# 1. Project Data

| Summary project data | | | |
|---|---|---|---|
| **GEF project ID** | | 5515 | |
| **GEF Agency project ID** | | 130129 | |
| **GEF Replenishment Phase** | | GEF-5 | |
| **Lead GEF Agency (include all for joint projects)** | | UNIDO | |
| **Project name** | | GEF UNIDO Cleantech Programme for Small and Medium Enterprises (SMEs) in South Africa | |
| **Country/Countries** | | South Africa | |
| **Region** | | AFR | |
| **Focal area** | | Climate Change | |
| **Operational Program or Strategic Priorities/Objectives** | | CCM-1; GEF-5 Modality 3 | |
| **Executing agencies involved** | | South Africa's Department of Trade and Industry (DTI)'s Technology Innovation Agency (TIA) (lead executing agency), in partnership with the Council for Scientific and Industrial Research (CSIR), Department of Environmental Affairs (DEA), Department of Science and Technology (DST) | |
| **NGOs/CBOs involvement** | | None | |
| **Private sector involvement** | | Cleantech Open (CTO) (knowledge partner) SMEs (project beneficiaries) | |
| **CEO Endorsement (FSP) /Approval date (MSP)** | | September 9, 2013 | |
| **Effectiveness date / project start** | | October 21, 2013 | |
| **Expected date of project completion (at start)** | | October 2016 | |
| **Actual date of project completion** | | September 30, 2018 | |
| **Project Financing** | | | |
| | | **At Endorsement (US $M)** | **At Completion (US $M)** |
| **Project Preparation Grant** | GEF funding | - | - |
| | Co-financing | - | - |
| **GEF Project Grant** | | 1.99 | 1.99 |
| **Co-financing** | IA own | .14[1] | Not available |
| | Government | 5.32 | Not available |
| | Other multi- /bi-laterals | | |
| | Private sector | | |
| | NGOs/CSOs | | |
| | Other | .54 | Not available |
| **Total GEF funding** | | 1.99 | 1.99 |
| **Total Co-financing** | | 5.86[2] | Not available[3] |
| **Total project funding (GEF grant(s) + co-financing)** | | 7.85 | Not available |

[1] The TE indicates that IA UNIDO's financial support is included in the GEF grant amount. (TE pg. 8)

[2] The TE indicates that total planned co-financing was US$ 6 million (pg. 8), but because it indicated that UNIDO's co-financing was included under the GEF grant, this TER calculates total planned co-financing as $5.86 million.

[3] The TE states that "co-financing amounts were estimated at the planning stage but were not tracked during implementation." (pg. 46)

| Terminal evaluation/review information | |
|---|---|
| **TE completion date** | March 2019 |
| **Author of TE** | Ms. Joyce Miller and Ms. Betsy Ings |
| **TER completion date** | February 14, 2020 |
| **TER prepared by** | Meghan Jutras |
| **TER peer review by (if GEF IEO review)** | Molly Sohn |

## 2. Summary of Project Ratings

| Criteria | Final PIR | IA Terminal Evaluation | IA Evaluation Office Review | GEF IEO Review |
|---|---|---|---|---|
| **Project Outcomes** | | S[4] | - | S |
| **Sustainability of Outcomes** | | L | - | L |
| **M&E Design** | | S[5] | - | S |
| **M&E Implementation** | | S | - | S |
| **Quality of Implementation** | | HS | - | HS |
| **Quality of Execution** | | HS[6] | - | HS |
| **Quality of the Terminal Evaluation Report** | | - | - | HS |

## 3. Project Objectives

3.1 Global Environmental Objectives of the project:

The CEO Endorsement estimated an emissions reduction of 163 million tons of $CO_2$ equivalent in the energy sector over a 10-year period under the Alternative Policy Scenario (APS) compared to the Business as Usual (BAU) scenario, of which the project would contribute to 0.5% to 1% of the savings estimated. Total indirect savings from the project were projected to be in the range of 815,000 to 1,630,000 tons. The proposed GEF contribution of US$ 1.99 million would work out to a unit abatement cost (UAC) of between US$ 1.22 per ton and US$ 2.44 per ton of $CO_2$.

3.2 Development Objectives of the project:

The project aimed to promote an innovation ecosystem in South Africa, acting as a catalyst for clean technology innovations, particularly driven by small and medium enterprises (SMEs). The project was expected to "create a platform capable of linking South African entrepreneurs with investors, business, and commercial partners, potentially resulting in the commercialization of new products, manufacturers, services and ultimately job creation, all of which will stimulate economic growth in South Africa." (CEO Endorsement) The TE outlined the project's three main components: (1) Establish a platform for the Cleantech competition and Accelerator program, (2) Strengthen the policy and

[4] The TE describes this rating as "Progress-to-Impact." (pg. xi)

[5] The TE provides a rating for overall M&E (design and implementation taken together). (pg. xi)

[6] The TE provides a performance rating for "National Counterparts." (pg. xi)

regulatory framework to support the local innovation ecosystem, and (3) Strengthen institutional capacity for the Competition and Accelerator program. (pg. 9)

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

Although the project reported execution issues in achieving targets for Outputs 1.2 and 2.1 due to the policy and funding landscape in South Africa, no changes to the objectives or activities were noted.

## 4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

| 4.1 **Relevance** | Rating: **Satisfactory** |
|---|---|

The TE rates the project's relevance as **Highly Satisfactory**. This TER, which uses a different scale, provides a rating of **Satisfactory**. The CEO Endorsement identified the project's alignment with South Africa's environmental and development priorities, specifically with the following policies and plans: the National Industry Policy Framework, Industrial Policy Action Plan (2012/13 - 2014/15), Revised White Paper on Renewable Energy Policy (2010), Integrated Energy Plan, Integrated Resource Plan (2010), New Growth Plan, Green Economy Accord, National Energy Efficiency Strategy, and the National Energy Efficiency Campaign. Overall, "GCIP supports South Africa's drive to address global climate change and national issues of job creation, economic development, and environmental protection. Strengthening institutional capacities and promoting a market for clean technology innovations aligned with the national vision to accelerate the transition to a greener economy." (TE pg. 24)

The project aligned with GEF's Climate Change focal area priorities (GEF Council's Revised Strategy for Enhancing Engagement with Private Sector, Modality 3 "SME Competition Pilot: Encouraging Entrepreneurs and Innovators through a Competition/Incubation Pilot"), as well as the GEF Policy on Gender Equality. The project aligned well with UNIDO's mandate and efforts towards Inclusive and Sustainable Industrial Development, as well as global environmental and development priorities espoused in the 2015 Paris Climate Agreement, 2030 Development Agenda, and Sustainable Development Goals. (TE pg. 25)

| 4.2 **Effectiveness** | Rating: **Satisfactory** |
|---|---|

The TE assesses project effectiveness as **Satisfactory**, and this TER concurs. The project envisioned promoting an innovation ecosystem by accelerating the establishment of innovative clean energy technology SMEs in South Africa. (CEO Endorsement pg. 7) The TE found that the project successfully ran four annual cycles of the cleantech competition and accelerator program (above target), though an inefficient application process resulted in a high barrier to entry and related high attrition rate. Participating teams benefitted from the project's business development support, and some were able to tap further resources (though the TE notes this was not systematically tracked). The project's envisaged national coordination role was not clearly defined, and the TE found that the policy and regulatory strengthening objective (and the related policy study) under Outcome 2 was misguided. Nonetheless, the project commissioned a survey that offered useful findings to better support entrepreneurial activity in the cleantech space. Project experience was shared with neighboring countries and could facilitate extension to the wider region.

A summary of the project's achievements, by outcome area, is provided below:

- **Outcome 1: Establish a Cleantech innovation ecosystem, with a platform to organize the Cleantech competition and associated accelerator program**
  Expected results under this outcome area included (1) the organization of at least three cleantech competitions and (2) three associated accelerator programs, and (3) participation in regional and global networking. The project successfully established the cleantech competition and accelerator program, "assisting in identification and early stage nurturing of the most promising innovative clean technologies, and facilitating global networking with mentors and potential business partners abroad." (TE pg. 29) Four annual competition cycles were completed during the project period (surpassing the target) at no additional cost, and South Africa's Technology Innovation Agency (TIA) led a fifth cycle as the projected transitioned to full national ownership under its auspices. Of note, the project did not achieve its target of reaching 100-300 entrants with each year's competition. The TE found that the application process was extremely inefficient (for example, the US-based webpage was difficult for some to access, and some application questions were hard to understand, resulting in a high attrition rate of potential applicants (55%). (pg. 29) However, the Project Management Unit (PMU) felt that the smaller number of semi-finalists allowed for greater depth and quality of training. The project exceeded targets for providing regional and global networking opportunities to participants.

- **Outcome 2: Strengthen the policy and regulatory framework for the development of a supportive local innovation ecosystem**

The expected result under this outcome area was the identification and development of necessary policies and regulations required for the cleantech competition and ecosystem. This outcome area envisaged a policy and regulatory framework that facilitated the adoption of cleantech and sustainability of project results. However, South Africa's policy and regulatory landscape was already well developed (including cleantech), so there was no need for the project to create policies or regulations in this space. The TE found that "the PMU was insufficiently guided by the project design and embarked on a policy scoping study (in 2017) that seemed to do little more than confirm understanding of the baseline scenario" (pg. 31); the study was not finalized due to limited resources under this component. However, as cleantech entrepreneurial activity was limited and faced many barriers, the project subsequently commissioned a more useful follow-up survey to identify common factors with a positive impact on technology adoption, market penetration, and profitability. This was discussed in a multi-stakeholder workshop and the following PSC meeting, with the aim of increasing uptake and success of cleantech innovation and entrepreneurs. (TE pg. 31)

- **Outcome 3: Build institutional capacity for organizing the competition and accelerator program**
  Expected results under this outcome area included (1) strengthening the capacity of the host institution (TIA) and establishing a platform for all project stakeholders, and (2) sharing experience with other countries. The TE found that the project successfully engaged Technology Innovation Agency staff and other stakeholders who could support and sustain the competition and accelerator program (for example, as mentors, judges, and local trainers). The TE stated that "the PMU reported extensive efforts to support the notion of creating a wide platform." (pg. 33) Considering South Africa a hub for potential regional expansion, project experience was shared during missions to neighboring countries (Namibia and Zimbabwe) as opportunities were available.

| 4.3 **Efficiency** | Rating: **Satisfactory** |
|---|---|

The TE assesses the efficiency of the project as **Satisfactory**, and this TER agrees. As occurred in other GCIP countries, the project was extended by 23 months at no additional cost, and a fourth cycle of the cleantech competition and accelerator program was administered under the resources originally allocated. The TE notes that "the PMU developed a culture of seeking 'value for money' and made solid efforts to steward and account for the provided resources." (pg. 33) Embedding the PMU within the national host (TIA) from the outset provided efficiencies and promoted sustainability through access to infrastructure and on-the-job training for Technology Innovation Agency staff. The project also benefited from the support of UNIDO's Regional Office in Pretoria, located nearby.

The TE states that "using an approach of co-financing from national partners and involving them as PSC members enlarged the pool of available support while also building national ownership." (pg. 34) In addition, private sector in-kind contributions to the project (in the form of volunteer mentors, judges, local trainers, and technical experts) were vital to achieving impacts. However, co-financing was not

tracked, and the TE estimated that the large amount of co-financing planned at the start of the project (US$ 6 million) did not materialize to expected levels. (pg. xi)

| 4.4 **Sustainability** | Rating: **Likely** |
|---|---|

The TE provides a rating of **Likely** for project sustainability, and this TER agrees. Prior to project closure, the PMU created and implemented a clear and effective exit strategy for transition to full national ownership under the Technology Innovation Agency, including a three year Business and Operations Plan and associated budget. The project offered positive contributions to many national stakeholders' priorities, and is expected to continue to benefit from their support and engagement in the Project Steering Committee (PSC) going forward. However, additional resources are needed to maintain the project's quality and impact.

**Financial Resources**

This TER assesses the sustainability of financial resources to be **Likely**. Sufficient resourcing is needed to ensure the continuation of project results, and significant efforts were being made to ensure the availability of resources after project closure (particularly through the development of the three year plan and budget). However, the TE found that "during implementation of the 5th [competition] cycle... it was becoming apparent that the arrangement put in place would need further time, support, and resourcing to fully assure the continuation of the project's results. There was serious concern about what will happen at the end of the year when the UNIDO resources that have supported [the Technology Innovation Agency] during the transition taper off." (pg. 37) The TE noted that the Technology Innovation Agency was pursuing corporate partnership and sponsorship arrangements to diversify funding and improve financial sustainability. In addition, while the use of volunteer support (for mentors, judges, trainers, etc.) offers immense cost benefits, it also brings an element of unreliability and significant administrative needs.

**Sociopolitical**

This TER assesses sociopolitical sustainability to be **Likely**. The TE notes that the election of President Cyril Ramaphosa (in February 2018) is a positive development, and assessments of South Africa's business risk at the time were optimistic. The national government has established a number of priorities that align with project efforts, including sustainable inclusive economic development, diversification of energy sources, enabling of SMEs, and support for previously disadvantaged groups. The TE expects that the project will maintain the interest and engagement of key stakeholders going forward under the auspices of TIA. (pg. 37)

**Institutional Frameworks and Governance**

This TER assesses the sustainability of institutional frameworks and governance to be **Likely.** Selecting the Technology Innovation Agency as the project's local host and establishing the PMU on its premises

from the start provided an ideal institutional setting for sustaining the project's results. Over the course of the project, the agency's ability to innovate and carry out its own mandate was strengthened. The project's exit strategy and handover to full national ownership by the Technology Innovation Agency was well planned and executed prior to project closure. The agency successfully administered a fifth cycle of the cleantech competition and accelerator program in 2018.

**Environmental**

No environmental threats to the sustainability of project benefits were noted. The TE states only that "the project's support contributes to global environmental benefits. The cleantech solutions being developed by participating startups reduce environmental risk and are valuable, given the priority of South Africa and the world community on climate change mitigation and adaptation." (pg. 38)

# 5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

> At project start, UNIDO and partners in South Africa committed to in-kind and cash contributions totaling US$ 6 million in co-financing. Co-financing amounts were not tracked during project implementation, and the TE states that co-financing is "assumed to not have materialised to the expected levels." (pg. xi) However, the project did receive critical contributions from South African government partners (including, for example, staff allocations/secondments and participation in the PSC), as well as from the private sector (including prizes and technical assistance). Extensive pro bono contributions were provided by mentors, judges, and local trainers-in-training; the TE estimated that these voluntary contributions were worth around US$ 1.86 million for the 2014-2017 period, and they were crucial in achieving the project's impacts. (TE pg. 45-46)
>
> The TE does not specifically report on materialization of the approximately US$ 0.4 million in co-financing grants expected from UNIDO and the Government of South Africa, but it can be inferred that these were also not tracked.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

> In May 2016, UNIDO and the Technology Innovation Agency Jointly decided to extend the project at no cost for an additional 14 months (to December 31, 2017). As in other GCIP projects, this extension enabled the project to hold another round of the cleantech competition within its originally allocated resources. A further 9 month no cost extension was granted (to

September 30, 2018) to support the transition of project management and promote sustainability.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links.

GCIP South Africa contributed to a number of national priorities and was endorsed by the South African government. Government stakeholders were engaged in the Project Steering Committee (PSC), and are expected to continue to support the project as it moves forward under the Technology Innovation Agency. From project start, the PMU was fully embedded with the agency; this allowed for access to infrastructure and on-the-job training for agency staff, supporting sustainability of the cleantech competition and accelerator program in the future. (TE pg. 33) Moreover, the TE notes that "during the transition to full national ownership, [the Technology Innovation Agency] launched the 5th [competition] cycle (in spring 2018), exceeding the highest level of registrations reached in earlier cycles... This confirms TIA's ability to promote and implement the Competition-Accelerator." (pg. 15) The project developed a clear exit strategy and executed it before the project closed, with a three-year Business and Operations Plan and associated budget. (TE pg. x)

## 6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

| 6.1 **M&E Design at entry** | Rating: **Satisfactory** |
|---|---|

Taken together, the TE assesses M&E design and implementation to be **Satisfactory**. This TER, which provides separate ratings, provides a rating of **Satisfactory** for M&E design at entry.

The M&E design outlined in the CEO Endorsement included a project inception report, progress reports, and a final report, as well as a midterm and final evaluation. It details reporting responsibilities and sets a budget of US$ 120,000 ($30k from GEF and $90k in co-financing), plus an unspecified portion of UNIDO's contribution, for M&E activities. The TE found that "the results framework was logically sequenced and mutually reinforcing," however, "the formulation of outcomes appeared to be little more than a summing up of the respective underpinning outputs." (pg. 21) The TE reformulated the project's theory of change (pg. 23) so that outcomes would encompass behavioral or system change and better indicate achievement of impact. In addition, while output indicators, targets, and means of

verification were included in the design, the project did not have established baselines and planned to identify these after getting underway; the TE noted that this was not realistic given the resourcing. (pg. 22)

| 6.2 **M&E Implementation** | Rating: **Satisfactory** |
|---|---|

This TER provides a rating of **Satisfactory** for M&E implementation. The TE found that overall M&E implementation was effective. Annual work plans and PIRs followed the structure of the project's results framework, and highlighted potential risks and mitigation measures; these were submitted in a timely and quality manner. The PMU conducted regular monitoring of project progress and results, which was reviewed in PSC meetings to guide implementation and take corrective action as needed. (TE pg. 40) UNIDO also supported project monitoring through regular visits, stakeholder consultations, and progress reporting.

Of note, the TE found that significant attention given to tracking statistics related to the cleantech competition and accelerator program (for example, applications received, semi-finalists, female-led teams, etc.) overshadowed a focus on outcomes. (TE pg. x-xi) In addition, a formal midterm review was not conducted. The TE stated that "given the limited M&E resources (US$ 190,000), efforts to develop and implement M&E mechanisms and collect, analyse, and report data related to project outcomes and impacts indicators were adequate. With higher resources allocated to M&E, this effort could be commensurately enhanced." (pg. 40)

## 7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

| 7.1 **Quality of Project Implementation** | Rating: **Highly Satisfactory** |
|---|---|

The implementing agency for this project was UNIDO, and the TE rates UNIDO's performance as **Highly Satisfactory**, and this TER agrees. The TE assessed that UNIDO implemented the project in a responsible and timely manner, contributing to project design, overseeing the delivery of planned outputs, and monitoring expected outcomes. It notes that "UNIDO's Regional Office provided ongoing support to [the Technology Innovation Agency] throughout implementation and were very much seen to have "gone

the extra mile". The strategic outlook and hands-on involvement of the Regional Office Head in key moments added vital elements to assuring the project's visibility and outreach. The supervision and support provided by UNIDO headquarters was highly suitable and added value. Technical backstopping was conducted by experts identified/engaged by UNIDO. The participation and reputation of UNIDO was highly valued by all stakeholders." (TE pg. 43) The TE notes that, while the project approach was conceptually sound and well-resourced, more appropriate indicators and targets could improve understanding across the project and better guide the implementing team. (pg. ix)

| 7.2 **Quality of Project Execution** | Rating: **Highly Satisfactory** |
|---|---|

The TE does not provide a rating for project execution, but rates the performance of National Counterparts as **Highly Satisfactory**, and this TER concurs. The PMU, housed at the premises of the Technology Innovation Agency under South Africa's Department of Science and Technology, was responsible for daily management of project activities and M&E. The TE found that the PMU was highly competent and executed the project smoothly and effectively, using a results-based management approach. (pg. 24-25) Team members reported effective coordination between the PMU and UNIDO headquarters. Several other South African government entities joined the project as partners (for example, as members of the PSC), facilitating national ownership and the sustainability of results. The TE highlighted that, as the project transitioned to be fully administered by the agency, "[The Technology Innovation Agency] strengthened its own role as a bridge for innovation, research and development, broadened its outreach, and enhanced its own services." (TE pg. 44)

Cleantech Open (CTO) was also a crucial project partner, running the application platform for the competition, providing trainings by international experts, and hosting a Global Forum to provide the most promising startups (from South Africa and other GCIP countries) with experience and exposure to potential partners and investors. (TE pg. 20) Of note, competition alumni suggested that the project could be more reflective of the South African landscape, and there were questions about the storage, use, and access to the information collected by CTO. (TE pg. 24-25)

# 8. Assessment of Project Impacts

***Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.***

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented,

sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

> The TE found that "the project contributed to global environmental benefits by supporting the development of cleantech ideas, solutions, and services on the part of participating startups related to waste beneficiation, energy efficiency, renewable energy, reduction of waste, water efficiency, resource efficiency, green buildings, and more." (pg. 17) Near the end of the project, the PMU attempted to estimate the GHG emissions reductions generated by participants' innovations; a small portion of finalists from the 2014-2017 competitions responded to a survey to share their calculations. It found total projected GHG emissions savings of over 30 million tCO2e, substantially exceeding the project's target; however, the TE points out that these calculations must be understood in context, including that most of the potential GHG savings were generated by a single respondent.[7] (TE pg. 17)

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

> The TE found that, after a slow start, the project strengthened its gender mainstreaming and social inclusiveness efforts, which continued to improve over time. The project broadened its efforts towards social inclusiveness, to include women, youth, and black entrepreneurs. The project tailored its approach to ensure that these groups could access project support, including through university visits, affirmative action, and special category awards (for example, Best Women Team, Most Promising Youth Team, Innovation for Social Impact Award). (TE pg. 18, 55) The project set targets for female participation that were tracked and reported on annually, and took proactive steps to recruit, train, and retain female mentors and judges. (TE pg. 39) By the 4th annual competition, 36% of the finalist teams (4 of 11) were led by women. (TE pg. 18)
>
> The PMU undertook a study (in May 2017) of the project's teams with the highest potential to succeed, and found 12 startups in the market. These 12 startups reported creating in the range of 5 to 120 jobs each, for a total of 238 new jobs. (TE pg. 17)

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems,

[7] The TE states that: "The projections were requested for different timeframes (2019 and 2025) and a common methodology was not apparent within or across the technology categories, making linear extrapolations a challenge for the wider group. Furthermore, the entrepreneurs based their projections on perceived sales, but they were not asked to clarify the basis that they used to calculate their projected savings (i.e. kWh avoided or reduced, etc.). Even within this small sample the lion's share of potential GHG savings was generated by a single respondent."

including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

The TE found that, from 2014-2017, the project trained, mentored, and supported 102 startups. (TE pg. 16) The project did not engage the volume of startups originally envisioned; however, "a variety of stakeholders attested that GCIP alumni were widely seen as having 'high quality,' which would, in principle, increase the likelihood for their innovations to reach the market and create jobs." (TE pg. 17) Beyond this, the TE did not explicitly address capacity strengthening of project participants.

b) Governance

The TE suggested that the policy and institutional strengthening component of the project was not well formulated, resulting in limited progress. It stated: "The policy component of project design needed further investigation and adaptation for the South African context to more effectively guide the project team in an appropriate direction. For instance, the indicator *number of policies and developed to create a conducive policy environment for cleantech implementation* did not reflect the reality that the South African policy and regulatory setting was already very well-developed and supportive of green industry and cleantech innovation, with incentives in place to direct specific cleantech sub-sector innovation. Whereas policy implementation and actual entrepreneurial activity was limited." (TE pg. 22)

The transition of the PMU to full national ownership under the Technology Innovation Agency was executed effectively, with a three year Business and Operations plan and associated budget in place. Over the course of the project, the agency strengthened its own "institutional role as a bridge for innovation, research, and development." (TE pg. ix) The project also contributed to the priorities of multiple national stakeholders, who are expected to have continued interest in and engagement with these efforts going forward.

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE found that a significant positive unintended effect of the project: it "enabled the host institution to significantly strengthen its convener role (i.e. to organise, coordinate, develop the national ecosystem), enhance its reputation, extend its outreach, and boost its innovation services. With the addition of a new transversal category (cleantech) to its verticals, supported by its technology stations (Agriculture, Energy, Advanced Manufacturing, ICT, Natural Resources), [the Technology Innovation Agency] was able to tangibly enhance its own system of innovation." (pg. 14) An additional positive unintended effect from initiatives to share the

project's experience was the receipt of applications for the competition from other countries, highlighting the project's replication potential. (TE pg. 16)

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The TE found evidence of nascent replication and scaling up of the project, while mainstreaming of results will require additional time. During the transition to national ownership, the Technology Innovation Agency successfully administered the fifth round of the cleantech competition and accelerator program, exceeding registrations reached in earlier cycles and demonstrating the agency's capacity to fully operationalize the project. Initiatives to share the project's experience led to the unintended effect of receiving applications from the competition from other countries, indicating the project's replication potential. (TE pg. 16)

The project demonstrated scale up in its widened geographic reach to draw applicants and finalists from outside the main urban centers in South Africa where promotional activities and trainings were conducted. Moreover, the Technology Innovation Agency extended the competition and accelerator program beyond cleantech to additional sectors in 2018, including a category for environmental protection technology, as well as bioprocessing and medical processing (historically the agency's focal areas). (TE pg. 16)

# 9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report, including how they could have application for other GEF projects.

The TE provides the following lessons learned (pg. 55-56):

1. Engaging the most appropriate institutional host prior to project closure is key to a smooth transition to full national ownership and the sustainability of project results. The Technology Innovation Agency's mandate to develop the national ecosystem made it an ideal host for the GCIP, with the additional support (through co-financing, supervision, and guidance) of relevant stakeholders brought onto the PSC. Developing and executing a clear exit strategy before project closure allowed the agency the opportunity to create a three year plan for bringing the project under its own auspices.

2. Confined by its size, budget, and timeline, the project had limited ability to carry out broad policy strengthening objectives and mainstream results. The project was challenged to generate a common understanding of cleantech innovation and business acceleration among key actors under a policy strengthening objective that proved to be too broad and high level. The project was better suited for the role of coordinating and stimulating the national entrepreneurship ecosystem, had this been more clearly articulated.

3. The project's approach to stimulating and supporting innovation through business acceleration can be expanded to further sectors. This replication ability was demonstrated as the competition and accelerator program moved into full operational mode under the Technology Innovation Agency's ownership and included additional cleantech categories as well as medical devices and bioprocessing. This effort will contribute to solving challenges and generating opportunities that enhance environmental protection, job creation, and economic competitiveness.

4. A solid understanding of and accounting for context (operating environment) is critical in project design. The corresponding results framework (as well as outcomes, indicators, and targets) should reflect this understanding, to best orient the M&E system and guide the implementing team. The resources invested under the project's policy component could have generated more effective outcomes had the design been more tailored to the South African context.

9.2 Briefly describe the recommendations given in the terminal evaluation.

The TE provides the following recommendations (pg. 57-59):

1. In the short-term after project completion, ensure adequate resourcing is in place to maintain quality and impact, and avoid potential staff attrition. While the Technology Innovation Agency developed a three year plan, the planned resources did not take sufficient account of the effects of a reduced team and other challenges that emerged during the transition (such as increased complexity due to the inclusion of additional sectors).

2. Review the use of volunteer experts (mentors, judges, and trainers) in considering quality, sustainability, and adequate strengthening of local capacity to independently carry out the competition and accelerator program in future. Volunteer participation has entailed a degree of unreliability, heightened the administrative burden, and highlighted a need for more qualified technical advisors to serve on judging panels and as mentors.

3. Improve social inclusiveness and gender mainstreaming to increase impact and support national priorities. Though it required a serious investment in advocacy and outreach, the project's interactive, targeted approach directly drew more women, youth, and black entrepreneurs with promising cleantech innovations into the competition.

4. Leverage the Technology Innovation Agency's convener role to engage and coordinate other ecosystem actors in further supporting competition applicants and alumni. While necessary, the

narrowing of participants for the accelerator program represents lost potential, and the project's 55% attrition rate from applications initiated to those that entered the competition shows untapped interest. These groups could potentially be supported to continue on their journey with further development of their entrepreneurial skills.

## 10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

| Criteria | GEF IEO comments | Rating |
|---|---|---|
| To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? | The report provides a thorough assessment (addressing all GEF requirements) of the project's achievement of its objectives and outcomes. It details the project's impact, and offers multiple recommendations to increase impact in future programming. | **HS** |
| To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated? | The TE is internally consistent, with findings detailed, summarized, and reiterated throughout relevant sections of the report. The ratings are well substantiated by the comprehensive evidence presented. However, long, run-on sentences make the key points difficult to follow at times. | **S** |
| To what extent does the report properly assess project sustainability and/or project exit strategy? | The TE provides a comprehensive assessment of project sustainability, including the exit strategy and transition to national ownership. It details the financial, socio-political, environmental, and institutional/governance risks. | **HS** |
| To what extent are the lessons learned supported by the evidence presented and are they comprehensive? | The report shares four overarching lessons learned, though there are many more valuable lessons highlighted throughout. In total, these lessons learned are comprehensive and well supported by the evidence. | **S** |
| Does the report include the actual project costs (total and per activity) and actual co-financing used? | The report provides both planned and actual project costs, in total and by outcome area. The TE states that "co-financing amounts were estimated at the planning stage but were not tracked during implementation." (pg. 46) | **HS** |
| Assess the quality of the report's evaluation of project M&E systems: | The TE provides a thorough assessment of the project's M&E, including a succinct table with an overview of the project's progress in meeting its objectives by project end (pg. 14), a reconstruction of the project's theory of change (pg. 23), and a detailed description of progress achieved against each output and outcome (pg. 25-31). | **HS** |
| **Overall TE Rating** | | **HS** |

## 11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).