



GEF SECRETARIAT REVIEW FOR FULL/MEDIUM-SIZED PROJECTS* THE GEF/LDCF/SCCF/NPIF TRUST FUNDS

GEF ID:	5704		
Country/Region:	South Africa		
Project Title:	Promoting Organic Waste-to-Energy and other Low-carbon Technologies in Small and Medium-scale Enterprises in South Africa.		
GEF Agency:	UNIDO	GEF Agency Project ID:	
Type of Trust Fund:	GEF Trust Fund	GEF Focal Area (s):	Climate Change
GEF-5 Focal Area/ LDCF/SCCF Objective (s):	CCM-1; CCM-3;		
Anticipated Financing PPG:	\$90,000	Project Grant:	\$4,222,110
Co-financing:	\$25,450,000	Total Project Cost:	\$29,762,110
PIF Approval:		Council Approval/Expected:	May 01, 2014
CEO Endorsement/Approval		Expected Project Start Date:	
Program Manager:	Franck Jesus	Agency Contact Person:	Alois Posekufa MHLANGA

Review Criteria	Questions	Secretariat Comment at PIF (PFD)/Work Program Inclusion ¹	Secretariat Comment At CEO Endorsement(FSP)/Approval (MSP)
Eligibility	1. Is the participating country eligible ?	FJ - Feb 24, 2014: Yes, South Africa ratified the UNFCCC on 29 Aug 1997.	
	2. Has the operational focal point endorsed the project?	FJ - Feb 24, 2014: Yes, by letter dated Dec 18, 2013.	
Resource Availability	3. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply):		
	• the STAR allocation?		
	• the focal area allocation?	FJ - Feb 24, 2014: Yes. The remaining CCM allocation for	

*Some questions here are to be answered only at PIF or CEO endorsement. No need to provide response in gray cells.

¹ Work Program Inclusion (WPI) applies to FSPs only. Submission of FSP PIFs will simultaneously be considered for WPI.

FSP/MSP review template: updated January 2013

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		<p>South Africa is \$6,221,761. This project requests a total of \$4,721,760 (agency fees and PPG included). If this project is approved \$1.5 million would still remain in the country's CCM allocation.</p>	
	<ul style="list-style-type: none"> • the LDCF under the principle of equitable access 		
	<ul style="list-style-type: none"> • the SCCF (Adaptation or Technology Transfer)? 		
	<ul style="list-style-type: none"> • the Nagoya Protocol Investment Fund 		
	<ul style="list-style-type: none"> • focal area set-aside? 		
Strategic Alignment	<p>4. Is the project aligned with the focal area/multifocal areas/ LDCF/SCCF/NPIF results framework and strategic objectives? <i>For BD projects: Has the project explicitly articulated which Aichi Target(s) the project will help achieve and are SMART indicators identified, that will be used to track progress toward achieving the Aichi target(s).</i></p>	<p>FJ - Feb 24, 2014: Please clarify the rationale supporting the alignment of the proposed project activities with objective CCM-1. Please also clarify the rationale behind the financing amounts split between CCM-1 and CCM-3.</p> <p>FJ - Mar 14, 2014: Cleared.</p>	
	<p>5. Is the project consistent with the recipient country's national strategies and plans or reports and assessments under relevant conventions, including NPFE, NAPA, NCSA, NBSAP or NAP?</p>	<p>FJ - Feb 24, 2014: Yes.</p>	
	<p>6. Is (are) the baseline project(s), including problem(s) that the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions?</p>	<p>FJ - Feb 24, 2014: a) Please clarify the waste figures for South Africa presented Part II chapter 4.1.1. A reference is made to 36 million tons of biomass waste from industry but the following sentence states that "these</p>	

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Project Design		<p>figures exclude waste from industrial and commercial sectors".</p> <p>b) Please clarify what proportion of industrial biomass waste comes from Small and Medium Enterprises (SMEs). Please also clarify the potential share of the country's GHG emissions this project could help reduce.</p> <p>c) The waste to energy (WTE) sector in South Africa seems to be a dynamic one with numerous companies and projects. Please clarify the waste to energy context in South Africa and justify the need for further support given the current situation. The Agency may find the following link useful: http://worldviewmission.nl/wp-content/uploads/2013/09/WM-Agentschap-NL-1120-Waste-to-Energy-LowRes-for-Viewing-DPS.pdf</p> <p>d) Please clarify what makes the SME situation more difficult than the situation of big enterprises; Given the active WTE market in South-Africa please clarify what refrains companies to expand the WTE market from big enterprises to SMEs;</p> <p>e) Please clarify how the WTE economics (cost of energy production per kWh including waste collection and sub-products handling) compares to the current cost of alternative energy sources and of waste disposal.</p> <p>FJ - Mar 14, 2014: a) Cleared b) The previous comment has not been addressed yet. Please also clarify the</p>	

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		<p>potential share of the country's GHG emissions that this project could help reduce.</p> <p>c) and d) Cleared.</p> <p>e) Thank you for the clarification. Please provide an estimate of the expected profitability of the proposed integrated waste management/energy systems for SMEs. This estimation should take into account the higher energy production cost of such system compared to current grid production cost, and the reduced waste disposal cost. Please then use this estimate to justify and adjust the proposed supporting activities.</p> <p>FJ - Mar 21, 2014: All comments cleared.</p>	
	<p>7. Are the components, outcomes and outputs in the project framework (Table B) clear, sound and appropriately detailed?</p>	<p>FJ - Feb 24, 2014: No.</p> <p>Component 1:</p> <p>a) The information available on waste in South Africa seems to be detailed and readily available through the South African Waste Information Centre. Please justify the need for additional data collection and the need for support to an existing strong and apparently well-functioning entity.</p> <p>b) For a technology support center to be effective, it needs to involve real practitioners capable of advising the different clients (investors, companies and engineers) on the technical and economic pros and cons of WTE. Please clarify whether the targeted hosts for the WTE center will have such practitioners.</p> <p>c) Please also clarify how the</p>	

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		<p>project will ensure the availability of the means necessary to the functioning of such center beyond project completion.</p> <p>d) Please note that the GEF does not support research activities. Please revise the description of Component 1 accordingly.</p> <p>Component 2:</p> <p>e) The activities proposed regarding policies and regulations are too generic. The PIF identifies that too few SMEs benefit from the recent REBID program. Please clarify what share of WTE potential is missed because of the low participation of SMEs and clarify the reasons why the current policies and regulations limit the participation of SMEs. Please then clarify what type of policy and regulation changes the project would support and how.</p> <p>f) Please also clarify how the current policies/strategies of financial services providers limit the development of WTE among SMEs and how the project proposes to improve such situation.</p> <p>Component 3:</p> <p>g) The WTE market in South Africa is a market with numerous projects and players that could serve as demonstration to illustrate the technical feasibility and commercial viability of WTE. Please clarify why additional demonstration would be needed.</p> <p>h) Given that the project seems to target numerous different WTE</p>	

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		<p>technologies and sectors, please clarify how the demonstration of two (2) projects will make a difference in supporting WTE use among SMEs in South Africa. If the project targets a limited number of sectors and technologies, its potential impact may be too small. Please clarify.</p> <p>i) The description of Component 3 mentions that the project will provide performance based incentives. Please clarify how the project incentives will be designed to be performance based.</p> <p>j) The description of Component 3 mentions that project partners will co-finance up to 70% of local projects investment costs. Please review since this could mean that a 0% co-financing would be acceptable.</p> <p>Component 4: The description of Component 4 clearly identifies that the available volume of waste is a limiting factor for WTE development with SMEs. Moreover, facing fragmented sources of waste also implies potentially high cost for the distribution and use of the energy produced from WTE energy systems in addition to potential legal issues.</p> <p>k) Please clarify how the project will mitigate the difficulties (legal issues and energy distribution issues) associated with fragmented waste sources.</p> <p>l) To tackle the waste resource issue, the project proposes to target SME clusters with adequate volumes of waste. This focus seems justified but would</p>	

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		<p>reduce the potential mitigation impact of the project. Please clarify what potential GHG mitigation volume such a specific target would be associated to.</p> <p>m) Please also clarify whether there would be potential for replication and scaling up besides the two (2) demonstrations of Component 3 and the replications of Component 4 (6 MW and full diligence for 25 investments).</p> <p>n) In the case where there is large replication potential, please review the activities under Component 4 to strengthen the financial sustainability of the support provided to feasibility studies and investments (expected to continue beyond the project completion). The current proposition seems to limit itself to a few replications and leave too many elements to be defined at PPG stage without a clearly identified financial mechanism in view.</p> <p>o) Please clarify what financial mechanism the project would support. Please also address Q17 b) and Q20.</p> <p>FJ - Mar 14, 2014: Component 1 a) Thank you for your comment. By CEO endorsement, the project is expected (i) to detail how the project will ensure supported data collection and management activities can be sustained beyond project completion with regular updating of data (reporting and characterizing waste, detailed inventory of waste streams from industry); and (ii) to detail how the associated costs will be</p>	

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		<p>covered beyond project completion.</p> <p>b) Cleared.</p> <p>c) By CEO endorsement, the project is expected to detail how the technology support center full cost recovery will be ensured.</p> <p>d) Comment cleared. Please note that activities that are not necessary to the achievement of the project objectives may not be counted as co-financing. The mentioned research activities do not seem to qualify as co-financing. By CEO endorsement, details are expected on the nature of the activities to be supported by the co-financing.</p> <p>Component 2</p> <p>e) The previous comment has not been sufficiently addressed yet. Please clarify what policy or regulation the project will target to enable WTE projects in SMEs to access the grid. Please note that it is expected that the project will support the adoption and implementation of the supported regulations and policies. Please also address Q6 e) and clarify how WTE project in SMEs may compete in the bidding process.</p> <p>f) Thank you for your clarification. Please make sure to address Q13 d).</p> <p>Component 3</p> <p>g) Thank you for your clarifications. The expected profitability of the proposed integrated systems is key to justify the proposed project activities. Please address Q6 e).</p> <p>h) Cleared.</p>	

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		<p>i) The response provided is confusing. Please clarify whether the grant financing will be based on actual investments on the ground or on GHG emission reduction achieved, or on both. Please describe the indicators that will trigger the grant financing and how.</p> <p>j) Cleared.</p> <p>Component 4</p> <p>k) Cleared.</p> <p>l) The assumption that successful demonstration in SME clusters will be sufficient to ensure replication in small scale isolated SMEs is overly optimistic. The size of waste resource is a known limit to biogas systems profitability. When addressing Q6 b), please make sure your estimate of the potential GHG mitigation volume takes into account the targeting of agro-processing SME clusters.</p> <p>m) Please provide an estimate of the potential for scaling up taking into account the profitability limits linked to the available waste volume (i.e. insufficient waste volume would render WTE projects unviable).</p> <p>n) Thank you for your clarification. Please make sure to address Q13 d).</p> <p>o) Cleared.</p> <p>FJ - Mar 21, 2014: All comments cleared.</p>	
	<p>8. (a) Are global environmental/adaptation benefits identified? (b) Is the description of the incremental/additional reasoning</p>	<p>FJ - Feb 24, 2014: a) Please clarify how the project will take into account potential biogas leakage in supported investment. Please also clarify</p>	

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	sound and appropriate?	<p>how the project will limit such leakage. b) Please clarify how the by-products of WTE projects will be used in agricultural production and clarify the impact it would have on agricultural fertilization (practices and quantities) especially for nitrogen input.</p> <p>FJ - Mar 14, 2014: Thank you for the clarifications. By CEO endorsement, details are expected on (i) how the potential methane leakage will be monitored, (ii) how this monitoring will be sustained beyond project completion, and (iii) how the project will monitor the impact it would have on agricultural fertilization (practices and quantities) especially for nitrogen input.</p>	
	9. Is there a clear description of: a) the socio-economic benefits , including gender dimensions, to be delivered by the project, and b) how will the delivery of such benefits support the achievement of incremental/ additional benefits?		
	10. Is the role of public participation, including CSOs, and indigenous peoples where relevant, identified and explicit means for their engagement explained?	<p>FJ - Feb 24, 2014: The involvement of the local population and of youth in particular is mentioned as a feature of the project in particular for waste sorting. However, without clear sector targeted and without specifics on the technologies to be used, the involvement mentioned is difficult to understand. Please clarify this point once all other comments have been addressed.</p> <p>FJ - Mar 14, 2014:</p>	

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		Cleared. Details are expected by CEO endorsement.	
	11. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk mitigation measures? (e.g., measures to enhance climate resilience)	<p>FJ - Feb 24, 2014: Please review the risk analysis once all other comments have been addressed.</p> <p>FJ - Mar 14, 2014: Thank you for your clarifications. By CEO endorsement, details are expected on how the project intends to tackle the potential variations in waste sources and quality and their consequences for energy production and bio-digestion sub products users.</p>	
	12. Is the project consistent and properly coordinated with other related initiatives in the country or in the region?	<p>FJ - Feb 24, 2014: a) The description of the baseline and of existing WTE initiatives is insufficient to assess this question. This question will be reviewed once the other comments are addressed. b) Please clarify what the NCPC activities are and whether NCPC may overlap with the proposed project activities. c) Please clarify how the activities of the GEF/WB project on renewable energy market transformation are taken into account in the project design.</p> <p>FJ - Mar 14, 2014: a) Cleared. b) and c) Cleared. By CEO endorsement, details are expected on the respective roles of (i) the proposed project, and of (i) NCPC and the REMT project.</p>	
13. Comment on the project's innovative aspects,	FJ - Feb 24, 2014: a) Please clarify how the project will		

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	<p>sustainability, and potential for scaling up.</p> <ul style="list-style-type: none"> • Assess whether the project is innovative and if so, how, and if not, why not. • Assess the project’s strategy for sustainability, and the likelihood of achieving this based on GEF and Agency experience. • Assess the potential for scaling up the project’s intervention. 	<p>ensure that the information system on waste, the support center and the knowledge management platform can continue their support activities beyond project completion.</p> <p>b) The PIF indicates that the project adopts a business model approach to the integrated use of industrial organic waste as a resource, but does not demonstrate what this approach is, how it would be business oriented and how it would be integrated. Please clarify.</p> <p>c) The PIF indicates it is targeting a sector with high replication potential. Please clarify what sector it is and why it has a high replication potential. Please also clarify what other sector could use the results of this project as indicated in the PIF.</p> <p>FJ - Mar 14, 2014:</p> <p>a) Cleared.</p> <p>b) Thank you for your clarifications. The assumption of the proposed project is that, although small scale WTE projects produce energy at twice the cost of other RE sources, selling the by-products of bio-digestion will make them economically viable. The whole project viability is based on this assumption. In addressing Q6 e), please make sure that you provide a rough estimate on the gains from by-products selling and use it to show that these will be sufficient to render WTE activities viable</p> <p>c) Thank you for your clarifications. Please make sure to address Q6 b).</p> <p>d) Please clarify how the project intends</p>	

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		<p>to support the transition from a heavily supported and subsidized demonstration phase to a scaling up phase with the involvement of the south African green fund and local banks. The financial sustainability of the proposed transition will be key since it is unlikely that subsidies from the green fund may be sustained over a long period of time. One may consider supporting the design and implementation of a gradually decreasing project preparation and financing subsidy scheme. In parallel, a gradual increasing involvement of the local banks/financing institutions is expected.</p> <p>FJ - Mar 21, 2014: All comments cleared.</p>	
	14. Is the project structure/design sufficiently close to what was presented at PIF, with clear justifications for changes?		
	15. Has the cost-effectiveness of the project been sufficiently demonstrated, including the cost-effectiveness of the project design as compared to alternative approaches to achieve similar benefits?		
Project Financing	16. Is the GEF funding and co-financing as indicated in Table B appropriate and adequate to achieve the expected outcomes and outputs?	<p>FJ - Feb 24, 2014: a) The co-financing ratio of Component 3 is higher than for Component 4. One would expect the reverse since Component 4 aims at setting up a sustainable financial support instrument, while Component 3 targets the first demonstrations. Please double check the figures.</p>	

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		<p>b) The co-financing ratio is relatively small compared to other CCM projects. Please consider adding additional co-financing sources and partners.</p> <p>FJ - Mar 14, 2014: Comments cleared.</p>	
	<p>17. <u>At PIF</u>: Is the indicated amount and composition of co-financing as indicated in Table C adequate? Is the amount that the Agency bringing to the project in line with its role? <u>At CEO endorsement</u>: Has co-financing been confirmed?</p>	<p>FJ - Feb 24, 2014: a) Please clarify the co-financing partners identified in table C as "under consultation" and "TBD". b) For a sustainable financial support instrument one would expect a relatively high cash or loan co-financing from the public sector. Please clarify and revise. c) Please clarify what "Green Fund" the project is referring to in part II chapter A.1.4).</p> <p>FJ - Mar 14, 2014: a) Cleared. b) The grant co-financing from the SA Green Fund is in the same range as the GEF grant going to component 3 and 4. Please clarify how such a limited grant co-financing will enable a real scaling up of WTE in SMEs as opposed to a few replications only. Please consider revising the amount and make sure you address Q13 d) c) Thank you for your clarifications. By CEO endorsement, details are expected on (i) how the Green Fund support is expected to be provided (through tenders as currently explained on the Fund website, or through a different process); (ii) how the project will make sure the tendering process, if it is used, will be</p>	

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		<p>attractive enough (number of tenders, frequency).</p> <p>FJ - Mar 21, 2014: All comments cleared.</p>	
	18. Is the funding level for project management cost appropriate?	FJ - Feb 24, 2014: Yes.	
	19. <u>At PIF</u> , is PPG requested? If the requested amount deviates from the norm, has the Agency provided adequate justification that the level requested is in line with project design needs? <u>At CEO endorsement/ approval</u> , if PPG is completed, did Agency report on the activities using the PPG fund?	FJ - Feb 24, 2014: The PIF requests a PPG of \$98,550 (agency fee included). This does not deviate from the norm.	
	20. If there is a non-grant instrument in the project, is there a reasonable calendar of reflows included?	<p>FJ - Feb 24, 2014: Part II Chapter A.1.5) mentions the use of a non-grant financing instruments by the project. Please clarify what instrument will be used and how. Please also clarify the financing and co-financing considered for the instrument, how the project will manage the financial reflow and which project partner has experience in designing and managing such instrument.</p> <p>FJ - Mar 14, 2014: Cleared.</p>	
Project Monitoring and Evaluation	21. Have the appropriate Tracking Tools been included with information for all relevant indicators, as applicable?		
	22. Does the proposal include a budgeted M&E Plan that monitors and measures results		

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	with indicators and targets?		
Agency Responses	23. Has the Agency adequately responded to comments from:		
	<ul style="list-style-type: none"> • STAP? 		
	<ul style="list-style-type: none"> • Convention Secretariat? 		
	<ul style="list-style-type: none"> • The Council? • Other GEF Agencies? 		
Secretariat Recommendation			
Recommendation at PIF Stage	24. Is PIF clearance/approval being recommended?	<p>FJ - Feb 24, 2014: No. The project is not recommended at this stage. Please address the above comments. Please contact the GEF Secretariat prior to re-submission.</p> <p>FJ - Mar 14, 2014: No. Please address the above comments.</p> <p>FJ - Mar 21, 2014: Yes, the project is recommended for work program inclusion.</p>	
	25. Items to consider at CEO endorsement/approval.	<p>FJ - Mar 14, 2014:</p> <p>a) By CEO endorsement, the project is expected to detail how the technology support center full cost recovery will be ensured. By CEO endorsement, details are expected on the nature of the activities to be supported by the co-financing.</p> <p>b) By CEO endorsement, details are expected on the proposed partnership between government and financial services providers in support of WTE projects in SMEs, and on how the project will support the implementation.</p> <p>c) By CEO endorsement, details are expected on the respective roles of (i) the</p>	

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		<p>proposed project, and of (i) NCPC and the REMT project.</p> <p>d) By CEO endorsement, the project is expected (i) to detail how the project will ensure supported data collection and management activities can be sustained beyond project completion with regular updating of data (reporting and characterizing waste, detailed inventory of waste streams from industry); and (ii) to detail how the associated costs will be covered beyond project completion.</p> <p>e) By CEO endorsement, details are expected on (i) how the potential methane leakage will be monitored, (ii) how this monitoring will be sustained beyond project completion, and (iii) how the project will monitor the impact it would have on agricultural fertilization (practices and quantities) especially for nitrogen input.</p> <p>f) By CEO endorsement, details are expected on how the project intends to tackle the potential variations in waste sources and quality and their consequences for energy production and bio-digestion sub products users.</p> <p>g) By CEO endorsement, details are expected on (i) how the Green Fund support is expected to be provided (through tenders as currently explained on the Fund website, or through a different process); (ii) how the project will make sure the tendering process, if it is used, will be attractive enough (number of tenders, frequency).</p>	
<p>Recommendation at CEO Endorsement/</p>	<p>26. Is CEO endorsement/approval being recommended?</p>		

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Approval	First review*	February 24, 2014	
Review Date (s)	Additional review (as necessary)	March 14, 2014	
	Additional review (as necessary)	March 21, 2014	

* **This is the first time the Program Manager provides full comments for the project. Subsequent follow-up reviews should be recorded. For specific comments for each section, please insert a date after comments. Greyed areas in each section do not need comments.**