Supplemental Terminal Evaluation Report

UNDP-GEF Project: Reducing Disaster Risks from Wildfire Hazards Associated with Climate Change

GEF Project ID: 3934  UNDP Project ID: 3947

Country: South Africa  Region: Africa
Focal Areas (GEF-4): Climate Change  GEF Agency: United Nations Development Programme (UNDP)
Executing Agency: Forest Fire Association T/A Working on Fire (Landworks NPC)

Overall assessment of veldfire risk levels in South Africa

Date  Version
29 June 2018  01  First draft
### PROJECT DETAILS:

- **Project Name:** Reducing Disaster Risks from Wildfire Hazards Associated with Climate Change
- **Project ID:**
  - GEF Project ID: 3934
  - UNDP PIMS ID: 3947
- **Country:** South Africa
- **Region:** Africa
- **Focal Area:** Climate Change
- **Funding Source:** Special Climate Change Fund (SCCF)
- **Strategic Programs:**
  - SCCF Objective CCA-1 (GEF-4): Reduce vulnerability to the adverse impacts of climate change
  - **Outcome 1.1:** Increased knowledge and understanding of climate variability and change-induced threats
  - **Outcome 1.2:** Strengthened adaptive capacity to reduce risks to climate-induced economic losses
- **Implementing Agency:** United Nations Development Programme
- **Implementation Modality:** National Implementation Modality (NIM)
- **Executing Agency:** Forest Fire Association T/A Working on Fire (Landworks NPC)
- **Other Implementing Partners:** National Department of Environmental Affairs (DEA)

### FINANCIALS:

- **Project Preparation Grant:** USD 99,960
- **GEF Project Grant:** USD 3,536,400
- **Cofinancing Total:** USD 31,800,000 (CEO Endorsement Request indicates USD 30,940,100 in cofinancing)
- **GEF Agency Fees:** USD 353,640
- **Total Cost:** USD 35,436,360

### PROJECT TIMELINE:

- **Received by GEF:** 01 April 2009
- **Preparation Grant Approved:** 28 May 2009
- **Concept Approved:** 30 June 2009
- **Project Approved for Implementation:** 02 November 2011
- **State Date:** 13 April 2012 (date when project document was signed by the S.A. government)
- **Project Closure:** 12 April 2015 (planned); 30 April 2018 (actual, after third extension)

### TERMINAL EVALUATION DETAILS:

- **TE Timeframe:** September-December 2016 (original); May-June 2018 (supplemental)
- **Evaluator:** James Lenoci
- **Reporting Language:** English

The evaluator would like to acknowledge the feedback provided by the project stakeholders, including the project director, the project coordinator, project board members, the UNDP Country Manager, UNDP CO program manager, UNDP-GEF regional technical specialist, the UNDP finance associate, the project Firewise coordinator, FPA stakeholders, and consultants who supported the project.
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Executive Summary

The project was implemented under the GEF-4 special climate change fund (SCCF) through a national implementation modality with the Forest Fire Association T/A Working on Fire (current name of the organization: Landworks NPC) as the executing agency on behalf of the National Department of Environmental Affairs (DEA), and supported by the UNDP as the GEF agency. Basic project information and finances are summarized below in Table 1.

Table 1: Project summary table

<table>
<thead>
<tr>
<th>Project Title: Reducing Disaster Risks from Wildfire Hazards Associated with Climate Change</th>
<th>at endorsement (USD million)</th>
<th>at completion* (USD million)</th>
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<tbody>
<tr>
<td>GEF Project ID:</td>
<td>3934</td>
<td>99,960</td>
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<tr>
<td>UNDP Project ID:</td>
<td>3947</td>
<td>3,536,400</td>
</tr>
<tr>
<td>Country:</td>
<td>South Africa</td>
<td>180,000</td>
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<tr>
<td>Region:</td>
<td>Africa</td>
<td>30,122,000</td>
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<td>Focal Area:</td>
<td>Climate Change</td>
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<tr>
<td>Focal Area Objective:</td>
<td>SCCF Objective CCA-1</td>
<td>Total co-financing: 30,940,100</td>
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<td>Executing Agency:</td>
<td>Forest Fire Association T/A Working on Fire (Landworks NPC)</td>
<td>Total Project Cost: 34,576,460</td>
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<tr>
<td>Other Partners Involved:</td>
<td>National Department of Environmental Affairs (DEA)</td>
<td>Prodco Signature (date project began): 13 Apr 2012</td>
</tr>
<tr>
<td>Focal Area Objective:</td>
<td></td>
<td>Other:</td>
</tr>
</tbody>
</table>

Note: Total expenditures based upon figures through 28 May 2018; cofinancing based on information compiled in Dec 2016 TE report.

Project Description

At the time of project formulation, the wildland fire situation had worsened significantly across South Africa. There had been major and catastrophic fires in many areas, land use patterns are also changing rapidly under the influence of diverse factors, including the expansion of towns and cities, causing an expanding Wildland Urban Interface (WUI), and exposing more assets to the hazard of wildland fires. The fynbos biome was identified in South Africa’s Initial National Communication (INC, 2003) as the most vulnerable region in the country with respect to disaster risks from wildland fire due to patterns of urbanization, agriculture and potential impacts upon water catchment areas. The fynbos biome covers much of the Western Cape in the southwestern corner of the country, and extends eastward into the Eastern Cape, a transitional zone between the winter rainfall region to the west and the summer rainfall region to the east in KwaZulu-Natal. Fynbos is known for its exceptional degree of biodiversity and endemism, making up most of species of the Cape floral kingdom, many of which are endemic.

The IPCC fourth assessment report predicted the following for the Fynbos biome: winter drying of the order of 10-20% by the end of this century; increase in summer and autumn wind speeds by between 0.3 and 0.9 m/s by ~2050; and increase in median temperature in the order of 1.5°C (~0.5°C – 2.0°C represent 25th and 75th percentile limits respectively) - by the end of this century median increases are projected to be as high as 3°C under “business as usual” emissions scenarios. And, there is evidence that large-scale regional circulation patterns are playing an important role in the occurrence of wildland fires.

Although fynbos is fire-dependent, implementation of integrated fire management measures is increasingly important considering the expected climate-induced disruptions in the occurrence and intensity of wildland fires and in face of continued socioeconomic pressures in the region. The project was designed to develop the adaptive capacity of: (i) Fire Protection Associations (FPAs); (ii) the individual members of these FPAs; and (iii) communities at risk in the WUI, to more effectively manage the increasing risks associated with wildland fires in the fynbos biome.

Summary of Conclusions of Supplemental Terminal Evaluation

The additional activities completed during the third no-cost extension bolstered the climate change adaptation benefits generated by the project, specifically associated with strengthening the resilience of the
targeted vulnerable rural communities, where wage incentive Firewise programs were implemented. The additional resources invested in the four Firewise communities were allocated for funding updated fire risk assessments and fire management plans, as well as clearing invasive alien species vegetation in fire-prone peripheries and purchasing of personal protective equipment. Four high quality documentary videos were produced, one for each of the communities, and uploaded onto YouTube and accessible on the project website and other online systems. These videos provide a good account of the strengthened resilience of the communities.

The Firewise lessons learned workshop sponsored by the project in November 2017 provided an opportunity for representatives of several Firewise communities, not only the four supported by the GEF funds, to come together and share experiences. The workshop report provides an informative record of the 3-day gathering but does not provide a distillation of lessons learned or recommendations of the way forward.

The other activities carried out during the extension period were also aimed at further strengthening the resilience of vulnerable communities, e.g., building capacity for accessing available governmental programs, including municipal infrastructure grants, and facilitating insurance coverage to protect against life safety and property damage risks associated with wildfires and other disasters. Project funds were allocated a technical assistance consultancy for assisting one of the Firewise communities in applying for municipal infrastructure grants; the terms of reference for the consultancy had been completed by the end of April, but the grant applications are expected to be delivered after project closure, in July, after completing the procurement process and the actual consultancy work.

With regard to the insurance related activities, the project has facilitated progress on three fronts: (1) discussions of establishing a national resilience fund, through a learning forum chaired by the Santam insurance company in response to the devastating Knysna wildfires in 2017; (2) installation of 37 Lunkani heat detectors as a trial in the Firewise community of Goedverwacht, in cooperation with Hollard and Munich RE insurance companies; and (3) development of a group insurance scheme for vulnerable communities, with the Firewise community of Kranshoek identified for pilot implementation later in 2018. Progress on these initiatives by the project closure date of 30 April 2018 has been limited, partly due to the late start in mobilizing the consultancy services. The 15-month extension, from the February 2017 through April 2018, effectively started on 9 November 2018, when the surplus funds were disbursed to the implementing partner, Landworks NPC, after agreeing to the scope of work in October.

Apart from the late start in initiating the insurance activities, the agreed performance metrics for the extension period related to this output (3.3) were overly optimistic. One of the lessons learned during the earlier efforts to establish an endowment fund for supporting a community insurance scheme, was that it takes time to bring the partners together and reach a point where a viable product is agreed upon, one that is sufficiently attractive, not only from a social responsibility perspective, but also commercially. The expanded dialogue that has been facilitated over the extension period is indeed commendable. And there does seem to be a high level of interest among the involved stakeholders. There was, however, a certain degree of skepticism communicated, regarding whether funding through government sources and from corporate social investments would be sufficient to develop and sustain the envisaged national resilience fund. The donor community could play an important role in providing bridging support over the short- to medium-term and facilitating advocacy among key decision makers.

The supplemental terminal evaluation process also provided an opportunity to assess how project results have been sustained and to further evaluate progress towards long-term impacts. Integrated fire management (IFM) capacities were put to the test during the 2016/2017 and 2017/2018 fire seasons, among the most active on record and coinciding with prolonged and historic drought conditions in the Western Cape. The fire protection associations (FPAs) that participated in the project continue to provide important IFM services, and most of them have been able to expand their membership base, improving their financial security. The FPA websites, which were developed with project support, have become increasingly important tools for sharing information with members and local communities, and in some cases, provide online options for applying for burn permits and access forms. Usage of social media platforms has increased, allowing the FPAs to extend their outreach. The FPAs are using the Advanced Fire Information Systems (AFIS)
most have switched to the online version from the terminal units procured under the project - for identifying and responding to wildfires. With respect to early warning, the automatic weather stations procured by the project belong to the Climate System Analysis Group at the University of Cape Town, one of the climate service providers listed in the National Framework for Climate Services. Many of the 32 weather stations purchased with GEF funds have a range of operational issues, and funding for maintenance has not been fully sorted out.

Based on feedback from some of the large landowners and managers in the Western Cape, the increased IFM capacities of the FPAs and improved collaboration with local governments have resulted in more rapid response and aerial resource availability. Further advances with respect to disaster risk reduction have also been realized through the continued alien clearing and other land management activities carried out by the expanded public works programme Working on Fire. DEA reports that central government funding to the Working on Fire program has remained relatively stable in recent years, despite cutbacks in other programs. There has also been an increase in the number of other partners utilizing the services of the Working on Fire teams.

The DEA and other agencies are developing project concepts and proposals, including an expression of interest to the Green Climate Fund, which include integrated wildland fire management, such as post fire restoration and using fire in land restoration. There is a strong climate change adaptation dimension to these proposed natural resource management initiatives, building resilience and response capacities with respect to droughts, fires and floods.

Conclusions and Ratings reported in the December 2016 TE report

**Adaptation Benefits Generated**

The project was successful in generating several climate change adaptation benefits, including the following, listed in order of significance:

**Strengthened IFM capacities reduces ecosystem stress across the fynbos biome**

Consolidation of fire protection associations (FPAs) within the fynbos biome has resulted in increased membership and increased the domain under enhanced management, thus reducing ecosystem stress on more than 4 million ha of the fynbos biome. The current six (6) main FPAs in the region, including 5 in the Western Cape (Greater Cederberg, Southern Cape, Greater Overberg, Winelands, and Cape Peninsula) and 1 in the Eastern Cape (Sarah Baartman West) are more efficient associations, with dedicated management staff. Integrated fire management (IFM) capacities have been strengthened through delivery professional training to a substantive number of FPA stakeholders; development of extensive communication materials, including websites and printed FPA toolkits and other knowledge products; and improvements to information management and communication systems.

**Improved early warning systems strengthens resilience to the impacts of climate change**

The early warning systems available to FPAs within the Fynbos biome have been substantively strengthened, enabling these associations to deliver higher quality services to their members and to better protect against spread of fire to at-risk communities and ecosystems. Each of the 6 main FPAs within the Fynbos biome has received AFIS terminals, and fire danger reporting tools have been further developed. The project also procured 33 new automatic weather stations and arranged the installation of them at strategic locations where there were gaps in coverage, including high altitude environments and other areas.

**Reduced vulnerabilities of rural and urban populations**

The increased capacity in assessing fire risks, both in terms of economic loss and loss of life, along the wildland urban interface further contributes to reduction of vulnerabilities of rural and urban populations, by providing municipal planners and developers with practical guidance on avoiding wildland fire risks. Introducing the FireWise community concept to four settlements within the Fynbos biome, including Sir Lowry’s Pass Village in Helderberg Municipality, Goedverwacht in Bergriver Municipality, Kranshoek in Bitou Municipality, and Clarkson in Koukamma Municipality, has increased awareness and hands-on participation
in fire risk reduction activities, therefore reducing the vulnerabilities of these communities, having a cumulative 5,346 households and 18,597 inhabitants. Leveraging off these successful interactions, a micro-insurance scheme under development in cooperation with the Santam insurance company is planned to be rolled out first in these communities and eventually extended to other FireWise communities supported by Kishugu NPC – representing nearly 70,000 people.

**Expanded knowledge base enhances the enabling capacity of the scientific community**

As climate change resilience is also contingent on the capacity assess and develop response strategies to various scenarios, the project resources also supported achievement of a better understand the fire ecology and climate science within the fynbos biome.

**Broadened dialogue across sectors facilitates a collaborative adaptation strategy**

Integrated fire management requires more inclusive collaboration than in traditional reactive fire-fighting approaches, and the project has instituted broader dialogue across sectors that provide the foundation for continued climate change adaptation efforts beyond the lifespan of the project. The expanded FPAs include more diverse members, with increased participation of the private sector. The umbrella FPAs have also been strengthened as potential advocacy platforms for affecting more substantive inter-governmental cooperation, e.g., between the Working on Fire and Working for Water expanded public works programmes, and also lobbying for the Department of Agriculture, Forestry and Fisheries (DAFF) to allocate more resources towards the operation of FPAs.

**Summary of Conclusions (reported in the December 2016 TE report)**

Under an innovative design, aimed at strengthening climate change adaptive capacity through improved integrated fire management within the fynbos biome situated in the southern reaches of South Africa, the project has managed to satisfactorily achieve most of intended outcomes. One of the key achievements of the project was supporting the process of consolidating the domains of the fire protection associations (FPA) operating with the Fynbos biome according to municipal administrative boundaries.

The FPAs within the fynbos biome are also now more capacitated with early warning systems. Six (6) FPAs were provided with AFIS terminals, providing them with much more current and relevant fire danger early warnings and reporting services. There have been substantive information technology developments over the course of the project. For example, reliability of internet is much higher now than when the project was designed back in 2010, and in most cases available throughout the Fynbos biome. This has rendered the need for AFIS terminals mostly redundant. FPAs and other users have more flexibility accessing the web-based AFIS services, which require lower IT skills and essentially removes the concern of updating or refreshing the systems. The quality of the information provided on the AFIS has also been improved through the installation of 33 new automatic weather stations at strategic areas were selected where fire risks were high and automatic weather reporting was limited. The also project made a substantive contribution in improving incident reporting, by developing an online based reporting tool.

FPAs within the fynbos biome and throughout South Africa have struggled to reach sustainable financing operation since the concept of FPAs was introduced in the National Veld and Forest Fire Act passed in 1998. The contribution of the project was a demonstration of how a more capacitated FPA stands a higher likelihood to be financially sustainable. For instance, full-time salaried extension officers have provided an increased level of service to members and help facilitate more proactive membership. Strengthened Umbrella FPAs also enhance their ability to advocate for change. The Western Cape FPA, for example has recently been able to negotiate membership agreements with several key parastatals, including Eskom, the electrical utility company and Sanral, the national road agency.

Expanding the domains of the FPAs has not come without challenges. Land use within the larger, consolidated FPAs is diverse, ranging from farmland, estates, forest plantations, rural and urban communities, and nature reserves. Expanding the domains of the FPAs to more or less match district boundaries makes sense in terms of improving synergies with municipal level service providers and planners, but it also brings together members having vastly different risks with respect to wildfires. In the NVFF Act of 1998, the concept of voluntary FPAs was intended for land users having common fire risks. Management of
the now larger, more diverse FPAs requires an expanded skill set compared to the smaller, mostly voluntary associations earlier. Consolidation of FPAs, creation of new FPAs, and efforts to strengthen umbrella FPAs have also revealed certain governance issues that might have been taken for granted when there was a smaller group of participating stakeholders. Expanded stakeholder involvement has come with more demands on governance structures.

There were certain departures to some of the envisaged results outlined in the project document. Although the project succeeded in supporting improved fire risk assessment methodologies, particularly along the wildland urban interface (WUI), integrating fire risk assessment criteria into municipal disaster management plans did not materialize as planned. Development of insurance-based incentives, together with the insurance industry, that encourage landowners to proactively implement measures to reduce climate change induced fire hazards was also not completed. The project did manage to foster a partnership with one of the two large local insurance companies, Santam, in developing an affordable home insurance product for low-middle income households, initially targeting the FireWise communities that the project sponsored. It took some time to develop this partnership, in fact near the end of the extended project’s timeframe, and there is consequently a degree of uncertainty on whether the insurance scheme be as successful as planned and whether the approximately USD 300,000 endowment trust fund resourced from the GEF implementation grant will be efficiently utilized over the short to medium term.

**Evaluation Ratings**

Evaluation ratings for the project, presented below in Table 2, remain unchanged from the assessment reported in the December 2016 TE report.

**Table 2: Evaluation ratings**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Monitoring and Evaluation (M&amp;E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M&amp;E Design at Entry</td>
<td>Satisfactory</td>
<td>The M&amp;E plan was reasonably well put together using the template for GEF-financed projects. PIR reports contained feedback from key stakeholders and provided detailed summaries of project performance. Constructive adjustments were made following recommendations made by the midterm review. The project board convened regularly, roughly quarterly, and provided constructive feedback to the project team. There were a few shortcomings with respect to monitoring and evaluation, starting with the lack of critically reviewing and adjusting certain performance indicators and targets. And, reporting did not sufficiently capture certain departures from project design, specifically with respect to municipal disaster management plans and insurance-based incentives for landowners.</td>
</tr>
<tr>
<td>M&amp;E Plan Implementation</td>
<td>Satisfactory</td>
<td></td>
</tr>
<tr>
<td>Overall Quality of M&amp;E</td>
<td>Satisfactory</td>
<td></td>
</tr>
<tr>
<td>2. Implementing Agency (IA) and Lead Implementing Partner (Executing Agency - EA) Execution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of IA (UNDP) Execution</td>
<td>Satisfactory</td>
<td>The UNDP-GEF regional technical specialist has been involved since the design phase and has provided regular support. Constructive support has also been delivered by the UNDP CO finance associate, and the UNDP CO country director has been personally involved in the project in recent years, participating in steering committee meetings and providing senior level guidance. Involvement by the UNDP CO in the early stages of the project, however, was limited, largely due to substantive institutional restructurings during 2012 and 2013. There was limited training on work planning, reporting, cofinancing tracking, and UNDP’s comparative advantage with respect to human development were not delivered to the project. Strong continuity of project steering committee members enhances overall IA-EA. The project director and staff of the project management unit were unchanged throughout. Reporting was timely, and funds were</td>
</tr>
<tr>
<td>Quality of EA Execution</td>
<td>Satisfactory</td>
<td></td>
</tr>
<tr>
<td>Overall IA-EA Execution</td>
<td>Satisfactory</td>
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</table>
managed prudently. There were shortcomings with respect to unclear division of responsibilities with respect to stakeholder involvement. As a non-profit company, Kishugu is not strategically positioned to advance policy discussions on behalf of DEA, for instance with the climate change adaptation planning stakeholders or with municipal disaster management agencies.

Working planning was generally weak, and there were shortfalls with respect to risk management, by not sufficiently addressing departures from project design in progress reports.

### 3. Assessment of Outcomes

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rating</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Overall Quality of Project Outcomes</td>
<td>Satisfactory</td>
<td>Under an innovative design, aimed at strengthening climate change adaptive capacity through improved integrated fire management within the fynbos biome situated in the southern reaches of South Africa, the project has managed to satisfactorily achieve most of intended outcomes. The micro-insurance scheme is behind schedule, and there were a couple of departures from the project design, including not integrating fire risk criteria into municipal disaster management plans and not developing an &quot;incentives toolbox&quot;.</td>
</tr>
<tr>
<td>Relevance</td>
<td>Relevant</td>
<td>The project is relevant across several criteria, including with respect to national and provincial strategies, GEF SCCF strategic objectives, and priorities of the UNDP CO. Project objectives are closely aligned with the priorities in South Africa’s <em>Initial National Communication</em> (INC) to the UNFCCC The project was relevant with respect to the National Framework for Sustainable Development 2008 and the National Biodiversity Strategy and Action Plan (NBSAP). The project was consistent with Objective B of the 2007-2010 Country Programme &quot;Promoting Equitable Growth, Poverty Reduction and Sustainable Development&quot;, and also according to the outcome “Increase in the number of sustainable ‘green jobs’ created in the economy; stabilization and reduction of carbon emissions and climate change mitigation and adaptation strategies fully operational” of the 2013-2017 Country Programme.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Satisfactory</td>
<td>Outcome 1: Capacity built at local level to manage increased incidence and extent of fires Highly Satisfactory</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Satisfactory</td>
<td>The GEF funding addressed most of the key barriers that were constraining adoption of a more integrated fire management strategy within the fynbos biome. The project has managed to satisfactorily achieve most of intended outcomes within the allocated budget. Local capacity was efficiently utilized and strengthened in implementation of the project. And, cofinancing contributions committed at project entry were realized. The project timeframe ended up being nearly 2 years longer than the originally planned 3-year duration; this required frequent reassessment on how to allocate available resources which diminished project</td>
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### 4. Sustainability

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Likelihood of Risks to Sustainability</td>
<td>Moderately Likely</td>
<td>Consolidated FPAs according to municipal administrative boundaries improves efficiency and compliance of integrated fire management services. Expanded and more efficient early warning system reduces the likelihood of the occurrence of damaging wildland fires. Strengthened capacities of FPAs and increased membership contribute towards sustainable financing of FPAs. And, consistent Governmental budget allocations for Working on Fire and Working for Water expanded public works programmes enhances the likelihood of project sustainability.</td>
</tr>
<tr>
<td>Financial Risks</td>
<td>Moderately Likely</td>
<td>FPAs within the fynbos biome are now more financially viable; however, there remain challenges in reaching financial sustainability. Over the short to medium term this situation seems likely to continue, before alternate financing options are implemented, and/or additional Governmental support is made available.</td>
</tr>
<tr>
<td>Socio-Economic Risks</td>
<td>Likely</td>
<td>There are governance challenges over the short term. Consolidating FPAs has brought together landowners/users having different fire risk concerns. There are uncertainties regarding the micro-insurance scheme, which had not yet been fully established or rolled out by the time of the terminal evaluation. And, continued development pressure, particularly along the wildland urban interface, further reduces the likelihood for sustaining results.</td>
</tr>
<tr>
<td>Institutional Framework and Governance Risks</td>
<td>Likely</td>
<td>There are governance challenges over the short term. Consolidating FPAs has brought together landowners/users having different fire risk concerns. There are uncertainties regarding the micro-insurance scheme, which had not yet been fully established or rolled out by the time of the terminal evaluation. And, continued development pressure, particularly along the wildland urban interface, further reduces the likelihood for sustaining results.</td>
</tr>
<tr>
<td>Environmental Risks</td>
<td>Likely</td>
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### 5. Impact

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rating</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Environmental Status Improvement</td>
<td>Negligible</td>
<td>There has been insufficient time for verifiable improvements to ecological status to materialize.</td>
</tr>
<tr>
<td>Environmental Stress Reduction</td>
<td>Negligible</td>
<td>Improved fuel management is one of the main objectives promoted by FPAs that would reduce stress on ecological systems. There are limited monitoring data available to assess verifiable reductions.</td>
</tr>
<tr>
<td>Progress towards stress/status change</td>
<td>Significant</td>
<td>Strengthened FPAs increase the likelihood that IFM measures will be implemented across the Fynbos biome, covering more than 4 million ha. Improved early warning systems enable FPAs and municipal fire services to respond timelier, reducing the risk of spread of fire, and thus decreasing the likelihood of the occurrence of damaging fires. And, the enhanced knowledge base on fire ecology and climate science with the fynbos biome is a significant foundational achievement that will help guide scientists and planners in realizing sustainable development and sensible biodiversity conservation throughout the region.</td>
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</table>

### 6. Overall Project Results

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfactory</td>
<td>The project was successful in generating several climate change adaptation benefits, including:</td>
</tr>
<tr>
<td></td>
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<td>- Strengthened IFM capacities reduces ecosystem stress across the fynbos biome;</td>
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<tr>
<td></td>
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<td>- Improved early warning systems strengthens resilience to the impacts of climate change;</td>
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<td>- Reduced vulnerabilities of rural and urban populations;</td>
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<td>- Expanded knowledge base enhances the enabling capacity of the scientific community; and</td>
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<tr>
<td></td>
<td></td>
<td>- Broadened dialogue across sectors facilitates a collaborative adaptation strategy.</td>
</tr>
</tbody>
</table>
Recommendations

The recommendations included in the December 2016 TE report have been mostly addressed by the project team. The updated list of recommendations presented below in Table 3 is reflective of the conclusions of the supplemental TE.

### Table 3: Recommendations

<table>
<thead>
<tr>
<th>Actions to follow up or reinforce initial benefits from the project:</th>
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</table>
| **1.** Conclusion: The automatic weather stations procured by the project belong to the Climate System Analysis Group at the University of Cape Town. According to the online map ([http://www.wmon.co.za/webclient2/datasets/ff-stations/](http://www.wmon.co.za/webclient2/datasets/ff-stations/)), 12 of the 32 weather stations are fully operational and the remaining 20 have a range of issues, ranging from minor to completing not functioning.  
**Recommendation:** Prepare and advocate the implementation of a sustainability action plan for the long-term operation and maintenance of the automatic weather stations, in line with the National Framework for Climate Services for South Africa (NFCS-SA, August 2016), which aims to “integrate all the climate services entities that make up the Climate Services Information System (CSIS) infrastructure, so that they are seamlessly linked to each other for the CSIS to function effectively”. As part of the sustainability action plan, it would be sensible to assess whether some of the stations are required, in terms of coverage and costs for maintenance and operation. |
| **2.** Conclusion: The report summarizing the Firewise lessons learned workshop held in November 2017 provides a good record of the 3-day gathering but does not include a synopsis of the key lessons learned or recommendations for moving forward.  
**Recommendation:** Amend the November 2017 Firewise workshop report with a synopsis of the key lessons learned over the course of the Fynbos Fire project and recommendations for ensuring the achievements made are sustained moving forward. |
| **3.** Conclusion: The application for municipal infrastructure grants in the Knysna municipality, being facilitated through a project-supported consultancy, is expected to be submitted in July 2018, after closure of the project.  
**Recommendation:** Follow up on this process, by supervising the consultancy work and assisting in facilitation of the grant application(s) with the local municipality. It would also be advisable to summarize and disseminate the results achieved within the broader stakeholder community. |
| **4.** Conclusion: Stakeholder dialogue and trial implementation (for the Lumkani heat detectors) have been initiated for the insurance initiatives promoted under the expanded Output 3.3 activities, but the processes have not been advanced as far as envisaged in the agreed project extension work plan.  
**Recommendation:** Follow up on the three insurance initiatives that have been promoted, including: (1) establishment a national resilience fund, (2) reducing community vulnerabilities through providing local early warning and insurance coverage and (3) reducing community vulnerabilities through providing group insurance coverage against risks associated with wildfires and other disasters. |

### Proposals for future directions underlining main objectives:

<table>
<thead>
<tr>
<th>Proposals for future directions underlining main objectives:</th>
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</table>
| **5.** Ecosystem-based adaptation (EbA) might represent a feasible approach for linking wildfire-associated disaster risk reduction with biodiversity conservation, consistent with the national objectives outlined in the 2016-2021 Strategic Framework and Overarching Implementation Plan for Ecosystem-based Adaption (EbA) in South Africa (DEA and SANBI), and the October 2017 draft version of the National Climate Change Adaptation Strategy, which includes the following: “Forestry: Define Flagship Projects to address key vulnerabilities through the scaling-up of Working on Forests and Working on Fire. Develop Disaster Risk Reduction Strategy and Instruments for the forestry in 2020. Develop an early warning system for the forestry sector, including incidence of fire. Adoption of EbA approached to landscape management”.  
Involving the Firewise communities and FPAs in the design of EbA interventions, across landscape-level scales, could provide an alternative entry point for donor involvement and funding support. |
| **6.** The likelihood of securing additional funding for integrated fire management would be enhanced if a multifocal approach is considered. For example, linking IFM with sustainable land management, climate change adaptation, water security and food security might be a feasible nexus to pursue. |
| **7.** Leveraging off the unique biodiversity values among the fynbos biome, project results could be built upon by developing and demonstrating a payment for ecosystem services (PES) scheme that incentivizes landowners to implement sustainable adaptation measures. |
Abbreviations and Acronyms

AFIS Advanced Fire Information System
AWS Automated Weather Station
CBD Convention on Biological Diversity
CDR Combined Delivery Report (UNDP)
CO (UNDP) Country Office
CoGTA Department of Cooperative Governance and Traditional Affairs
CSIR Council for Scientific and Industrial Research
DAFF Department of Agriculture, Fisheries and Forestry
DEA Department of Environmental Affairs
EbA Ecosystem-based Adaptation
FDCC Fire Dispatch and Coordination Centre
FDI Fire Danger Index
FDRS Fire Danger Rating System
FPA Fire Protection Association
GEF Global Environment Facility
IAS Invasive Alien Species
IDP Integrated Development Plan
IFM Integrated Fire Management
INC Initial National Communication
M&E Monitoring and Evaluation
MDG Millennium Development Goal
MiG Municipal Infrastructure Grant
NDMC National Disaster Management Centre
NIM National Implementation Modality
NGO Non-Governmental organization
NPC Not for Profit Company
NVFF Act National Veld and Forest Fire Act
NVIS National Veldfire Information System
PDMC Provincial Disaster Management Centre
PIR Project Implementation Report
PPG Project Preparation Grant (GEF)
PSC Project Steering Committee
RTA Regional Technical Advisor (UNDP-GEF)
SAIA South African Insurance Association
SANBI South African National Biodiversity Institute
SANDF South African National Defense Force
SANParks South African National Parks
SARVM South Africa Risk and Vulnerability Mapping
SASRIA South African Special Risk Insurance Association
SAWS South African Weather Service
SBAA Standard Basic Assistance Agreement
SCCF Special Climate Change Fund
SCFPA Southern Cape Fire Protection Association
SDF Spatial Development Framework
SNC Second National Communication
UFPA Umbrella Fire Protection Association
UNDP United Nations Development Programme
UNEG United Nations Evaluation Group
1 Introduction

1.1 Objective of the Supplemental Terminal Evaluation

The objective of the supplemental evaluation was to compliment the terminal evaluation of the project completed in 2016, reflecting the additional activities completed during the approved third extension period that ran through the end of April 2018.

1.2 Methodology and Scope

The methodology of supplemental evaluation follows the relevant guidelines outlined in the following guidance documents:

- Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects, Approved by the GEF IEO Director on 11th of April 2017
- UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects, 2012

The supplemental TE was an evidence-based assessment, relying on review of available documents (see Annex 1) on feedback from persons who have been involved in the design, implementation, and supervision of the project (see Annex 2). Evaluation of the performance metrics established for agreed activities carried out during the extension period is summarized in matrix presented in Annex 3, and the updated assessment of attainment of the project objective and outcomes is compiled in Annex 4.

The evaluation was conducted in accordance with the UNEG Ethical Guidelines for Evaluators, and the evaluator has signed the Evaluation Consultant Code of Conduct Agreement form (Annex 5). The evaluator ensures the anonymity and confidentiality of individuals who were interviewed and surveyed. In respect to the UN Declaration of Human Rights, results are presented in a manner that clearly respects stakeholders’ dignity and self-worth.

The supplemental TE followed the terms of reference (Annex 6) issued by the UNDP Country Office. The main limitation with the evaluation was the lack of field visits; however, the evaluator also completed the original TE in 2016 and is familiar with the project sites visited at that time.

2 Project Description

2.1 Background

Three of South Africa’s seven biomes are not only fire-prone, but also fire-dependent, in the sense that fire exclusion leads to structural transformation and major biodiversity change. One of these biomes - the Fynbos biome, covering an area of 56,193 km² (approx. 4.4% of the surface area of South Africa) and traversing the Western Cape Province and western parts of the Eastern Cape Province (see Figure 1).

The Fynbos biome was identified in South Africa’s Initial National Communication in 2003 as one of the most vulnerable regions in the country with respect to disaster risks from wildland fire due to patterns of urbanization, agriculture, and potential impacts upon water catchment areas. These risks were verified in a 2010 nationwide veldfire risk assessment.

While wildland fires are a natural feature of fire-driven ecosystems in the country, changes in climate are having adverse effects through altering the future occurrence of wildland fires, and the area burned, in various ways that involve weather conditions conducive to combustion, fuels to burn and ignition agents. The wildland fire situation had worsened significantly across South Africa during the years before the project was developed. There had been major and catastrophic fires in many areas. Land use patterns were also changing rapidly under the influence of diverse factors, including the expansion of towns and cities, causing an expanding wildland urban interface (WUI), and exposing more assets to the hazard of wildland fires.
South Africa has several highly competent fire management resources and systems, but a shift towards more integrated fire management was considered as a requirement to effectively address the risks associated with climate change. Certain barriers were identified at project entry as hindering the adoption of integrated fire management approaches.

**Barrier 1: Low institutional and individual capacities in FPAs to effectively coordinate the implementation of IFM**

While fire protection associations (FPAs) were considered an appropriate institutional arrangement for coordinating the implementation of integrated fire management by the responsible institutions and landowners, getting these FPAs functional and fully resourced was a major challenge across the Fynbos biome.

**Barrier 2: Insufficient information and tools to guide adaptive management responses to the increased incidence of wildland fires**

South Africa’s information systems for the reporting of wildland fires - in particular, the National Veldfire Information System (NVIS) - was not yet operating, despite it being prescribed in the National Veld and Forest Fire Act (NVFF Act) of 1998. Generally, wildland fire statistics were incomplete and unreliable, with the result that it was still not known what the total value of damage to property or lives lost.

**Barrier 3: Inadequate risk management responses to climate-induced vulnerability to wildland fires**

A rigorous, reliable and harmonized Fire Danger Rating System (FDRS) had not been formally adopted since proclamation of such a system in the NVFF Act of 1998. Many FPAs were using the South African Weather Service (SAWS) fire danger warning system and the WoF FDIs for the region as a guide, based on data generated from local weather stations and local knowledge. However, there were a number of weaknesses to achieving this, including *inter alia*: (i) the number and distribution of local weather stations in FPAs was insufficient to prepare reliable local FDIs; (ii) the FPAs often did not have the technology (i.e. software, computers, routers, etc.) available to collate the local weather station data, and develop these FDIs; and (iii) the FPAs often did not have the infrastructure, staff or technology to distribute these FDIs to members (e.g.,

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via cellphone SMS distribution). Further, several FPAs lack access to the use of Fire Dispatch and Coordination Centers (FDCCs) to facilitate the daily distribution of FDIs to FPA members.

While South Africa completed a National Veldfire Risk Assessment in March 2010, it made no provision for the projected impacts of climate-change under different scenarios. Similarly, within the Fynbos biome there were no regional (provincial) and local (municipal or FPA) wildland fire risk assessments that integrated climate change effects into the: (i) analysis of potential hazards and/or threats; (ii) assessment of the conditions of vulnerability that increase the chance of loss for particular elements-at-risk (that is, environmental, human, infrastructural, agricultural, economic and other elements that are exposed to a hazard, and are at risk of loss); (iii) determination of the level of risk for different situations and conditions; and (iv) defining priorities for action. And, there was no consistent method for mainstreaming climate-induced wildland fire risk into provincial and municipal development planning. Most municipal Integrated development plans (IDPs) and disaster management plans did not adequately provide for an integrated fire management approach in the proactive management of the risk of climate-induced wildland fires in the WUI.

**Barrier 4: Lack of incentives for private landowners to participate in FPAs, and adopt more proactive fire management measures**

Many private landowners in the Fynbos biome were not members of FPAs (only public institutions are required by the NVFF Act to be members of FPA) and had limited knowledge of their legal responsibilities in terms of the NVFF Act. For example, landowners often did not take account of the daily fire danger status\(^2\) - occasionally even ignoring burning prohibition notices issued by DAFF for certain areas on ‘red’ or ‘orange’ days – resulting in outbreaks of wildland fires under extreme weather conditions. While some FPAs (e.g., Southern Cape, Cederberg) were attempting to incentivize landowners to become members of FPAs by pooling fire management resources, rationalizing the network of fire breaks and providing access to firefighting services this initiative was still in its infancy stages, and the suite of available incentives to sustain involvement of landowners in FPAs are still limited.

While the NVFF Act stipulates that all landowners on whose land a wildland fire may occur or spread must make firebreaks, an FPA has the right to decide whether firebreaks are appropriate and feasible in their area. This constitutes an important incentive for landowners to become members of an FPA, as the establishment and maintenance of property boundary firebreaks is costly, onerous and potentially damaging (e.g., in cases of steep erodible slopes). However, the decision to exempt any landowner or group of owners from the duty of making firebreaks is subject to an application by an FPA to the Minister. At the time of project development, while applications had been submitted, no exemptions had been granted. The implication of this is that some insurance companies were refusing to pay landowner claims for wildland fire damages where they had not prepared fire breaks, despite being part of a registered FPA with a rationalized network of fire breaks. Insurance companies in South Africa have a range of different wildland fire insurance approaches and policies, but most companies had yet to assess the future impacts of climate-change induced wildland fire hazards on the insurance industry and introduce incentive measures to encourage landowners to more proactively adapt to the increased risk of wildland fires.

### 2.2 Project Start and Duration

Key project dates are listed below:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation Grant Approved</td>
<td>28 May 2009</td>
</tr>
<tr>
<td>Project approved for implementation by GEF Secretariat</td>
<td>02 November 2011</td>
</tr>
<tr>
<td>Project start (project document signed by Government of South Africa)</td>
<td>13 April 2012</td>
</tr>
<tr>
<td>Project inception workshop</td>
<td>June 2012</td>
</tr>
</tbody>
</table>

\(^2\) The South African Weather Service (SAWS) currently issues a daily fire danger forecast.
The project was conceptualized in 2007, shortly after the formation of the Special Climate Change Fund (SCCF) in that year. The concept went through several iterations until it was approved by the GEF Secretariat in May 2009 and funds provided for the project preparation grant (PPG) phase. The project document was approved by the GEF Secretariat in November 2011, and the document was signed by the Government of South Africa on 13 April 2012, considered the official start date. The project team was assembled shortly thereafter, and the inception workshop held in June 2012. The midterm review as made in March 2014, about 2 years after start of project implementation.

In early 2015, efficiency gains were realized because of the steep devaluation of the South African rand (ZAR) against the United States dollar (USD); in other words, with most costs incurred in ZAR and prices not keeping pace with the devaluation of the currency, the available GEF funds, disbursed in USD, supported an effective increase in ZAR-financed activities. The project board agreed to extend the project by an additional 9 months from 13 April 2015 until 13 January 2016, with the condition of adding complementary activities, including enhancing advocacy for policy reform and expediting the household insurance scheme envisaged for FireWise communities. There were still funds available at the end of 2015, progress on the FireWise insurance scheme was behind schedule, and the terminal evaluation (TE) had not yet been procured. The project steering committee recommended extending the project a second time until the end 2016, to allow time for the TE, development of the micro-insurance scheme, and formulation of a sustainability strategy prior to closure. The TE mission was made in October 2016 and the final version of the TE report dated 28 December 2016; the operational closing date for the second no-cost extension was 31 January 2017.

Prior to closing the project in January 2017, the members of the board decided that the money earmarked for the wildfire and disaster endowment fund should not remain in the dedicated bank account of the implementing partner, as operational details of the fund and the viability of the community insurance scheme were uncertain at that time. After deliberations, a decision was reached to grant a third and final no-cost extension, running until 30 April 2018. The scope of work for the final extension period was approved in October 2017 and the funds disbursed to the implementing partner, Landworks NPC on 9 November. The supplemental TE was carried out in May 2018.

### 2.3 Scope of Work during the Extension Period

The approved scope of work for the extension period included additional activities under two of the outputs, one under Component 2 (Output 2.6) and one under Component 3 (Output 3.3), as described below.

**Output 2.6: Wildland fire hazard assessments of ‘communities at risk’ in WUI undertaken, and risk management measures developed**

The additional activities under Output 2.6 included:

**Further enhancing the resilience to climate change-induced fire across all target sites supported by the project for bigger impact and better sustainability:**

Extending support to the 5 GEF sites with further “Firewising” activities, including unfunded activities that were previously not possible. Communities were unable to reach many of their objectives because of a lack of resources. They operated to the best of their abilities with what they had. The focus was on sustainability and ensuring that the Firewise communities established with this project are left with resources and sufficient stakeholder engagement in place to continue their work. An important element of the work was to ensure stakeholders give input and continue their support to these communities.
Continue with the management and maintenance of the GEF project communities and extend support to further Firewise those communities. Engage with the MiG process and the community insurance group contract under Output 3.3. Activities to be implemented and resources, include: alien clearing around the peripheries of the communities, extension teams to burn fire breaks between homes and overgrown vegetation, personal protective clothing for safer working conditions, appropriate tools for work activities, repair of neglected hydrants, strategic water tanks, meteorological data for risk assessments. The process includes (i) stakeholder workshops for input and to strengthen partnerships, (ii) Firewise Open Days to which media, stakeholders and locals are invited to showcase the work the team has been doing and the upcoming fire season, and (iii) procuring and mobilizing relevant works teams.

The following performance metrics were established:

1. Needs and gaps identification to further 'Firewise' the target communities updated Fire Management Plans
2. XX ha of land cleared of excess fuel loads around the peripheries of the communities through clearing of alien species and overgrown vegetation and control burns
3. Firewise Open Day events held to showcase the Firewise efforts done by the project target beneficiaries

Exploring possibilities to fireproof (or 'Firewise') key community capital assets to strengthen preparedness and resilience to climate change-induced fires of local municipalities by accessing existing/emerging funding scheme (e.g. the Municipal Infrastructure Grants (MiG), the Garden Route Rebuild Initiative):

Work with the Department of Cooperative Governance and Traditional Affairs (CoGTA) and the National Disaster Management Centre (NDMC), Eden/Sarah Baartman and locals to develop MiG grant proposals that seek to undertake proactive "maintenance of public infrastructure" in fire prone landscapes. MiG submissions are now possible for "infrastructure maintenance" thus this is at least a possibility, given strong political support and well-presented business cases.

Products minimum of two proposals ready for submission by the local authorities, endorsed by district municipality functions, and NDMC, and CoGTA MiG unit.

Activate the potential of the MiG to Firewise important public infrastructure (such as schools, community halls, clinics, police stations, bulk infrastructure including roads etc.) in high fire risk zones, from wildfire. Excellent conceptual work and advice was provided in 2000 already (City of Cape Town wildfires), and there was a good opportunity to co-develop proposals with local, district, provincial and national disaster management support. The process includes the following: (i) identifying which of the four focal local authorities across the two district municipalities will be best placed to support the project (likely Bitou-Eden and Goukamma-Sarah Baartman, where Kranshoek and Clarkson are both located), (ii) undertaking a participatory process to co-design proposals which will be (iii) tabled with the relevant local authority and districts for endorsement by 15 December. These submissions are assets which can be reformulated for other funders and stakeholder communities, such as the Garden Route Rebuild initiative, which is a target recipient for the grant applications.

The following performance metrics were established:

1. Minimum of 2 proposals submitted from local authorities to access municipal infrastructure grants, with required letters of endorsement from municipalities by March 2018

Enhancing community preparedness and resilience to climate change-induced fire through the knowledge exchange and awareness raising workshop on the Firewise Communities:

Organize a 3-day workshop for approximately 70 representatives from FireWise communities from around the country to share lessons learnt and to showcase FireWise benefits. Invite 10 FPA and UFPA staff, relevant fire chiefs and representatives from UNDP, Department of Environmental Affairs (DEA), Department of Agriculture, Forestry and Fisheries (DAFF), Provincial Disaster Management Centre (PDMC), NDMC, etc., to the showcase part of the event. Agreed deliverables included a written report on lessons learned, advice and
recommendations on improving the Firewise model and penetration into other semi-voluntary and wage-incentive communities, scaling within South Africa and elsewhere, and options and ideas for individual and group disaster (wildfire) insurance.

The key actions include (i) organize and plan event, (ii) prepare community members for what is needed with respect to workshop, (iii) liaise with media and government representatives, (iv) collate FireWise data and statistics for presentation and documentation purposes. Planned outcomes and deliverables included high quality video clips, e-news clips and stories, case studies, a "Lessons Learned" report for use for potential further funding proposals.

The following performance metrics were established:

1. A 3-day workshop successfully completed for knowledge exchange and sensitization.
2. 70 representatives from the FireWise Community equipped with better knowledge and information on climate change-induced fire, preparedness, and resilience building.
3. A report presenting lessons learned, advice and recommendations on improving the FireWise model, the FireWise benefits, and relevant data and statistics.
4. Advocacy and communication materials, including 1 high quality video clip, e-news clips,
5. 10 representatives from FPAs, UFPAs, and relevant national government departments (DEA, DAFF, PDMC, NDMC, etc.) sensitized fully on the FireWise benefits on communities and on the IFM efforts in general.
6. UNDP and GEF SCCF’s support to build resilience among communities to climate change-induced fire fully recognized by the workshop participants.

**Output 3.3: Fire and insurance scheme developed**

The additional activities under Output 3.3 included:

**Building a solid foundation for the Establishment of a Wildfire and Disaster Fund within the government:**

Guided by DEA, facilitate meetings with key stakeholder representatives to gather critical inputs and concerns, followed by a single facilitated workshop with legal / technical representatives from key departments and external technical experts, to produce a draft recommendation placed before relevant departments, e.g., South African Special Risk Insurance Association (SASRIA), South African Insurance Association (SAIA), DEA, DAFF, CoGTA, National Treasury, for their approval by 15 March 2018.

The following performance metrics were established:

1. Records of discussions from inter-departmental meetings and workshops facilitated by the project on the establishment of the fund.
2. Recommendations and Letters of Support (co-)signed by Departments engaged in discussions for submission to senior management for their consideration and decisions.

**Piloting an innovative community insurance package with the Firewise communities to test its effectiveness to reduce risks from wildfire for the public at large:**

Engage with SAIA, SANTAM, Munich RE and others on underwriting such a contract (in principle approval received from SANTAM and SAIA, seeking detailed confirmation now), providing appropriate data to a chosen underwriter for selected FireWise community/ies to underwrite such a product, and presenting and workshopping this proposal with selected community/ies, before adopting such an insurance policy and making premium payment for one fire season. For the pilot, 2000 households were envisaged, for 6 months of coverage at ZAR 50 (USD 4) per household per month. Community support for this initiative was anticipated based on long standing support for any affordable opportunity to access appropriate insurance, and formal endorsements had been sought and were expected over the short-term.

The following performance metrics were established:
1. 2,000 households in 3 selected Firewise Communities benefited from the group insurance cover for 6 months of trial period.

2. A case-study report, based on the pilot group insurance coverage, describing the details of the insurance features, its benefits (to the communities, to the insurance sector, and to the public at large), its cost effectiveness.

3. Knowledge products presenting research and analysis findings, which describes the outcomes of work to date on micro-insurance in South Africa, case studies of successes and failures, analysis of the South African situation relative to other developments elsewhere in Africa (for example, "WiBi" Weather Index Based Insurance), and recommendations on the path forward for appropriate product opportunities and partnerships that reinforce social learning, social capital, and adaptation to climate change. This knowledge asset was envisaged to be a public asset for use by government and the private sector and used by the Firewise programme in all future work related to the insurance sector engagement.

3  Assessment of Achievements made during Extension Period

3.1 Output 2.6: Wildland fire hazard assessments of ‘communities at risk’ in WUI undertaken, and risk management measures developed

Achievement of the Output 2.6 targets: satisfactory

The achievements realized through the additional activities under Output 2.6 were primarily associated with the four Firewise communities that were supported by the project through a wage incentive modality.

Further enhancing the resilience to climate change-induced fire across all target sites supported by the project for bigger impact and better sustainability:

Gap analyses and updated veld and fire risk hazard assessments were completed for the four project-supported Firewise communities (Clarkson, Goedverwacht, Kranshoek and Sir Lowry’s Pass Village – see Figure 2). This information was incorporated into renewed fire management plans for each community.

![Figure 2. Map showing locations of the four project Firewise communities](image-url)
The fire management plans, each dated 20 February 2018 (the cover page for the Clarkson plan is shown below in Figure 3). The level of detail of the plans is commensurate with the community-led management modality promoted through the Firewise approach. The activities listed in the plans range from long term, medium term and short term; however, most of the activities were planned over a one- to six-month timeframe. For the Kranshoek community, the timing of the activities pre-date the issuance of the management plan.

![Figure 3. Cover page of updated fire management plan for the Clarkson FireWise community](image)

Project funds were also used to purchase personal protective equipment (PPE) for the four Firewise communities, and trainings on basic fire-fighting and herbicide application was delivered to Firewise community members.

The project also facilitated and promoted clearing of invasive alien vegetation species in the four Firewise communities. Cooperating with Working on Fire teams, other contractors and community members, a cumulative total of 42 hectares (ha) were cleared: 13 ha in Clarkson, 8 ha in Goedverwacht, 10 ha in Kranshoek and 11 ha in Sir Lowry’s Pass Village.

Firewise open day events were held in the four communities to showcase the advances achieved over the course of the GEF-financed project.
Exploring possibilities to fireproof (or ‘Firewise’) key community capital assets to strengthen preparedness and resilience to climate change-induced fires of local municipalities by accessing existing/emerging funding scheme (e.g. the Municipal Infrastructure Grants, the Garden Route Rebuild Initiative):

With respect to facilitating Firewise communities access governmental funding programs, the project developed a terms-of-reference for a consultant to assess infrastructure (two community halls) in the Knysna local municipality and develop a municipal infrastructure grant (MiG) proposal. The project team reported that the MiG proposals are expected to be submitted by the end of July 2018. There is a need to follow-up on this process after project closure.

Enhancing community preparedness and resilience to climate change-induced fire through the knowledge exchange and awareness raising workshop on the Firewise Communities:

The project supported a 3-day Firewise workshop during 21-23 November 2017, in which 77 people attended, including 68 from 14 Firewise communities, 10 of which were Firewise community works program settlements and 4 were the ones supported from the GEF-financed project. The community works program and the approach implemented for the 4 GEF project communities both involved paying committee members a part-time wage, or stipend. The participants to the workshop did not include people from the volunteer Firewise communities. Based on information shared during the TE interviews, the wage incentive modality is a more viable approach for the context of the typical low-income community in South Africa.

The objectives of the workshop included sharing experiences and ideas, enhancing communication and knowledge exchange, and discussing lessons learned, and a record of the workshop was documented in a report, dated November 2017. The report provides a good account of the workshop discussions and feedback shared by the participants. The report also summarizes the results of two earlier workshops, one held in 2010 and a second one in 2012 – both predating the start of this project, which held the inception workshop in June 2012. The overall conclusions of the 2012 lessons learned workshop, as documented in the November 2017 report were as follows:

- **The benefits of the programme that were identified in the 2010 FireWise Lessons Learnt workshop were maintained in the second year of the programme. Further, the programme was consolidated in FireWise Communities, leading to more effective implementation and greater benefits;**
- **Programme benefits were enhanced by the “summer work” activities included in the programme, giving communities support to undertake local community development activities;**
- **Although social problems declined in the FireWise communities, some teams experienced labour relations and management problems; and**
- **The appointment of local project managers (site supervisors) was likely to resolve a number of issues raised by communities, particularly if they were provided with adequate training, resources and mentoring.**

The November 2017 lacks a similar synopsis of the lessons learned through the implementation of the GEF project; discussions from the involved communities and other stakeholders are recorded, but the report lacks conclusions and specific recommendations moving forward. The report closes with an indication that likelihood for further funding for the Firewise communities is not high due to government funding constraints.

The project also supported production of 4 videos, showcasing the Clarkson, Goedverwacht, Kranshoek and Sir Lowry’s Pass Village Firewise communities. The approximate 4-minute long videos are high quality and available on YouTube – with links provided on the project website: [http://fynbosfire.org.za/](http://fynbosfire.org.za/)

These videos provide interesting and firsthand accounts of the activities in these communities; a good practice example of producing and disseminating knowledge products. A 30 May 2018 screenshot of the video of the Goedverwacht community on YouTube is copied below in Figure 4; on that day, there had been 96 views of the video. Such real-time statistics provide an indication of how successful efforts are at promoting the video.
The Firewise videos were launched on 15 March 2018, as part of an event sponsored by the project that presented the results achieved through the project extension period. Over 60 representatives from government departments, FPAs, communities, and other stakeholders participated in the event, which included a presentation delivered by the Country Director of the UNDP South African country office that provided an overview of the UNDP-GEF project achievements; the transcript of the presentation is available on the following link:


A summary of the project was published on the UNDP South Africa website on 1 May 2018; available on the following link: https://undp-biodiversity.exposure.co/climate-change-fuels-fires

3.2 Output 3.3: Fire and insurance scheme developed

Achievement of the extended Output 3.3 targets: moderately satisfactory

The devasting Knysna wildfires in June 2017 prompted widespread dialogue, not only in the Cape region, but across the country on the need to strengthen disaster preparedness structures. The project activities during associated with fire and insurance schemes were, therefore, timely during the extension period.

Building a solid foundation for the Establishment of a Wildfire and Disaster Fund within the government:

One of the targets agreed upon under the extended implementation of the project was stakeholder commitment for a Wildfire and Disaster Fund in the form of recommendations and letters of support (co-) signed by engaged departments.

As of the end of May 2018, stakeholder consultations had been completed and a rough outline of the fund drafted, but conceptualization of the fund remains a work-in-progress, with recommendations slated to be presented September or October 2018, reportedly coinciding the release by the CSIR of a Green Book,
providing recommendations on adapting developing and developed urban areas in South Africa for projected climate change and its impact, to benefit vulnerable communities.3

Bringing multiple stakeholders together takes time, particularly when the process requires continued engagement. The Knysna Fires Learning Forum, convened by the insurance company Santam, is an important stakeholder platform for advancing dialogue associated with strengthening disaster management capacities and facilitating cross-sectoral collaboration. The first member workshop of the Knysna Fires Learning Forum took place over two separate days, on 20 March and 26 March 2018. Based on the workshop note, the March 2018 forum meetings were attended by representatives of the insurance sector, including Santam, Munich RE, Emerald Risk Transfer and the South African Insurance Association (SAIA); national and provincial government agencies, including the National Disaster Management Centre (NDMC), an entity of the Department of Cooperative Governance and Traditional Affairs (CoGTA), the Working on Fire expanded public works program, SANParks, an entity of the Department of Environmental Affairs (DEA), and the Western Cape Disaster Management Department; fire protection associations (FPAs), including Fire Protection Association of South Africa (FPASA), Winelands FPA, Greater Overberg FPA and Cape Peninsula FPA; academic and research institutional sector, including CSIR, CSIR Meraka Institute and the University of Stellenbosch; and consultants.

The March 2018 workshop note includes a discussion of the possible establishment of Special Purpose Vehicle (SPV), probably in the form of a non-for-profit company, for promoting institutional alignment, commission projects and specialist work from relevant entities within and outside the forum, raise funds from a variety of sources to support projects, help building capacity, promote innovations, conduct advocacy and provide a secretariat function to the forum. There is no explicit mention of the Wildfire and Disaster Fund in the March 2018 workshop note; the is timeline presented which calls for a “launch of final research results and recommendations” in October, but it is unclear if the recommendations include those associated with the fund.

An undated, draft outline4 of the “Rationale for the establishment of a Resilience Fund for South Africa (RFSA)” was provided to the evaluator for review. Project team members indicated that the document is being prepared jointly with representatives of Santam, NDMC and the project consultant. This draft version provides some background information on disaster management in South Africa, provides a few international examples, but only includes the section headings for the vision, objective, governance and institutional arrangements, strategic partnerships and funding arrangements. The document is not sufficiently developed for review.

3 The development of the Green Book is part of a three-year project commissioned by the Canadian International Research Centre (www.cisir.co.za)
4 Word document: Master outline of RFSA V2 (2)
Based on stakeholder feedback and interviews during the supplemental TE, probable contributions from government programs and from corporate social investments will likely be insufficient to provide sustained operation of the envisaged resilience fund. Participation by the donor community is anticipated, to help structure a sustainable framework for the fund and to provide marginal financing over the short- to medium-term, until the fund reaches a point of self-sufficiency.

Piloting an innovative community insurance package with the FireWise communities to test its effectiveness to reduce risks from wildfire for the public at large:

Project resources were also expended on funding activities that further advanced the development and promotion of fire insurance packages aimed at low income communities. The basic premise of providing affordable insurance opportunities to rural communities was the same as what was envisaged in the project design through establishment of an endowment fund. With the design to discontinue the process of the fund establishment, a different approach was taken, broadening stakeholder engagement among the insurance sector. Two separate schemes have been initiated: one with Lumkani, Hollard and Munich RE in the FireWise community of Goedverwacht, and the second with Santam in the FireWise community of Knysna, which happens to be situated in the Knysna District where the severe wildfires occurred in June 2017.

The scheme in Goedverwacht involves installation of Lumkani heat detectors in residential dwellings in the community. Each unit is supplied with ZAR 40,000 (approx. USD 3,100) of insurance that is underwritten by Hollard and Munich RE. The typical Lumkani unit is rented for ZAR 70 (USD 5.5) per month, of which ZAR 30 is insurance (Hollard) and the remaining ZAR 40 is for agent commission, maintenance and a premium to Lumkani. On 06 June 2018, thirty-nine (39) set of trial units were made in Goedverwacht (see photo documentation below in Figure 6).

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Figure 6: Photographs distribution and installation of Lumkani units on 06 June 2018

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Lumkani is a social enterprise launched in 2014 by students at the University of Cape Town who developed a heat detector device to decrease risks of fire in urban and rural informal settlements in South Africa. The device uses radio frequency to send text messages, alerting people in case of emergencies. Individual devices are connected to a central unit located in a community that uses GPS referenced coordinates to notify fire management bodies.
The trial in Goedverwacht is slated to run for one year, after which time lessons learned will be distilled and concepts developed for extending the program, including into the Southern Cape.

The second focus has been supporting Santam in developing basic community insurance from wildfire and other disasters, targeting the FireWise community of Kranshoek, situated in the Eden District Municipality in the Western Province, for trial implementation. Based on information provided by the project team in the 2016 TE, there are 1,142 households in Kranshoek, based on the 2011 census report issued by Stats South Africa in 2015.

Field consultations were made in Kranshoek earlier in 2018 with Santam officials and project consultants, to further explore opportunities. Santam plans on kicking off the program in July 2018 with a promotional campaign and then roll out the insurance policies in September or October and evaluating the lessons learned after at least the first fire season, which typically occurs in December-January in the Cape region. A group coverage scheme is planned for this program, something that has not be implemented before by Santam. The home and household policies that are available for low-income families are written as individual policies. Considering the uncertainties with implementing a group scheme, the company is planning on cooperating with reinsurance partners, and they envisage further expansion supported through the national resilience fund described earlier.

One of the commonalities between the Lumkani-Hollard-Munich RE and the Santam activities is selection of FireWise communities for rolling out the trial implementations. Promoting the increased level of preparedness of these communities is consistent with the risk management approach in the insurance sector in general and provides further incentives to other communities for adopting the FireWise approach.

Progress towards achievement of the targets set for this portion of Output 3.3 for the project extension period has been limited. One of the targets called for 2,000 households in 3 selected FireWise communities benefitting from group insurance cover for 6 months of trial period; at the time of submitting the supplemental TE report in June 2018, Lumkani heat detectors have been installed in 39 residential dwellings (on 6 June) and concepts for community coverage were under development for the Kranshoek village.

Preparation of the case study report and knowledge products on the findings and lessons learned from the community insurance activities is, consequently, delayed, as the activities are in the early phases of implementation. The project team has reported that these deliverables will partially be completed by mid-June and final versions issued in September 2018, when the CSIR Green Book is scheduled to be released. The June date is unrealistic, and the September timeframe is also questionable, allowing only 3 months for implementation and analysis of the community insurance trials, especially considering that the Santam supported coverage has not yet been fully conceptualized.

4 Financial Expenditures and Cofinancing

4.1 Financial Expenditures

The Fynbos Fire extension request (dated 13 October 2017) indicated a balance of remaining project funds, as of 13 September 2017, of USD 360,143. ZAR 4,590,000 (the equivalent of the balance of funds with the exchange rate applied) were disbursed to Landworks PLC on 9 November 2017 for the extension period.

GEF resources expended during the extension period were primarily associated with reallocation of money earmarked for the envisaged wildfire and disaster endowment fund. The 2017 combined delivery report shows USD 319,824.84 refunded from Atlas Code 72605 (Grants to Institutions and Other Beneficiaries).

Cumulative project expenditures through 28 May 2018 are USD 3,505,359, which is USD 31,041 less than the USD 3,536,400 GEF implementation grant (see Table 4).
4.2 Cofinancing

No changes in cofinancing were reported as part of the supplemental TE, as compared to the figures compiled in the 28 December 2016 original TE report.

At GEF CEO endorsement, cofinancing was confirmed from the UNDP, DEA, Western Cape DAFF, the Southern Cape and Greater Cederberg FPAs, and the FFA Group. The cumulative total of confirmed cofinancing based on the available cofinancing letters was USD 30.9401 million; which is consistent with the cofinancing amounts recorded in the approved CEO Endorsement Request.

Based on information documented in the December 2016 TE report, the total amount of cofinancing that materialized during project implementation was USD 25,299,825. Approximately 95% of that total was from the DEA, primarily representing the operational costs of the Working on Fire programme within the Fynbos biome region. Year on year, the budget allocations to the Working on Fire program in the Fynbos biome region steadily increased from ZAR 32,038,311 in fiscal year 2011/2012 to ZAR 51,300,000 in fiscal year 2016/2017; in USD terms, the annual budgets decreased over this same period, from USD 4,670,580 in 2011/2012 to USD 3,474,998 in 2016/2017. Even though the project ran for roughly 2 additional years, the amount of cofinancing in USD terms was lower than the confirmed amount.

UNDP cofinancing did not materialize as planned. The other cofinancing partners, including the Western Cape DAFF, Southern Cape and Greater Cederberg FPAs, and FFA Group (Kishugu Group - Landworks), confirmed that their pledged cofinancing sums were realized in full.

Two other sources of cofinancing were realized during project implementation. The Eastern Cape FPA indicated that they contributed USD 59,925 in-kind cofinancing, to cover the costs of their manager to participate in project steering committee meetings. An additional ZAR 1,000,000 (USD 72,789; at a ZAR:USD exchange rate of 13.7383, 31 Oct 2016) was contributed by the CSIR, through a parliamentary grant their research institution received to carry out extensive regional climate change projection experiments. The results of these projections were utilized by the CSIR colleagues who carried out demonstration climate change scenario analyses under contract by the project.

The breakdown of cofinancing materialized during project implementation is presented below in Table 5.

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**Table 4: Financial expenditures 2012-2018**

<table>
<thead>
<tr>
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<tr>
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<td>Total</td>
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<td>$1,104,382</td>
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Figures in USD; Source: Combined delivery reports (CDR), provided by UNDP

*2018 figures based on CDR reported 28 May 2018

<table>
<thead>
<tr>
<th>Total Expenditures</th>
<th>GEF Grant</th>
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<tbody>
<tr>
<td>$3,536,400</td>
<td>Surplus as of 28 May 2018: $31,041</td>
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Figures in USD; Source: Combined delivery reports (CDR), provided by UNDP

*2018 figures based on CDR reported 28 May 2018

**Surplus as of 28 May 2018:** $31,041
Table 5: Cofinancing summary

<table>
<thead>
<tr>
<th>Sources of Cofinancing</th>
<th>Name of Cofinancer</th>
<th>Type of Cofinancing</th>
<th>Cofinancing Amount (USD)</th>
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<td>Recipient Government</td>
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<td>510,000</td>
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<td>FFA Group (Landworks)</td>
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<td>CSIR Natural Resources &amp; the Environment Operating Unit</td>
<td>In-kind</td>
<td>72,800</td>
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<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>30,940,100</strong></td>
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</table>

*Based on information compiled in Dec 2016 TE report.

5 Progress towards Impact

5.1 Strengthened integrated fire management capacities

Over the approximate 1-1/2-year timeframe from the original TE, completed in December 2016, the participating fire protection associations (FPAs), shown below in Figure 7, have continued to expand their membership base and strengthen their capacities and services.

Figure 7: Map showing major FPAs within the Fynbos biome

In case of the Greater Overberg FPA, membership fees were increased in 2017 to achieve financial self-sustainability; the association gained 54 new members after the fee increase and now land coverage is about 60% across the Overberg District. The Cederberg FPA gained 27 new members, and land coverage currently stands at 1,071,181 ha. Membership to the Winelands FPA increased by 15% in the last year, and the association recently obtained Non-Profit Organization (NPO) status, enabling them to raise funding through corporate sponsors, etc. The Sarah Baartman West FPA is a newly established association and has started to get off the ground. There remain boundary issues between this FPA and the adjacent Southern Cape FPA. The Eastern Cape Umbrella FPA reportedly lost a major contract in the last year and is currently in a difficult financial position; steps are being implemented to overcome these financial challenges. The Western Cape
Umbrella FPA has reportedly made improvements to management and governance; one good sign is that the Greater Overberg FPA has re-joined the umbrella FPA after earlier deciding to discontinue their membership.

Although there is evidence of increased membership and progress towards financial sustainability, one of the main challenges facing the FPAs continues to be financial security. Discussions between the FPAs and DAFF continued over the course of the project; however, there has not been substantive progress made on the issue of DAFF providing more direct financial support to FPAs. Based on information shared by the DEA officials, the expanded public works program Working on Fire (WoF) provides considerable support to FPAs. WoF is a multi-departmental programme that includes DEA, DAFF, CoGTA and Water & Sanitation. 43% of the WoF teams are stationed with FPAs as base partners, meaning that effectively 43% of the WoF ground resources, or ZAR 587,923 million, does towards FPAs. Apart from these contributions, ZAR 6,512 million is earmarked for FPA management support and more than ZAR 19 million is allocated to FPAs that applied to the Natural Resource Management programmes for the Land User Incentives programme.

The FPAs have maintained the websites the project helped establish or strengthen, and in several cases the associations have taken steps to improve the sites and expand their social media activity. The Winelands FPA has significantly improved their website in the past year (a screenshot of the website is shown below in Figure 8, and recently introduced an online application system for burn permits in the district – reportedly, the first such online system in the Western Cape.

The Greater Cederberg also encourages their members to utilize the services available on their website, e.g., accessing forms, and they have increased their activity on Facebook. The Southern Cape FPA has also started a Facebook page, and has maintained their website as well (see Figure 9 below).
The Greater Overberg FPA has increased their internet, Facebook, Twitter and Instagram activity for sharing wildfire updates, awareness materials, warnings and recognition messages. The association is proactively evaluating website statistics and social media usage and producing informative reports. Excerpts from their April 2017 – February 2018 website and Facebook reports are copied below in Figure 10. Over this period, the Greater Overberg website had 3,165 visits, and Facebook followers totaled 5,935, with women comprising 64% of the total.

Based on feedback from some of the large landowners and managers in the Western Cape, the increased IFM capacities of the FPAs and improved collaboration with local governments have resulted in more rapid response and aerial resource availability. Further advances with respect to disaster risk reduction have also been realized through the continued alien clearing and other land management activities carried out by the expanded public works programme Working on Fire. DEA reports that central government funding to the Working on Fire program has remained relatively stable in recent years, despite cutbacks in other programs. There has also been an increase in the number of other partners utilizing the services of the Working on Fire teams.
The DEA and other agencies are developing project concepts and proposals, including an expression of interest to the Green Climate Fund, which include integrated wildland fire management, such as post fire restoration and using fire in land restoration. There is a strong climate change adaptation dimension to these proposed natural resource management initiatives, building resilience and response capacities with respect to droughts, fires and floods.

5.2 Reduced vulnerabilities of rural communities

Fire management capacities have been extensively tested throughout the project extension period, with the 2016/2017 fire season being one of the most active on record, as the Western Cape endured prolonged drought conditions. Rainfall in 2016/2017 was significantly below average, following two seasons of marginally normal precipitation (see Figure 11).

In June 2017, wildfires spread through Knysna and Plettenberg Bay, resulting in 7 fatalities, more than 1,000 houses destroyed, extensive infrastructure damage and forest and fynbos ecosystems burnt. An estimated 50% of the residential houses destroyed in the Knysna fire did not have insurance, and many of the landowners who did have insurance were underinsured.8

One of these communities, Kranshoek, is located within the area impacted by the Knysna fire in 2017, and fortunately there were no houses destroyed in this village; the aerial photograph below in Figure 12 shows fire-scarred areas surrounding the residential areas of Kranshoek. It is safe to conclude that this positive outcome for the Kranshoek community is, at least partly, attributable to the heightened level of preparedness facilitated through the Firewise approach.

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7 Department of Water and Sanitation (DWS) Rainfall Trend Data collated by the Water Research Commission (www.droughtsa.org.za)

Anecdotal evidence shared by Landworks PLC staff indicated that the incidence of fires in decreased by nearly 90% in the Goedverwacht community and by up to 60% in Sir Lowry’s Pass Village over the past 4 years. The updated veld and fire risk hazard assessments and subsequent fire management plans provide further guidance to the four Firewise communities over the short- to medium-term. There is a reasonable likelihood that fire management planning will continue beyond the closure of the project because of the strengthened capacities of the local Firewise committee members; however, these communities are transitioning into the volunteer modality and, understandably, sustainability has been an issue in some of the volunteer communities.

The wage incentive modality demonstrated through the project requires sustained funding streams, either through self-sustained means or from external sources. Constraints on government funding have diminished the prospects for expanding the Firewise program; however, Landworks PLC has reportedly secured a further 3-year contract to continue their Firewise work, including expanding with a new project area in Hogsback, located in the Eastern Cape. Landworks is also continuing south-south cooperation associated with implementing the Firewise program; for example, 13 voluntary Firewise communities and a Landworks foundation have been established in Chile. Discussions are ongoing with other countries.

The group insurance coverage under development by Santam is grounded on the Firewise status of the target communities, i.e., the viability of the group coverage largely depends on the reduced level of risk that is a result of the preparedness and strengthened capacity of the Firewise communities. If the value of these reduced levels of risk could be integrated into the business planning, then support for the wage incentivized Firewise communities might be sustained, e.g., through the envisaged national resilience fund.

5.3 Improved early warning systems and risk assessment capacities

The Advanced Fire Information Systems (AFIS) procured for the participating fire protection associations are still in use, for the most part, and remain one of the most important tools for identifying and responding to wildfires. Most of the FPAs have switched to the online version of the AFIS. The fire danger index (FDI) reports issued by the AFIS are not yet legally recognized; only the FDI reports from the South African Weather Service (SAWS) are considered legal. The service fee charged by SAWS is an additional cost for the FPA’s, which are anyway challenged to be financially secure. There are ongoing discussions with DAFF regarding the issue of legally recognizing the AFIS FDI reports.

Since issuing the TE report in December 2016, the automatic weather stations procured by the project are under the management of The Climate System Analysis Group (CSAG) at the University of Cape Town. CSAG
is one of the climate service providers listed in the National Framework for Climate Services – South Africa (NFCS-SA).\(^9\) The CSAG is reportedly covering the costs of processing and hosting the data generated and they are providing the weather information for free. There is an issue with respect to financing the maintenance of the units. According to the online Climate Information Platform managed by CSAG, 12 of the 32 indicated Fynbos Fire project automatic weather stations are shown to be functional, and the remaining 20 have issues ranging from minor to nonfunctional (see Figure 13).

![Figure 13. Screenshot (30 May 2018) of the map showing Fynbos Fire project automatic weather stations](image)

The wildland-urban interface (WUI) fire risk assessment algorithm developed by CSIR with project support has been further improved and applied. For example, the CSIR collaborated with a company called the Nature Conservation Corporation, that made improvements to the risk assessment modeling algorithm through a WUI assessment made for the North Ward of the Cape Town Metropolitan Area (see Figure 14).

![Figure 14. Fire risk assessment output, North Ward of the Cape Town Metropolitan area](image)

The CSIR is working on a 3-year project involving development of a Green Book, which will contain guidelines on how municipalities can adapt to the forecasted impacts of climate change. The research institute is

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\(^9\) National Framework for Climate Services – South Africa (NFCS-SA), August 2016. Jointly prepared by DEA and SAWS.
working with the National Disaster Management Centre and other South African stakeholders, and the envisaged national resilience fund utilize the information contained in the Green Book to help identify vulnerable communities and promote implementation of innovative adaptation solutions.

## 6 Recommendations

The recommendations included in the December 2016 TE report have been mostly addressed by the project team. The updated list of recommendations presented below is reflective of the conclusions of the supplemental TE.

### Actions to follow up or reinforce initial benefits from the project:

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Conclusion:</strong> The automatic weather stations procured by the project belong to the Climate System Analysis Group at the University of Cape Town. According to the online map <a href="http://www.wmon.co.za/webclient2/datasets/ff-stations/">http://www.wmon.co.za/webclient2/datasets/ff-stations/</a>, 12 of the 32 weather stations are fully operational and the remaining 20 have a range of issues, ranging from minor to completing not functioning. <strong>Recommendation:</strong> Prepare and advocate the implementation of a sustainability action plan for the long-term operation and maintenance of the automatic weather stations, in line with the National Framework for Climate Services for South Africa (NFCS-SA, August 2016), which aims to “integrate all the climate services entities that make up the Climate Services Information System (CSIS) infrastructure, so that they are seamlessly linked to each other for the CSIS to function effectively”. As part of the sustainability action plan, it would be sensible to assess whether some of the stations are required, in terms of coverage and costs for maintenance and operation.</td>
<td></td>
</tr>
<tr>
<td>2. <strong>Conclusion:</strong> The report summarizing the Firewise lessons learned workshop held in November 2017 provides a good record of the 3-day gathering but does not include a synopsis of the key lessons learned or recommendations for moving forward. <strong>Recommendation:</strong> Amend the November 2017 Firewise workshop report with a synopsis of the key lessons learned over the course of the Fynbos Fire project and recommendations for ensuring the achievements made are sustained moving forward.</td>
<td></td>
</tr>
<tr>
<td>3. <strong>Conclusion:</strong> The application for municipal infrastructure grants in the Knysna municipality, being facilitated through a project-supported consultancy, is expected to be submitted in July 2018, after closure of the project. <strong>Recommendation:</strong> Follow up on this process, by supervising the consultancy work and assisting in facilitation of the grant application(s) with the local municipality. It would also be advisable to summarize and disseminate the results achieved within the broader stakeholder community.</td>
<td></td>
</tr>
<tr>
<td>4. <strong>Conclusion:</strong> Stakeholder dialogue and trial implementation (for the Lumkani heat detectors) have been initiated for the insurance initiatives promoted under the expanded Output 3.3 activities, but the processes have not been advanced as far as envisaged in the agreed project extension work plan. <strong>Recommendation:</strong> Follow up on the three insurance initiatives that have been promoted, including: (1) establishment a national resilience fund, (2) reducing community vulnerabilities through providing local early warning and insurance coverage and (3) reducing community vulnerabilities through providing group insurance coverage against risks associated with wildfires and other disasters.</td>
<td></td>
</tr>
</tbody>
</table>

### Proposals for future directions underlining main objectives:

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Ecosystem-based adaptation (Eba) might represent a feasible approach for linking wildfire-associated disaster risk reduction with biodiversity conservation, consistent with the national objectives outlined in the 2016-2021 Strategic Framework and Overarching Implementation Plan for Ecosystem-based Adaptation (Eba) in South Africa (DEA and SANBI), and the October 2017 draft version of the National Climate Change Adaptation Strategy, which includes the following: “Forestry: Define Flagship Projects to address key vulnerabilities through the scaling-up of Working on Forests and Working on Fire. Develop Disaster Risk Reduction Strategy and Instruments for the forestry in 2020. Develop an early warning system for the forestry sector, including incidence of fire. Adoption of Eba approached to landscape management”. Involving the Firewise communities and FPAs in the design of Eba interventions, across landscape-level scales, could provide an alternative entry point for donor involvement and funding support.</td>
<td></td>
</tr>
<tr>
<td>6. The likelihood of securing additional funding for integrated fire management would be enhanced if a multifocal approach is considered. For example, linking IFM with sustainable land management, climate change adaptation, water security and food security might be a feasible nexus to pursue.</td>
<td></td>
</tr>
<tr>
<td>7. Leveraging off the unique biodiversity values among the fynbos biome, project results could be built upon by developing and demonstrating a payment for ecosystem services (PES) scheme that incentivizes landowners to implement sustainable adaptation measures.</td>
<td></td>
</tr>
</tbody>
</table>
Annex 1: List of documents reviewed as part of the supplemental TE

- Management Response to Terminal Evaluation, 06 January 2017
- Analysis of Fynbos Fire Endowment, UNDP, 28 February 2017
- Fynbos Fire Workplan for Extended Period, 09 October 2017
- Project Extension Request Form, 13 October 2017
- Funding Authorization and Certificate of Expenditures (FACE) form, UNDP, 14 December 2017
- Combined Delivery Report for calendar year 2016, UNDP
- Combined Delivery Report for calendar year 2017, UNDP
- Combined Delivery Report for calendar year 2018 (issued on 28 May), UNDP
- Project Implementation Review (PIR) report, UNDP-GEF, 2017
- Final Report, reporting period 9 November 2017 through 31 March 2018, prepared by the Project Management Unit
- Report, FireWise Communities Workshop, Lessons Learnt, November 2017
- Report, GEF Meetings with GEF FireWise Communities Stakeholders (undated)
- Fire Management Plan, Sir Lowry’s Pass Village FireWise Community, 20/02/2018
- Fire Management Plan, Kranshoek FireWise Community, 20/02/2018
- Fire Management Plan, Goedverwacht FireWise Community, 20/02/2018 (in Africaans)
- Fire Management Plan, Clarkson FireWise Community, 20/02/2018
- Workshop Note, Knysna Fires Learning Forum Member Workshop, 20 March and 26 March 2018
- South Africa’s 2nd Biennial Update to the United Nations Framework Convention on Climate Change (UNFCCC), October 2017
- National Framework for Climate Services – South Africa (NFCS-SA), August 2016
- South Africa’s 2nd National Biodiversity Strategy and Action Plan, 2015-2025
- Annual Report 2016/17, Western Cape Government, Department of Environmental Affairs and Development Planning
- Greater Overberg Fire Protection Association, Annual General Meeting Report, 23 May 2018
- Greater Overberg Fire Protection Association, Digital Marketing Report, April 2017 – February 2018
- Websites of the participating Fire Protection Associations: Greater Overberg FPA, Winelands FPA, Southern Cape FPA, Greater Cederberg FPA, Cape Peninsula FPA, Sarah Baartman FPA, Eastern Cape Umbrella FPA
Annex 2: List of people interviewed as part of the supplemental TE

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christo Marais</td>
<td>Chairperson of Project Board, Chief Director, Natural Resource Management</td>
</tr>
<tr>
<td>Val Charlton</td>
<td>Project Director, Kishugu NPC Managing Director</td>
</tr>
<tr>
<td>Tessa Oliver</td>
<td>Project Coordinator</td>
</tr>
<tr>
<td>Chandra Fick</td>
<td>FireWise Coordinator, Kishugu NPC</td>
</tr>
<tr>
<td>Tony Marshall</td>
<td>Fire and Catchment Manager, Cape Nature, Project Board member</td>
</tr>
<tr>
<td>Pierre Gallagher</td>
<td>Manager, Cape Peninsula Fire Protection Association</td>
</tr>
<tr>
<td>Louise Wessels</td>
<td>Manager, Greater Overberg Fire Protection Association</td>
</tr>
<tr>
<td>Paul Gerber</td>
<td>Manager, Southern Cape Fire Protection Association</td>
</tr>
<tr>
<td>Charl du Plessis</td>
<td>General Manager, Greater Cederberg Fire Protection Association</td>
</tr>
<tr>
<td>Thinus Botha</td>
<td>General Manager, Eastern Cape Umbrella Fire Protection Association</td>
</tr>
<tr>
<td>Dale Nortje</td>
<td>Manager, Winelands Fire Protection Association</td>
</tr>
<tr>
<td>John Lomberg</td>
<td>Santam insurance company</td>
</tr>
<tr>
<td>Ray-Ann Sedres</td>
<td>Santam insurance company</td>
</tr>
<tr>
<td>Hanlie Kroese</td>
<td>Business Development Manager, Agriculture, Santam insurance company</td>
</tr>
<tr>
<td>Onno Huyser</td>
<td>Independent Consultant (insurance output)</td>
</tr>
<tr>
<td>Walid Badawi</td>
<td>Country Director, UNDP Country Office, South Africa</td>
</tr>
<tr>
<td>Akiko Yamamoto</td>
<td>Regional Technical Specialist, UNDP Regional Service Centre for Africa</td>
</tr>
<tr>
<td>Janice Golding</td>
<td>Environment and Energy Program Manager, UNDP South Africa</td>
</tr>
<tr>
<td>Aubrey Manamela</td>
<td>Finance Associate, UNDP South Africa</td>
</tr>
</tbody>
</table>
## Annex 3: Matrix for assessing achievement of extended output targets

<table>
<thead>
<tr>
<th>Output target*</th>
<th>End of Extension Status, 31 May 2018 reported by project team</th>
<th>TE Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong> Develop and implement integrated disaster risk management strategies to address climate change-induced fire hazards and risks</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcome 2:</strong> Decision-support and risk management systems for fire management improved</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output 2.6:</strong> Wildland fire hazard assessments of 'communities at risk' in WUI undertaken, and risk management measures developed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further enhancing the resilience to climate change-induced fire across all target sites supported by the project for bigger impact and better sustainability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needs and gaps identification to further 'firewise' the target communities</td>
<td>Completed. Meetings held with each community and their stakeholders. See attached report</td>
<td>Achieved</td>
</tr>
<tr>
<td>4 updated Fire Management Plans</td>
<td>Completed. Attached</td>
<td>Achieved</td>
</tr>
</tbody>
</table>
| XX ha of land cleared of excess fuel loads around the peripheries of the communities through clearing of alien species and overgrown vegetation and control burns | Sir Lowy's Pass Village - 11 hectares  
Clarkson - 13 hectares  
Goedverwacht - 8 hectares  
Kranshoek - 10 hectares  
Total of 42 hectares | Achieved |
| Firewise Open Day events held to showcase the firewise efforts done by the project target beneficiaries | Completed. | Achieved |
| Exploring possibilities to fireproof (or 'firewise') key community capital assets to strengthen preparedness and resilience to climate change-induced fires of local municipalities by accessing existing/emerging funding scheme (e.g. the Municipal Infrastructure Grants, the Garden Route Rebuild Initiative) | Minimum of 2 proposals submitted from Local Authorities to access Municipal Infrastructure Grants, with required letters of endorsement from municipalities by March 2018 | Not yet submitted. Submission date end July 2018 Not expected to be achieved by project closure |
| Enhancing community preparedness and resilience to climate change-induced fire through the knowledge exchange and awareness raising workshop on the FireWise Communities. | A 3-day workshop successfully completed for knowledge exchange and sensitization. | Completed. See attached Workshop Report Achieved |
| 70 representatives from the FireWise Community equipped with better knowledge and information on climate change-induced fire, preparedness, and resilience building. | Completed. See attached Workshop Report | Achieved |
| A report presenting lessons learned, advice and recommendations on improving the FireWise model, the FireWise benefits, and relevant data and statistics. | Completed | Achieved |
| Advocacy and communication materials, including 1 high quality video clip, e-news clips. | Completed. See links for 4 videos and communications report for social media materials | Achieved |
| 10 representatives from FPAs, UFPAs, and relevant national government departments (DEA, DAFF, PDMC, NDMC, etc.) sensitized fully on the FireWise benefits on communities and on the IFM efforts in general. | Over 60 representatives attended an event showcasing the extension efforts and the launch of the FireWise videos on 15 March 2018 | Achieved |
| UNDP and GEF SCCF’s support to build resilience among communities to climate change-induced fire fully recognized by the workshop participants. | Achieved. Walid Badawi (UNDP CO director) was the guest speaker and gave a thorough overview of the UNDP and GEF’s efforts | Achieved |
| **Outcome 3:** Innovative risk reduction interventions implemented | | |
| **Output 3.3. Fire and insurance scheme interventions developed** | | |
| Building a solid foundation for the Establishment of a Wildfire and Disaster Fund within the government | Meeting with DEA in November 2017 and two telecoms with DEA in Dec 2017 and Jan 2018, various meetings with John Lomberg SANTAM and SAIA to discuss the Fund most significantly during each of the Southern Cape Fires Learning Forum meetings, which SANTAM and Provincial Disaster Management convene, quarterly, from September 2017. Meeting with John Lomberg and field trip to Kranshoek to discuss the concept further in April 2018. | Partially achieved |
| Records of discussions from inter-Departmental meetings and workshops facilitated by the Project on the establishment of the Fund. | | |
## Output target*

### Recommendations and Letters of Support (co-)signed by Departments engaged in discussions for submission to senior management for their consideration and decisions.

Support is available from following parties - SANTAM, SAIA, COGTA NDMC, CSIR, Landworks and other members of the Southern Cape Fires Learning Forum. Can provide upon request.

*Partially achieved

### Piloting an innovative community insurance package with the FireWise communities to test its effectiveness to reduce risks from wildfire for the public at large

2,000 households in 3 selected FireWise Communities benefited from the group insurance cover for 6 months of trial period.

Not completed by 31 May, work still underway.

- Landworks -SaNTAM project is approved and will deliver this to Kranshoek over next period.
- We are working at community, municipality and SANTAM’s pace. First meeting with Muni to discuss rates / DM function and support for this 6 June 2018.
- Lumkani rollout to 30 homes for 1 year trial period in Goedverwacht, starting 6 June 2018.

*Not expected to be achieved by project closure

A case-study report, based on the pilot group insurance coverage, describing the details of the insurance features, its benefits (to the communities, to the insurance sector, and to the public at large), its cost effectiveness.

Due mid June 2018.

*Not expected to be achieved by project closure

Knowledge products presenting research and analysis findings, which describes the outcomes of work to date on micro-insurance in South Africa, case studies of successes and failures, analysis of the South African situation relative to other developments elsewhere in Africa (for example "WiBi", Weather Index Based Insurance), and recommendations on the path forward for appropriate product opportunities and partnerships that reinforce social learning, social capital, and adaptation to climate change. (Bear in mind that many micro-finance or -lending products in South Africa have none of these qualities and are borderline usurious). This knowledge asset will be a public asset for use by government and the private sector and will be used by the FireWise Programme in all future work related to the insurance sector engagement.

Under development. First portion presented at closing out ceremony for project, second portion due mid June 2018, and final portion with the main body of the CSIR research on Southern Cape Fires, which is due September 2017.

*Not expected to be achieved by project closure

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*Note: Output targets obtained from the 9 October 2017 version of the Fynbos Fire Work Plan for Extended Period.*
### Annex 4: Matrix for rating achievement of project objective and outcomes (included in the Dec 2016 TE report)

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Baseline</th>
<th>End of Project Target(s)</th>
<th>TE Comments</th>
<th>TE Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Objective:</strong> Develop and implement integrated disaster risk management strategies to address climate change-induced fire hazards and risks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td><strong>Obj-1</strong> Increased number and extent (ha) of non-damaging wildfires (i.e. ‘minor’ and ‘insignificant’ fires, as described in section 2.5) per annum in the Fynbos biome</td>
<td>Non-damaging veldfires: Area (ha): &gt;145,200 No.: &gt;1,580</td>
<td>Non-damaging veldfires: Area (ha): &gt;165,000 No.: &gt;1,700</td>
<td>There are certain anecdotal lines of evidence that one could use to conclude this has been satisfactorily achieved, e.g., through strengthened capacities of FPAs and increased awareness among landowners; however, there are no quantitative data to back this up. Firstly, the baseline conditions proved difficult to validate, and more importantly, there were no systems in place for measuring progress made.</td>
<td>Unable to Assess</td>
</tr>
<tr>
<td>2</td>
<td><strong>Obj-2</strong> Decreased number and extent (ha) of damaging veld fires (i.e. damaging and catastrophic fires, as described in section 2.5) per annum in the Fynbos biome</td>
<td>Catastrophic fires: Area (ha): &lt;74,800 No.: 420</td>
<td>Catastrophic fires: Area (ha): &lt;52,500 No.: &lt;300</td>
<td></td>
<td>Unable to Assess</td>
</tr>
</tbody>
</table>

**Project Objective Rating:** Satisfactory

**Outcome 1: Capacity built at local level to manage increased incidence and extent of fires**

|   | Number of FPAs integrated into, and aligned with, the affected municipal structures (including the municipal land use planning, fire brigade and disaster management services). | 1 | >6 | One of the key achievements of the project was supporting the process of consolidating the domains of FPAs in the Fynbos biome according to district administrative boundaries. | Achieved |
|   | Number of FPAs with the adaptive capacity to effectively manage the risks associated with climate-induced fires | 0 | >6 | The extension officers clearly added a boost to service quality and helped facilitate FPA membership expansion. In most cases, the extension officers hired and supported with project funds have since been integrated into the FPA organizations after project funding ceased at the end of 2015. | Achieved |
|   | Number of wildland fire management staff completing specialized training and/or skills development in adaptation-related fire management technologies | 0 | >30 (short courses) >4 (full-time courses) | Training was another highlight of the project. The number of short course trainings delivered far exceeded the target of 30 wildland fire management staff, and not only did FPA staff participate but also landowners and workers. In addition to the short courses, a Higher Certificate programme in Veldfire Management was established at the Nelson Mandela Metropolitan University in Port Elizabeth in 2013, with some support from the project. | Achieved |
### Supplemental Terminal Evaluation Report, 2018
Reducing Disaster Risks from Wildfire Hazards Associated with Climate Change (South Africa)
UNDP PIMS ID: 3947; GEF Project ID: 3934

#### Outcome 1 Rating: Highly Satisfactory

### Outcome 2: Decision-support and risk management systems for fire management improved

<table>
<thead>
<tr>
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<th>TE Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Number of FPAs with functional, populated (i.e. data) and networked AFIS field terminals</td>
<td>0</td>
<td>5</td>
<td>Six (6) FPAs within the Fynbos biome were provided with Advanced Fire Information System (AFIS) terminals, providing them with much more current and relevant fire danger early warnings and reporting services. Among the 6 units, the one delivered for the Eastern Cape, to the Eastern Cape Parks and Tourism Agency (ECPTA) was not installed properly and is not functioning, and the one delivered to the Cape Peninsula FPA was stolen earlier in 2016.</td>
<td>Achieved</td>
</tr>
<tr>
<td>2.2</td>
<td>Coverage (ha) of area where fires are detected, profiled (for risk) and tracked by the FPA AFIS field terminals</td>
<td>0 ha</td>
<td>&gt;4 million ha</td>
<td>The supply of AFIS terminals has provided FPAs with increased capacity to detected and profile fires in their regions. Considering the domains of the FPAs have increased over the course of the project, the cumulative coverage by the AFIS terminals exceeds the end target of 4 million ha.</td>
<td>Achieved</td>
</tr>
<tr>
<td>2.3</td>
<td>Number of AWSs recording local weather conditions under a changing climate regime in the high altitude mountain areas of the Fynbos biome</td>
<td>&lt;10</td>
<td>&gt;50</td>
<td>A cumulative total of 33 weather stations have been installed.</td>
<td>Achieved</td>
</tr>
<tr>
<td>2.4</td>
<td>Average percentage (across all FPAs) of FPA members receiving localised daily fire danger forecasts</td>
<td>&lt;5%</td>
<td>&gt;80%</td>
<td>Information collected by the weather stations feed into the AFIS, and through the service delivered by AFIS, FPAs are now much more capacitated to provide their landowner members localized fire danger forecasts.</td>
<td>Achieved</td>
</tr>
<tr>
<td>2.5</td>
<td>Extent (ha) of the Fynbos biome with a local landscape level wildfire risk rating that integrates climate change scenarios into the risk assessment</td>
<td>0 ha</td>
<td>&gt;3 million ha</td>
<td>The demonstration climate change scenario modeling completed by the CSIR team is an important achievement and provides clear guidance on what gaps need to be filled in order to further refine these capabilities. The modeling outputs delivered, however, fall short of what is called for under Indicator No. 2.5.</td>
<td>Unlikely to be achieved by project closure</td>
</tr>
</tbody>
</table>
## Supplemental Terminal Evaluation Report, 2018

Reducing Disaster Risks from Wildfire Hazards Associated with Climate Change (South Africa)

UNDP PIMS ID: 3947; GEF Project ID: 3934

### Outcome 2: Risk Assessment and Integration

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Baseline</th>
<th>End of Project Target(s)</th>
<th>TE Comments</th>
<th>TE Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6</td>
<td>Number of municipalities (local, district and metropolitan) with climate-based fire risk information for wildlands integrated into the municipal disaster management plans.</td>
<td>0</td>
<td>&gt;6</td>
<td>Developing the risk assessment capacities is only the first step. The expected result was that municipalities would integrate this information in their municipal disaster management plans.</td>
<td>Unlikely to be achieved by project closure</td>
</tr>
</tbody>
</table>

**Outcome 2 Rating:** Satisfactory

### Outcome 3: Innovative risk reduction interventions implemented

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Baseline</th>
<th>End of Project Target(s)</th>
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<th>TE Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Percentage of landowners in the demonstration areas (Southern Cape FPA and Cedarberg FPA) that are paid up members of the FPA, and conform with the FPA rules and regulations</td>
<td>&lt;20%</td>
<td>&gt;60%</td>
<td>With respect to the percentage of landowner being paid up members of the Southern Cape and Greater Cederberg FPAs, interviews with the managers of these FPAs during the TE mission confirmed that the end of project target of &gt;60% is safely exceeded. Compliance is also significantly improved as well.</td>
<td>Achieved</td>
</tr>
</tbody>
</table>

**Outcome 3 Rating:** Moderately Satisfactory

<table>
<thead>
<tr>
<th>No.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>Number of private landowners in FPAs instituting proactive risk management measures in response to insurance-based incentives</td>
<td>&lt;20 (est.)</td>
<td>&gt;100</td>
<td>There was no evidence that the “incentives toolbox” was developed. The designed activities under Output 3.1 also included training responsible fire management authorities and institutions in the application of the incentives toolbox and partnering with private and public sector in support of the implementation of viable wildland fire incentives.</td>
<td>Unlikely to be achieved by project closure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Baseline</th>
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<th>TE Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3</td>
<td>Number of households in the targeted WUI areas that have an improved resilience to outbreaks of climate-induced wildfires</td>
<td>0</td>
<td>&gt;2500</td>
<td>With only 2 months remaining before project closure, the micro-insurance scheme is not yet finalized; the deed of trust is not yet approved.</td>
<td>Unlikely to be achieved by project closure</td>
</tr>
</tbody>
</table>

**Outcome 3 Rating:** Moderately Satisfactory
Annex 5: Evaluation consultant code of conduct agreement form

Evaluators / Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.

2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.

3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and: respect people’s right not to engage. Evaluators must respect people’s right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.

4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.

5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders’ dignity and self-worth.

6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.

7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

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**TE Consultant Agreement Form**

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultants: James Lenoci

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signature: 

Budapest, 31 May 2018

James Lenoci, Terminal Evaluator
Annex 6: Terms of reference for supplemental TE
Annex 7: Signed TE final report clearance form

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