other sectors.

A partial list of SES is listed below, however, they will be reviewed and revised further during the PPG phase.

1. Textile
- Solar Thermal Systems: Utilizing solar energy for heating processes like dyeing and drying can significantly reduce fossil fuel dependency.
- Biomass Boilers: These can replace conventional heating methods by using agricultural waste, providing a renewable source of energy.
- High-Temperature Heat Pumps (HTHP): These can provide hot water or steam for dyeing and finishing processes, significantly reducing fossil fuel consumption. HTHPs can achieve temperatures suitable for various textile applications, enhancing energy efficiency compared to conventional heating methods

2. Steel Re-Rolling
- Electric Arc Furnaces (EAF): Transitioning to EAFs powered by renewable electricity can lower emissions compared to traditional methods.
- Direct Reduced Iron (DRI) with Hydrogen: Implementing hydrogen-based DRI processes can drastically reduce carbon emissions associated with steel production

3. Chemical

•Green Hydrogen Production: Blended form hydrogen can serve as a clean feedstock for various chemical processes.
•Biochemical Processes: Employing microbial fermentation and enzymatic reactions can minimize reliance on fossil fuels in chemical manufacturing.
•Heat Pumps for Heating and Cooling: In chemical manufacturing, heat pumps can be utilized for both heating and cooling processes, optimizing energy use. They are particularly effective in applications requiring precise temperature control, such as in reactors and distillation columns.
4. Food Processing
•Solar Dryers: Utilizing solar energy for drying fruits and vegetables reduces energy costs and emissions.
•Anaerobic Digestion: This technology converts organic waste into biogas, which can be used for heating or electricity generation.
5. Pulp & Paper
•Waste Heat Recovery Systems: Capturing and reusing heat from production processes can enhance energy efficiency.
•Biomass Energy: Utilizing wood residues and other biomass for energy needs minimizes fossil fuel use.
6. Foundry & Forging
•Induction Heating: This technology uses electricity to heat metal directly, which is more efficient than traditional methods.
•Recycling Scrap Metal: Implementing processes that maximize the recycling of scrap metal reduces the need for new raw materials and energy consumption.
7. Bricks
•Vertical Shaft Brick Kilns (VSBK): These kilns are more energy-efficient and produce fewer emissions compared to traditional brick kilns.
•Solar-Powered Brick Dryers: Using solar energy for drying bricks can significantly cut down on fossil fuel usage.
8. Light Engineering
•Energy-Efficient Motors and Drives: Upgrading to high-efficiency electric motors can reduce overall energy consumption in machinery.
•Renewable Energy Systems: Integrating solar panels or wind turbines to power operations can provide a sustainable energy source.

The above text is included in PIF

The project defines "hybrid hydrogen" as the blending of green hydrogen produced from renewable energy sources through electrolysis, specifically at a concentration of 10% to 15%. Given the current economic challenges associated with using 100% green hydrogen, this approach aims to facilitate a more feasible transition for MSMEs.

Specific Interventions Supported

The project will support the following specific interventions for MSMEs:

1. **Energy Efficiency Improvements**: The project will promote energy efficiency measures, particularly in electrified applications such as furnaces and boilers. Energy efficiency upgrades for fossil fuel-based systems will not be supported.
2. **Heat Pumps**: High-energy industrial applications of heat pumps will be eligible, while their use in the building sector is not included, as this technology is considered mature.
3. **Resource Efficiency**: Initiatives that enhance material efficiency and promote circular economy practices will be supported. However, the specific materials covered under this initiative will be clearly defined to avoid ambiguity during the PPG phase.
4. **Digital Technologies**: The project encourages the adoption of digital technologies to improve energy management and operational efficiency within MSMEs.
5. **Sectoral Roadmaps**: Support will be provided for developing medium- and long-term roadmaps aimed at transitioning to low- and zero-carbon practices in the manufacturing sector.
6. **Integrated Zero-Carbon Technologies**: The project may consider supporting the demonstration of common facilities for net-zero clusters that utilize integrated zero-carbon technologies.

? **Hybrid Hydrogen**: Only demonstration of blended form hydrogen is pllaned to be considered under the project.

? **Waste Heat Recovery (WHR) Energy Storage**: WHR energy storage is not implied to those actions at a grid level but those which needs specific interventions at the MSME level in their utilities or process equipment?s .

This text is included in the PIF

5.2 INCREMENTAL/ADDITIONAL COST REASONING

Is the incremental/additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat's Comments

Cleared

RR (10/24/2024):

1. The notes below are useful to add in terms of how the situation would evolve without the project, in the project rationale section. But here we mention rather baseline in terms of existing initiatives and projects. See comment in section 5.1 and 5.3 on this > this issue can be addressed there.

RR (10/3/2024):

1. See comment in section 5.1 regarding the need to better clarify additionality and how this project builds upon the baseline; as well as regarding the economic rationale for the provided incentives. Building upon the revised project rationale elaboration on what would happen without the project.

Agency's Comments

21/10/2024 (UNIDO):

1. A comprehensive baseline analysis will be conducted during the Project Preparation Grant (PPG) phase. This analysis will clarify the current situation and highlight the potential impacts that may be overlooked without the project. Based on preliminary information gathered during the Project Identification Form (PIF) stage, the following conditions are expected to persist without the project:

- ? Continued dependence on fossil fuels and limited adoption of sustainable energy solutions.
- ? Ongoing high levels of greenhouse gas (GHG) emissions, with minimal reduction efforts from MSMEs.
- ? Lack of access to financing and insufficient technical capacity to implement decarbonization technologies.
- ? Delayed or absent policy and scheme support for decarbonization initiatives.
- ? Insufficient connections between MSMEs and specialized banks such as SIDBI.

The rationale for incremental/additionality costs will be reinforced through discussions with stakeholders and will be further analyzed and detailed during the PPG phase.

5.3 IMPLEMENTATION FRAMEWORK

a) Is the institutional setting, including potential executing partners, outlined and a rationale provided?

b) Comments to proposed agency execution support (if agency expects to request exception).

c) is there a description of potential coordination and cooperation with ongoing GEF-financed projects/programs and other bilateral/multilateral initiatives in the project area

d) are the proposed elements to capture and disseminate knowledge and learning outputs and strategic communication adequately described?

Secretariat's Comments

Cleared

RR (11/6/2024):
4. Cleared

RR (11/4/2024):

Please see #4.
1. Cleared
3. Noted - time lacks to get to a more convincing justification, but the idea is here - please reinforce this aspect of project design during PPG.
4. This paragraph on alignment with the green hydrogen global program is a perfect addition to the PIF but could not be found there - could you please copy paste it in the PIF itself?

RR (10/24/2024):
1. This has not been consistently addressed. The document still refers to UNIDO either as Lead executing partner, or as part of the PMU. This is not warranted per GEF policies. Please address.
2. Noted the revision on project information table.
3. This explanation does not provide additional justification on the additionality of this project. How do you justify having similar interventions at policy level for example? What are the lessons learned from these projects on limitations that this PIF answers, in practice? For example, what led you to believe that the reason for lack of progress is only an issue in scale of proposed support? If scale is the only issue, there are many other financiers that could provide scaled up funding, including the co-financier mentionned below. What about the knowledge management interventions and how they articulate with existing platforms led by the MSME that perform the same service, with the same approach supporting clusters of MSMEs towards sustainability? The revised project objective seems to articulate an issue of lack of supporting policy, but what was missing in practice so far at a policy level for interventions to be sustainable? Could you please build on the reports to date on the past and ongoing GEF-supported projects (and others as available) to provide a brief but convincing justification on the value added of this project and how it would avoid repeating a project-by-project approach on the same issue, adding budget to existing initiatives, and instead support a coherent national programmatic vision for the transformation of the targetted sectors with sustained impacts.
4. Thank you for the useful clarification. Could you please reflect this in the PIF as well.

RR (10/3/2024):
a) and b)
1. GEF policies, further explained in the Guidelines on Project and Program Cycle, require that ?the separation of implementation functions performed by GEF Agencies and execution functions performed by Project Executing Entities is a key feature of the governance of the GEF Partnership and an important aspect of the GEF Minimum Fiduciary Standards.?
See https://www.thegef.org/sites/default/files/documents/GEF_Guidelines_Project_Program_Cycle_Policy_20200731.pdf. (pages 44-45)
At PIF stage, Agency (?dual?) execution should not be included in the Agency's proposal. Once the Agency has sufficiently progressed in project preparation and if it anticipates a need for Agency execution, the Agency would submit full information and justification for a request for policy exception (which by definition, is expected to be for clearly exceptional cases).
Please redact elements pertaining to UNIDO playing execution roles from the entire project document. UNIDO role should appear as implementing agency in project design.

2. The section notes that during PPG, two executive partners will be confirmed. Can you please confirm wether these are the National Productivity Council and/or The Energy and Resources Institute, as noted further below? Please consider if so to reflect that as well in the project information table, which only features MoMSME at this stage.
c)
3. Please provide further elaboration on how the project builds on previous GEF-financed projects and other initiatives in India dealing with energy efficiency and industrial decarbonization, as a way to reinforce the incremental reasonning and clarify additionality of this project. In particular, the scope of this project is very similar to project ID 10878 (Improving thermal energy efficiency in the design, manufacture and operation of industrial boilers for low-carbon micro-, small and medium-sized enterprises in India), with the same executing partner, on the same target beneficiaries (MSMEs in industrial sector), same types of policy-level interventions (e.g. for example "Policy makers & regulators mobilized to add energy efficiency considerations in comprehensive revision of regulatory & institutional frameworks for manufacture & operation(...) in particular for MSMEs"), same co-financier (SIDBI), same baseline of policies to inform (energy conservation act), and the same observations can me made with most UNIDO-implemented projects that are listed in table 2 without descriptions of lessons learned and why they were insufficient to address targetted problem - so that ultimately the current project looks like a top-up financing to existing initiatives on the regular budget of the implementing agency, which is not something that would warrant GEF funding and would be eligible as an additional, incremental financing. Please thoroughly consider the rationale for why this investment is proposed bearing in mind ongoing support, and revise accordingly.
4. Please also identify potential synergies with the GEF global green hydrogen program, also led by UNIDO, given inclusion in this PIF of green hydrogen related interventions.
d) cleared, this is well elaborated upon throughout all components.

Agency's Comments

06/11/2024 (UNIDO):

4. Added to the ?Cooperation with ongoing initiatives and projects? section of the PIF.

21/10/2024 (UNIDO):

1. Deleted the text under the section Coordination in the PIF. Removed reference to UNIDO participating as executing partner for some of the activity.

2. The two potential executing partners being identified are the National Productivity Council and The Energy and Resources Institute. During the Project Preparation Grant (PPG) phase, a thorough due diligence process and consultations will take place. Based on the actual workload and the capabilities of these agencies, a decision will be made to either confirm both partners or to replace one or add a third agency. This selected agency will be responsible for coordinating with the Project Management Unit (PMU) and will report to the Project Steering Committee (PSC), the National Project Director (NPD), and UNIDO.

This is incorporated in the co-ordination and co-operation section

3. Project ID 10878 aims to enhance thermal energy efficiency in the design, manufacturing, and operation of industrial boilers for low-carbon micro, small, and medium-sized enterprises (MSMEs) in India. The project will prioritize selecting factories where boilers serve as the primary energy source, with interventions planned for approximately 225 factories. Additionally, this initiative will develop a steam application and modules focused on improving boiler efficiency, implemented by UNIDO. The proposed Project Identification Form (PIF) will build on this and other related projects. Its scope will be more comprehensive, addressing energy use across all sources and equipment. The number of targeted industries in this PIF is significantly greater than in previous projects, leveraging lessons learned for rapid scaling. The steam application, modules, and other digital resources developed for the boiler project will be utilized as foundational elements in this PIF. The Project Preparation Grant (PPG) will evaluate and incorporate relevant activities for the current PIF. Insights gained from the boiler project and other initiatives will contribute to achieving the ambitious targets set for this PIF. Given the extensive number of MSMEs?over 60 million enterprises?this project serves as a crucial catalyst for visibility and credible replication within the sector.

SIDBI, the Small Industries Development Bank of India, specializes in lending to industries. With its flexibility and professional expertise, SIDBI can revise and formulate schemes that are more conducive to lending for MSMEs. As existing partners in the boiler project and proposed collaborators in this PIF, SIDBI is well-positioned to evaluate inclusive lending strategies for decarbonization. This foundation will enable them to effectively reach out to millions of MSMEs beyond the project's duration.Although this rationale is not currently included in the PIF, it has been noted for further analysis and potential inclusion during the Project Preparation Grant (PPG) phase.

4. The United Nations Industrial Development Organization (UNIDO) has launched a "Global Programme for Hydrogen in Industry," aimed at assisting countries in achieving their climate goals through hydrogen utilization, specifically by promoting green hydrogen.While hydrogen is already used in Indian industries, primarily in the form of grey hydrogen, the introduction of green hydrogen will be a new development. The Project Identification Form (PIF) will assess progress and insights from this global program, incorporating them into the CEO Executive Document during the Project Preparation Grant (PPG) phase and throughout project interventions. The lessons learned from this program will guide the development of policies, standards, skills, innovation, financing, and investment strategies that will benefit the PIF. The PIF will leverage two key pillars of the program: (i) **The Global Partnership for Hydrogen in Industry**, which serves as a platform for member states, industries, private sector stakeholders, investors, and academic institutions; and (ii) **Technical Cooperation**, which offers tailored interventions specific to each country. Although this PIF focuses on a limited number of green hydrogen pilot projects, the insights gained from the program will enable the Ministry of Micro, Small and Medium Enterprises (MoMSME) and Indian MSMEs to effectively utilize these two pillars.

5.4 a) Are the identified core indicators calculated using the methodology included in the corresponding Guidelines (GEF/C.54/11/Rev.01)?

b) Are the project?s indicative targeted contributions to GEBs (measured through core indicators)/adaptation benefits reasonable and achievable?

Secretariat's Comments

Cleared

RR (11/6/2024):
1. Cleared.
2. Cleared - please revise this at CEO ER stage as the amount still appears relatively high and units covered will not be honogenous.

RR (11/4/2024):
See #1 and #7:

1. The table still shows 5.4 billion tCO2e - could you try submitting the number without the last three digits (which correspond to decimals) so that only the tCO2 are reported?
2. Cleared
3. Cleared
5 and 6. Cleared. The issue is not so much one of increased number of sites (although this is welcome), but of the interventions to be implemented and their impact potential. Currently, the proposed interventions lead to emission reductions that are far from sectoral potentials identified by the agency for the country. In other words, these may be achieved simply by purchasing more up to date equipment, not necessarily by implementing active and transformative energy efficiency measures. during PPG, please aim for a reduction of this gap by increasing the targetted impact from pilots so that they are closer to the sectoral benchmark mentionned in the analysis. The project should aim to reach an impact that is close to the sectoral benchmark potential, otherwise this would be business as usual financing.
7. This does not appear in the core indicator table - could you please report under 6.3, with MJ as unit, and underlying justification for the number in the text under the core indicator table?

RR (10/24/2024):
1. This is now under 6.2, which is adequate. However, the PIF now shows an outcome of 5,428,600,210 tCo2eq in the table. 5.4 billion tCo2e. This must be a typo. the text below notes 5,428,600 tCO2 in ten years.
2. Is https://www.sameeeksha.org/ the source of the emission factors as well?
3. Can you confirm understanding that the reason to add 136,000 t per year is that a percentage of the scaling up has been added as direct impact? Will these be covered by co-financing captured by the project during its lifetime? Thank you for clarifying as this part is not added under the table shared as annex.
4. Noted equipment lifetime for 10 years. But the final number is off, as noted above. Thank you for addressing.

5. and 6. These comments have not been addressed. Thank you for clarifying the discrepancy between potential and effective savings in the targetted sites that will directly benefit from the project, which are quite low.
7. Per clarified scope, it seems energy savings will be ensured by this project which can be reported under indicator 6.3 on the table. It seems per provided annexes that this data is already available as it was used as intermediary data for the GHG emission reduction.

RR and WL (10/3/2024):
1. The table currently reports indicator targets for category 6.1 > this should be 6.2 as it is outside of AFOLU sector.
2. Sources are not provided for the emission factors used to derive the GHG emission reductions, just the activity data in terms of energy is provided. Please clarify.
3. The indicative targeted contributions to GEBs is not reasonable - it is far too low compared to the standard benchmark for energy efficiency measures in the industrial sector, and it is far too low in absolute with regards to the amount invested in the project, to be considered cost-effective mitigation. Please see comments above in the project overview, rationale and description and address.
4. The justification under the core indicator table hints at a result of 323,610 tCO2e per year. But only 320,000 is reported in the table. Per GEF guidelines, the emission reductions should be totaled over the lifetime of respective equipments. It would be expected that the final result would be higher. Please clarify, based on the lifetime of project-financed equiments (not provided so far in the justification).
5. As noted in comment #6 below, the percentage for energy efficiency of proposed pilot interventions seem low compared to standards in the sector, and raise the question of wether such a reduction could not be obtained by simply purchasing new equipment. A GEF investment would be expected to finance high mitigation potential options. Please prioritize interventions and technologies that do so, in order to reach a higher expected impact.
6. The GHG reduction calculations in Table 5 and 6 are equivalent to 2% and 7% reductions in GHG emissions and similar levels of energy efficiency improvement, for the pilot and the first scale-up, respectively, estimated from (GHG reduced, tCO2) divided by (GHG generated, tCO2) and (Energy saved, TOE) divided by (Energy consumption, TOE). Please clarify and reconcile the level of expected energy efficiency impact from the pilot and the first scale-up with the ?energy saving potential, in %? for the target sectors from Table 4, which ranges from 9% to 50%.

Agency's Comments

06/11/2024 (UNIDO):

1. Has been changed to 5,428,600.

7. Energy of 81239829840 MJ has been added to the core indicator table.

The direct energy savings over 10 years, totaling 1,940,380 ToE, were calculated as follows:

1. **Average Energy Savings per Unit**: To estimate the energy saved per unit, the average savings from two groups (80 units and 3,200 units, numbers from tables 5 and 6) were calculated, yielding an average savings of 44.3 ToE per unit.

2. **Estimated Energy Savings for 1,100 Units**: Using the average savings of 44.3 ToE per unit, the energy saved for 1,100 units was calculated to be 48,731 ToE.

3. **Total Energy Savings Calculation**: The total energy saved was then calculated by summing up the contributions:

   •48,731 ToE (from 1,100 units),
   •12,939 ToE (from 80 units, table 5), and
   •132,368 ToE (from 3200 units, table 6),
   giving a total of 194,038 ToE.
4. **10-Year Total**: To project this over 10 years, the total energy saved was multiplied, resulting in 1,940,380 ToE saved over 10 years.

5. In MJ this would be 1,940,380 x 41868= 81239829840 MJ

01/11/2024 (UNIDO):

1. We have rectified and corrected the typo in the PIF.

This must be a typo. the text below notes 5,428,600 tCO2 in ten years.

2. The emission factors are taken from Central Electricity Authority, Government of India
https://cea.nic.in/wp-content/uploads/baseline/2023/01/Approved_report_emission__2021_22.pdf

3. Thank you for your inquiry regarding the addition of 136,000 tCO2 reduction per year. This figure is derived from a conservative estimate of a 10% conversion rate from our capacity building and dissemination efforts to actual implementation. We anticipate that approximately 1,100 industries will adopt the Sustainable Energy Solutions (SES), resulting in this significant impact. These 1,100 units will receive soft support in the form of technical assistance funded by the co-financing budget throughout the project's lifetime.

5,6. Thank you for your comments regarding the discrepancy between potential and effective savings at the targeted sites. We acknowledge that the current estimates of savings are relatively low, and we appreciate your insights on this matter. To address this, we will conduct a comprehensive baseline survey during the Project Preparation Grant (PPG) phase. This survey will help us identify additional sites and explore opportunities to enhance savings effectively. Our goal is to maximize both the number of sites participating in the project and the overall savings achieved. We are committed to making all necessary efforts to improve these figures and ensure that the project delivers meaningful impact.

7. Yes, the total energy savings in 10 year life time would be1,940,380 ToE and it has been indicated under indicator 6.4

21/10/2024 (UNIDO):

1. Change has been made in the PIF (portal)

5.5 NGI Only: Is there a justification of financial structure and use of financial instrument with concessionality levels?

Secretariat's CommentsN/A

Agency's Comments

5.6 RISKs

a) Is there a well-articulated assessment of risk and identification of mitigation measures under each relevant risk category?

b) Is the rating provided reflecting the residual risk to the likely achievement of intended outcomes after accounting for the expected implementation of mitigation measures?

c) Are environmental and social risks, impacts and management measures adequately screened and rated at this stage and consistent with requirements set out in SD/PL/03?

Secretariat's Comments

Cleared

RR (11/6/2024):

1. Cleared

3. Cleared

RR (11/4/2024):

Please see #1 and #3.

1. The risk table still reads in the fiduciary line : "HACT will be conducted by UNIDO for the project executing partners either at PPG or at the start of Project implementation" > please delete "or at the start of Project implementation".

2. Noted

3. Please revise ESS risk as "moderate", not "low".

RR (10/24/2024):

1. This is not adequate. HACT should be conducted by agency well before implementation, during PPG stage. We will not clear a project that arrives at CEO ER submission without having undergone this process. There is sufficient time and resources to do this due diligence during PPG. This should even be the very first project preparation step to undertake as it conditions the entire success and durability of the funding.

2. If mitigation measures are expected to reduce these risks, then please reflect this in the rating, as the risk rating should per risk appetite guidelines reflect residual risks (and then corresponding description should explain what led to this in terms of the risk identified and the mitigation measure, and why the mitigation measure leads to a given degree of residual risk - it is fine if risks remain moderate or even high after mitigation measures, provided that this is sufficiently justified).

3. This has not been revised. Please revise the risk as moderate, consistently with the ESS rating - per guidelines these should be made consistent (it is an exception for the ESS line of the risk table - all other lines should show residual risk, but this one should show the pre-existing ESS rating).

RR (10/3/2024):

1. There is no need to make reference to UNIDO's fiduciary performance in the fiduciary line of the risks table, given that this project will be executed, like every project in India so far, by national executing entity - no agency self execution warranted here. Please revise to focus on MoMSME only.

2. Is the rating of high risk reflective of the residual risk after accounting for the expected implementation of mitigation measures (which appear to be comprehensive)? High rating is ok, but please clarify why the risk remains high in spite of that as this is currently not mentionned in the table. Thank you.

3. Environmental and social safeguards: We note that UNIDO attached the ENVIRONMENTAL AND SOCIAL Screening Template and it said that the overall ESS risk of the project is classified as ?moderate?, Category B. It explained details of the actions to take place during the PPG including the preparation of ESMF. However, the environmental and social section of the Key risk table and the ?Environmental and Social Safeguard (ESS) Risks? classification in the Portal said ?low? risk.

- Please make these risks consistent with one of the other.

Agency's Comments

06/11/2024 (UNIDO):

1 and 3. Changes have been made as suggested.

01/11/2024 (UNIDO):

1. We fully recognize the importance of the HACT assessment requirement in ensuring fiduciary compliance. In October 2023, one of the proposed agencies underwent a HACT assessment for the GEF 7 boiler project, establishing a solid foundation for managing fiduciary risks. The Energy and Resources Institute (TERI), known for its expertise and strong reputation in financial accountability, has successfully collaborated with multiple UN agencies and development partners. We will verify if a HACT assessment is needed for TERI and, if required, arrange for it to be conducted during the PPG phase.

21/10/2024 (UNIDO):

1. Text is revised in PIF, reproduced below;

MoMSME will be the executing agency through the executing selected partners (finalised during PPG phase). MoMSME will either adopt Government procurement and other processes or UNIDO approved processes in implementing the project. HACT will be conducted by UNIDO for the project executing partners either at PPG or at the start of Project implementation.

2. All the risks ratings mentioned in Table 7 is before implementing mitigation measures. The mitigation measures are expected to reduce them.

3. Revised the risk rating in the portal.

5.7 Qualitative assessment

a) Does the project intend to be well integrated, durable, and transformative?

b) Is there potential for innovation and scaling-up?

c) Will the project contribute to an improved alignment of national policies (policy coherence)?

Secretariat's Comments

Cleared

RR (11/4/2024):

cleared

RR (10/24/2024):

1. Thank you for the clarification - please see comments on the scale of investement vis a vis TA.

RR (10/3/2024):

b. There is potential for innovation and scaling up. The project includes a phased approach to learn from successive phases and reach scale.

1. Please better clarify how financial institutions will be associated with this phased approach from the pilot phase in order to maximize tangible investments covered by this project and therefore impact potential.

Agency's Comments

21/10/2024 (UNIDO):

1. SIDBI will be one of the main banks associated in all phases of the project in lending for decarbonization measures under the project. In addition, project will make efforts to educate all leading banks on decarbonization measures and facilitating investments in the project clusters where the factories have their transactions. All these banks since their core business is industries or they already lend to factories in the cluster, they are expected to continue lending beyond project duration.

6 C. Alignment with GEF-8 Programming Strategies and Country/Regional Priorities

6.1 Is the project adequately aligned with focal area and integrated program strategies and objectives, and/or adaptation priorities?

Secretariat's Comments

Cleared

RR (11/4/2024):

Cleared

RR (10/24/2024):

1. and 2. Cleared.

3. There are still references to carbon capture in the document (see for example component 3.). Thank you for removing.

RR (10/3/2024):

1. In this section, the agency refers to environmental and social safeguards, which are not a GEF programming area but a cross-cutting safeguards policy and standard - please remove - this consideration can be described under the ESS rating section.

2. Same comment for stakeholder engagement and gender action, both have a dedicated section under the policy requirements.

3. CCUS is not aligned with GEF programming directions. Please remove.

Agency's Comments

01/11/2024 (UNIDO):

3. Removed.

21/10/2024:

1. Removed

3. Removed

6.2 Is the project alignment/coherent with country and regional priorities, policies, strategies and plans (including those related to the MEAs and to relevant sectors)

Secretariat's Comments

Cleared

RR (10/24/2024):

1. Cleared from here - see follow up comments in justification/description section and national priorities.

RR (10/3/2024):

1. Please see comments made on project rationale for a more comprehensive justification on this aspect.Currently very sparse information is available on national priorities apart from a paragraph on the Revised Energy Conservation (EC) Act 2022. Please also include connections with India's NDC if they exist.

Agency's Comments

21/10/2024 (UNIDO):

1. Justification is strengthened responding to earlier comments. It will be further strengthened during PPG phase.

6.3 For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e. BD, CC or LD), does the project clearly identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and how it contributes to the identified target(s)?

Secretariat's CommentsN/A

Agency's Comments

7 D. Policy Requirements

7.1 Is the Policy Requirements section completed?

Secretariat's Comments

Cleared

RR (10/2/2024)

Yes.

Agency's Comments

7.2 Is a list of stakeholders consulted during PIF development, including dates of these consultations, provided?

Secretariat's Comments

Cleared

RR (10/2/2024)

Yes.

Agency's Comments

8 Annexes

Annex A: Financing Tables

8.1 Is the proposed GEF financing (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

STAR allocation?

Secretariat's Comments

Cleared

RR (10/3/2024)

1. Yes

Agency's Comments

Focal Area allocation?

Secretariat's Comments

Cleared

RR (10/24/2024):

1. Cleared. Thank you, this is adequate.

RR (10/3/2024)

1. Yes, under CCM. However the programming is flagged as under objective CCM 1.2 only (Enable the transition to decarbonized power systems). Given project activities, it also aligns, more so even, with objective CCM 1.1. (Accelerate the efficient use of energy and materials). Please revise the programming of funds table (both for project and for PPG) to reflect this (given project emphasis, a higher proporition on objective CCM 1.1 and lower for CCM1.2, as only the green hydrogen aspect falls under CCM1.2, everything else this project does is under CCM 1.1).

Agency's Comments

21/10/2024 (UNIDO):

Under the CCM 1.2 component, the project will only provide external support to demonstrating this blending of hydrogen in industrial processes of MSMEs. To support capacity-building and implementation activities for this initiative, a budget of **$540,000** has been allocated. As such significant part of the budget accordingly will be utilized for the CCM 1.1 component.

LDCF under the principle of equitable access?

Secretariat's CommentsN/A

Agency's Comments

SCCF A (SIDS)?

Secretariat's CommentsN/A

Agency's Comments

SCCF B (Tech Transfer, Innovation, Private Sector)?

Secretariat's CommentsN/A

Agency's Comments

Focal Area Set Aside?

Secretariat's CommentsN/A

Agency's Comments

8.2 Is the PPG requested within the allowable cap (per size of project)? If requested, has an exception (e.g. for regional projects) been sufficiently substantiated?

Secretariat's Comments

Cleared

RR (10/3/2024)

Yes, it is below the cap with 164,250$ (project is above 6M$).

Agency's Comments

8.3 Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines?

Secretariat's Comments

Cleared

RR (11/6/2024):

To be put on record that PM doubts the number provided are in line with GEF policies and advised the agency to present more conservative numbers. As evidence is only to be provided at CEO ER stage, verification will be done at that stage.

RR (11/4/2024):

See below

2. and 3. 8 M$ in-kind is hardly justifiable. If there is no information about what is entails, please remove and this can be re-considered during PPG stage.

RR (10/24/2024):

1. Thank you for addressing this first point.

2. and 3. Please address.

RR (10/3/2024):

1. A 20M$ equity contribution is identified from Industry Associations. Please clarify what this corresponds to in practice (are these energy efficient equipments that will be donated for the purpose of the pilot?) and provide a best estimate of the reasonable portion that will contribute to specific project interventions.

2. A co-financing of 42M$ is identified for the Small Industries Development Bank of India. Please clarify what this corresponds to and provide a best estimate of the reasonable portion that will contribute to specific project interventions.

3. Same question for the for India MoMSME contribution. 8M$ is extremely high for in kind recurrent expenditures.

Agency's Comments

06/11/2024 (UNIDO):

SIDBI's contribution will be in terms of loans provided for innovative zero carbon technologies and application of circular economy practices. The India MoMSME contribution will primarily be in the form of incentives. Additionally, there will be in-kind contributions such as rental spaces, meeting costs etc. More discussions and clearer contributions will be defined during the PPG phase. The co-financing will be evaluated in accordance with GEF policy and more clarity on the in-kind contribution will be provided at the CEO stage.

01/11/2024 (UNIDO):

2,3: At this stage, these have not been defined clearly and more discussions will take place during the PPG phase to identify what these contributions correspond to.

21/10/2024 (UNIDO):

1. The 20 M$ equity contribution will be invested in energy efficient equipment and other decarbonization measures. These funds will be directly invested by the individual participating industries (also called factories). The Industry Associations provide co-financing letters on behalf

of the individual factories. The details of investments ? in equipment and others (baseline audit/ post implementation measurements) will be detailed out during PPG phase.

Annex B: Endorsements

8.4 Has the project been endorsed by the country?s(ies) GEF OFP and has the OFP at the time of PIF submission name and position been checked against the GEF database?

Secretariat's Comments

Cleared

RR (10/3/2024)

1. Yes, signature is from current OFP

Agency's Comments

Are the OFP endorsement letters uploaded to the GEF Portal (compiled as a single document, if applicable)?

Secretariat's Comments

Cleared

RR (10/3/2024)

1. Yes

Agency's Comments

Do the letters follow the correct format and are the endorsed amounts consistent with the amounts included in the Portal?

Secretariat's Comments

Cleared

RR (11/4/2024):

Cleared

RR (10/24/2024):

1. Thank you - this is cleared. The letter was uploaded both as a revised LOE, and under annex D (ESS screen and rating) - could you please remove it from the ESS category so that it only appears under the Endorsement category?

RR (10/3/2024)

1. The template utilized for this project removed the footnote that conditions the selection of the executing partner to the following: ?Subject to the capacity assessment carried out by the GEF Implementing Agency, as appropriate?. Agencies were informed that LoEs ?with modifications cannot be accepted and will be returned?. While the removal of the footnote seems to be trivial, it is not: this footnote reduces the chances of having an executing partner that does not meet the fiduciary and procurement standards required to safely execute the project. Please obtain an email from the OFP accepting this footnote to be part of the LoE, and upload this email as a correspondance document in the portal (this is an alternative to request a new LoE).

Agency's Comments

21/10/2024 (UNIDO):

The revised LoE with footnote has been issued by GEF-OFP and uploaded in the portal.

8.5 For NGI projects (which may not require LoEs), has the Agency informed the OFP(s) of the project to be submitted?

Secretariat's Comments

N/A

Agency's Comments

Annex C: Project Location

8.6 Is there preliminary georeferenced information and a map of the project?s intended location?

Secretariat's Comments

Cleared

RR (10/3/2024)

1. Yes, with detailed coordinates together with a general map of the country.

Agency's Comments

Annex D: Safeguards Screen and Rating

8.7 If there are safeguard screening documents or other ESS documents prepared, have these been uploaded to the GEF Portal?

Secretariat's Comments

Cleared

RR (11/6/2024):

Cleared

RR (11/4/2024):

- see above, this has not been revised in the risk table.

RR (10/24/2024):

1. This has not been revised on the risk table. ESS screening has a "moderate" rating, therefore the risk table should be consistent and include a moderate rating. Please note that this line of the risk table is different to the other lines, which show residual risk. The reason is the pre-existence of a risk rating for ESS issues - to avoid confusion, we just re-use the same risk rating for both.

RR (10/3/2024)

1. ESS screening and rating is attached and also summarized in the PIF. Please see comment #3 under the risks section above about making risks ratings consistent with one of the other on the portal.

Agency's Comments

21/10/2024 (UNIDO)

Noted and revised

Annex E: Rio Markers

8.8 Are the Rio Markers for CCM, CCA, BD and LD correctly selected, if applicable?

Secretariat's Comments

Cleared

RR (10/3/2024):

1.

Yes - CCM of 2 and 0 for other focal areas.

Agency's Comments

Annex F: Taxonomy Worksheet

8.9 Is the project properly tagged with the appropriate keywords?

Secretariat's Comments

Cleared

RR (10/24/2024):

1. Cleared.

RR (10/3/2024):

1. Please remove the following tags which are specific to other types of projects and not reflected as such in the present PIF: Enabling Activities (this corresponds to a different project modality), Indicators to measure change, Access to benefits and service (these two are not elaborated on in the project).

Agency's Comments21/10/2024 (UNIDO): tags removed as adviced.

Annex G: NGI Relevant Annexes

8.10 Does the project provide sufficient detail (indicative term sheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table to assess the project capacity of generating reflows? If not, please provide comments. Is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat's CommentsN/A

Agency's Comments

9 GEFSEC Decision

9.1 Is the PIF and PPG (if requested) recommended for technical clearance?

Secretariat's Comments
RR (11/6/2024):

Comments addressed. Project is recommended.

RR (11/5/2024):

1. Thank you for the revisions. all comments were addressed and minor issues mainly formatting related subsist (core indicator, risk table, co-financing, project rationale, theory of change, implementation framework) : please resubmit tomorrow if this is to be considered for the upcoming work programme. thank you

RR (10/24/2024):

1. Thank you for the clarifications. While significant clarifications have been provided, there are still some issues to further revise and clarify for this PIF to be ready for clearance. Thank you for resubmitting as soon as possible (if possible next week if this is to be considered for the upcoming work programme).

RR (10/3/2024):

1. Thank you for this well articulated PIF. It is not yet recommended for clearance, please consider comments and revise for resubmission. Would be grateful if specific attention is given to the following eligibility issues which for now entail that this project could not receive GEF funding as is - GEB cost-effectiveness, duplication, and technical scope.

Thank you for highlighting changes made to the PIF to ease tracking for the finalization of the review

Agency's Comments
21/10/2024 (UNIDO):

GEB calculations are revised.

Measures to avoid duplication is responded.

Technical scope is also provided.

9.2 Additional Comments to be considered by the Agency at the time of CEO Endorsement/ Approval

Secretariat's Comments

See comments in the above review sheet :

- Gender consideration, including more detailed baseline for the specific sector and how project can improve upon it.

- Further materializing the balance between TA/KM and investment activities, in particular through partnership with DFIs and commercial/development banks, materializing in increased GEB cost-effectiveness as well.

- GHG emission reductions - revising the project approach to aim for reaching an impact closer to the sectoral benchmarks identified in the targetted value chains, instead of the marginal savings currently presented in the estimate - PM understanding is that the activities in the project are, if well implemented, expected to reach higher impact (if not, than the activities themselves should be reconsidered during PPG).

- further baseline information on market penetration and adoption rates.

- co-financing revision, with supporting evidence for the provided amounts in line with GEF policy and guidelines.

- confirmation of executing partner upon first submission of CEO ER - HACT assessment should not be performed during implementation.

- further exploration of executing partner opportunities for ministries that may be able to provide sectoral decarbonization guidance and long term vision to this work; and similarly on supply chain level engagement at multi-stakeholder level.

- Further building on the baseline of existing initiatives, policies, projects, with the phased approach as described - initial analysis during PPG to inform project design, more detailed during implementation to inform vision/planning development

- Reconfirming scope of supported technologies for consistency with elements provided at PIF stage and any related due diligence.

Agency's Comments

Review Dates

	PIF Review	Agency Response
First Review	**10/3/2024**	

	PIF Review	Agency Response
Additional Review (as necessary)	**10/24/2024**	
Additional Review (as necessary)	**11/4/2024**	
Additional Review (as necessary)	**11/6/2024**	
Additional Review (as necessary)		