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REPORT

# Final Report

Mid-term Evaluation for the GEF-funded project for resilience and  
resource-efficiency in Johannesburg

12 AUGUST 2023

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## PROJECT BACKGROUND

The City of Johannesburg (CoJ) project titled, “Building a resilient and resource-efficient Johannesburg: Increased access to urban services and improved quality of life” (“the Project”), is part of the GEF-6 Integrated Sustainable Cities Programme (SC-IAP) of the Global Environment Facility (GEF). The South African full-sized child project was approved for implementation by the GEF CEO in 2017. The Development Bank of Southern Africa (DBSA) and the United Nations Environment Programme (UNEP) collaborate on this project, acting as GEF Implementing Agencies whilst CoJ is the Executing Agency. In accordance with the GEF project cycle, the child project has reached the phase of mid-term evaluation (MTE). This Final MTE Report is submitted as **Deliverable 4.1** of the project.

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## Abbreviations and acronyms

BBBEE	Broad-based Black Economic Empowerment
BoQ	Bill of Quantities
CAP	Climate Action Plan
COF	Corridors of Freedom
CoJ	City of Johannesburg
DAC	Development Assistance Committee
DBSA	Development Bank of Southern Africa
EE	Employment Equity
EISD	Environment and Infrastructure Services
EPC	Energy Performance Certificate
FGD	Focus Group Discussion
FSP	Full-Sized Projects
GAP	Gender Action Plan
GDS	Growth and Development Strategy
GEF	Global Environment Facility
GHG	Greenhouse Gas
IA	Implementing Agency
IDD	Infrastructure Delivery Division
JDA	Johannesburg Development Agency
JOSHCO	Johannesburg Social Housing Company
KI	Key Informant
KPI	Key Performance Indicator
M&E	Monitoring and Evaluation
MoU	Memorandum of Understanding
MTE	Mid-term Evaluation
O&M	Operations and Maintenance
OECD	Organisation for Economic Co-operation and Development

OEM	Original Equipment Manufacturer
PIR	Project Implementation Report
PMU	Project Management Unit
POE	Post Occupancy Evaluation
PSP	Professional Service Provider
RFP	Request for Proposal
SAOSO	South African Organic Sector Organisation
SDGs	Sustainable Development Goals
SDZ	Special Development Zone
SMART	Specific, Measurable, Attainable, Relevant, Time-bound
TE	Terminal Evaluation
ToC	Theory of Change
TOD	Transit Oriented Development
ToR	Terms of Reference
UJ	University of Johannesburg
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme



# Executive Summary

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The objective of this **Mid-Term Evaluation (MTE)** is to serve as a monitoring tool to identify challenges and outline corrective actions to ensure that the GEF-funded project titled, “*Building a resilient and resource-efficient Johannesburg: Increased access to urban services and improved quality of life*” (herein “the Project”) is on track to achieve maximum results by its completion. As outlined in the GEF Monitoring and Evaluation Policy, MTEs are a mandatory requirement for all GEF-financed full-sized projects (FSP). This MTE also aims to lay the foundation for a strong Terminal Evaluation (TE) for the Project.

The City of Johannesburg (herein “the City” or CoJ) seeks to address the challenges associated with a growing urban population as well as the impacts of climate change, and the interacting effects of these. The City has refined planning strategies with specific goals including reduction of greenhouse gas (GHG) emissions and reduction of climate change impacts through improved urban service delivery, developing the **Johannesburg 2040 Growth and Development Strategy (GDS)**. To address the strategic outcomes set in the Johannesburg GDS 2040, the City developed the **Integrated Development Plan 2022/23 (IDP)** and **Spatial Development Framework 2040 (SDF)** which set the foundation for the Project.

The Project is structured with five Outcomes which aim to support the goal of ‘*Building a resilient and resource-efficient Johannesburg*’. These Outcomes are:

- **Outcome 1:** CoJ test eco-district prototypes to set improved environmental standards for Transit Oriented Development (TOD) Corridors.
- **Outcome 2:** CoJ adopts gender sensitive and resource efficiency guidelines for improved sustainability of social housing.
- **Outcome 3:** Emerging urban farmers increasingly implement more environmentally sustainable food security solutions.
- **Outcome 4:** CoJ adopts an integrated biodegradable waste management strategy and has pre-investment documents to mobilise finance to implement the strategy.
- **Outcome 5:** Enhanced capability of CoJ in evidence-based policy and strategy making.

The MTE evaluated the Project with consideration of critical aspects such as: Project Strategy; Progress Towards Results; Project Implementation and Adaptive Management; and Sustainability. The mainstreaming of Gender was also assessed. The MTE was participatory, building upon a desktop review with interviews and site visits. The preliminary findings of the MTE were also reviewed by the PMU and revised as new information became available.

## Key findings:

### Project Strategy

- Synergy between the five Outcomes is lacking as well as high-level oversight to facilitate this.

### Progress Towards Results

- The Project has a mixed level of progress at the mid-term point.
- There have significant delays in progress, mostly resulting from institutional procedures within the CoJ.
- The delays threaten critical project activities due to sequential dependencies.

### **Project Implementation and Adaptive Management**

- Project implementation has been conducted well with effective management.
- Adaptive management has been displayed and has been highly effective.
- Turnover of staff in critical management roles in the project is concerning.

### **Sustainability**

- Delayed progress poses a risk to sustainability, but adaptive management actions taken by the project team should mitigate this in the long-term.
- Sustainability needs to be emphasised and approached more strategically.

### **Gender**

- Gender considerations within the project are insufficient.

### **Key recommendations:**

- Parallel processes should be initiated wherever possible to mitigate delays.
- Challenges related to procurement procedures must be addressed and accounted for in future project activities.
- A dedicated Project Manager is needed urgently.
- Project cohesion should be emphasised in management processes.
- Baseline work and convening of focus groups are needed to address gender considerations.

# 1

## Introduction

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### 1.1| Mid-term evaluation objectives

This report is for the Mid-term Evaluation of the five-year Global Environment Facility (GEF)-funded project titled, “*Building a resilient and resource-efficient Johannesburg: Increased access to urban services and improved quality of life*” (referred to herein as “the Project”), commissioned by The Development Bank of Southern Africa (DBSA) and with the financial and technical support of GEF and United Nations Environment Programme (UNEP) as a co-implementing agency. The project constitutes efforts to support the refinement of the City of Johannesburg’s (CoJ) City planning strategies, aligning with specific goals including reduction of GHG emissions and reduction of climate change impacts through improved urban service delivery. The project aims to foster City-level resilience, resource efficiency, emission reductions and other co-benefits through area-based pilot demonstrations, systems analysis (food), and improved integrated planning. This MTE is intended to provide the Project Management Unit (PMU) and Component Leads who are responsible for the Project’s implementation, the DBSA and UNDP-GEF teams with a review of the status of implementation of the Project and recommendations for improvement and future priority interventions.

Specifically, this MTE assessed the relevance of the Project, reviewed its effectiveness and efficiency in achieving the desired impacts and results, and assessed the likelihood of the sustainability of the Project interventions (Table 1). The MTR further considered the extent to which the Project is promoting gender mainstreaming, as well as efforts made toward effective knowledge management. The MTE therefore synthesises key lessons and analyses the sustainability of project results, alongside opportunities for acceleration and enhancement. To develop the MTE, stakeholders were interviewed across all five Outcomes, as were implementation partners and beneficiaries where relevant, and site visits were conducted. This ensured that the MTE was conducted through participatory analysis as well as a document review, to enable sufficient, triangulated evidence for the conclusions drawn. The MTE was conducted in accordance with the principles outlined in the *UNDP-GEF Guidance for Conducting Mid-term Review of UNDP-Supported, GEF-Financed Projects 2020* as well as other criteria from the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC), where appropriate.

Data was collected through the document reviews and stakeholder engagements. Parallel operation of data collection and stakeholder engagement allowed for iterative development of the evidence base to inform the assessment, with particular focus on assessing achievements of different interventions in the Project logframe, and the impacts of the resultant outcomes.

Progress against the review criteria was assessed through three methods for: i) rating the activities based on the progress achieved; ii) ranking the likelihood of the sustainability of the progress made; and iii) ranking the level of satisfaction of the achievement attained.

**Table 1. Requirements of a Mid-Term Evaluation (adapted from UNDP-GEF, 2014).**

	Mid-Term Evaluation
<b>Focus</b>	<ul style="list-style-type: none"> <li>● Assessment of progress towards results</li> <li>● Monitoring of implementation and adaptive management to improve outcomes</li> <li>● Early identification of risks to sustainability</li> <li>● Emphasis on supportive recommendations</li> </ul>
<b>Timeframe</b>	<ul style="list-style-type: none"> <li>● The MTE report must be submitted with the 3rd Project Implementation Report (PIR)</li> </ul>
<b>Values and emphasis</b>	<ul style="list-style-type: none"> <li>● Independent</li> <li>● Emphasis on a participatory and collaborative approach</li> <li>● Opens opportunities for discussion and change in project, as needed</li> </ul>
<b>Ratings provided</b>	<ul style="list-style-type: none"> <li>● Progress Towards Results (by Outcomes)</li> <li>● Project Implementation and Adaptive Management</li> <li>● Sustainability</li> </ul>

## 1.2| Scope and methodology

The MTE is an independent review, and the evaluation team sought to, wherever possible, try to evaluate issues according to the criteria listed in the *UNDP-GEF Guidance for Conducting Mid-term Review of UNDP-Supported, GEF-Financed Projects 2020* namely: i) Relevance; ii) Effectiveness; iii) Efficiency; iv) Results; and v) Sustainability. Other criteria from the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) such as impact and coherence were also included, where appropriate. Furthermore, the evaluation was undertaken in keeping with the Evaluation Consultant Code of Conduct Agreement as outlined in the *Guidance for Conducting Mid-term Review of UNDP-supported GEF-financed Projects (2020)*.

### 1.2.1| Detailed Methodology

To realise the stated objectives of this evaluation, the evaluation team applied a **four-phased approach** to undertake the evaluation, which combined qualitative and quantitative study design using multiple data collection methods in delivering this assignment. The evaluation was evidence-based wherever possible and was conducted through the following participatory approach and methods:

- Qualitative stakeholder consultations through semi-structured interviews.
- Systemic and structured appraisal of relevant project documents.
- Desktop literature review.
- Participatory analysis.
- Site verification visits.
- Reviewing progress towards results.
- Development of methodologically sound and easily understood MTE reports.

#### **Phase 1: Inception**

**Phase 1** entailed ensuring a sound understanding of client needs and existing data sources and quality, and refining our methodological approach based on these.

#### **Phase 2: Data Collection**

Following the Inception Phase, **Phase 2** of this MTE process focused on primary data collection. This included qualitative data collection, such as reviewing relevant literature, Key Informant (KI) Interviews

and focus group discussions (FGDs) (see Appendix 3 for list of engagements), to explore the effectiveness and quality of interventions and project implementation in achieving project goals and objectives. Using multiple data collection methods enabled different viewpoints to be identified and in so doing improved reliability and validity of the data.

The MTE was conducted against the DBSA monitoring and evaluation policy criteria which underpinned the methodological framework for this review and will be based against the logframe indicators, outputs and outcomes as defined in the CEO Endorsement and elsewhere (e.g., project workplans revisions, project reports). Thus, in order to evaluate all aspects of the project, the indicators were assessed through the framework of key questions regarding the **temporal, physical and institutional implementation** of the GEF-funded project in Johannesburg.

The desktop-based exercises laid a solid foundation for stakeholder engagement and site visits. Effective stakeholder consultation was the keystone to a useful and informative MTE and the Project team (including CoJ, DBSA and UNEP) played a pivotal role in identifying Key Informant (KI) interview partners. For qualitative data collection, purposive sampling methods were used to select key stakeholders for interviews. Thus, sampling for proportionality was not the principal concern. Purposive sampling was deemed appropriate as stakeholders were selected because they were particularly informed on the nature of the project, which enabled the team to produce results that are representative of the whole project. Our site visits employed observational research and result in verifiable qualitative data. For the telephonic or virtual (MS Teams or Zoom) interviews, various techniques were applied, designed to support interactive and iterative interviews.

### ***Phase 3: Evaluation***

At a high level, the evaluation was conducted using a detailed content analysis of the combined outcomes of the document review, observational research, and stakeholder consultation and participatory analysis processes. Data collected through the desktop reviews was analysed using data charting and descriptive narrative methods. Data obtained from the KI interviews and site visits was transcribed to provide useful salient respondent quotes, with analysis of each set of interviews for emergent themes. In particular, the evaluation considered the project design and strategy, evaluated the Project Framework, evaluated relevance, effectiveness and efficiency, and management arrangements, including M&E.

#### ***Review of Project Strategy and Design***

The MTE reviewed the problem addressed by the project and the underlying assumptions. The evaluation also considered the relevance of the project strategy and assessed whether it provided the most effective route towards expected/intended results (outputs, immediate outcomes). Attention was also given to whether lessons from other relevant projects have been properly incorporated into the project design. Contribution to country and local government priorities was also assessed, and project ownership, as well as alignment with national sector development priorities and plans of the City of Johannesburg (CoJ). A review of the decision-making processes was carried out to ascertain if perspectives of critical stakeholders have been considered during project design processes. The evaluation also assessed the extent to which relevant gender issues were raised in the project design (Figure 1) (see Appendix 4 for Gender-relevant documents reviewed). Finally, the evaluation assessed if there are major areas of concern, recommended areas for improvement in future initiatives. Evaluation of the project was conducted using a rating system (Table 4) with various criteria that consider the **overall achievements of the project** to the mid-term milestone.

**Figure 1. Gender analysis framework (UNDP-GEF, 2014).**

<b>G</b>	<b>Gap-minded:</b> Addressing the gaps and inequalities between women and men, boys and girls
<b>En</b>	<b>Encompassing:</b> Developed on the basis of participatory approaches and inclusive processes
<b>D</b>	<b>Disaggregated:</b> By sex, and wherever possible by age and by socio-economic group (or any other socially significant category in society)
<b>E</b>	<b>Enduring:</b> Having a long-term, sustainable perspective, because social change takes time
<b>R</b>	<b>Rights observing:</b> In accordance with human rights laws and standards

The assessments were combined into an Evaluation Matrix for each Outcome of the project that integrated the various aspects considered through the MTE process. First, it used a “traffic light system” to rate activities based on the progress achieved to date. As shown in Table 2, each colour within the traffic light system is representative of a different stage of implementation progress.

**Table 2. Rating of Progress of Project Implementation.**

Situation unclear, unable to assess	Indicators not achieved at Middle of Project	Indicators show achievement nearly successful at the middle of the Project	Indicators show achievement successful at the middle of the Project
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Following evaluation of the project’s implementation, the MTE considered additional evaluation factors such as communications, innovation in results areas, unexpected results, and replication and scalability. Project sustainability was assessed on various levels, with each activity assigned a specific rating of sustainability as listed in Table 3:

**Table 3. Project activity sustainability ratings system.**

<b>Likely</b>	There are no risks affecting this dimension of sustainability.
<b>Moderately Likely</b>	There are moderate risks that affect this dimension of sustainability.
<b>Moderately Unlikely</b>	There are significant risks that affect this dimension of sustainability.
<b>Unlikely</b>	There are severe risks that affect this dimension of sustainability.

Finally, achievement of each activity was ranked using six different levels of ‘satisfactory’ (Table 4) to provide further detail under the traffic light rating. This is meant to capture overall ranking of the activity, considering the current implementation in relation to end-of-project goals.

**Table 4. Criteria used to evaluate the Project progress.**

<b>Highly Satisfactory</b>	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as “good practice”.
<b>Satisfactory</b>	Project is expected to achieve most of its major global environmental objectives, and yield

	satisfactory global environmental benefits, with only minor shortcomings.
<b>Moderately Satisfactory</b>	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits.
<b>Moderately Unsatisfactory</b>	Project is expected to achieve some of its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
<b>Unsatisfactory</b>	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits.
<b>Highly Unsatisfactory</b>	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.

The **project results framework** was reviewed, with a critical analysis of the project’s theory of change, logframe target indicators, an assessment of the midterm and end-of-project targets, as well as the project’s objectives and outcomes. Examination of project advancement and development effects was conducted, along with an examination of effectiveness of monitoring of broader development and gender aspects of the project.

The **management arrangements** of the GEF Implementing Agencies (DBSA and UNEP) were also assessed based on execution factors, results focus, risk mitigation, responsiveness, and other relevant factors. In addition, the project workplan was assessed as well as the efficacy and relevance of any co-financing as well as the project financing arrangements and financial controls and management. The evaluation considered project-level M&E systems and the extent to which these align with DBSA M&E systems, as well as with GEF reporting requirements. Delivery against stakeholder engagement priorities and commitments was a further critical consideration of the MTE, examining levels of participation and awareness.

Throughout the overall project evaluation, specific focus was placed on the project’s external operating context, assessing whether the project has been rated as facing either an Unfavourable or Highly Unfavourable external operating context, and/or a negative external event has occurred during project implementation. The MTE also considered the ratings for the project context including extraneous constraints such as those related to the COVID-19 pandemic when allocating the other ratings throughout the project evaluation.

Conclusions and recommendations were drawn from the evaluation, for the remainder of the project’s lifecycle, and for future replication and scale, as well as for sustainability of the project.

All findings and recommendations were presented to the DBSA, UNEP and CoJ for comment and validation before the report was finalised. The Draft MTE Report included a project M&E evaluation using the data gathered in Phase 2 against the refined methodology to cover the ToC indicators, project progress, project risks, sustainability, cross-cutting issues, and M&E environment. The report also covered a draft analysis of the findings from the evaluation. It provided evidence-based signs of project success and failure at this point, as well as recommendations for the last half of the project lifespan.

#### **Phase 4: Final evaluation and project closure**

During the final phase of this evaluation, this final MTE Report was produced that reflects comments/feedback from stakeholders. Thereafter, the OneWorld project team compiled a Close-Out Report which summarises the process followed to deliver the assignment, lessons learned, and project recommendations.

### 1.3| Structure of the MTE Report

The rest of this MTE Report is structured as follows. Section 2 provides the Project Context and Description, followed by Section 3, which provides the Findings, collated within the (3.1) the Evaluation Matrices and summarised into (3.2) Primary Findings. Some of these findings are supported with (3.3) Supplementary information. The report is closed in Section 4 with the Conclusions and Recommendations for the MTE.



## 2

# Project Context and Description

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## 2.1| Context

A significant proportion (~68%) of South Africa's population resides within urban areas (World Bank, 2021) with the **National Development Plan** (NDP) estimating that by 2030 an additional 7.8 million people will be living in South African urban centres. This represents a significant concentration of the country's Gross Value Add (GVA) within metropolitan municipalities, as the locations of economic growth and urban population growth are linked. The rapid growth of an already sizeable population (~4.9 million in 2016) in the **City of Johannesburg** (CoJ) offers both opportunities and challenges to environmental sustainability. Spatially, densities differ between locations and income groups, the highest densities are found in the City's informal settlements. Conversely the lowest densities can be found on the peri-urban fringe and a number of the historical residential suburbs.

The rapidly increasing urban population of the city results in an increased demand for housing, goods and services (energy, food, water and waste), employment and infrastructure. This creates several planning and investment challenges for CoJ and places strain on economic and social structures. These challenges are exacerbated by the impacts of climate change, which increase strain on resources and infrastructure. There is a connection between urbanisation and greenhouse gas (GHG) emissions, and so the city must support development while aligning with national goals to mitigate climate change through reduced GHG emissions. The transition to reduced GHG emissions is made further complex by the growing demand for energy, with the demand being highest within the three sectors that are the largest emitters of GHGs (Industry and commerce, Household and Transport). This has led CoJ to prioritise addressing issues of sustainability and GHG mitigation in the housing and urban development sector. To meet this priority, CoJ has a strategic objective to develop a green and resilient economy, in alignment with the NDP. The city seeks to realise this objective through a transition from past practices to technologies and infrastructure that are resource-efficient, resilient, innovative and low in GHG emissions. The city has identified the need to implement low carbon, resilient strategies to provide housing, infrastructure, services, transport and goods.

Aware of these challenges as well as potential that growth and development provide, CoJ has gone through an extensive process of refining its city planning strategies with specific goals including reduction of GHG emissions and reduction of climate change impacts through improved urban service delivery. This process has included the development of the city's first **Growth and Development Strategy** (GDS) in 2006, serving as a long-term strategy to articulate a more environmentally sustainable path to the future. In 2011, the strategy was refined and published as the **Johannesburg 2040 GDS**. Resilience and resource-efficient growth are concepts repeated throughout the strategy with the goal of improving the quality of life of citizens. The environmental objectives for CoJ are defined in the **Johannesburg 2040 GDS** under the following four outcomes:

- **Outcome 1:** Improved quality of life and development-driven resilience for all.
- **Outcome 2:** Provide a resilient, liveable, sustainable urban environment – underpinned by infrastructure supportive of a low-carbon economy.
- **Outcome 3:** An inclusive, job-intensive, resilient, and competitive economy that harnesses the

potential of citizens.

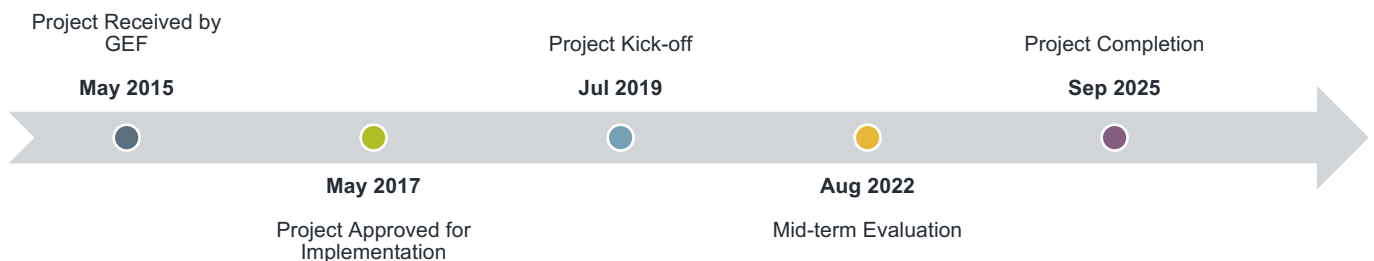
- **Outcome 4:** A high performing metropolitan government that pro-actively contributes to and builds a sustainable, socially inclusive, locally integrated, and globally competitive Gauteng City Region.

CoJ has developed an **Integrated Development Plan 2022/23** (IDP) and **Spatial Development Framework 2040** (SDF) to address the strategic outcomes set in the Johannesburg GDS 2040, defining medium-term implementation plans for the city. These actions set the foundation and frameworks needed for the development of the ‘*Building a resilient and resource-efficient Johannesburg: Increased access to urban services and improved quality of life*’ project, with the intended impact of building upon strategies that are already in place within CoJ to achieve a more resilient city with a lower carbon consuming infrastructure. Existing strategies were identified as pilot projects for the implementation of proposed new or improved strategies and to inform the development of new policies to be adopted.

## 2.2| Description

The City of Johannesburg (CoJ) project titled, ‘*Building a resilient and resource-efficient Johannesburg: Increased access to urban services and improved quality of life*’ (GEF Project ID 9145, hereinafter “the Project”), is a child project (sub-project) under the Global Environment Facility’s (GEF) Sustainable Cities Integrated Approach Programme (SC-IAP). The project was initially received by the GEF in May 2015, and approved in May 2017, with implementation starting in July 2019. The project is slated for completion in September 2025 (Figure 2)<sup>1</sup>.

**Figure 2. Project timeline.**

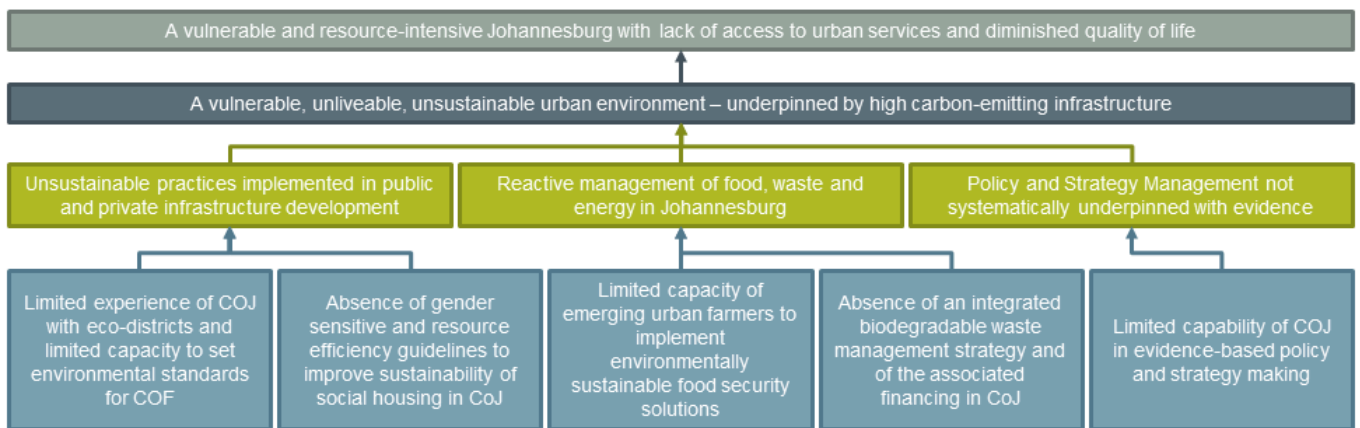


The United Nations Environment Programme (UNEP) and the Development Bank of Southern Africa (DBSA) serve as the Implementing Agencies (IAs) for the Project. The City of Johannesburg serves as the Executing Agency (EA) for four of the project’s Outcomes, and the DBSA as EA for one Outcome. The budget of the Project is approximately \$132 million, including grants and in-kind contributions from GEF (\$8 093 171, grant), DBSA (\$886 667, grant) and UNEP (\$175 194, in-kind). The balance is financed by the CoJ (\$123 377 469) (GEF, 2016).

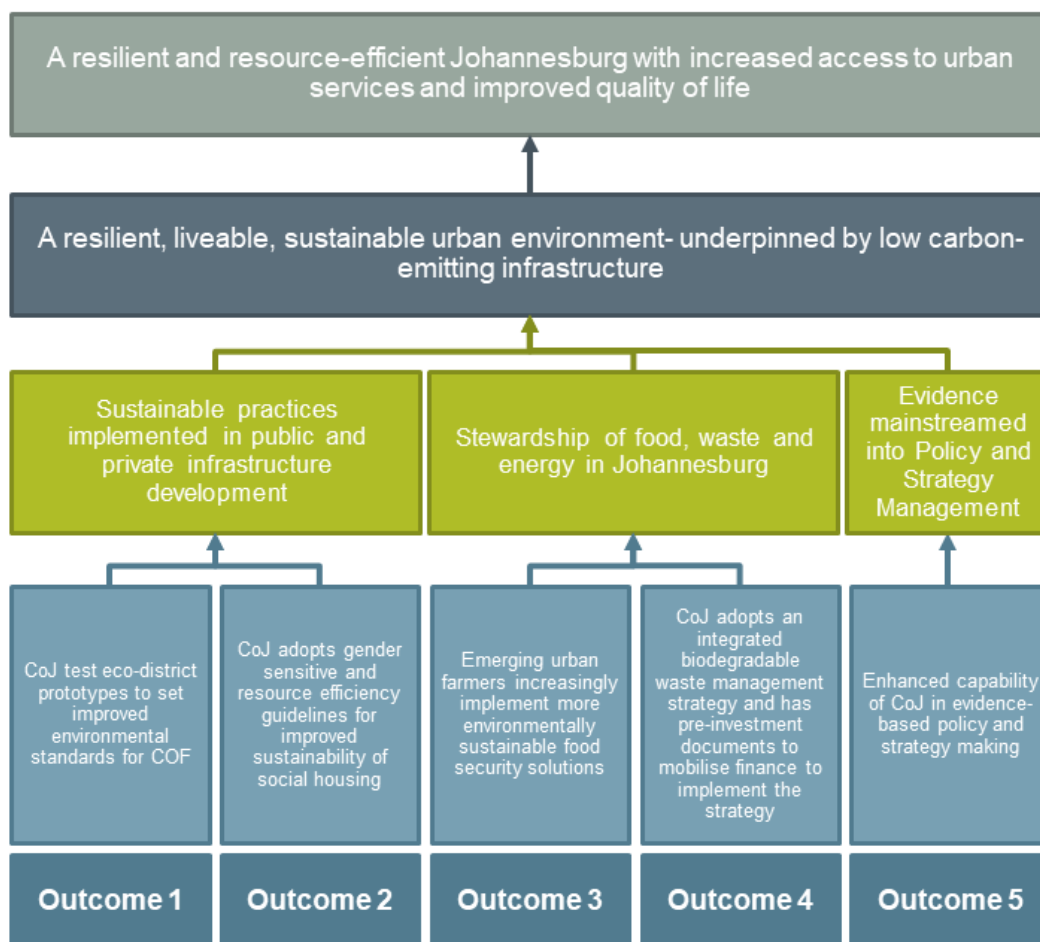
The project was designed in response to challenges in CoJ related to resource efficiency and vulnerability, as described in the project Problem Tree (Figure 3). The overall objective of the Project is to address these challenges by fostering city-level resilience in Johannesburg, promoting resource efficiency, facilitating greenhouse gas emission reductions, and offering select other co-benefits to the city (e.g., promoting gender equity). It achieves these objectives through five distinct Outcomes. The Theory of Change (ToC) for the Project, along with the five Outcomes are set out below (Figure 4).

<sup>1</sup> While the project was initially scheduled for completion in June 2024, practical completion has been extended to September 2025

**Figure 3. Project Problem Tree (Adapted from GEF, 2016).**



**Figure 4. Project Theory of Change (Adapted from GEF, 2016).**



As illustrated in Figure 4, the five Outcomes combined contribute towards achieving the overarching objectives of the Project. While some revisions of the outputs and activities have occurred throughout the implementation of the project, the outcomes have remained the same and have not necessitated a request for major revisions from the GEF (Personal Interview, UNEP, 25<sup>th</sup> August 2022). Key project outcomes and outputs are listed in Table 5 below, with detailed activities under each captured in the individual Evaluation Matrices of each Outcome in Chapter 3.

**Table 5. Outcomes and Outputs from the Project (CoJ GEF Project 9145 Workplan Revision 3).**

<b>Outcome 1:</b> CoJ test eco-district prototypes to set improved environmental standards for TOD Corridors	1.1. One Eco-District (at neighbourhood, precinct, block and site scale) modelled for optimized resilience and sustainability
	1.2. Knowledge-share and information transfer products developed for private and public green construction sector
	1.3. Evidence-based green policies and guidelines adopted by the CoJ
<b>Outcome 2:</b> CoJ adopts gender sensitive and resource efficiency guidelines for improved sustainability of social housing	2.1. Revised sustainable, affordable and gender sensitive social housing retrofit guidelines are adopted by Johannesburg Social Housing Company (JOSHCO)
	2.2. JOSCHCO processes are revised to ensure constructed social housing conforms with design brief
	2.3. Revised sustainable, affordable and gender sensitive social housing retrofit + greenfield guidelines are adopted by JOSHCO
	2.4. All revised guidelines and processes are shared with other social housing development agencies for uptake
<b>Outcome 3:</b> Emerging urban farmers increasingly implement more environmentally sustainable food security solutions	3.1. Ways of urban farming production are piloted to improve food quality, affordability, financial and environmental sustainability and gender equality
	3.2. Policies and recommendations for increased food resilience in CoJ are drafted and adopted
	3.3. A plan is prepared and agreed with CoJ to replicate successful pilots
<b>Outcome 4:</b> CoJ adopts an integrated biodegradable waste management strategy and has pre-investment documents to mobilise finance to implement the strategy	4.1. Waste to biogas pilot is constructed and operational
	4.2. Waste separation at source is piloted
<b>Outcome 5:</b> Enhanced capability of CoJ in evidence-based policy and strategy making.	5.1. Indicator selection and data collection for evidenced based policy and strategy making
	5.2. Development of an integrated spatial data portal and spatial plan management/sharing system
	5.3. Lessons and knowledge from the project are shared for replication

# 3

## MTE Findings

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The detailed findings of this MTE are captured within the Evaluation Matrices presented in Appendix 1 to this report. The Evaluation Matrix links the respective Activities of the project to the reviewer's allocated ratings, the justifications for these ratings, and recommendations. These matrices are central to the MTE and serve to display all the information cohesively. These findings are then summarised to the Outcome level and findings made about the project in its entirety are presented. Some findings are supported with supplementary information at the end of this section. This section presents a synthesised narrative of the key findings from this MTE, as derived through application of the Evaluation Matrices in Appendix 1.

### 3.1| Primary Findings

The MTE finds that the project has made progress across each of the five Outcomes, but that this has been uneven between these Outcomes. Significant challenges have hindered progress, and these have placed substantial risks to activities that are dependent on initial, and foundational steps.

There is a prevalent issue regarding the procurement procedures within the City of Johannesburg (CoJ) and DBSA, and although these are fairly common challenges in the South African public sector, it must be noted that these procurement issues are hindering progress across several Outcomes. If current procurement processes are not improved, there will be further delays which could compromise the delivery of respective Outcomes.

**Outcome 1:** Significant progress has been made and several activities completed. Robust adaptive management has been demonstrated, and the PMU has made some effective adjustments in response to the impacts of the COVID-19 pandemic. This Outcome is set to complete all activities effectively, while efficiencies lost because of COVID-19 are set to be resolved in the next half of the project delivery cycle.

**Outcome 2:** Good progress has been made in this Outcome, though there are some gaps and dependencies such as retroactive tracking of information not originally captured in the Post-Occupancy Evaluations (POEs) that must be addressed going forward to ensure this momentum is maintained and that activities are successfully completed within the remaining timeframe of this programme. Remedial work is required for this Outcome to progress successfully, focusing on establishing an agreed understanding of gender and application of gender mainstreaming, and an agreed conceptual framework for taking the process forward. The generation of 'learning content' needs to be improved, such as the findings from the review of JOSHCO's social housing delivery processes, which should be developed into a guidance note for upscaling on other JOSHCO projects. Such learning content is critical for project sustainability, and for replicating this Outcome at scale.

**Outcome 3:** The work in this Outcome has progressed well but faces challenges and hindrances from CoJ's procurement processes as noted earlier in this section. There are also challenges related to the appropriateness of the training provided. As low-input, low-output farmers, most farming groups have for many years been farming largely on an informal organic basis. The farmer groups feel they have learned little that was new to them from the training provided. Most deliver mainly to low-end markets, where they can derive little benefit from the price premiums that are available on high-end markets. If certification and marketing objectives have not been achieved and farming groups continue with their current methods of

operating (even though they are largely organic) and marketing, the project will have generated poor value for money, even though there will have been some degree of environmental achievement.

**Outcome 4:** The progress of this Outcome currently hinges on the procurement for the pilot plant, placing a significant portion of the Activities at risk due to their dependency on the pilot plant. This follows a delay resulting from an unsuccessful first round of procurement. The first attempt at procurement grouped all the actions for delivery of the pilot plant together and thus a suitable service provider could not be acquired. The lessons from this have been applied, and the current procurement has separated out the actions – such as site preparation, plan installation and programming – to target a suite of service providers with different specialisations. This separation should not lead to significant cost escalation if carried out effectively, and any minor cost increases remain preferable to the delay of progress within the Outcome.

**Outcome 5:** The initial Activities have progressed well, and progress is likely to continue now that the appointment of a reputable service provider has been completed. Should the service provider meet the requirements, this Outcome should complete all Activities and meet all goals within the project timeline.

Across the project there is evidence of significant adaptive management in response to most barriers and this was highlighted by the adaptability shown in response to the COVID-19 pandemic and the subsequent lockdowns and restrictions. The workplan adjustments show responsive changes that ensured the project was able to progress during the pandemic despite these impacts and, if all goals are met, will deliver valuable outputs with the adjusted Activities. While progress is uneven, there is strong evidence for high sustainability within the project Activities if current barriers are overcome. This is noteworthy and has resulted from efforts to drive institutionalisation wherever possible across the project. This is also linked to the PMU and Outcome leads ensuring that the project remains impactful through the various revisions that were needed in response to barriers.

### 3.1.1| Project Strategy

Through the MTE process it was clear that the project strategy was well designed within each Outcome and aligned to deliver the desired outcomes effectively. One shortfall remains the synergy between and across the five Outcomes to deliver a coherent vision. The varied status of implementation and progress across the Outcomes has hindered development of overarching results at the project level, and there is no clear complementarity between the Outcomes. Although the project is only at the mid-term point, it is concerning that there is little evidence of cross-learning and collaboration between the Outcomes, with these operating more as separate entities instead of as parts of a whole. Outcome 5 serves as the merger point between the other Outcomes but much of this is slated for development in the second half of the project, and foundational steps are currently hindered by procurement challenges. Earlier establishment or formalisation of a knowledge sharing framework would also have assisted to highlight synergies and unpack lessons learned. The lack of, or unclear, synergy can undermine the success made within the Outcomes, and there is a need of more effective oversight of the Outcomes collectively, with integration, collaboration, and a shared vision. This could be achieved by having a Project Manager in place who could identify the entry points for integration and could drive the shared vision while ensuring that reporting and other administrative functions are sustained efficiently. This is of particular importance for the sustainability of the programme beyond the GEF funding cycle. A shared vision would need to be clearly articulated and institutionally embedded to ensure that the project's Outcomes have a life and impact into the future.

### 3.1.2| Progress Towards Results

Progress towards results within the project has been mixed. Many activities have been completed and some Outcomes, particularly Outcome 1, have made substantial progress. There are currently several barriers to progress within Outcome 3 and Outcome 4. Outcome 4 faces challenges beyond the scope of the CoJ with delayed procurement processes within the DBSA and linkages to market capabilities, responsiveness, and

pricing which impact progress. Thus, it is important to note that barriers and delays arise from both internal and broader/context systems. The design of the Outputs and their Activities are sequential and so progress of significant portions of these are dependent on completion of preceding steps. The graphs in Figure 5 below show that 39.3% of the Project activities have shown successful progress by the mid-term point, with a further 20.5% showing nearly successful progress. The barriers and challenges, along with inherent sequential dependencies of activities, have resulted in a significant risk to Outcome 2 and Outcome 4, and some of this risk is carried to Outcome 5 given the need for project progress to develop lessons.

The ratings of achievement of activities are summarised in Figure 6 and show a positive result, with 14.3% of achievement rated 'Highly satisfactory', 34.8% rated 'Satisfactory' and 7.1% rated 'Moderately satisfactory'. None of the activities across all outcomes received a 'Highly unsatisfactory rating. These results show that, despite challenges and barriers, the MTE has found that the project team achieved progress that reflects adaptability and should ensure delivery of end-of-project goals and targets. It is important to note that a significant portion of Outcome 4 was not rated (77.7%) as these are activities that have not yet been initiated, and a similar situation is found in Outcome 5 (35.7%) given its need for lesson gathering.

Many of the delays and barriers to progress are the result of procurement and approval challenges. CoJ's internal processes have made progress very slow and difficult. To a substantial degree the slowness results from having to adhere to the Municipal Finance Management Act (MFMA), especially with regard to procurement, but it may also reflect the slowness and sometimes inefficiency of CoJ's internal processes. The high turn-over rate of senior officials (including in the office of the CM) is also a factor in inefficiencies, while this turnover is indicative of the political context that CoJ must operate in. It was noted that some documentation was delayed for months in awaiting sign-offs due to time taken to collect signatures and name changes of signatories. Other internal CoJ barriers included challenges in developing tender specifications correctly as well as inefficient processes for authorising budget adjustments timeously when delays impact workplans, and when decision-making necessitates interdepartmental coordination. The last of these is a particularly debilitating problem, leading to time-consuming decision-making processes. While such challenges may be systematic of government structure, rather than a fault of CoJ, there are consequences for project beneficiaries and project performance. In Outcome 3, these impacts have resulted in a loss of the confidence and enthusiasm of farmer groups following as they have been compounded with dissatisfaction with the training received.

Figure 5. Summary of Project and Outcome progress towards results using the 'traffic light system'.

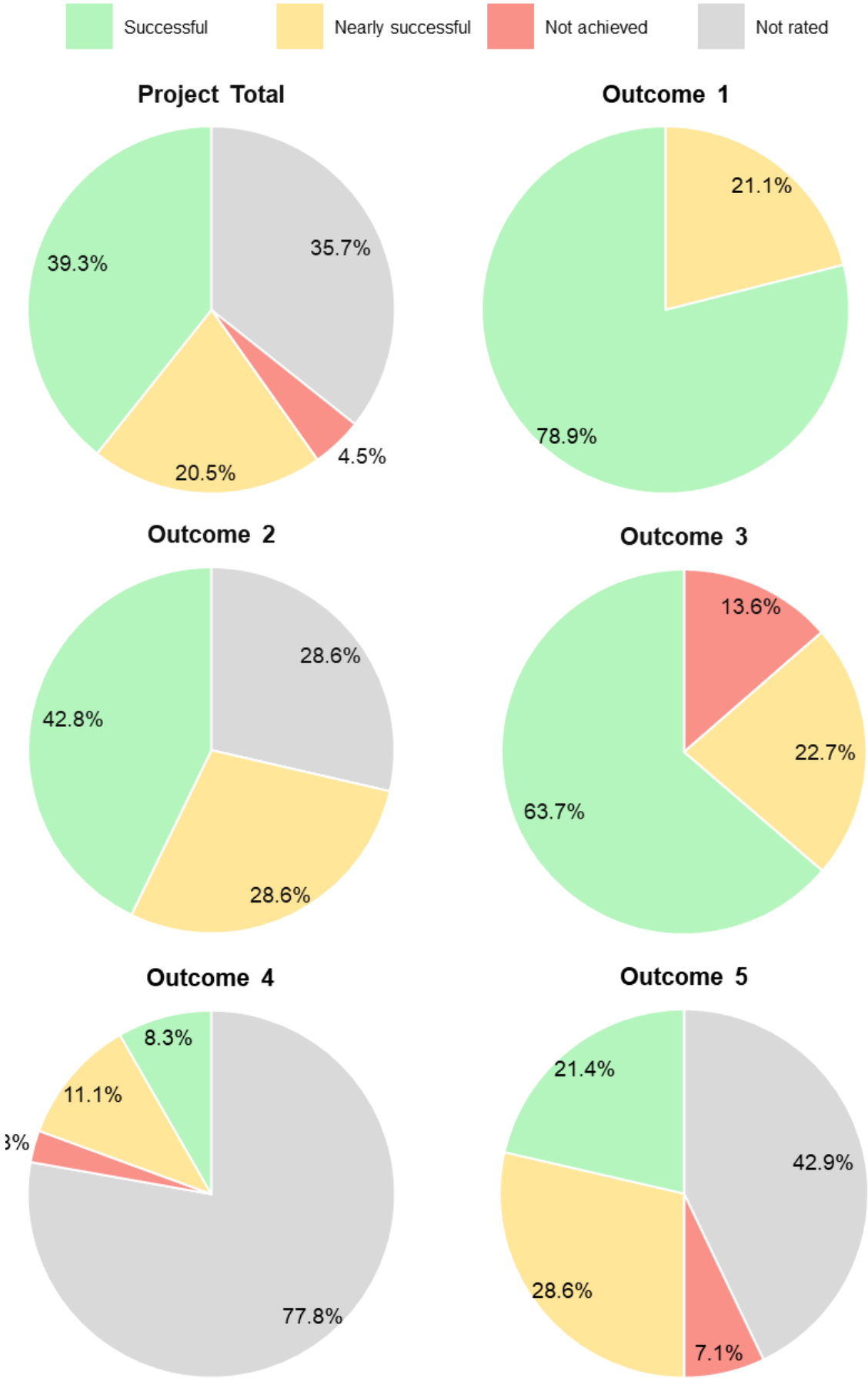
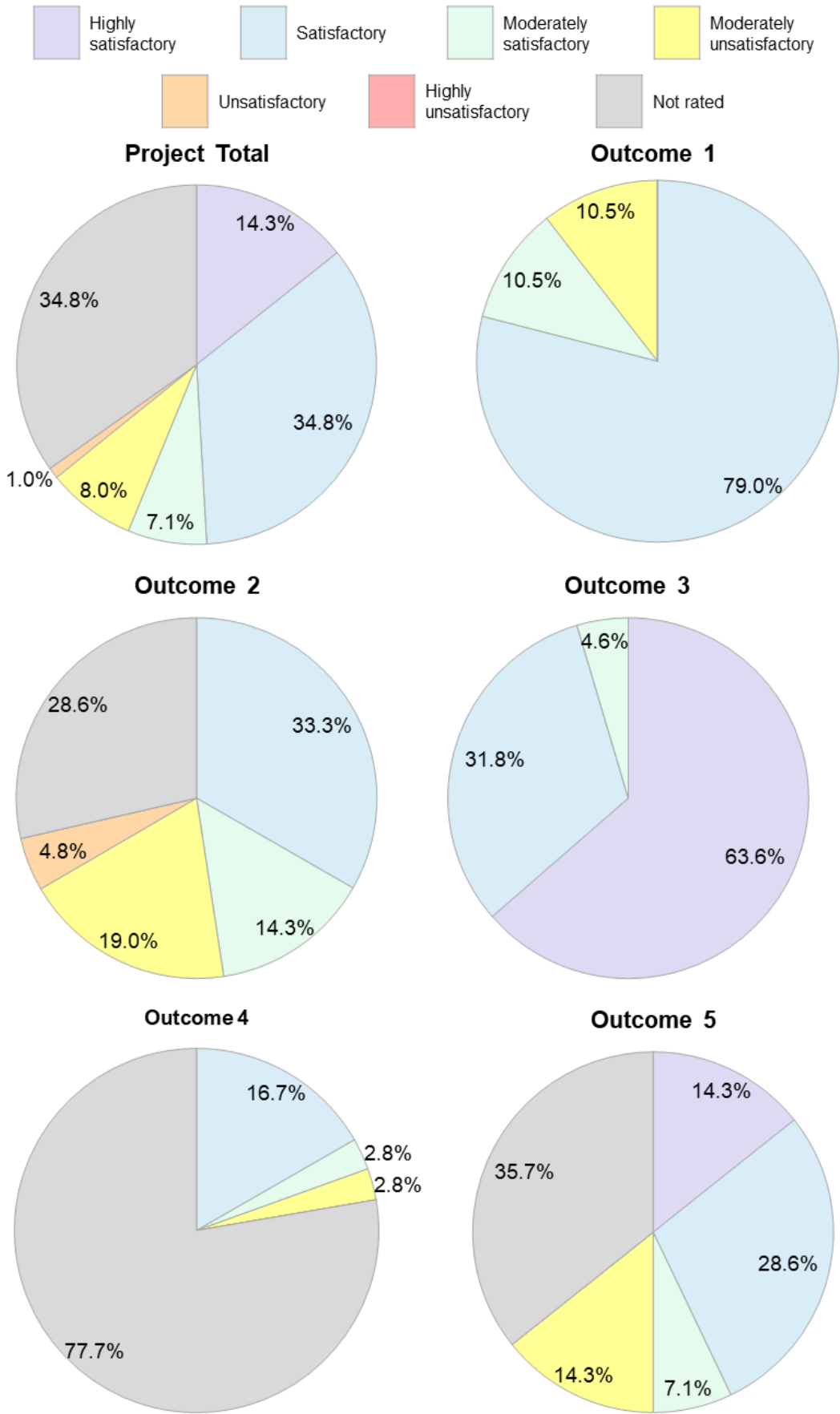




Figure 6. Summary of Project and Outcome progress ratings at the mid-term point.



Overall, project progress to the mid-term point is moderately satisfactory but the remaining progress hinges on immediate progress in linchpin activities. It is crucial that steps are taken to mitigate against further delays if the current set of barriers are not overcome. A no-cost extension has been approved, and this should expand the window available for the project to meet targets between the mid-point and end of the project lifespan. It is recommended that project management be carried out with more agility and allow for tasks to run (partially) in parallel avoiding the conventional approach of having to have sequential completion of activities. If a starting activity is delayed all actions following in the execution chain will be delayed and this is not always necessary. It can be less efficient but more effective to manage this in a more agile manner. Some other possible remedial measures to help with implementation progress include: i) ongoing review of project performance needs to effectively detect potential delays and to put in place actions to overcome them; and ii) to ensure frequent, regular, honest communication with intended project beneficiaries, even when there is little that is new to report.

### 3.1.3| Project Implementation and Adaptive Management

The project implementation has been conducted well, though hampered by barriers beyond the control of the Outcome leads and PMU. Implementation has been carried out with effective management at the project and Outcome level, with effective record-keeping and regular meetings.

One risk factor, which may be linked to the lack of clear synergy mentioned in **Project Strategy** above, is the loss of a central Project Manager, who resigned in September 2022, and has not yet been replaced. This role was then taken over by one of the leads of Outcome 1 but who also left their role in December 2022. Currently the remaining lead of Outcome 1 is acting in the role. While these interim Project Managers have been able to deliver effective coordination and oversight, it is imperative that the position is filled with a dedicated individual to oversee the project and bring alignment to the various Outcomes, reducing the need for Outcome leads to take on additional duties such as project-level reporting, particularly oversight of the year-end reports, and coordination of meetings. The retirement of the Outcome 2 lead in January 2023, and the departure of the Outcome 5 lead in March 2023 exacerbate the challenge. Turnover of central staff can hinder project progress as, despite the competency of the replacements, there is a need for time-consuming handover processes and a loss of institutional knowledge and established relationships. The knowledge management function of key staff is also critical and is affected by turnover, impacting documenting processes and learnings within the project and within its management. While the PMU has displayed skill and knowledge in their leadership of the Outcomes and the project, retention of key staff should be prioritised.

Adaptive management has been clear, with the project's response to, and progression through, the COVID-19 pandemic serving as a clear indicator of this. There have been extensive revisions to the project workplan and adjustments to the scope to adhere to the restrictions of the circumstances while still seeking to deliver impactful results. It may be required that aspects of some outcomes be adapted if current barriers are not overcome so as not to risk any further impediment to progress.

### 3.1.4| Sustainability

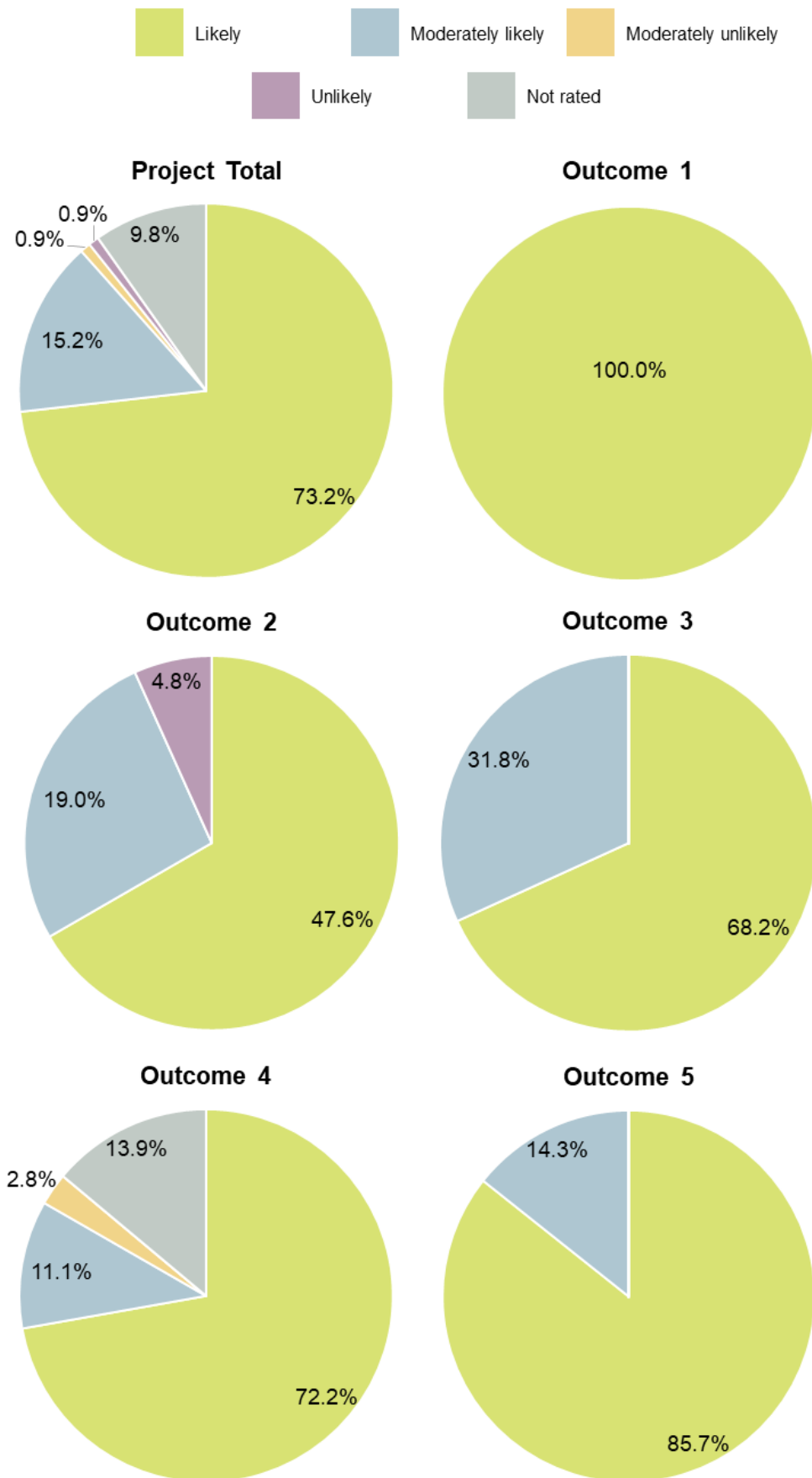
The MTE found that while the likelihood of sustainability across the project exists, greater emphasis on delivering clear sustainability measures is needed in the second half of the project lifespan to ensure sustainability. Ultimately, sustainability will hinge on embedding the project's approach in COJ's institutional and operational arrangements. Progress towards this will need serious emphasis in the second half of the project. Lack of progress in this regard would compromise overall project sustainability, as discussed in more detail below.

Figure 7 shows the summary of sustainability ratings for activities and the results indicate high sustainability, with the project having 73.2% of activities rated as 'Likely' to be sustainable and a further 15.2% rated as 'Moderately likely'. These results show that, despite barriers highlighted before, the adaptive management

displayed by the project leadership has ensured that sustainability is not compromised. It was noted that this likelihood of sustainability was dependent on a focus shift going forward beyond the project mid-point. The current focus of most of the Outcomes has been establishing baselines and taking foundational steps to set-up the main body of work to be carried out. This has resulted in a lack of attention on sustainability beyond the project lifespan. There are indicators of sustainability within the design of some activities, and interviews with the PMU and Outcome Leads have shown that thought has been given to sustainability. However, sustainability strategies need to be made more tangible and clearly articulated going forward, for example developing learning content for replication and upscaling, and for establishing a clear and common vision for this project's future, and embedding this within the institution. While Outcome 5 serves to capture knowledge and lessons from the project, this is but one aspect of sustainability. It was not made clear in the process of the MTE how each Outcome intends to maintain sustainability beyond the project lifespan beyond knowledge and lessons.

Delays in project progress (as outlined in 3.2.2.) result in lengthy times for delivery of key aspects of the project's design which impact project sustainability. For example, in Outcome 3, delivery of infrastructure and organic certification, both of land and of farmers has been very delayed. These delays mean that the ultimate objective, to establish farming groups that are able to reap the rewards of being able to supply both high-end and lower-end organic produce markets on a year-round basis, has likely fallen beyond the scope of the project lifespan already. Farming groups' participation is being retained largely through the provision of free recurrent inputs, such as seeds and compost, but not always when farmers need them. This will not be sustainable beyond the end of 2024. Some key factors have been identified for the land and farming groups: i) they need to be certified organic; ii) farming groups need to be able to supply produce to specification on a continuous, timeous basis; and iii) farming groups need an established high-end clientele. These are important requirements for ensuring that the project's efforts and expenditure create fundamental change in the farming groups output. Using the same methods that they have to date, even though this is largely organic and part, is reaching higher-end customers already. Supplying the latter also requires farms to be operated as sustainable, adequately profitable small businesses. To date, little or none of the training conducted has been business-orientated. Farmer groups are asking for this – it is key to their sustainability going forward.

**Figure 7. Summary of Project and Outcome sustainability ratings.**



### 3.1.5| Gender

#### General findings regarding gender considerations

1. There has been a fundamental assumption that all women and all men will be impacted in the same way by project interventions—even though ‘gender sensitive guidelines’ were explicitly required.
2. The project shows prioritisation of technical guidelines and metrics over socially informed and acceptable outputs—gender and inclusion get lost in this assumption.
3. Gender analysis that describes baseline conditions related to roles, responsibilities, access, control, and decision making within all project components and settings has not been done so outcomes of gender interventions cannot be measured.
4. Clear gender mainstreaming goals and targets—at project level—have not been defined. Therefore ‘gender’ interventions are done ad hoc and will not result in addressing gender inequalities and can conceivably make them worse.
5. While gender mainstreaming includes tracking female/male participants that is the bare minimum and does not reach the level of ‘gender sensitive’.
6. No definitions related to gender are offered or clear, no indication that the gendered nature of service uptake is understood or considered.
7. While DBSA focuses on gender ratios in procurement, that would be a minor aspect of true gender mainstreaming in this project.
8. Gender sensitive guidelines emerge from gender analysis prior to, or during design. That analysis was either not done, documented, or not supplied to the reviewer.

Table 6 below contains evaluator comments on the project’s self-identified efforts to mainstream gender or address it in specific components and activities.

**Table 6. Review of gender considerations for the project.**

Project Approaches to Gender Mainstreaming		
Project Section	Project-supplied gender activities	Reviewer’s comment
<b>Overall project</b>	The Sociologist with gender expertise was appointed on 1 July 2021. In the period under review, the official engaged component teams on the Gender Action Plan, and its expansion and put in place processes to ensure its implementation and reporting.	Gender Action Plan was not seen or reviewed.
<b>Outcome 1 (Eco Districts)</b>	<p>Peer to Peer Exchange with key stakeholders in the green building industry - Development of Two Carbon Emission Models convened on 5 October 2021 on MS Teams with 23 attendees, 12 identified as Female (52%) and 11 identified as Male (48%).</p> <p>Internal stakeholder meeting: Assumptions and Calculations Informing the Climate Action Plan and Implications for Eco-Districts) convened on 9 December 2021 on MS Teams with 6 attendees, 3 identified as Female (50%) and 3 identified as Male (50%)</p> <p>Guidelines on incorporating energy efficiency and green building into clinic detail designs engagement with 20 attendees, 10 identified as Female (50%) and 10 identified as Male (50%).</p> <p>The component team together with the Gender expert have decided to expand the GEF GAP, the following is an additional indicator:</p>	<p>Disaggregating participants by sex is the bare minimum and counts as gender targeting not mainstreaming.</p> <p>This indicator must be considered fundamental to the project. Ability to disaggregate findings by sex/gender is critical to assessing what worked for whom, and why.</p>

	<p>Number of stakeholders that identify as male and stakeholders that identify as female, that participate in adopting and implementing low greenhouse gas emission development, strategies, and policies.</p>	
<p><b>Outcome 2 (Social Housing):</b></p>	<p>The preferential procurement policy in selecting construction services was developed; it awaits sign off from the JOSCHO Executive Committee. Moreover, Gender sensitive measures have been included in all guidelines and will be implemented in future developments.</p> <p>Engagement with the Developer for the Greenfield Project convened on 28 July 2021 on MS Teams with 6 attendees, 2 identified as Female (33%) and 4 identified as Male (67%).</p> <p>Engagement with City Power convened on 17 September 2021 on MS Teams with 12 attendees, 4 identified as Female (33%) and 8 identified as Male (67%).</p> <p>Stakeholder engagement with City Power, LBM Consulting and JOSCHO on 13 April 2022 on MS Team with 10 attendees, 5 identified as Female (50%) and 5 identified as Male (50%).</p> <p>The component team together with the Gender expert have decided to expand the GEF GAP, the following are additional indicators:</p> <p>Equal training opportunities and transfer of skills will be available for men and women.</p> <p>Persons employed on the project team should be in line with CoJ Employment Equity (EE).</p> <p>All training materials, technology and methodology of dissemination are to be women friendly (e.g., avoiding gender stereotypes and using appropriate illustrations).</p>	<p>While being a possible step toward gender equality, procurement does not speak to gender sensitive guidelines at all. Gender sensitivity has not been defined and gender sensitive guidelines have not been reviewed.</p> <p>Disaggregating participants by sex is the bare minimum and counts as gender targeting not mainstreaming.</p> <p>How do equal training opportunities and transfer of skills address gender inequalities?</p> <p>Women friendly is not gender sensitive—in fact, it may be the opposite.</p>
<p><b>Outcome 3 (Food resilience)</b></p>	<p>Compost training for Region A, with 7 attendees, 4 identified as Female (57%) and 3 identified as Male (43%)</p> <p>Compost training for Region D, with 9 attendees, 5 identified as Female (56%) and 4 identified as Male (44%).</p> <p>The component team together with the Gender expert have decided to expand the GEF GAP, the following are additional indicators:</p> <p>Number of women and men emerging farmers and CoJ officials trained in and using sustainable and/or organic farming methods.</p> <p>Number of women and men that benefit from community gardens converted to certified organic production methods.</p>	<p>Disaggregating participants by sex is the bare minimum and counts as gender targeting not mainstreaming.</p> <p>How will gender mainstreaming be implemented in all project activities?</p> <p>Who is responsible, who is accountable, which budget lines, which indicators?</p> <p>Which female and which male farmers are being engaged and why?</p>
<p><b>Outcome 4 (Biodegradable Waste)</b></p>	<p>The procurement process has incorporated gender equity through the Broad-based Black Economic Empowerment (BBBEE) policy and other relevant legislation. With regards to the implementation of the GEF Gender Action Plan indicators, some have already been implemented (i.e., feasibility study). The approach is that once the service provider for the biodigester is</p>	<p>Disaggregating participants by sex is the bare minimum and counts as gender targeting not mainstreaming.</p> <p>Documents need to be published</p>

	<p>appointed, it will be ensured that gender mainstreaming is implemented in all the project activities.</p> <p>The component team together with the Gender expert have decided to expand the GEF GAP, the following are additional indicators:</p> <p>Equal training opportunities and transfer of skills will be available for men and women.</p> <p>All training materials, technology and methodology of dissemination are to be women friendly (e.g., avoiding gender stereotypes and using appropriate illustrations).</p>	<p>for lesson sharing and tracking.</p> <p>Why are equal training opportunities going to be available to men and women?</p> <p>Women friendly is not a term used to address gender inequalities</p>
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### **Specific gender issues identified in Outcome 2**

Various terms under Outcome 2 have not been clearly defined, and thus cannot be developed into targets or assessed. For example, sustainability must be described with a limited number of concrete indicators, which include both technical and social aspects. Outcome language emphasizes technical aspects without acknowledging the importance of social acceptance for sustainability. Gender sensitivities have not been defined, and therefore progress toward this cannot be fully assessed. The approach to, and methods for adopting gender sensitive guidelines are not clear. The identified gender and efficiency guidelines need to be referenced.

**Outcome Indicator: 2.1.** Revised sustainable, affordable and gender sensitive social housing retrofit guidelines are adopted by JOSHCO.

Analyse POE data to generate evidence related to vulnerability, sustainability, gender, etc. Differentiate between different kinds of respondents – results suggest that all are the same and need the same response. It may be necessary to conduct focus groups to discern social factors excluded from POE.

Indicate how original POE (design, implementation, analysis) mitigates against bias (gender, age, employment, migration status, etc) among respondents?

Define sustainable, affordable, and gender sensitive so they can be adequately incorporated into housing guidelines.

**Outcome Indicator: 2.2.** JOSCHCO processes are revised to ensure constructed social housing conforms with design brief.

Gender sensitivity and resource efficiency have dropped out of the language but are still implied. Therefore, ***gender should be embedded within JOSHCO's social housing delivery processes.***

**Outcome Indicator: 2.3.** Revised sustainable, affordable and gender sensitive social housing retrofit and Greenfields guidelines are adopted by JOSHCO.

Ensure guidelines address gender and diversity among beneficiaries/residents. Unpack various and overlapping vulnerabilities including sex, age, immigration status, employment status, household head, etc.

**Outcome Indicator: 2.4.** All revised guidelines and processes are shared with other social housing development agencies for uptake.

Engage CoJ colleagues and NGOs responsible for gender issues now to ensure their principles are incorporated and that they promote uptake of these guidelines.

## **3.2| Supplementary Information**

This section contains some supplementary information for some project Outcomes, where relevant. This information is intended to support the results and recommendations captured in the Evaluation matrix of each Outcome. For Outcome 1 and Outcome 3, all detail is captured within the matrix and thus supplementary sections have not been included for these outcomes.

## Outcome 2: Social Housing

The project has progressed well in terms of getting POE evaluations done and in executing the retrofit. It is behind in generating and mainstreaming guidelines into operational documents. The reviewers note concerns about missed opportunities for learning and for developing an expanded set of sustainability- and gender-sensitive design principles.

The retrofit interventions did not emerge logically from the POE evaluation (although this is claimed) but rather from a technical inspection of the social housing estate (Tshedzani Phase 3). There is however a logic to the choices made regarding content of the retrofit. In essence the argument is that reducing the ongoing living costs of social housing for residents via energy and water consumption interventions makes staying in social housing more sustainable. It is also argued that this is particularly true for the most vulnerable including, for example, single mothers. While we do not disagree, the most vulnerable need to be defined so that impacts of retrofits can be assessed in a more nuanced way.

The review team is of the view that a focus on water and energy is too narrow in thinking about gender and sustainability guidelines. There may be several other issues that could have been explored via the POE questionnaire (or some other instrument) and which could have been considered for inclusion in the retrofit. For example, older men and women, or those with young children may have issues with access to their units or have specific needs regarding security.

A limited number of well-designed focus group discussions with residents are suggested, not just in respect of the design principles for retrofits, but also for the forthcoming work on principles for Greenfields design. The methods to be used in promoting sustainability and gender-sensitivity in the Greenfields component of the initiative need to be thought through. In our view the focus group discussions we suggest will help. A more thorough analytical report of the POE questionnaires needs to be developed as part of the focus group design process.

Outcome 2 has focused on technical aspects at the expense of corresponding social issues, which contribute significantly to sustainability. Outcomes 2.1 and 2.3 specifically mention 'gender sensitive' yet this expression has not been defined, clarified, or deconstructed.

## Outcome 4: Biodegradable Waste

### **4.1.1. Review institutional arrangements of an oversight body for the design, implementation, operations and offtake of the 50T biogas pilot.**

Apart from meetings, it has been substantiated that the Outcome 4 oversight body is active in terms of adaptive project management. Due to issues regarding procurement, the oversight body has restructured the planning of the project and produced a new work plan in April 2022 (See Document #37). This plan has been regularly updated as per the minutes in document #24. Finally, Energidrop has stated that the plan is still in progress and regularly updated following the meeting of the project oversight body.

Main stakeholders directly involved in the project DBSA, CoJ, Pikitup and Energidrop are well represented during Outcome 4 meetings.

### **4.1.2. Select sites for the biogas plant and peripherals and complete legal requirements including EIA and licencing.**

Site feasibility report document #25 details the appropriateness of the site for the project. The site has received a full licence to manage waste as of 2020/07/21 (see document #13 in document list). Further waste licensing documentation is documents #26 - #28. An internal MoU detailing the consent use of the Robinson Deep site has been signed detailing the approval of zoning for the site (see documents #19 & #25).



#### **4.1.6. Finalise procurement specifications, tender contract, select winning bidder and sign contract to build, operate and maintain a 50T pilot biogas plant and peripherals.**

Regarding the unsuccessful two EPC tenders document #35 states the following:

The tender was originally advertised on 05 July 2021 for an EPC Contractor with a compulsory virtual tender briefing held on 12 July 2021. The closing date was 26 July 2021, which was extended to 27 August. This tender was declared unresponsive as no bid submissions were received by the closing date, only one bidder responded with a letter detailing reasons for their non-submission. A decision to re-advertise the tender was then taken and executed.

The tender was re-advertised on 19 October 2021 for an EPC Contractor with a compulsory site tender briefing held on 29 October 2021. The closing date was 12 November 2021, which was further extended to 10 December 2021 after requests were received from potential tenderers.

The BEC concluded that the responses from the bidder to the clarification questions, did not fully address the issues raised. Additionally, the fact that the bidder did not generate a tailored pricing and activity schedule led the BEC to the conclusion that award of the project to this bidder would be a risk to the DBSA, its client and the funders. The client is a part of the BEC and concurred with this recommendation. It was agreed that the DBSA and CoJ would collectively formulate a way forward for the project. On this basis, the tender was cancelled. A decision to re-advertise the tender under a different procurement strategy was then taken and this is the current tender as detailed below.

For this tender, a new procurement strategy was formulated, which entails procurement of a Professional Service Provider (PSP) to design the work followed by procurement of a contractor to undertake construction. The PSP tender was a closed tender utilizing the DBSA approved established panel. The bidders were invited on 23 August 2022 and a compulsory online tender briefing was held on 29 August 2022; the closing date scheduled for 09 September 2021. In total, 15 bidders were invited and only six attended the briefing. Due to low turnout and virtually no technical questions raised by bidders during the session, management sought to understand the reasons for non-attendance. SCM embarked on a process to enquire with bidders. Mostly, bidders did not attend as they were of the view that the work is not part of the services they provide. Only two bidders from the six that attended confirmed that they would be submitting tenders. On this basis, management sought to mitigate the risk of non-submissions and requested to have this tender cancelled and re-advertised as an open tender to improve the chances of more viable bid submissions from interested bidders.

#### **Overview of the new tender:**

In order to improve the success of the new tender round the following components, previously together in one tender, were tendered separately:

1. Tree felling (ongoing)
2. Decommissioning of old incinerator, weigh bridge, diesel tanks, civil structures (ongoing)
3. PSP tender for professional services for detailed design and Bill of Quantities (BOQ) (awaiting approval by National Treasury)

Separating out the non-process engineering work (component 1 and 2) is considered logical as the required capabilities are not aligned.

Outcome 3 deviates from the previous approach in that the EPC tender packages have been split up in three phases:

1. PSP tender for professional services for detailed design and Bill of Quantities (BOQ) on the basis of existing conceptual design by University of Johannesburg (UJ) / Energidrop (tender ongoing and approval by National Treasury pending)
2. RFP for construction (after completion of detailed design and BOQ)
3. RFP for Operation and Maintenance of the biogas plant (after completion of construction)

This division has been done as the previous EPC tenders were not successful. Offering the different components for tender separately however could introduce other risks that need to be managed:

1. Risk in terms of managing performance guarantees not ending up with the operator blaming the construction company and the construction company blaming the designer.
2. Potential risk (unconfirmed, expert opinion) that tender is not attractive anymore for biogas specialised firms that generally deal with the design, construction and commissioning of biogas plants being able to guarantee performance and managing their IP and know-how with the final user. This could be a risk as DBSA's standard construction industry terms have been used whereby the DBSA becomes the owner of the design after payment. This is potentially prohibitive to high performance biogas specialists (expert opinion).
3. Potential risk that the project is only of interest to generic engineering firms that may not be specialised and experienced in biogas and which may not be that interested in implementing a project of this relatively small size. This can also introduce a cost escalation risk.

### **Outcome 5: Evidence-Based Planning**

Overall, Outcome 5 has had mixed success at the MTE stage. While the CoJ has managed to procure a server for the platform, procurement issues have set back both procurement of the server, as well as procurement of the platform. The team is commended for engaging JDA to assist with procurement, and with the successful appointment of a service provider, should proceed with minimum risk.

On Output 5.3 which measures the overall knowledge management of the project, some successes have been achieved, but these can and should be scaled up. Project Implementation Reports (PIRs) show clear evidence of stakeholder engagement. The procurement of a service provider to assist with more systematic knowledge management across the Outcomes is a good initiative and should greatly strengthen this Outcome.

# 4

## Conclusions and Recommendations

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### 4.1| Conclusions

The MTE has found that the Project has a mixed level of progress at the mid-term point. There has been a robust display of adaptive management, particularly in response to the impacts of the COVID-19 pandemic, which suggests that adaptive management principles are being applied to execute this project and that this is a strength that can be leveraged for other complex situations, such as managing and working with procurement processes and rules. However, this has been accompanied by significant delays in progress, resulting from institutional procedures within the CoJ that threaten integral portions of the Project moving forward. These delays also impact on the relationships between the Project and its beneficiaries, resulting in frustration and a loss of trust. The approval of a no-cost extension of the project will provide a critical window for the delayed activities to catch-up and implement remedial interventions to ensure end-of-project targets are met.

The lack of synergy between the five Outcomes means that each Outcome is currently functioning more as an independent entity rather than part of the whole Project. This in turn compromises the overall impact of the project in that its design is toward implementing a whole that is greater than the sum of its parts. Furthermore, the delays within Outcomes will likely exacerbate this situation if not resolved soon, as it will be even more challenging to create synergy when implementation progress is significantly varied between the Outcomes and the project is moving closer toward completion.

Project implementation has been conducted well with effective management, although the turnover of project staff in critical management roles is of concern. These turnovers can delay progress, which is often already overdue, and result in loss of institutional knowledge and working relationships. This also impacts the synergy of the Project, as there is a lack of long-term oversight and guidance in the absence of a Project Manager. Project sustainability must also be emphasised during the second half of the project lifespan to ensure that project impacts and benefits continue in the long-term.

There are concerns regarding the approach toward gender mainstreaming within the project, with some questionable assumptions and a lack of clear gender sensitivity definitions, guidelines, goals and targets. The gender baseline was not established at the project outset, and this hampers measurement of progress going forward with regard to gender sensitivity and mainstreaming.

The Project seeks to ‘*build a resilient and resource-efficient Johannesburg*’ and it has made significant strides toward this, but for an effective city-level approach that is sustainable, integration and an institutionally embedded common vision are key. The integration and synergy of the individual Outcomes is crucial to meeting the overall objective. It will be important for the resilience of CoJ for the internal processes that have impacted this Project to be improved, and this should be an important lesson that is drawn from the Project. The Project is poised to show how recovery is possible from significant delay and to serve as a case for more parallel-process project design and implementation.

While there is evidence that attaining sustainability of the project is likely, this is a midterm review and concerted effort is needed to ensure this and to optimise the positive aspects of the project over time. The value of the project design is significant, and this must be institutionalised and fully operationalised across the primary functions of COJ’s operations. This is necessary for ensuring project sustainability.

The recommendations below arise from these overarching conclusions and from the primary findings of this MTE.

## 4.2| Recommendations

Individual recommendations at the Activity level are captured within the Evaluation matrices in Section 3.1 above. This section brings these together for project-scale recommendations and interventions, and further highlights critical, or priority interventions for the remainder of this project. The latter have a significant focus on interventions that will promote the sustainability of this project, which is considered by the review team to be positioned to make a foundational contribution to the future and overall sustainability of the CoJ.

The primary recommendation is for COJ to institutionalise the project design and successes. Mainstreaming key aspects of the project's design and operations is critical for ensuring the sustainability and long-term update/mainstreaming of the project. In turn, this is central to the City's overall resilience, especially for its populations and economy. Institutionalisation should take place through ensuring the project's integration in key sustainable development, integrated development, and climate change plans and strategies. As such, the project's key elements should be mainstreamed into these plans and thus become part of the executive's agenda, as well as explicitly included in City programming and budgeting.

A conjunctive recommendation is to co-develop a common vision for this project and to institutionally embed this. A common vision is critical for finalising this project, with desired impact. Moreover, it is critical for the sustainability of this project and for future related interventions. This assumes that the CoJ's goal is to become a fully sustainable and climate resilient city – as articulated in CoJ's relevant policies and strategies.

### A common vision across the City of Johannesburg

Overall project synergy and impact can also be improved by linking to related workstreams and projects within the CoJ through lesson and resource sharing. The findings of this MTE represent key learnings, be they from how the project team have shown adaptability and addressed changes, or through the recommendations made in the MTE process. These can have valuable application in other CoJ workstreams that face similar barriers. Steps have already been taken in this regard with the invitation of members outside of the project team to attend the Gender Workshop so that gender mainstreaming lessons could be carried forward within CoJ beyond this Project alone. This sharing of lessons and knowledge will help to contribute to developing a common vision for CoJ in its approach to climate change and resilience.

This process can be reinforced through alignment of the Project with CoJ's Climate Action Plan (CAP) (2021). The CAP outlines Action Areas and related Key Performance Indicators (KPIs) for monitoring and evaluation (M&E), and these KPIs can be adapted and applied to the Project to benefit the M&E processes within it. Knowledge sharing and collaboration with the Environment and Infrastructure Services (EISD) unit of CoJ will be key to this strategy.

Developing this common vision can also initiate a paradigm shift amongst CoJ officials through generation of improved understanding of the beneficial impacts of projects such as this. This paradigm shift can remove barriers to leveraging city resources for climate change and resilience activities.

Furthermore, project activities and processes should, wherever possible, be run in parallel to avoid any further delays and to thus increase project effectiveness and efficiencies. It is understood that some steps are sequential and necessitate foundational work, and the project must operate within the regulations and institutional processes of the CoJ. There are opportunities for some work to be initiated while these processes are followed. Parallel workstreams will be more taxing to manage, and thus it is critical to address the issue of turnover within the PMU to ensure that there is effective support provided. A dedicated Project Manager must be appointed as a matter of urgency to ensure the needed oversight is in place.

A replacement Project Manager will also aid in addressing issues of project synergy. The Project implementation includes frequent meetings and reporting, and it is recommended that project cohesion be emphasised in these processes going forward. Moreover, a dedicated project manager will be essential to driving the development of a common vision for the project – and to underpin future initiatives of its kind – and embedding this institutionally in the CoJ.

More targeted recommendations for the Project include:

#### Outcome 1

- Develop and implement a clear plan to show how the work carried out by the independent service provider will be continued or built upon following the end of their contract. This should include identification of partners for potential collaboration to build on the findings, improve the tools and mainstream the approaches.
- Prioritise the development of the internal training and toolkit and ensure that training materials are highly current and relevant and promote social inclusion.
- Leverage content produced that lends itself to packaging of information and messaging, can raise awareness and support learning - with the assistance of a knowledge manager service provider – also to create a narrative linked to the CoJ’s broader environmental goals and interventions. Achieving this is fundamental for project sustainability.

#### Outcome 2

- Significant Gender baseline and preparatory work was not implemented effectively. ***Mitigate this gap by adapting questionnaires and other activities to establish this baseline, and to monitor against it for the remainder of the project.***
- Develop robust gender-sensitive guidelines and articulate clear approaches for their application. This recommendation applies to all the Project Outcomes.

#### Outcome 3

- Ensure frequent, regular, honest communication with intended project beneficiaries. Listen to their needs and frustrations and apply the adaptive management principles that have been applied effectively in other project situations, such as COVID-19 to respond to beneficiary and stakeholder needs.
- Provide business-orientated training to farmer groups to ensure they are able to reach higher-end customers after the project lifespan. Ensure that training is relevant, current and meets farmer needs.
- Assess beneficiaries’ training needs more accurately and design training accordingly. A targeted training needs assessment should be conducted with farmers before developing training materials, while an evaluation should be conducted immediately following each training, with learnings documented and responded to.
- Develop a strategic response towards resolving challenges with regards to securing city land through inter-departmental collaboration. Identify and agree pathways for navigating city land use approval processes, which tend to be lengthy and competitive between sectors.

#### Outcome 4

- Commence a process of implementing parallel workstreams. This is critical to the progress of this Outcome, and to the coherent implementation of the project overall.
- Amend bid/tender development processes and timelines to resolve the aspects of procurement challenges that are within COJ’s remit.

#### Outcome 5

- Secure a knowledge partner to provide the support needed for capturing critical learnings, enabling peer

learning, and ensuring project sustainability. Knowledge gained from this project is fundamental for increasing project impact, ensuring its sustainability and enabling replication and scale – in the COJ, and in other South African cities.

#### 4.2.1| Results Framework recommendations

This section captures recommendations for adjustments to the Project's Results Framework based on the findings of the MTE. It is important to note that these serve only as recommendations and should the decision be made to pursue any of the changes, they will need to be thoroughly engaged with by the PMU, DBSA and UNEP. The original Results Framework text is presented with recommendations incorporated in green text in Appendix 2.

##### **The Project**

The MTE findings did not lead to any recommended changes of the Project Objective nor for the Objective level Indicators. Thus, these remain as they were presented in the latest version of the project Results Framework.

##### **Outcome 1**

No recommended adjustments were drawn from the MTE for the Results Framework of Outcome 1. The progress shown indicates that original targets and milestones are suitable for this Outcome.

##### **Outcome 2**

The recommended adjustments for this outcome seek to develop a greater evidence base for the achievements made within its activities. A stronger focus is also placed on thorough integration of gender with clear definitions and inclusion in the M&E process. Mitigation of previous delays and barriers is also incorporated in the recommendations.

##### **Outcome 3**

Several considerations led to the recommendations for the results framework for Outcome 3, specifically:

- i. Procurement processes have been so slow that at the mid-point of the project, no service provider able to certify land and production as organic had yet been contracted, though the South African Organic Sector Organisation (SAOSO) was assisting with this informally. It is hoped that this will be resolved soon. Informally, it is reported that all or most of the land being used by CoJ's farmer groups has been used with organic methods for a long time, if only because of lack of funds to buy inorganic fertilizers, sprays, etc. However, it is not certain that this is correct. If SAOSO are appointed as service providers, they may feel that they have sufficient evidence to certify the land for organic production. If not, the minimum period for doing so will be two years. Thus, the current target of roughly half of the land being used and certified by the end of the project should not be increased.
- ii. There is an ongoing debate in the literature and among practitioners about what 'sustainable farming' means. It includes organic but doesn't necessarily meet the exacting demands for organic certification. So 'sustainable' should be separated from 'organic'. If the basic farming techniques that the project had already trained more than 2,000 low-income community members, on by its mid-point are taken as being 'sustainable', then the target should be set at 4,000 for this valuable form of training.
- iii. All 40 farmers involved in CoJ's projects should be certified as being trained on and using organic techniques before the end of the project. The procurement issues referred to above will have been resolved in time for this to happen. Ideally, some CoJ officials, especially those involved in extension work, should also acquire this certification. However, as CoJ may wish to outsource extension, rather than employ its own staff to do this, once the project ends, the target of 40 should be adjusted. If CoJ plans to retain this function in-house, the target should then be increased to include the number of extension staff who will be doing this.

#### Outcome 4

The MTE did not draw recommended adjustments for the Results Framework of Outcome 4, it is assumed that the original targets and milestones are suitable if risks identified are dealt with through the recommended mitigation actions identified for this Outcome.

#### Outcome 5

The recommendations for Outcome 5 serve to mitigate the impacts of the delays related to procurement and installation of the platform. The changes aim to ensure some institutionalisation of the system and its processes even if the remaining time is not sufficient to meet the original indicator. The original target of ‘100 users per quarter’ on the platform may not be realistic if the delays continue, and as procurement procedures within CoJ are unlikely to change within the lifespan of the Project, these risks should be accounted for. Instead of a target of a specific number of users that may not be met, it is recommended that the target instead be a noted increase in users, with a trend analysis that shows growth as onboarding progresses.

#### 4.2.2| Gender recommendations

An in-depth workshop to discuss gender considerations for the project was held in the CoJ offices on 26 May 2023. This workshop explored the necessity of gender considerations and how they should be framed within the project going forward. The project management team was able to expand on their views and experiences with gender as well as clearly define how gender should be factored into the project going forward. Breakout groups were held for each Outcome and the attendees strategized how they could apply their learnings regarding gender to the activities going forward.

##### **Recommendations for effective gender mainstreaming:**

1. Convene focus groups to identify how different women and men access or engage with different services as a baseline description of conditions.
2. Convene focus groups for ex-ante (qualitative) evaluation of proposed interventions and solutions.
3. Clearly define how the project intends to address gender in each component (beyond counting participants) so that progress can be tracked and measured.
4. Design and undertake rapid assessment of current food production/consumption in the area under project activities. Which women, which men, when, where, how often, and why are they producing food? Food security, nutrition security, commercial production, seasonality, etc. are all relevant factors that will influence selection and roll out of project activities.

It may also be beneficial for a gender expert to be based at the project management level to provide coaching within the project Outcomes on this matter.

Captured in the tables below are recommended consideration for the Gender Action Plan indicators at the Project and Outcome level. These capture the discussions held in the Gender Workshop and are meant to serve as starting points to expand the proper integration of gender throughout the project.

##### **Recommended considerations for the Gender Action Plan (GAP).**

Task	Gender Design Features/activities	Recommended considerations
Cross-cutting strategies	<ul style="list-style-type: none"> <li>● A Sociologist with gender expertise will be included at all phases and components of the project.</li> <li>● All project stakeholders will be sensitised regarding the implications of gender-related legislation in South Africa.</li> <li>● Equal training opportunities and transfer of skills will be available for men and women.</li> </ul>	



	<ul style="list-style-type: none"> <li>● Persons employed on the project team should be in line with the COJ employment equity (EE) policy/gender policy.</li> <li>● All training materials, technology and methodology of dissemination are to be women friendly (e.g., avoiding gender stereotypes and using appropriate illustrations).</li> <li>● Where appropriate, all project recording and reporting will be disaggregated by gender.</li> <li>● Impacts measurement to include an aspect to measure gender equality (in ownership, needs, access to resources).</li> </ul>	
1.3. Evidence-based policies for the COF Support adopted by COJ	<ul style="list-style-type: none"> <li>● Eco-district goals translated into building codes to include the ABC (access, benefits and control) of gender equality. (e.g., personal security, proximity to resources and services)</li> </ul>	This indicator is not relevant to the scope of work of Component 1 as the building code will not be revised as part of this Project. It is recommended that this indicator be removed.
<b>Project Output-specific strategies</b>		
2.1. Revised sustainable, affordable and gender sensitive social housing retrofit guidelines are adopted by JOSHCO.	<ul style="list-style-type: none"> <li>● POE questionnaire to differentiate between male and female participants and address relevant topics.</li> <li>● Support for woman-tenure of housing to be included in guidelines</li> </ul>	This has not pulled through in the POE or other documents. This could be a critical missing piece if it can be defined and detailed as clear indicators to be consistently measured. Who decides which are relevant topics? These could be identified through focus-group discussions as indicated in the evaluation matrix. Affordability, ability to do simple maintenance, safety and security, access to water, and safe recreation for children are always critical and obvious gender issues.
2.2. JOSHCO processes are revised to ensure constructed social housing conforms with design brief.	<ul style="list-style-type: none"> <li>● JOSHCO must use their preferential procurement policy in selecting construction services.</li> </ul>	
2.3. Revised sustainable, affordable and gender sensitive social housing guidelines are adopted by JOSHCO.	<ul style="list-style-type: none"> <li>● Guidelines must allow for gender equity in home-tenure.</li> </ul>	This would probably have to come from a bank or other lender who has such strategies or policies already developed. Obviously, there can be no legal blocks to women's ownership, but questions of marriage, references or collateral may discourage women.
3.1. Ways of local urban farming production are piloted to improve food quality, affordability, financial and environmental	<ul style="list-style-type: none"> <li>● Confirmation of needs, prioritisation and infrastructure improvements at community gardens to address and accommodate women.</li> <li>● Confirm and maintain training equity for</li> </ul>	This needs a clear understanding of the gendered nature of food security, <b>who</b> is doing what to urban gardening, and <b>who</b> is benefiting and how. It makes no sense to have

sustainability and gender equality.	emerging farmers – monitoring and evaluation (e.g., agriculture and business skills)	women work harder if they are only making money for someone else.
3.2. Policies and recommendations for increased food resilience in COJ are drafted and adopted.	<ul style="list-style-type: none"> <li>● Policies and recommendations should be gender sensitive.</li> </ul>	What does this mean exactly and how is it measured? Food resilience in CoJ should be clearly defined.
4.2. Pilot waste separation at source.	<ul style="list-style-type: none"> <li>● Awareness-raising and implementation of separation at source pilot to be gender sensitive.</li> <li>● Activities of Pikitup in the project to comply with COJ EE and gender policies.</li> </ul>	
4.3. Waste to biogas with strong M&E component is piloted.	<ul style="list-style-type: none"> <li>● All procurement processes to take gender into account through application of EE.</li> </ul>	
4.4. Investment feasibility studies are completed for the implementation of COJ's biodegradable waste management strategy.	<ul style="list-style-type: none"> <li>● Projects selected for investment pipeline should have gender equity in ownership, operation and beneficiaries taken into consideration.</li> </ul>	

### Recommendations for Outcome 1 GAP Indicators

Component 1: Eco District		
No	Indicator	Recommended considerations
1.	Impacts measurement to include an aspect to measure gender equality (ownership, needs, access to resources)	This would require baseline data, both the categories and the actual numbers or percentages--in order to tell change over time. Then you need to agree attribution.
1.1	All project stakeholders will be sensitised about the implications of gender related legislation in South Africa.	Determine which gender related legislation is relevant to this project (by component or activity). Then identify or list the stakeholders. A half day meeting would probably cover it.
1.2	Equal training opportunities and transfer of skills will be available for men and women.	Does this mean 50% of participants or does this mean that different training opportunities will be developed for men and women, and that they must somehow be equal?
1.3	Persons employed on the project team should be in line with CoJ EE	***Immediately available
1.4	All training materials, technology and methodology of dissemination are to be women friendly (e.g., avoiding gender stereotypes and using appropriate illustrations).	This is more complex than it seems. You would need to define 'women friendly'. Does that mean avoiding gender stereotypes or offensive visuals? Or does it mean avoiding approaches that marginalize women? Then generate a list of all materials, technology and methodology of dissemination. Then somehow assess them for how 'women friendly' they are.
1.5	Where appropriate, all project recording and reporting will be disaggregated by gender.	All data involving people should be sex disaggregated. You cannot go back and recapture it after the fact, so all data should always be collected by female/male and age category at the very least.

Component 1: Eco District		
No	Indicator	Recommended considerations
1.6	Eco-district goals translated into building codes to include ABC (access, benefits, and control) of gender equality (e.g., personal security, proximity to resources and services).	This seems a critical point. Given that the guidelines were meant to be gender sensitive, this has to be defined somewhere with indicators that can help determine whether or not the targets are being reached. This ABD language DID NOT pull through into the review interviews or documentation.
<b>Additional Indicators</b>		
It is recommended that these additional indicators be removed. All equate to gender tracking post-project.		
a.	Number of women (stakeholders) that participate in adopting and/or implementing low greenhouse gas emission development, strategies and policies	Percentage or ratio might be more important than raw numbers. How to define participation in adopting or implementing?
b.	Number of men (stakeholders) that participate in adopting and implementing low greenhouse gas emission development, strategies and policies.	<i>Same comment as above.</i>
c.	Number of stakeholders that identify as male and stakeholders that identify as female, that participate in adopting and implementing low greenhouse gas emission development, strategies and policies.	This is a confusing category. How different will it be from the previous 2 indicators? Do you want to know the # of women and men or the # of people identifying as male and female? Decide which and count that.

### Recommendations for Outcome 2 GAP Indicators

Component 2: Social Housing		
No	Indicator	Recommended considerations
2.1	Retrofit guidelines for social housing revised that are sustainable, affordable and gender sensitive	Gender sensitive needs to be defined and needs to be linked to sustainable and affordable. Do sustainable and affordable measure the same for women and men given their social roles and responsibilities?
2.1.1	POE questionnaires that differentiate between male and female participants and address relevant topic's	Absolutely has to be sex disaggregated and pose questions that assess ABC and safety/security, etc.
2.1.2	Guidelines that support women tenure of housing.	Unpack what 'women tenure of housing' means first of all. Then review literature or best practice to pull out key points for guidelines.
2.2	JOSCHCO processes are revised to ensure constructed social housing conforms with design brief	Including gender-related aspects.
2.2.1	JOSCHO's evidence-based feedback about their use of preferential procurement policy in selecting construction services	Sex disaggregated.

Component 2: Social Housing		
No	Indicator	Recommended considerations
2.2.2	Guidelines (delivery processes) that are adopted by JOSCHO which are revised sustainable, affordable and gender sensitive.	Can be removed.
2.2.3	Guidelines that follow male and female equity in the following home tenures-rental/ ownership JOSCHO-design guidelines, procurement/tender guidelines, maintenance guidelines and tenancing guidelines)	Male and female equity have to be defined and clearly understood. Equity is not 50%/50% so may need different measures.
2.3	Revised sustainable, affordable and gender sensitive social housing guidelines (retrofits and Greenfields) are adopted by JOSCHO.	This looks the same as 2.2.2. This should be similar to 2.1. Gender sensitive needs to be defined and needs to be linked to sustainability and affordability. Do 'sustainable' and 'affordable' measure the same for women and men given their social roles and responsibilities?
2.3.1	Guidelines must follow for gender equity in home-tenure rental/ownership.	Define what this means before deciding how to pursue it, measure it, or track it.
Additional Indicators		
a.	Equal training opportunities and transfer of skills will be available for men and women.	Seems straightforward but counting numbers does not tell you if the training and skills are equally as useful for women and men.
b.	Persons employed on the project team should be in line with CoJ EE.	Immediately traceable.
c.	All training materials, technology and methodology of dissemination are to be women friendly (e.g., avoiding gender stereotypes and using appropriate illustrations).	<i>Same comment as 1.4.</i>

### Recommendations for Outcome 3 GAP Indicators

Component 3: Food Resilience		
No	Indicator	Recommended considerations
3.1	Ways local urban farming production are piloted thus to improve food quality, affordability, financial and environmental sustainability and gender equality.	This component calls for gender analysis of current urban farming to assess who is doing what, with what, for what. Quality and affordability for whom, where?
3.1.1	Feedback on the confirmation of needs, prioritisation and infrastructure improvements at community gardens thus to address and accommodate women.	This should speak directly to the findings of the gender analysis in 3.1. Sustainability has got to be built in at this stage.
3.1.2	Trainings equity conducted for emerging farmers.	Clear definition needed.
3.2	Policies and recommendations drafted and adopted for increased food resilience.	Define food resilience--keeping in my that it is gendered. All policies and recommendations must be gendered.

Component 3: Food Resilience		
No	Indicator	Recommended considerations
3.2.1	Policies and recommendations that are gender sensitive.	This point should be rolled into and reflected in the above points, <b>not</b> stand-alone.
<b>Additional Indicators</b>		
a.	Number of women and men emerging farmers and CoJ officials trained in and using sustainable and/or organic farming methods.	Why counting CoJ officials outside the number of women and men? Trained in and using are two different time frames. Training is a snapshot, using is measured over time.
b.	Number of women and men that benefit from community gardens converted to certified organic production methods.	Benefit how? Working there, making money, learning, eating? Be precise about what this is.
d.	Persons employed on the project team should be in line with CoJ EE.	Immediately traceable.
e.	All training materials, technology and methodology of dissemination are to be women friendly (e.g., avoiding gender stereotypes and using appropriate illustrations).	<i>Same comment as 1.4.</i>

#### Recommendations for Outcome 4 GAP Indicators

Component 4: Waste Management		
No	Indicator	Recommended considerations
4.2	Pilot Waste separation at source	
4.2.1	Awareness and implementation of separation at source pilot that are gender sensitive.	Gender sensitive must be defined before it can be done.
4.3	Activities of Pikitup in the project that comply with CoJ EE and gender policies.	Pull out relevant aspects of CoJ EE and gender policies with which Pikitup activities must comply.
4.3.1	Waste to biogas with M & E component piloted.	
4.4	Procurement processes that take gender into account through application of EE	
4.4.1	Feasibility studies completed for implementation of CoJ's biodegradable waste management strategy	
5.	Selected projects for investment pipeline that have gender equity in ownership, operation and beneficiaries	
<b>Additional Indicators</b>		
a.	Equal training opportunities and transfer of skills will be available for men and women.	

Component 4: Waste Management		
No	Indicator	Recommended considerations
c.	All training materials, technology and methodology of dissemination are to be women friendly (e.g., avoiding gender stereotypes and using appropriate illustrations).	<i>Same comment as 1.4</i>

### 4.3| Closing remarks

The project represents an ambitious, cross-cutting approach to developing resilience, and significant progress has been made despite significant challenges. Some shortfalls remain, and delays have resulted in hindered progress of key Activities. There is evidence of adaptive management in response to some of these, but there are others where successful achievement of Outcome goals will require intervention. These varied levels of progress and mitigation presents a situation where successful implementation of the Project is dependent on a few keystone actions. The recommendations in this MTE Report seek to ensure that these actions unlock progress, and that as the project progresses, these sequential dependencies are minimised where possible.

Despite the varied progress, the assessment sustainability showed that the Project has retained its potential for impactful results, and thus if the recommendations are followed, should yield improved resilience for CoJ. The gender considerations within the project require substantial attention, and the PMU and Outcome leads have displayed enthusiasm in taking these actions forward for the remaining Project lifespan.

With provision of the support as outlined in the recommendations, and the maintained adaptability of project management, then it is anticipated that the Project will meet final targets and result in meaningful impacts. If Outcomes that have suffered severe delays, such as Outcomes 3 and 4, are not able to meet final targets, there remains value and lessons to be drawn from the Activities carried out, particularly if sustainability is emphasises for progress beyond the project lifespan.

## References

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# Appendix 1: Evaluation Matrices

## Evaluation matrices

Presented below are the Evaluation Matrices for each Outcome of the project, capturing the results of the MTE following the methodology outlined in Section 1.2. above. These matrices are accompanied by detailed justifications of the ratings that resulted from the MTE and, where relevant, recommendations for how the specific activity can mitigate against the challenges or barriers encountered during implementation up to the mid-term point. These recommendations are intended to be constructive and adaptive to the circumstances of the project and each Outcome.

### Outcome 1: Eco-Districts

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
<b>Outcome 1: CoJ test eco-district prototypes to set improved environmental standards for COF</b>	1.1. One Eco-District (at neighbourhood, precinct, block and site scale) modelled for optimized resilience and sustainability	1.1.1. Determine data requirements and develop/collect missing data for carbon emissions and reduction of emissions at all four scales	N/A	Jul 2019 – Dec 2019	May 2020 – Jul 2021	May 2020 – Nov 2023 Complete	Moderately unsatisfactory	Likely	Completed in Baseline Assessment Report dated Nov 2021. Early on data collection shortcomings identified and a switch to sample sub-metering made and on-site inspections of sample properties. Different datasets were identified and collected but not all data was applicable or available at all scales. A GIS database/ web-base is underlying to the model, which means that the data can be selected at any scale. The Modelling Protocol Report describes the 4 scales and states. The EcoDistrict Model Discussion document also describes how the different scales can be constituted and reported on. The Baseline Report describes how site carbon emission baseline data was compiled and then consolidated into block/ precinct/ neighbourhood level and adding Scope 2 emissions at neighbourhood level.
		1.1.2. Develop the models and generate	N/A	Jul 2019 –	Aug 2020	Aug 2020 – Jun 2021			



Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
		baseline assessments of the study areas at all four scales		Dec 2019	– Jun 2021	Complete			web-based model is built around an approach that different scales can be assessed. This does not come across clearly and future report should work to ensure the successful integration of various scales is more prominent. This is also the case for other structuring frameworks introduced, namely Scope 1 (gas and transport – independent) and Scope 2 (electric – Eskom and EV – but no EVs) only appears available at neighbourhood scale. Will be useful to provide examples of this flexibility in a year or two's time when there is sufficient data to make such an exercise meaningful and provide emission and other information at selected scales. Site visit to Orange Grove confirmed extensive installations for the pilot at the project site, with evidence of ongoing tracking of sub-meters to feed into the model.
		1.1.3. Model the emissions reductions of various resource efficiency interventions	N/A	Nov 2019 – Dec 2020	Aug 202 – Sep 2021	Aug 2021 – May 2022 Complete	Satisfactory	Likely	Solid Green (the CoJ service provider) Progress Reports state that this has been completed. Emissions Reduction Pathway Rev 2 shows outcome of baseline modelling and sets out clear pathways for achieving emission targets for both existing low-density scenario and future high-density scenario
		1.1.4. Prepare goals for the Eco-District based on the outcomes of the pre-modelling versus the status quo	4 months	Jan 2020 – Jan 2021	Apr 2021 – Aug 2021	Apr 2021 – May 2022 Complete	Satisfactory	Likely	Solid Green Progress Reports state that a report for this has been drafted. Emissions Reduction Pathway Rev 2 shows outcome of baseline modelling and sets out clear pathways for achieving emission targets for both existing low-density scenario and future high-density scenario. It is noted that "goal setting" and "target setting" were interpreted to be the same - hence the modelling to achieve NZC. <b>Recommendations:</b> It is suggested that goal setting and target

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3 Planned Actual			
									setting are treated differently. Goals are at a higher level and should speak to intentions or qualities to be achieved. Targets or objectives should be easily measurable and largely quantitative.
		1.1.5. Prepare emission reduction pathways for the Eco-District based on the outcomes of the pre-modelling versus the status quo	N/A	Dec 2019 – Apr 2021	Apr 2021 – Oct 2021	Apr 2021 – May 2022 Complete	Satisfactory	Likely	Solid Green Progress Reports state that a report for this has been drafted. Emissions Reduction Pathway Rev 2 shows outcome of baseline modelling and sets out clear pathways for achieving emission targets for both existing low-density scenario and future high-density scenario.
		1.1.6. Develop additional environmental indicators for resilient and sustainable eco-districts	N/A	Jan 2021 – Jun 2021	Jun 2021 – Oct 2021	Jun 2021 – Sep 2022 On-going	Moderately satisfactory	Likely	Since the conceptualisation of the GEF project, CoJ has progressed significantly in identifying a range of indicators related to environmentally sound/ sustainable/ resilient development through various inter-departmental policy/ strategy processes. There is currently a Climate Action Plan workstream underway related to sustainability indicators, including resilience. The Solid Green team provided guidance for this through the EcoDistrict Protocol tool, summarised by the Eco-district Protocol Report and the document Standards and Guidelines (December 2022). CoJ will complete this activity to create a consolidated deliverable as part of the communication product development. <b>Recommendations:</b> The date at which the final deliverable is anticipated should be noted.
		1.1.7. Make the Model accessible and contextually appropriate for a wider audience than City officials via a web interface	N/A	N/A	N/A	Nov 2021 – Nov 2022 Completed	Satisfactory	Likely	COJ Residential Building Manual Presentation, CoJ Large Buildings Manual Presentation, CoJ Eco-district Protocol Version 3, including S&J Industrial Eco-district, and Orange Grove Emission Reduction Pathways documents all help to make the model contextually appropriate and accessible to a wider audience who may have found the source US documentation and science difficult to relate

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
									to. The carbon emissions model is currently on the Solid Green webpage with work being undertaken for "sharing" of the link to enable a wider audience using/testing it. It requires a bit more work regarding user-friendliness.
	1.2. Knowledge-share and information transfer products developed for private and public green construction sector	1.2.1. Develop cost curves based on the outcomes of the resource efficiency interventions in the emission reduction pathways	19 Months	Jul 2019 – Jul 2022	Feb 2021 – Jun 2021	Feb 2021 – May 2022  Completed	Satisfactory	Likely	Concluding sections in Orange Grove Emissions Reduction Pathway Final Report (March 2023) provide considerable information on cost implications and various funding strategies ranging from operating at scale (District wide solutions) to availability of green finance to individual owners.
1.2.2. Develop guideline manuals for incorporating green building elements into strategic project types		N/A	N/A	N/A	May 2020 – Dec 2022  Completed	Satisfactory			
1.2.3. Report on lessons learned and impact from applying green support to developers and CoJ		N/A	N/A	Oct 2021 – Nov 2022	Oct 2021 – Dec 2022  Completed	Satisfactory	Likely	Standards Development Process Report (March 2023) reflects on lessons learned from the process, as well as the Stakeholder Report (6 December 2022)	
1.2.4. Provide training for key city stakeholders on operationalizing the guidelines manuals and green principles in general		N/A	N/A	N/A	Jul 2022 – Dec 2022  Completed	Satisfactory	Likely	On-line training sessions were completed in November 2023 with internal CoJ officials and their service providers (built environment professionals) on the green design guidelines and integrated design process. Other capacitation sessions included focused presentations and work sessions with projects teams responsible for CoJ facilities such as clinics, private sector professional teams responsible for new affordable housing projects and a Social Housing focus group.	
	1.3. Evidence-based green	1.3.1. Analyse impacts achieved through	4 months	Jan 2020 –	Jan 2021	Jan 2021 – Aug 2021	Satisfactory	Likely	

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
policies and guidelines adopted by the CoJ		piloting within the Eco-District and extrapolate for city-wide application		Jun 2023	– Aug 2021	Completed			Addressed through producing CoJ Green Residential and Green Buildings Manuals (Dec 2022).
		1.3.2. Formulate ambitious guidelines and standards for TOD Corridors	N/A	Jan 2022 – Jul 2022	May 2021 – Aug 2021	May 2021 – Dec 2022 Completed	Satisfactory	Likely	Corridor approach dropped in favour of city-wide approach with guidelines contained in CoJ Green Residential and Green Building manuals as well as the Standards and Guidelines report.
		1.3.3. Incorporate key findings of assessments and minimum criteria into New Building Efficiency Policy and By-law	N/A	Oct 2019 – Dec 2020	Jul 2020 – Nov 2020	Jul 2020 – Dec 2020 Completed	Satisfactory	Likely	Green Building policy as contained in Green Residential and Green Buildings Manuals approved in 2022.
		1.3.4. Document process of standard setting and lessons learned (including demonstrations of emissions interventions)	N/A	Jul 2019 – Dec 2022	Dec 2021– Mar 2023	Dec 2020 – Jun 2023 Completed	Satisfactory	Likely	Standards Development Process Report (March 2023).
		1.3.5. Include modelling and resource efficiency guideline into requirements for spatial plans and precinct scale developments.	N/A	Jan 2022 – Jun 2022	Jan 2023 – Jun 2023	Jan 2023 – Jun 2023 Not initiated	Moderately satisfactory	Likely	Not yet initiated, but the team confirms this will be initiated by CoJ internally.
		1.3.6. Investigate and formulate incentives to promote incorporation of aspirational resource efficiency targets for new private development	N/A	Aug 2020 – May 2022	Jan 2021 – Jun 2021	N/A (completed)	Satisfactory	Likely	Completed.
		1.3.7. Develop training and tool kit for CoJ internal institutionalization	N/A	Jan 2021 – Dec 2021	Oct 2021 – Apr 2022	Oct 2021 – Dec 2022	Satisfactory	Likely	A training/capacitation programme of one CoJ official was initiated from project inception. The Manuals are to be prepared in the next 6 months are very important as the trained resource is no longer with the project.
		1.3.8. Develop marketing and	N/A	Jan 2021 –	May 2022	Jan 2023 – Jul 2023	Satisfactory	Likely	Not yet initiated but is a planned future activity. Marketing materials still to be

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of- Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		information tool kit for private developers and residents		Oct 2023	– Jul 2022				produced by service provider to be appointed. Ample content has been generated – Green Building Policy; green building guidelines; benefits and incentives; cost implications and funding strategies; the model itself – why and how to use it.

## Outcome 2: Social Housing

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
Outcome 2: CoJ adopts gender sensitive and resource efficiency guidelines for improved sustainability of social housing	2.1. Revised sustainable, affordable and gender sensitive social housing retrofit guidelines are adopted by JOSHCO	2.1.1. Preparation for the Post Occupancy Evaluation (POE)	4 months	Jul 2019 – Sep 2019	Nov 2020 – Dec 2020	Nov 2020 – Dec 2020	Moderately Satisfactory	Likely	<ul style="list-style-type: none"> <li>Evidence of stakeholder meetings/minutes re approach to be taken.</li> <li>Evidence of arrangements being made re execution (data collection instruments, ethical clearance etc).</li> <li>POE was not designed to accurately identify existing gender issues, necessary for outcome 2.</li> <li>Identification of 3 appropriate retrofit interventions (energy, water, waste).</li> <li>There is a report for Thedzani Phase 3 on issues that a retrofit might address but is based entirely on technical inspection.</li> <li>LBM Consulting Report outlines preparatory work and Project Implementation Plan (PIP).</li> <li>POE questionnaires to residents not well conceptualized from point of view of teasing out sustainability and gender issues that could be addressed in design and incorporated into guidelines. Missed opportunity.</li> <li>Sustainability/gender issues addressed by focusing on reducing costs to vulnerable (not defined) residents (energy costs, water consumption). Differential impact on residents might be possible by using information from questionnaires. This has not been done.</li> <li>Moreover, there is no analysis report on POE questionnaires which was supposed to inform retrofit decisions.</li> <li>Remedial interventions needed. See</li> </ul>
						March 2023 (not entirely clear)			

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
								supporting notes. <ul style="list-style-type: none"> <li>Any Gender Action Plan (GAP) has to align first and foremost with project goals and objectives. Best approach is to adapt DBSA approaches to this project.</li> </ul>	
		2.1.2. Conduct POE assessment of two existing social housing projects (Roodepoort, Tshedzani) and City Deep)	1 month	Oct 2019 – Dec 2019	Dec 2020 – May 2021	Dec 2020 – May 2022 Ongoing. Questionnaires completed by Jan 2021	Satisfactory	Likely	<ul style="list-style-type: none"> <li>194 City Deep questionnaires completed.</li> <li>174 Thedzani Phase 3 questionnaires completed.</li> <li>Some remedial actions proposed</li> </ul>
		2.1.3. Retrofit all the units in the Roodepoort (Tshedzani3) social housing project (co-financed by CoJ).	13 months	Jul 2021 – Jul 2022	Oct 2021 – Dec 2021	Oct 2021 – Jun 2022 May 2022	Satisfactory	Done	<ul style="list-style-type: none"> <li>Certificate of Completion Photographs of retrofits.</li> <li>Retrofit of all 172 units at Tshedzani 100% complete by 23 June 2022.</li> </ul>
		2.1.4. Measure the cost and building performance of the retrofitted units in the Roodepoort social housing project (Tshedzani3) and compare them with the cost and building performance of the conventional units in the City Deep social housing project.	2 months	Aug 2022 – Oct 2022	Mar 2021 – Apr 2021 + Jan 2022 – Jun 2022	Jul 2022 – Dec 2022 Ongoing	Moderately satisfactory	Likely.	<ul style="list-style-type: none"> <li>Needs better presentation and analysis of results.</li> <li>Graphs of energy usage improvements presented.</li> <li>Graphs of water usage presented (conclusions more difficult to draw).</li> <li>No analysis report provided.</li> <li>Presentation of analysis needs to be improved.</li> <li>Evidence presented of problem solving together with partners re data issues (historical energy consumption data).</li> <li>Simple disaggregation of results by head of household would increase relevance.</li> </ul>
		2.1.5. Share findings in workshop/seminar with key stakeholders.	3 months	Nov 2022 – Jan 2023	Jun 2022 – Jul 2022	Mar 2021 – Apr 2021 + Oct 2022 – Feb 2023	Satisfactory	Likely	<ul style="list-style-type: none"> <li>GEF Site visits for stakeholders.</li> <li>Attendance registers. Sex disaggregated data on participants included.</li> <li>Handover meetings.</li> <li>Learnings from retrofit shared via a Stakeholder session held with other SHIs,</li> </ul>

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
		2.1.6. Draft retrofit component of the <i>Sustainable and affordable social housing guidelines</i> .	6 months	Feb 2023 – Jul 2023	Apr 2021 – Jun 2021	Apr 2023 – Jun 2023 Draft complete 25.06.2021	Moderately unsatisfactory	Likely	<ul style="list-style-type: none"> <li>Draft Report: Technical Specifications and Guidelines for the design of Greenfields and Refurbishment/ Conversion.</li> <li>Green specifications in above report although it is not clear how these derived from retrofitting pilot.</li> <li>No clear gender sensitivity in component.</li> </ul>
	2.2. JOSCHCO processes are revised to ensure constructed social housing conforms with design brief	2.2.1. Prepare for assessment of JOSCHCO's social housing delivery processes	3 months	Aug 2019	Nov 2020 – Dec 2020	Nov 2020 – Dec 2020	Satisfactory	Likely	<ul style="list-style-type: none"> <li>Operational documents collected JOSCHCO Standard Operating Procedures Manual identified as a key document.</li> <li>Meeting with stakeholders (City Power 17.09.2021).</li> <li>Project Implementation Plan (LBM Report).</li> <li>Other key operational documents (e.g., design briefs collected).</li> </ul>
		2.2.2. Review the document of JOSCHCO's social housing delivery processes	9 months	Sep 2019 – Nov 2019	Dec 2020 – Jan 2021	Dec 2020 – Jan 2021	Moderately satisfactory	Unlikely	<ul style="list-style-type: none"> <li>Some reference in SOP to the Guidelines.</li> <li>Clear analysis of what needs doing and evidence of its implementation not evident.</li> <li>Clear gender analysis and plan needed before this can be finalised. This should be completed as soon as possible as it will delay progress in other areas of work</li> </ul>
		2.2.3. Share findings in workshop/seminar with key stakeholders.	3 months	Dec 2019 – Feb 2020	Mar 2021 – Apr 2021	Jun 2022 – Aug 2022	Satisfactory	Likely	<ul style="list-style-type: none"> <li>Evidence of stakeholder workshops.</li> <li>Work is required on gender.</li> </ul>
		2.2.4. Finalise revision of JOSCHCO's social housing delivery processes.	4 months	Mar 2020 – Apr 2020	May 2021 – Jun 2021	Jun 2022 – Jul 2022	Moderately unsatisfactory	Moderately likely	<ul style="list-style-type: none"> <li>No evidence of progress.</li> <li>Gender analysis and plan needed.</li> </ul>
		2.2.5. Adopt the revised social housing delivery	35 months	May 2020 –	Jul 2021	Aug 2022	Moderately unsatisfactory	Moderately likely	<ul style="list-style-type: none"> <li>More evidence needed.</li> </ul>



Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		processes for all future social housing developments.		Jul 2020					
	2.3. Revised sustainable, affordable and gender sensitive social housing retrofit + Greenfields guidelines are adopted by JOSHCO	2.3.1. Review of all project documents of the Draft Greenfields component of the Sustainable and affordable social housing guidelines.	N/A	Aug 2019 – Oct 2019	Dec 2020 – Jan 2021	Dec 2020 – Jan 2021	Unsatisfactory	Moderately likely	<ul style="list-style-type: none"> <li>No evidence of progress.</li> </ul>
2.3.2. Consult relevant stakeholders (NASHO, SHRA, Rooftops Canada, SHIs, etc.)		N/A	Nov 2019 – Jan 2020 + Dec 2020	Mar 2021 – Jun 2021	May 2022 – Jul 2022	Satisfactory	Likely	<ul style="list-style-type: none"> <li>Evidence of workshops with stakeholders and more planned for 2023.</li> </ul>	
2.3.3. Draft standard JOSHCO design brief, tender documentation and tenant manual to reflect greening principles set out in the draft Sustainable and affordable social housing guidelines.		6 months	Feb 2020 – May 2020	May 2021 – Aug 2021	May 2021 – Jul 2022	Satisfactory	Likely	<ul style="list-style-type: none"> <li>There is evidence of collection of COJ green build documentation and evidence of emerging JOSHCO documentation in this regard.</li> </ul>	
2.3.4. Construct Greenfield development using draft Sustainable and affordable social housing guidelines, revised design brief, revised tender documentation and revised tenant manual		24 months	Jul 2020 – Jun 2022	Jul 2021 – Jun 2023	Jan 2022 – Dec 2024	Moderately unsatisfactory	Moderately likely	<ul style="list-style-type: none"> <li>Construction start planned for 2023 but at present no evidence of documentation showing application of new guidelines.</li> </ul>	
2.3.5. Review the alignment of the revised design brief with the detailed design, revised tender documentation and revised tenant manual, then measure the cost and		12 months	Jul 2022 – Nov 2022	Apr 2023 – Nov 2023	Dec 2024 – Mar 2025				

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3 Planned Actual			
		building performance of all units in the Greenfield development.							
		2.3.6. Share findings in workshop/seminar with key stakeholders.	9 months	Apr 2020 – May 2020 + Jun 2021 – Jul 2021 + Dec 2022 – Jan 2023	Oct 2023 – Nov 2023	Mar 2025 – May 2025			
		2.3.7. Finalise standard JOSHCO design brief, tender documentation and tenant manual	3 months	Feb 2023 – Apr 2023	Oct 2023 – Nov 2023	May 2025 – Jun 2025			
		2.3.8. Finalise Greenfields component of the Sustainable and affordable social housing guidelines.	6 months	Apr 2023 – Jun 2023	Oct 2023 – Nov 2023	Jun 2025 – Aug 2025			
	2.4. All revised guidelines and processes are shared with other social housing development agencies for uptake	2.4.1. Prepare case study report and share with key stakeholders	5 months	Jun 2020 + Aug 2021 + Jul 2022 + Aug 2023	Jul 2024 – Nov 2024	Jul 2023 – Nov 2023			
		2.4.2. Engage, through workshops, with key stakeholders (SHRA, NASHO, CoJ agencies)	5 months	Jun 2020 + Aug 2021 + Jul 2022 + Aug 2023	Oct 2023 – Nov 2023	Oct 2023 – Nov 2023			

### Outcome 3: Food Resilience

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
<b>Outcome 3: Emerging urban farmers increasingly implement more environmentally sustainable food security solutions</b>	3.1. Ways of urban farming production are piloted to improve food quality, affordability, financial and environmental sustainability and gender equality	3.1.1. Needs confirmation, prioritisation and infrastructure improvements at two community gardens (Region B and Region D), two farms (Region A and Region G) and an agri-resource centre (Region E).	17 months	Jul 2021 – Jun 2020	Jul 2019 – Aug 2021	Jul 2019 – Aug 2022	<i>Satisfactory</i>	Moderately likely	<p>Needs confirmation and prioritization have been undertaken at start of project (3.1.0). Needs for vegetable production for food security and income identified. Details of other needs, priorities flagged in consultations, as well as of number, gender and contact details of participants, method of selection and dates, times, venues of meetings.</p> <p>Only infrastructural equipment procured to date: PVC drip irrigation piping. Presently being installed in Regions B, E and F; process simple enough not to need infrastructure service provider. Johannesburg City Parks department was approached in May 2022 to supply trees for windbreaks.</p> <p>Procurement of infrastructure installation service provider delayed by long process required by Municipal Finance Management Act (MFMA). In the instance of infrastructure, it is quicker and easier to procure items that do not require a contractor to install. These only involve a supply tender, where cost is the primary consideration. This is why it was possible for CoJ to purchase micro/drip-irrigation equipment, i.e., installation is simple enough for the project staff to do themselves. However, when a contractor is required for installation (e.g. fencing, boreholes and greenhouse tunnels) the process is slower and more complicated, with first the service provider and then the equipment procurement entailed. These can only take place in sequence, not in parallel. Awarding the service provider contract has been exceptionally slow. The first advertisement led to bids from firms who were too large or too small. This resulted in the need to re-advertise and go through the</p>

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
								<p>entire procurement process again. Not only does this slow implementation, but it creates workplans and budgets misalignment. This leads to either underspending in the upfront year and the need for authorization to roll components of the budget over and/or the need for authorization to reallocate line items. Both lead to further delays.</p> <p>Delays in CoJ's implementation of the process and/or other factors, such as COVID-19, may also have played a part. E.g., the infrequency of procurement committee meetings, absence of key personnel, or overloaded meeting agendas. To date, it has not proved possible to gain any insight into processes. Project staff indicated that many of the decisions relating to the project that need to be made need agreement by more than one CoJ department, often including Social Development, Development Planning and City Parks (see also below). This makes decision making slower and more complicated. Management could helpfully explore this further with project staff.</p> <p>RfP, ToR and BoQ for appointment of infrastructure service provider were approved by CoJ committees and the tender notice published Nov 2022. As of Feb 2023, an appointment was not made.</p> <p>An assessment both of existing infrastructure and of infrastructure needs was made early on in the project. The widely varying needs that emerged added to the complications of planning and budgeting.</p> <p><b>Risks:</b> Adequate budget not provided for purchase, installation of solar panels, refrigerated packhouse; security measures not sufficient to prevent frequent theft/ vandalism.</p>	



Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
								<p>A fundamental prerequisite for installation of fixed improvements/ equipment is secure tenure. CoJ owns all but one of ten ± 1 ha plots. Long lease from government (school) on one plot not owned by CoJ being negotiated. If problematic, land owned elsewhere by CoJ will be substituted. However, even where the City owns the land concerned, security of tenure for farming groups may not immediately follow. In the case of one farming group visited, progress has been made virtually impossible by the slowness of inter-departmental processes. The land, in this instance, is owned by City Parks, but repeated approaches by the project manager to the parks department have so far not resulted in a lease. The project manager expressed frustration and plans to take the matter to a higher level.</p> <p>Farmers feel dissatisfied by delays, but no attrition has been reported. Addressed by signing of contracts with farmers, periodic progress reports, training on organic farming methods and on use of irrigation equipment and supply of some operating inputs (seeds, fertilizers, etc) free of charge. CoJ has undertaken to continue these forms of assistance for duration of project, but some farming groups report that the delivery of recurrent inputs has not always been timeous.</p> <p>Names, gender, ability to speak English and contact details of ± 40 farmers being trained (4 per plot x 10 plots) have been recorded. Engagements indicated considerable frustration at the delay in the provision of infrastructure. It was acknowledged that COVID-19 had been the cause of part of the delay, but it was felt that this could no longer be used as a valid reason more than two years after lockdowns had ceased. This frustration has been expressed on many occasions by the groups, inter alia, through the forum that</p>	

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
								<p>was set up at the start of 2021 to improve communication. However, it was felt that little or nothing had been done to improve communication and that the only concrete improvements were the supply of inputs, free of charge, in Feb 2022 (very late in the 2021/22 vegetable growing season, but for which farmers were nevertheless grateful) and the installation of an irrigation system in July 2022, ahead of the 2022/23 vegetable growing season. Uncertainty as to what would or would not be supplied and when was reported the key challenge and constraints on farmers' own inclination to invest and expand production. Communication that is regular and consistent would help alleviate the anxiety over uncertainty.</p> <p>The land is not fenced and is situated near a river which people access and the people encroach on the arable land, stealing and walking over produce. Constant threats are received when we people to use the designated pathway. Farmers feel project manager's office isn't taking this into consideration. Farmers have been trying to get a tractor for over a year.</p> <p>The Farmers acknowledge the progress and positive results but note that the significant delays skew focus negatively. Improved communication and empathy were called for to end the project positively.</p> <p>Another farming group reported overcoming infrastructure constraints through building relationships with the surrounding predominantly middle-class community, which had responded by donating the equipment needed, e.g., a greenhouse tunnel that enables year-round continuity of supply requirement for securing contracts with local retailers, restaurants and guesthouses. Therefore, the surrounding community can</p>	



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								<p>also rely on year-round supply at local markets. Mechanisms that the group uses to secure community support include a year-round supply of vegetables for a local soup kitchen and regular training/demonstrations for local home/community gardeners.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>● Use all processes that comply with Municipal Finance Management Act (MFMA) to accelerate procurement, e.g., if possible, outsource procurement – or, indeed, entire projects – to a private sector service provider, with clear requirements and frequent on-going reporting and supervision.</li> <li>● Ensure maximum efficiency of internal procurement processes, e.g., regarding frequency and scheduling of committee meetings, attendances and agendas.</li> <li>● Improve inter-departmental cooperation and decision making by, e.g., i) agreeing and implementing well defined processes for achieving security of tenure for farming groups as early as possible with other CoJ departments involved, and ii) establishing firm timeframes for responding to, and escalating, requests for assistance.</li> <li>● Ensure assistance provided to farming groups is delivered timeously, e.g., deliver recurrent inputs, such as seeds, compost, before start of planting season, not towards end of growing season.</li> <li>● Set and adhere to schedules for regular reporting to farmer groups, even if there is little new to report. Ideally such meetings</li> </ul>	

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									<p>should be held quarterly, but at a minimum they should be held 6-monthly.</p> <ul style="list-style-type: none"> <li>To the maximum extent possible, ensure that farmer groups are adequately informed about the delivery date of infrastructure, recurrent inputs to enable groups to plan accordingly.</li> <li>'Take temperature' of farming groups regularly both to ensure that they feel that they are being heard and included in decision-making and, as far as possible, to adjust planning (with them) to respond. This could be done at regular meetings recommended above. Suggested indicators: number of farming groups i) attending meeting; ii) from which feedback has been received - target for both i) and ii) all 10 groups, minimum required 5 groups.</li> <li>Improve record-keeping and data tracing/ retrieval processes.</li> <li>Encourage farming groups to raise their profile in and build positive relationships with local communities, both to support them and to seek their support, e.g., for infrastructure and marketing.</li> </ul>
		3.1.2. Certify four hubs for ISO compliance (Region A: Ivory Park & Northern Farm); (Region G: Orange Farm & G: Eikenhof)	7 months	Dec 2019 – Dec 2020	Dec 2019 – Mar 2022	Dec 2019 – Jun 2024	Satisfactory	Moderately likely	Tenure security prerequisite addressed/ being addressed (see 3.1.1). Zoning of all 10 plots for agriculture, land profile, agronomic status, recent history of land use and suitability for organic vegetable production reported by co-ordinator to have been determined and found satisfactory. Co-ordinator also reports that project staff have ensured that no inorganic agro-chemicals/ fertilizers banned for organic farming have been used on the 10 plots since they were ear-marked for inclusion in the project.



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								<p>To the extent that production on project land has been taking place, the June 2022 PIR records that this has been using 'suitable' seeds and organic fertilizers, pesticides, herbicides and fungicides, all aimed at accelerating what would normally be a 3-year certification process. Documentary evidence of all of above requested from co-ordinator. However, some groups say they have been farming organically for about 10 years and the respondent who replied in detail (see above) said that as far as she knew all farmer groups participating in the project had been using similar techniques for a number of years.</p> <p>Certification of plots/hubs for ISO compliance cannot proceed without a South African Organic Sector Organization (SAOSO) accredited service provider having been contracted to facilitate and ensure compliance. ToR and specifications have been drafted and forwarded to City Manager's office for approval/amendment. Bid Specification Committee (BSC) expected to consider January 2023 for advertisement February/March 2023. Appointment hoped to have been made by mid-2023. SAOSO was contacted in September 2021 (see June 2022 PIR) and has helped in informally guiding process (co-ordinator). Name and contact details of SAOSO advisor(s): (Mr) Matthew (Matt) Purkis – phone interview conducted 12 December 2022. Correctness of information supplied by project documentation and project manager confirmed.</p> <p><b>Risk:</b> Certification may not have been achieved by June 2024. One farmer group interviewed in Feb 2023 said that they had previously had organic certification but that it was difficult and expensive to keep up. Certificates are only valid for one year and</p>	

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								<p>renewal entails attending events/ demonstrations/training at several venues (6-8 farms mentioned), which was difficult in terms of the time needed and expensive in terms of travel costs. The group said that long-standing clients (it sold to 82 clients in all) were not concerned about the loss of formal certification, but that potential new clients often required it, making the securing of new clients more difficult. The group asked that CoJ liaise with SAOSO to try to find a way to make gaining and retaining certification less cumbersome. The project manager reported that he was discussing this with SAOSO, but that no new, more conducive mechanism had yet been identified and agreed.</p> <p>SAOSO's participatory guarantee system (PGS) approach requires the formation of communities of practice for sharing knowledge and techniques and for monitoring the ongoing use of these. Project staff reported that while there were no such formal communities of practice, the project had established informal forums. However, these do not seem to be working well, evidently because of the wide differences in the level of farming practised by participants, which placed a burden on more advanced groups from which they saw little benefit.</p> <p>In interim, farmers are being introduced to and trained by the project on organic methods on an informal basis, also with guidance from SAOSO. But feedback in the detailed response received, as well as from farmer groups interviewed in Feb 2023, indicated that little that the training covered little that was new to most farmers involved in the project, as most had already been farming on an informal organic basis or some years. The quality of the training was rated as 'average', but it could still assist in helping farmers to attain certified</p>	

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								<p>organic status. Project staff feel that it would be helpful for the project to seek more feedback from farmer groups on the quality, value and focus of training delivered and on how training could be improved (see also 3.1.3 below).</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>● Take every possible step compliant with MFMA to accelerate appointment of organic production service provider.</li> <li>● Ascertain level of knowledge, farming practices followed by farmer groups; plan training to be delivered with farming groups, taking into account their needs, priorities and resources.</li> <li>● Support existing forums/communities of practice both to facilitate the passing on of the benefits of training and to assist with the monitoring of the use of organic practices, for example, through the project bearing the cost of travel for participating groups and/or, with the longer term in mind, through assisting groups to set up a small levy-based fund for this purpose.</li> <li>● Pursue liaison with SAOSO to try to find a way to facilitate the gaining and retention of certification for participating CoJ project groups.</li> <li>● Seek feedback annually from farmers trained on the quality, value and focus of training and on how best to improve training. This could also be function of regular meetings recommended above. Suggested indicators: number of farming groups i) attending meeting; ii) from which</li> </ul>	

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						Planned			
						Actual			
								feedback has been received - target for both i) and ii) all 10 groups, minimum required 5 groups.	
		3.1.3. Intermediate level training for emerging farmers in production, business skills in regions A and G	15 months	Jul 2019 – Oct 2020	Jul 2019 – oct 2020	Jul 2019 – Oct 2020	Highly satisfactory	Likely	<p>40 farmers mostly appointed by project in 2017/18. It is intended that these farmers will produce primarily for marketing, i.e., that they become small-scale commercial farmers. Details of advertisement, specifications, method of selection, gender requested from co-ordinator. From the information provided by the project on the names of participants, it has so far not been possible to determine the gender composition, but it was reported by project staff that there were a large number of female participants, quite possibly the majority. There was no requirement that applicants should have formal academic qualifications, e.g., a matriculation certificate, or be able to communicate well in English, as this was felt to be discriminatory and not be helpful in selecting appropriate participants. Those who have higher academic qualifications are found often to leave agriculture, sooner or later, in search of less physically demanding occupations that generate higher incomes. However, there was a requirement that successful applicants should have significant prior experience of farming.</p> <p>English language intermediate training courses, offered by the project's specialist business skills and agricultural engineering trainers, have been held for all of the 40 farmers able to communicate adequately in English. (South Africa has 11 official languages, many of which, other than English, will be the home languages of project participants.) To facilitate the training of farmers who do not communicate sufficiently well in English, it was arranged that one of the four farmers engaged on each of the 10 plots act as trainer for (any) other members of each</p>

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								<p>plot team who did not attend the training courses offered in English. Copies of the certificates that were issued for attendance have been requested.</p> <p>In addition to the approaches mentioned in 3.1.1 to address the risk of attrition of trained farmers, given the delay in project implementation, the co-ordinator reported that CoJ will provide tools, seeds and organic fertilizer free of charge for the 2 or 3 years of production, thereby covering the costs of what are usually the largest three components of operating capital. As noted above (see 3.1.1), it was confirmed by farming groups that assistance of this nature had been provided in February 2022. The respondent concerned was confident that both her own and the other 9 groups would continue to farm organically after the project ceased to pay for inputs, as this was how they'd been farming for years.</p> <p>Among the business skills taught in intermediate training, are basic record keeping, accounting and the need for farmers to use the three years of subsidy to accumulate sufficient operating capital to avoid or minimize the need for operating credit in later years. However, it appears that the training delivered in this regard, though useful and appreciated, was insufficient for farmers' needs. So, for example, few farming groups know and can demonstrate whether they have made a profit in any year. Without information of this nature, borrowing from commercial sources is almost impossible.</p> <p>In response to the question as to what farmers would most like assistance with, the detailed reply (referred to above) identified 'an effective business development plan for farmers ... we need help with establishing a formidable production plan and aid with writing proposals</p>	

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								<p>that can help us get funding from local businesses that can fund resources that the project would otherwise not have funds for ... this programme shouldn't be about just dispatching infrastructure but also aiding farmers to ... run an effective agribusiness (so) that, post the project, they are able to stand on their own two feet and not continuously run back to the city for help ...With some redirection, we genuinely believe this project has the opportunity to be impactful and build sustainable businesses...'.  <b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>● Increase training on record keeping, business skills. Bearing in mind long procurement process for service providers, appointment should be targeted for end 2023 if budget is, or could readily be made, available. If budget cannot be available before start of next financial year, then end 2024 should be deadline for appointment. Target date for completing training (say in 2 cohorts) should at latest be end of calendar year following appointment of service provider, ideally earlier, if farming groups to start to reap benefits before end of project.</li> <li>● Provide short/medium/long term planning support for farming groups, e.g., re need to provide for purchase of next season's recurrent inputs, especially after termination of project. Project staff should use regular meetings recommended above for purpose.</li> <li>● Provide support for development of credible business plans that may facilitate access to finance. If CoJ staff qualified to do this,</li> </ul>	

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								<p>could be offered as one-on-one service to farming groups. If not, service should be incorporated into duties of service provider contracted to do record-keeping, business skills training.</p> <ul style="list-style-type: none"> <li>Discuss formation of voluntary savings and credit groups to build self-financing capacity; contact experienced NGOs operating in this field, such as SaveAct, to inform, guide development of such groups. Could also be done as part of regular meetings with farmers. (Contact details for SaveAct CEO, Anton Krone: T 033-345 1222, C 082-853 7812, E shelagh@saveact.org.za; anton@savact.org.za.) Should be done soonest - certainly before end 2023 - as such groups can be very helpful in overcoming access to formal sector finance constraints for working capital and other needs.</li> <li>See also recommendations for 3.1.2 above.</li> </ul>	
		3.1.4. Basic training for beginner farmers in basic gardening (all regions).	15 months	Jul 2019 – Jun 2020	Jul 2019 – Jun 2020	Jul 2019 – Jun 2020	Satisfactory	Moderately likely	Basic training on farming primarily for household food security purposes, using informal organic methods, has been offered to anyone who wishes to attend since the project was launched in 2017/18. This will be continued until the termination of the project in April 2025. The June 2022 PIR reported in mid-2021 that 2 080 people had already been trained, including 947 women (45.5%). PIR notes targets of 200 men and 200 women for this form of training by mid-term, so targets far exceeded. Details have been requested from the co-ordinator about where and at what times of day training has been/is being offered, to understand whether arrangements have

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								<p>made it easier or more difficult for women to attend.</p> <p><b>Main risk:</b> whether an acceptably high percentage of those trained will make use of their training. Project staff reported that they did conduct informal assessments through observing the techniques that home and community gardens were using. The names and contact details of any people who are comfortable speaking English who attended one or more of these courses have been requested from the co-ordinator.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>● Find experienced NGO service providers to design, conduct and monitor use of training.</li> <li>● Consult trainees on value, implementation of training, as well as on suggestions for improvement. This is crucial if training not to become tick-box exercise for both parties. Equally crucial for constructive suggestions for improvement to be acted on.</li> </ul>	
		3.1.6. Establish on-site packaging facility	N/A	Jul 2020 – Jun 2021	Jul 2020 – Jun 2021	Jul 2020 – Jun 2024	<i>Moderately satisfactory</i>	<p>Moderately likely</p> <p>Budget provision is reported by co-ordinator made for on-site solar powered refrigerated packaging facility, but infrastructure installation service provider remains to be contracted (see 3.1.1). Order of priority first to establish sustainable flow of vegetable production, for which expenditure on other infrastructure items, such as fencing, irrigation pumps and shade netting, is a prerequisite.</p> <p>Though this is also reported to have been adequately budgeted for, a risk is that additional expenditure on such prerequisites and on operating expenses may absorb part or all of the budget for the solar powered packing</p>	



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								<p>facility. A further risk is that, even if the infrastructure installation service provider is contracted by the end of the first quarter 2023, only 15 months of the project will then remain first to procure and install the other capital items just mentioned and then to procure and erect the packing facility. Given the slowness of the procurement process, there must be a significant possibility that all of these processes will have been completed and brought into successful operation by June 2024. Interviews with farming groups in Feb 2023 indicated that they saw assistance with packaging as a high priority, not yet responded to by the project.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>● Determine farming groups' needs priorities; plan delivery and allocate budget accordingly, as far as possible.</li> <li>● Ensure logical sequencing followed in acquisition, installation of infrastructure, e.g., provide fencing, shade/hail netting, functioning irrigation before packhouses, refrigeration, solar panels. Logic of sequence may vary by group, according to respective needs, resources.</li> <li>● (See also recommendations for 3.1.1)</li> </ul>	
		3.1.7. Link the 10 selected farmers to established organic markets	N/A	Apr 2020 – Jun 2024	Apr 2020 – Jun 2024	Apr 2020 – Jun 2024	Satisfactory	Moderately likely	The 10 project plots still need to be certified for organic production, but progress to date has been rated 'satisfactory' (see 3.1.2). Similarly, at least 10 of the 40 farmers – one for each of the 10 plots, to act as trainer for the other 3 – needs to have been trained in organic methods. Progress on this too has been rated as 'satisfactory' (see 3.1.2). However, in both instances it is unknown how quickly these requirements will be met once a SAOSO approved service provider has been contracted and therefore how soon a flow of

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								<p>produce that can be sold as organic will commence. This is a significant risk.</p> <p>According to the co-ordinator, the 'difficulties in accessing organic markets' reported in the June 2022 PIR related at that point to the fact that most markets for organic vegetables were still closed on account of COVID restrictions. While many have since reopened, none of the project's produce can yet be marketed as organic and will have to be sold on CoJ's fresh produce market or elsewhere.</p> <p>The co-ordinator reported that it was recognized in developing strategy for the project that only for households trained on the basics of organic production will output be aimed at achieving food security goals. For the project's 10 organic plots, when produce does come on stream, most target markets will not be located close to the points of production, as organic vegetables can potentially sell at a premium to their conventionally produced competition and therefore need to be sold on high-income markets where consumers are willing to pay a higher price if this premium is to be realized.</p> <p>This will require output to be transported from southern/south-western Johannesburg to the north, entailing additional cost. The co-ordinator's opinion was that the project's farmers ought to be able to meet this cost and still make a profit. This is a significant risk and will need to be confirmed. While CoJ is subsidizing input costs, this should certainly be possible. But this assistance ends on 30 June 2024. However, if the certification process is not too slow, this should at least give farmers one or two growing seasons to reach a competitive standard of product.</p>	

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								<p>In response to the question: 'what help ... would you expect CoJ to provide after the project ends?', the detailed response referred to above was 'access to markets. (CoJ Department of) Social Development runs a food parcel initiative where they distribute fresh produce to communities not making ends meet. With the broad network of farmers in their database they could buy ... produce from these farmers ... they can band farmers by region and each region (can) grow a specific vegetable ... that's how we can achieve access to markets and promote ethical consumers and buying organic practices.' At present, the 10 farming groups market through 'street hawkers, food trucks, restaurants and aggregators, (as well as) donating to old age homes and orphanages in the community' and using produce for their own consumption.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>● Help identify, connect farmer groups to new marketing opportunities, e.g., weekly markets in high-income areas, hotels, restaurants, guest houses.</li> <li>● Guide collection of demand specifications from markets/consumers. Appropriate member of project team should have these tasks built into job requirements. Should be done soonest and feedback to groups delivered soonest by e-mail and at regular meetings with farmers. Suggested performance indicators: i) 6-monthly reports by relevant member of team on i) intelligence gathered; ii) number of farming groups making use of this intelligence; iii) ways in which intelligence being used.</li> <li>● Form and support communities of practice to plan production specialization and</li> </ul>	



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								<p>planting sequencing to facilitate maximum continuity of supply. Should be done soonest, certainly before end 2023. Regular meetings with farmers ideal vehicle for purpose. Suggested 6-monthly performance indicators: i) number of communities of practice formed; ii) number of groups co-ordinating production, marketing (target 5 groups).</p> <ul style="list-style-type: none"> <li>● Build capacity of CoJ agricultural extension services, draw in appropriately skilled NGOs and private sector input suppliers/service providers with programmes to assist land/agrarian reform, to support farming groups in delivering to specification.</li> <li>● (See also recommendations for 3.1,2)</li> </ul>	
		3.1.8. Implement training for farmers and/or Training of Trainers (TOT) for CoJ officials in basic sustainable agriculture (all regions).	5 months	Jul 2019	Jul 2019	Jul 2019	Highly satisfactory	Likely	<p>Regarding training of farmers, see 3.1.2 and 3.1.3. June 2022 PIR records that 5 5 full-time CoJ Social Development Department staff members were appointed to the project in February 2022: agronomist, agricultural engineer, 2 trainers, food resilience assistant). The co-ordinator reported that that by June 2022 all had been given the required 5 days of basic training at the University of KwaZulu-Natal's Cedara agricultural institute. Names and contact details of staff members have been provided for verification and elaboration on nature and quality of training. Details of advertisement, gender sensitivity and gender composition of appointees also to be determined. Attrition of staff is an inherent risk, but as the appointment and training of a successor(s) should not be difficult, this should not be viewed as a material risk. Co-ordinator said no staff had left since appointment.</p>

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								<p>Although not raised in connection with this aspect of training, it is noted again that project staff feel that it would be helpful for the project to seek more feedback from farmer groups on the quality, value and focus of training delivered and on how training could be improved (see also 3.1.3 above).</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>Gather feedback from trainees on value, implementation of training and on suggestions for improvement.</li> <li>(See recommendations for 3.1.5)</li> </ul>	
		3.1.9. Advanced training for CoJ officials in sustainable and organic farming techniques (all regions).	5 months	Oct 2019	Oct 2019	Oct 2019	Highly satisfactory	Likely	<p>Co-ordinator reported that advanced training of 5 staff had been completed at University of North-West. Verification and elaboration by staff to be undertaken by evaluator when names and contact details have been received. Same risk re staff attrition as for 3.1.8.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>(See recommendations for 3.1.8)</li> </ul>
		3.1.10. Financial Management and HR training (TOT) for CoJ officials (all regions)	5 months	Mar 2020 – Apr 2020	Mar 2020 – Apr 2020	Mar 2020 – Apr 2020	Highly satisfactory	Likely	<p>Co-ordinator reports that basic (NQF5 level) training was conducted by UNISA some years ago (2017?). Details re nature of training and number, gender of trainees to be sought from CoJ HR – name and contact details of relevant person(s) requested from co-ordinator.</p> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>(See recommendations for 3.1.8)</li> </ul>
		3.1.13. Upgrade conventional commercial to eco-agricultural and sustainable intensification farming methods in Region G.	29 months	Oct 2020 – Jun 2022	Oct 2020 – Oct 2022	Oct 2020 – Jun 2024	Satisfactory	Moderately likely	<p>PIR (June 2022) records mid-term target for upgrade as 5 700 sq. m. See 3.1.2 for progress and 3.1.1 for constraints encountered. PIR reports '5 000 sq. m. ready to be converted and certified'. Co-ordinator reports that, to the extent that the constraints allow, this is in progress, with about 3 000 sq. m having previously used for organic production and tunnel farming having been</p>

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								undertaken on a further roughly 500 sq. m. The risks noted re 3.1.1 and 3.1.2 apply.  <b>Recommendations:</b> ● (See recommendations re 3.1.1 – 3.1.6)	
		3.1.14. Upgrade 10 selected farmers to certified organic production status & replicate in region A.	26 months	Dec 2021 – Jun 2023	Dec 2021 – Jun 2023	Dec 2021 – Jun 2024	Satisfactory	Moderately likely	See 3.1.1 and 3.1.2 (same risks)
	3.2. Policies and recommendations for increased food resilience in CoJ are drafted and adopted	3.2.1. Map the full food supply chain for COJ	10 months	Jul 2019 – Jun 2020	Jul 2019 – Feb 2021	Jul 2019 – Feb 2024	Highly satisfactory	Likely	PIR (June 2022) records CoJ has conducted a scoping exercise on the city's food supply chain, which included an informal mapping.  A tender for an external service provider to undertake in-depth mapping is reported by the co-ordinator to have been approved by the City Manager's BSC and is expected to be advertised in February 2023. Given that this activity has been combined with those identified under 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8, 3.3.1, 3.3.2 and 3.3.3, this is a significant achievement. Appointment was planned for November 2022 but is now expected to take place during the second quarter of 2023.  <b>Recommendations:</b> ● Use all processes that comply with Municipal Finance Management Act (MFMA) to accelerate appointment of service provider. ● Ensure frequent, regular reporting, interaction with service provider.
		3.2.2. Map and describe the network of role players (stakeholders), processes, relationships and roles in COJ agrifood chains.	13 months	Oct 2019 – Nov 2019	Mar 2021 – Dec 2021	Apr 2023 – Jun 2023	Highly satisfactory	Likely	This activity has been incorporated into the ToR and specifications referred to under 3.2.1.

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			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		3.2.3. Describe the trade flows (formal and informal) of the main food commodities between the COJ and other city regions within the Gauteng Province	13 months	Nov 2019 – Dec 2019	Jan 2022 – May 2022	Jun 2023 – Sep 2023	Highly satisfactory	Likely	This activity has also been incorporated into the ToR and specifications referred to under 3.2.1.
		3.2.4. Identify strengths and weaknesses in the COJ food systems including reference to gender and climate change	9 months	Dec 2019 – Jan 2020	May 2022 – Aug 2022	Sep 2023 – Oct 2023	Highly satisfactory	Likely	This activity has also been incorporated into the ToR and specifications referred to under 3.2.1. Minor risk: strengths and weaknesses not adequately identified
		3.2.5. Describe and analyse existing policies, planned initiatives, city targets and investments related to food supply, security and implications for sustainable food supply to the COJ	10 months	Jan 2020 – Feb 2020	Aug 2022 – Oct 2022	Nov 2023 – Dec 2023	Highly satisfactory	Likely	This activity has also been incorporated into the ToR and specifications referred to under 3.2.1. Minor risk: policy analysis and/or identification of strengths, weaknesses do not lead to full/correct identification of implications for sustainable food supply
		3.2.6. Identify policies that require changing, propose revisions to policies & strategies; & where needed formulate new policies to improve food supply & security & send to various stakeholders	6 months	Feb 2020 – Mar 2020	Oct 2022 – Dec 2022	Jan 2024 – Feb 2024	Highly satisfactory	Likely	This activity has also been incorporated into the ToR and specifications referred to under 3.2.1. Minor Risk: policy analysis and/or identification of strengths, weaknesses do not lead to full/correct identification of implications for policy improvement and sustainable food supply
		3.2.7. Organize and hold a biannual workshop series with various city stakeholders to discuss & approve policy changes & new policies & strategies to improve food supply & security in the COJ.	10 months	Jul 2020 – Aug 2020 + Jul 2021 – Aug 2021	Dec 2022 – Jan 2023	Apr 2024 – Jun 2024	Highly satisfactory	Likely	This activity has also been incorporated into the ToR and specifications referred to under 3.2.1. Minor risk: policy analysis and/or identification of strengths, weaknesses do not lead to full/ correct identification of implications for policy improvement and sustainable food supply

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		3.2.8. Submit policies to increase food resilience for adoption to Council	N/A	Oct 2021 – Mar 2022	Jan 2023 – Feb 2023	Apr 2024 – Jun 2024	Highly satisfactory	Likely	This activity has also been incorporated into the ToR and specifications referred to under 3.2.1. Minor risk: policy analysis and/or identification of strengths, weaknesses do not lead to full/correct identification of implications for policy improvement and sustainable food supply
	3.3. A plan is prepared and agreed with CoJ to replicate successful pilots	3.3.1. Set up criteria to identify successful pilots for replication.	12 months	Jul 2019 – Jun 2024	Jul 2019 – Jun 2024	Jun 2021 – Dec 2021	Satisfactory	Likely	This activity has been incorporated into the ToR and specifications referred to under 3.2.1. Minor risk: criteria not adequate to identify successful pilots and/or that 'success' is inadequately defined, e.g., by focusing on output and employment without considering sustainability without CoJ assistance (such as in respect of free operating inputs – seeds, fertilizers, etc.).  <b>Recommendations:</b> ● Ensure ToR address risks identified clearly and adequately.
		3.3.2. Review successes and capture lessons learnt from Outputs 3.1 and 3.2, benchmarked against other food resilience programmes, internationally and nationally	12 months	Jul 2019 – Jun 2024	Jul 2019 – Jun 2024	Jan 2023 – Dec 2024	Highly satisfactory	Likely	This activity has been incorporated into the ToR and specifications referred to under 3.2.1. Minor risk: definition of 'success' deficient (see 3.3.1) and/or lessons inadequately captured leading to sub-optimal food resilience going forward.
		3.3.3. Draft a joint medium-term plan and budget with consultations to all city regions	11 months	Jan 2022 – Jun 2023	Jan 2022 – Jun 2023	Mar 2024 – Apr 2025	Highly satisfactory	Likely	This activity has been incorporated into the ToR and specifications referred to under 3.2.1. Minor risk: plan and budget sub-optimal for reasons identified in 3.2.4 -3.2.8, 3.3.1 – 3.3.2.



### Outcome 4: Biodegradable Waste

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
<b>Outcome 4: CoJ adopts an integrated biodegradable waste management strategy and has pre-investment documents to mobilise finance to implement the strategy</b>	4.1. Waste to biogas pilot is constructed and operational	4.1.1. Review institutional arrangements of an oversight body for the design, implementation, operations and offtake of the 50T biogas pilot	6 months	Dec 2019	Dec 2019	Dec 2019  June 2019 (PSC) April 2018 (C4 SM)	Satisfactory	Likely	<b>Status:</b> Completed as per workplan revision 3A. Project PSC formed meeting annually.  Component 4 was transferred to the DBSA in June 2018 (See Document #8) with Attie Ferreira as project manager and Darius Boshoff from Energidrop contracted to support execution of component 4.  Regular (generally monthly) so called formal component 4 Steering Meetings (C4 SM) have taken place (over 40 meetings between 2018 and 2022) and thus have a comprehensive document trail detailing the oversight of component 4. See document folder #24.  Transfer of component 4 to the DBSA with substantial procurement experience and capacity relevant to the pilot plant seems logical.
		4.1.2. Select sites for the biogas plant and peripherals and complete legal requirements including EIA and licencing	7 months	Dec 2019	Dec 2019	Dec 2019  July 2020			
		4.1.3. Sign feedstock agreements including quality and quantity for a 50T biogas pilot	7 months	Jul 2019 – Sep 2019	Jul 2019 – Sep 2019	Jan 2021 – Apr, 2021	Satisfactory	Moderately likely	<b>Status of waste supply:</b> In terms of waste feedstock there is no agreement in place yet with Johannesburg Market (JM) and Johannesburg City Parks and

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		including JM, JCPZ and other sources						<p>Zoo (JCPZ). JM would supply food waste and JCPZ garden and animal waste.</p> <p>Despite the lack of agreements, there is however a contracting strategy (see document #17), highlighting key points to be included in contracts between all supply and offtake interfaces.</p> <p>Records in documents #38 &amp; #39 show that the quantity of waste available from JW could make up the required 50t/d but no quality assessment has been done. JM now deposits of waste to landfill and the free collection of waste at JM's site would be a benefit to them. Details regarding the seasonality of the waste from JM are discussed in section 4.2.1 of this table.</p> <p>Quantity and quality of waste from JCPZ are not mentioned in documentation. We expect only a small volume and are not sure if quantities provide sufficient economies of scale.</p> <p><b>Status of non-waste supply:</b></p> <ul style="list-style-type: none"> <li>- Egoli Gas: Gas backup for biogas, to be secured via Pikitup which has the contract with Egoli. This is mentioned in the internal memorandum with Pikitup (see document #16). Standard rates.</li> <li>- Heat required for digester, to be secured via Energy Systems. Part of draft agreement, stipulating heat supply and backup for gas offtake as they convert landfill gas to electricity. Heat supply detailed in LoI from March 2021 (see document #41). No rates mentioned. It is envisaged that the company that will operate and maintain the plant will conclude the final agreements.</li> </ul> <p><b>Risks:</b></p>	

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
								<p>There is some risk in terms of potential delays and supply cost due to legal review and finalisation required at a later stage by the selected company that will operate and maintain the plant and negotiate rates (if applicable).</p> <p>Another risk is the lack of formal commitment of JM and lack of quality assessment as well as concrete and assessed alternative sources that can provide redundancy in terms of waste feedstock.</p> <p><b>Recommendations:</b> Commence with components 4.2 to identify alternative waste sources to complement JW and reduce seasonality risks. CoJ confirmed that they will do so.</p> <p>Conclude LoI/MoU with JM committing all waste to the project and assess quality/quantity (variation) due to seasonality.</p> <p>Finalise discussions with JCPZ including quantities and quality. If not considered a feasible supply option conclude to not proceed.</p>	
		4.1.4. Negotiate and conclude the financial structure of the 50T pilot between JCPZ, EISD, DBSA and any additional financiers	6 months	Dec 2019	Dec 2019	Dec 2019  Dec 2019	Satisfactory	Likely	<p><b>Status:</b> Completed as per workplan revision 3A.</p> <p>The financial structure of the project is detailed in Document #3. This financial structure was agreed upon and approved by the PSC in June of 2019 (See Document #12). Component 4 specific financial structures are detailed in Document #12. The only proposed financiers are DBSA, GEF and CoJ.</p>
			6 months	Jul 2019 –	Jul 2019	Jan 2021 – Apr, 2021	Moderately Satisfactory	Moderately likely	<p><b>Status:</b> Preliminary commitments for most off takers but no agreements.</p>

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
		4.1.5. Negotiate and conclude the agreement with the off takers		Sep 2019	– Sep 2019	Ongoing		<p>There are currently draft agreements in place in several forms, either a MoU, Lol, draft offtake agreement or combination thereof:</p> <ul style="list-style-type: none"> <li>- Energy Systems (draft offtake agreement, document #21&amp; Lol, document #41)</li> <li>- Metrobus (MoU, document #15 &amp; Lol, document #23)</li> <li>- JCPZ (MoU, document #14)</li> <li>- Pikitup (MoU, document #16 &amp; Lol, document #20)</li> </ul> <p>Further, Document #17 (Contracting Strategy) for details what should be included in the final contracts.</p> <p>Maintenance and Operations (M&amp;O) contractor to negotiate, complete and sign final contracts.</p> <p>The above MoU, Lol, draft offtake agreements detail the following proposed offtake structures:</p> <ul style="list-style-type: none"> <li>- Pikitup to take liquid digestate for dust suppression. They currently use water, which is expensive.</li> <li>- Interest from JM indicated a willingness to take the digestate for their urban farmers. No formal agreement (MoU/Lol) in place.</li> <li>- JCPZ was originally envisaged to take bulk and bagged dry mature digestate as well as liquid digestate. However, their role in the project, at least for the pilot stage, appears to have diminished. No formal agreement in place and constraints in terms of handling large quantities stated while no offtake quantities are specified.</li> <li>- Energy systems to supply heat, electricity and biogas venting capacity for the City of Johannesburg</li> </ul>	

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
									<p>Biomethane project in Robinson Deep. Commercial rates not specified.</p> <p>It is envisaged that the O&amp;M company will conclude the final agreements including rates if relevant.</p> <p><b>Risk:</b> there is risk in terms of potential delays due to legal review, negotiation of terms and finalisation of contracts by O&amp;M contractor. Moreover, some preliminary commitments are not detailed enough or documented.</p> <p><b>Recommendations:</b> Secure offtake of solid/liquid digestate by formalising arrangements (as far as possible) with JCPZ, JM and/or others as required to dispose of digestate volumes.</p> <p>Formalise offtake liquid digestate by Pikitup and ensure no complications with groundwater contamination as leachate treatment is in place.</p> <p>Take into consideration of it is possible to conclude contracts separate from O&amp;M contractors' responsibility as this may be complicated for contractors to respond to as part of a bid as risks and complexity are hard to assess.</p>
		4.1.6. Finalise procurement specifications, tender contract, select winning bidder and sign contract to build, operate and maintain a 50T pilot biogas plant and peripherals	6 months	Jul 2019 – Dec 2019	Jul 2019 – Dec 2019	Apr 2021 – May, 2023  Ongoing	<i>Moderately unsatisfactory</i>	Moderately unlikely	<p><b>Status:</b> Incomplete</p> <p>The project is entering the third attempt of tendering. A tender cancellation notice with review of previous two rounds of EPC tenders is available as document #35 and summarised in the supporting notes below.</p> <p>A new PSP tender pertaining the biogas plant design is currently with National Treasury for approval. Tree felling and infrastructure related</p>

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
								<p>works have been separated out and put out for tender already.</p> <p><b>Risks:</b> While we concur that separating out the non-engineering work is logical, we have concerns about the introduction of additional risks by separating the EPC O&amp;M work into three tenders: detailed design, construction and O&amp;M. Risks identified entail management of performance guarantees, IP/know-how and timelines/further delays. See detailed notes below. Furthermore, it may prove difficult to tender an O&amp;M scope including the requirement to negotiate final contracts with suppliers and off-takers as bidders may have trouble to assess risks and efforts required.</p> <p><b>Recommendations:</b> Closely monitor progress of PSP tender and ensure that stated risks are assessed in case this new tender will prove unsuccessful as well.  Consult process engineering experts and ensure that prospective bidders get sufficient amount of time to respond.  Consider joining construction and O&amp;M tender to avoid complications regarding performance guarantees between parties, reduce interfaces and potentially increase speed.  If third tender is not successful, re-evaluate and consider fully integrated EPC O&amp;M tender.  Review if O&amp;M interfaces can be managed with supplier and off-takers separate from tenders as it will be very difficult for bidders to assess risk and efforts required.</p>	

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
								Evaluate if O&M risk could be ringfenced, for example in an SPV to be managed firstly by temporary O&M contractor and potentially another party later on. An SPV might also facilitate a clear but flexible ownership structure and provide continuance of contracts with suppliers and off-takers with the same SPV. If an SPV would be established at an early-stage contracts with suppliers and off-takers could already be finalised.	
		4.1.7. Build, commission, operate and maintain the 50T biogas plant and infrastructure needed to process and deliver the products to agreed specifications (e.g.: cleaning, compressing, storing, delivering, composting, etc...)	36 months	Feb 2020 – Jul 2020	Mar 2020 – Jul 2020	Jun 2023 – Apr, 2025		Moderately unlikely	<p><b>Status:</b> Not Initiated Incomplete – commissioning not started (pretender stage)</p> <p>Although unable to assess, the situation is not unclear. This activity is a planned future activity.</p> <p><b>Timeline:</b> DBSA planning suggests a commissioning date of January 2025 with the handover process being complete by April 2025. The envisaged 3-year O&amp;M phase would then still need to follow and is not included. See Document #37.</p> <p><b>Recommendation:</b> Align the internal planning and GEF planning with each other including the (currently pending) project extension.</p> <p><b>Budget:</b> The original proposed budget for the biogas plant was R80m. This figure has escalated to between R140m – R150m as the original budget was based on substantial academic work by University of Johannesburg (UJ) and is now envisaged to be fully contracted out to commercial professional parties.</p> <p>GEF is aware of the increase, and it has been decided to re-evaluate the budget when</p>

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
								<p>detailed design + BOQ are completed. While CoJ is willing to co-fund the budget increase will need to be negotiated with GEF.</p> <p><b>Recommendation:</b> Ensure that budget increase evaluation if officially included into planning.</p>	
		4.1.8. Draft a monitoring plan to measure the performance of the biogas pilot including GHG emissions reduction	36 months	May 2020 – Jul 2020	May 2020 – Jul 2020	Sep 2024 – Apr, 2025		Moderately unlikely	Status: Not Initiated See above
		4.1.9. Implement the plan to measure performance of the biogas pilot including GHG emissions reduction	N/A	Aug 2020 – Apr 2022	Aug 2020 – Apr 2022	May 2025 – Jun, 2025		Moderately unlikely	Status: Not Initiated See above
		4.1.10. Based on the findings of the performance assessments, make recommendations for overall value-chain optimization	24 months	Dec 2020 – Jan 2021	Dec 2020 – Jan 2021	May 2025 – Jun, 2025		Moderately unlikely	Status: Not Initiated See above
		4.1.11. Summarise main findings & make recommendations to the comprehensive gender sensitive and resilient integrated bio-degradable waste management strategy	N/A	May 2022 – Jul 2022	May 2022 – Jul 2022	May 2025 – Jun, 2025		Moderately unlikely	Status: Not Initiated See above
	4.2. Waste separation at source is piloted	4.2.1. Define organic waste separation at source pilot neighbourhoods based on Living Standard Measures (LSM) criteria with private	9 months	Jul 2019 – Dec 2019	Jul 2019 – Dec 2019	Apr 2021 – Jun, 2021	Satisfactory	Moderately likely	Formal separation at source is in place at JM where organics and inorganics are separated and classified as per interview with Charles Hamilton on 24/11/2022. However, no formal agreement between JM presents a risk as JM is intended to be sole waste provider for the pilot stage of the project.



Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
		stakeholders, CoJ and Pikitup							<p>See documents #38 &amp; #39 for waste streams from JM. Notably, the seasonality of the waste presents a significant challenge. Historic data suggests that excess waste (above 50t/day) will be available in the months Nov through Jan, however, a significant shortfall, as much as 40t/day, is possible. Alternative sources from neighbourhoods could potentially address seasonal shortfall and create redundancy.</p> <p>Separation at source pilot neighbourhoods was planned to commence when the O&amp;M component of the biogas pilot would be tendered.</p> <p>Considering importance of waste supply redundancy CoJ is planning to start this activity in 2023, ahead of the O&amp;M phase, acknowledging the role that the neighbourhood initiatives will play in future waste supply of the project (interview M. Maphoto 30/11/2022).</p> <p><b>Recommendation:</b> Secure waste supply by formalising arrangements with JM and starting the neighbourhood initiative well in time.</p>
		4.2.2. Review existing CoJ separation at source programmes with a view to identifying partners and potentially piggyback logistics	6 months	Feb 2020 – Apr 2020	Feb 2020 – Apr 2020	Apr 2021 – Jun, 2021	Satisfactory	Moderately likely	<p>JM has been identified as a key partner. Specific advantages include, as per interview with Charles Hamilton on 24/11/2022:</p> <ul style="list-style-type: none"> <li>- Centralized nature of the JM waste</li> <li>- Mature and developed separation at source</li> <li>- Waste removal logistics already in place</li> </ul> <p>Further review of sources has not been undertaken.</p> <p><b>Recommendation:</b> Start review of other programmes to secure supply and build redundancies.</p>

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		4.2.3. Cost options, agree approach and conclude cooperation agreements	5 months	Feb 2020 – Apr 2020	Feb 2020 – Apr 2020	Apr 2021 – Oct, 2021		Moderately likely	<b>Status:</b> Not Initiated Although unable to assess, the situation is not unclear. This activity is a planned future activity.
		4.2.4. Procure enabling supplies and equipment and train collectors	5 months	Apr 2020 – Jul 2020	Apr 2020 – Jul 2020	Jun 2021 – Sep, 2021		Moderately likely	<b>Status:</b> Not Initiated Although unable to assess, the situation is not unclear. This activity is a planned future activity.
		4.2.5. Plan and implement gender sensitive awareness and participation campaign in the identified communities	24 months	Apr 2020 – Jul 2020	Apr 2020 – Jul 2020	Jun 2021 – Sep, 2021		Moderately likely	<b>Status:</b> Not Initiated Although unable to assess, the situation is not unclear. This activity is a planned future activity.
		4.2.6. Distribute supplies to participating facilities	36 months	Aug 2020 – Oct 2020	Aug 2020 – Oct 2020	Oct 2021 – Sep, 2021		Moderately likely	<b>Status:</b> Not Initiated Although unable to assess, the situation is not unclear. This activity is a planned future activity.
		4.2.7. Measure adherence, cost scale-up, review and provide lessons to strategy	36 months	Feb 2022 – Jun 2022	Feb 2022 – Jun 2022	Apr 2023 – Aug, 2023		Moderately likely	<b>Status:</b> Not Initiated Although unable to assess, the situation is not unclear. This activity is a planned future activity.
	4.3. A CoJ integrated bio-degradable waste management strategy is developed that is gender sensitive	4.3.1. Finalise procurement specifications, tender contract, select winning bidder and sign contract to develop the MSW	N/A	Jul 2020 – Dec 2020	Jul 2020 – Dec 2020	Apr 2023 – Sep, 2023		Moderately likely	<b>Status:</b> Not Initiated Although unable to assess, the situation is not unclear. This activity is a planned future activity.
		4.3.2. Review existing studies on the organic fraction of the MSW and waste management plans of large waste handlers in CoJ	N/A	Jan 2021 – Mar 2021	Jan 2021 – Mar 2021	Oct 2023 – Dec, 2023		Moderately likely	<b>Status:</b> Not Initiated Although unable to assess, the situation is not unclear. This activity is a planned future activity.
		4.3.3. Review international best	6 months	Apr 2021 –	Apr 2021	Jan 2024 – Feb, 2024		Moderately likely	<b>Status:</b> Not Initiated

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		practices for collection of sources separated organic waste		May 2021	– May 2021			Although unable to assess, the situation is not unclear. This activity is a planned future activity.	
		4.3.4 Identify options of waste separation technologies appropriate to CoJ conditions with resilience & gender considered	7 months	Jun 2021 – Jul 2021	Jun 2021 – Jul 2021	Mar 2024 – Apr, 2025		Moderately likely  Although unable to assess, the situation is not unclear. This activity is a planned future activity.	
		4.3.5. Analyse options and define the best use based on socio-economic development & other CoJ imperatives	6 months	Aug 2021 – Sep 2021	Aug 2021 – Sep 2021	May 2025 – Jun, 2025		Moderately likely  Although unable to assess, the situation is not unclear. This activity is a planned future activity.	
		4.3.6. Review and identify options for improvement of existing legal arrangements (Licencing, Governance, etc), and review the institutional setting (i.e.: Biogas Steering committee), and agreements with waste concessions	12 months	Oct 2021 – Dec 2021	Oct 2021 – Dec 2021	Dec, 2024		Moderately likely  Although unable to assess, the situation is not unclear. This activity is a planned future activity.	
		4.3.7. Undertake a comprehensive review of potential business models and agreements with off-takers of processed biodegradable waste	12 months	Dec 2021 – Jan 2022	Dec 2021 – Jan 2022	Dec 2024 – Jan, 2025		Moderately likely  Although unable to assess, the situation is not unclear. This activity is a planned future activity.	
		4.3.8. Develop a draft comprehensive gender sensitive and resilient integrated bio-degradable waste management strategy	24 months	Jan 2022 – Feb 2022	Jan 2022 – Feb 2022	Jan 2025 – Feb, 2025		Moderately likely  Although unable to assess, the situation is not unclear. This activity is a planned future activity.	
		4.3.9. Incorporate findings and recommendations from both pilots (segregation	16 months	Mar 2022 – Apr 2022	Mar 2022 – Apr 2022	Mar 2025 – Apr, 2025		Moderately likely  Although unable to assess, the situation is not unclear. This activity is a planned future activity.	

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		at source and biogas plant) into the comprehensive gender sensitive and resilient integrated bio-degradable waste management strategy							
	4.4. Investment feasibility studies are completed for the implementation of COJ's biodegradable waste management strategy	4.4.1. Identify the location/sources and volumes of organic waste generated in the CoJ	N/A	Jul 2020 – Aug 2020	Jul 2020 – Aug 2020	Jul 2020 – Aug 2020		Moderately likely	<p><b>Status:</b> Not Initiated because regarded to be sequential to component 4.1.</p> <p>If waste to biogas is of strategic importance to CoJ independent of whether the envisaged pilot will succeed, one can consider starting work.</p> <p><b>Recommendations:</b> Consider making activity independent of component 4.1 and start execution of component 4.4.</p> <p>Revise planning accordingly and align with envisaged project timeline extension.</p>
		4.4.2. Undertake a compositional analysis of organic household waste following international best practices; dairies at restaurants in CoJ; waste from the Fresh Produce Market; and green organic waste	N/A	Sep 2020 – Nov 2020	Sep 2020 – Nov 2020	Sep 2020 – Nov 2020		Moderately likely	<p><b>Status:</b> Not Initiated See above</p>
		4.4.3. Review CoJ's organic waste characteristics & quantities within context of various utilisation pathways including transport fuel, and other alternative utilisation pathways, e.g., for electricity, heating, and	N/A	Dec 2020 – Feb 2021	Dec 2020 – Feb 2021	Dec 2020 – Feb 2021		Moderately likely	<p><b>Status:</b> Not Initiated See above</p>

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3  Planned  Actual			
		chemical industry feedstock							
		4.4.4. Analyse options and define the best use based on socio-economic development & other CoJ imperatives	N/A	Mar 2021 – Apr 2021	Mar 2021 – Apr 2021	Mar 2021 – Apr 2021		Moderately likely	<b>Status:</b> Not Initiated See above
		4.4.5. Consult stakeholders; present the draft biodegradable strategy, and agree approaches to roll it out	12 months	May 2021 – Jun 2021	May 2021 – Jun 2021	Nov 2022 – Jan, 2023		Moderately likely	<b>Status:</b> Not Initiated See above
		4.4.6. Draft a road map based on agreements above to implement the biodegradable strategy.	24 months	Jun 2021 – Jul 2021	Jun 2021 – Jul 2021	Nov 2022 – Jan, 2023		Moderately likely	<b>Status:</b> Not Initiated See above
		4.4.7. Establish and model scenarios, model costs aligned with CoJ priorities	18 months	Aug 2021 – Jul 2022	Aug 2021 – Jul 2022	Jan 2023 – Dec, 2023		Moderately likely	<b>Status:</b> Not Initiated See above
		4.4.8. Prioritise and select projects for investment pipeline	24 months	Jun 2022 – Sep 2022	Jun 2022 – Sep 2022	Nov 2023 – Feb, 2024		Moderately likely	<b>Status:</b> Not Initiated See above
		4.4.9. Conduct feasibility studies, including businesses cases for National Treasury and DBSA.	28 months	Sep 2022 – Jan 2023	Sep 2022 – Jan 2023	Feb 2024 – Jun, 2025		Moderately likely	<b>Status:</b> Not Initiated See above

## Outcome 5: Evidence-Based Planning

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
<b>Outcome 5: Enhanced capability of CoJ in evidence-based policy and strategy making.</b>	5.1. Indicator selection and data collection for evidenced based policy and strategy making	5.1.1. Server Infrastructure	N/A	Jul 2019 – Jun 2020	Jul 2019 – Dec 2021	? November 2022	Highly Satisfactory	Likely	The server infrastructure has been procured and installed by the City's IT department. This was funded internally and did not utilize GEF funding as originally intended.
		5.1.2. Portal Installation	N/A	Jan 2020 – Jun 2020	Jan 2020 – Feb 2022	Jul 2022	Highly Satisfactory	Likely	Completed by the City's IT department.
		5.1.4. System Needs Assessment, Data Requirements (including sharing ad protocols) and Specification Design	N/A	Jul 2019 – Jun 2020	Jul 2019 – Jul 2020	Jul 2019 – Jul 2020 On-going	Satisfactory	Likely	The assessment was undertaken in two parts, one part was carried out internally through consultation with various department and entities within CoJ, the other part was allocated to the ToR developed for the service provider. The service provider will perform an audit of all spatial data systems as part of the initial project stage, and subsequently define the protocols for API data connections in and out of the CoJ Spatial Data portal. The systems needs assessment is also included into the ToR.
		5.1.5. Data Collection and Preparation, Including setting up sharing protocols	N/A	Jul 2020 – Dec 2020	Jul 2020 – Jun 2021	Jul 2022 – Jun 2023 On-going	Moderately unsatisfactory	Likely	With appointment of service provider in place, systems audits and data collection are the first steps to initiate. The Inception Report has been completed, outlining the programme, approach and governance structures for the project. This was shared at the GIS user-group monthly session hosted by CoJ. <b>Timeline:</b> The current timeline is achievable.
	5.2. Development of an integrated spatial data portal and spatial plan management/sharing system	5.2.1. Online Platform Development	N/A	Jul 2020 – Dec 2021	Jul 2020 – Aug 2022	Jul 2022 – Jun 2023	Moderately unsatisfactory	Likely	While this indicator has not been achieved, it should be noted that CoJ has successfully procured a service provider through JDA. The Inception Report has been concluded outlining a clear programme to develop the on-line platform in time. <b>Timeline:</b> The current timeline is achievable.

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
		5.2.2. Online Platform Testing and evaluation	N/A	Jan 2022 – Jun 2022	Oct 2022 – Mar 2023	Jul 2023		Likely	While this indicator has not been achieved, it should be noted that CoJ has successfully procured a service provider through JDA. The Inception Report has been concluded outlining a clear programme to achieve this in time.
		5.2.3. Online Platform Amendments	N/A	Jul 2022 – Dec 2022	Apr 2023 – Sep 2023	Aug 2023 – Jan 2024		Likely	While this indicator has not been achieved, it should be noted that CoJ has successfully procured a service provider through JDA. The Inception Report has been concluded outlining a clear programme to achieve this in time
		5.2.4. Online Platform Final Deployment	N/A	Jan 2023 – Jun 2023	Sep 2023	Feb 2024 – Jul 2024		Likely	While this indicator has not been achieved, it should be noted that CoJ has successfully procured a service provider through JDA. The Inception Report has been concluded outlining a clear programme to achieve this in time
		5.2.5. Online Platform Training	N/A	Jul 2023 – Dec 2023	Nov 2023 – Apr 2024	Aug 2024 – Jan 2025		Likely	While this indicator has not been achieved, it should be noted that CoJ has successfully procured a service provider through JDA. The Inception Report has been concluded outlining a clear programme to achieve this in time.
		5.2.6. Online Platform Management, Monitoring, CoJ training and Handover	N/A	Jul 2020 – Sep 2020 + Jan 2024 – Jun 2024	May 2024 – Jun 2024	Feb 2025 – May 2025		Likely	While this indicator has not been achieved, it should be noted that CoJ has successfully procured a service provider through JDA. The Inception Report has been concluded outlining a clear programme to achieve this in time.
	5.3. Lessons and knowledge from the project are shared for replication	5.3.1. Documentation of project lesson learned	N/A	Jul 2019 – Jun 2024	Jul 2019 – Jun 2024	Sep 2022 – Sep 2025	Satisfactory	Likely	PIRs show continuous efforts from the PMU to capture lessons learned. However, this can be scaled up. The process to appoint a new service provider for Output 5.3 must be initiated. It is noted that a draft ToR is in place for this, and the City manager approved the members of the BSC and BEC committees but verification of the legal representatives to serve on the BSC has been delayed.  These efforts need to be aligned with the new project timeline that accounts for changes in

Outcome	Outputs	Activity	Timelines				Progress / Achievement Rating	Likelihood of Achieving End-of-Programme Targets	Justification for Rating / Comments on revision implications / Recommendations
			Original	Rev. 1	Rev. 2	Achievement timeline: Rev. 3			
						Planned			
						Actual			
									delivery schedules based upon dependencies within the work systems. <b>Timeline:</b> The current timeline is achievable.
		5.3.2. Travel made up of local meetings and Site Visits and Annual International Meeting	N/A	Jan 2020 – May 2024	Jan 2020 – May 2024	Feb 2023 – Dec 2024	Satisfactory	Likely	PIRs shows good stakeholder engagements across all components of the project.
		5.3.3. Meetings and Conferences made up of stakeholder meetings and a final conference in May 2025	N/A	Jan 2020 + Dec 2020 + Jan 2022 + Jan 2023 + Jan 2024 – Mar 2024	Jan 2020 + Dec 2020 + Jan 2022 + Dec 2022 + Jan 2024 – Mar 2024	Jul 2019 + Nov 2019 + Oct 2020 + May 2022 – Apr 2022 + Dec 2022 + May 2025	Satisfactory	Moderately likely	PIRs shows good stakeholder engagements across all components of the project – yet there appears to be limited broader engagement beyond specific project partners (e.g., sharing lessons with other departments in CoJ, private sector stakeholders, public, etc.). Given the mid-term status of the projects, it was noted that the team feels most components are only now entering a state where lessons have been developed. A knowledge management service provider, once appointed, can assist with developing knowledge tools (brochures, infographics) and hosting broader stakeholder engagements (online webinars, conferences, etc.) <b>Timeline:</b> The current timeline is achievable.
		5.3.4. Communication and Marketing	N/A	Jul 2019 – Jun 2024	Jul 2019 – Jun 2024	Sep 2022 – Sep 2025	Moderately Satisfactory	Moderately likely	While evidence of marketing tools is available (e.g., pamphlets on waste to gas for Component 4), procurement of the knowledge partner will help to strengthen this component. <b>Timeline:</b> The current timeline is achievable.



## Appendix 2: Results Framework recommendations

### The Project

Project Objective	Objective level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
The project will foster city level resilience, resource efficiency, emission reductions and other co-benefits through area-based pilot demonstrations, systems analysis (food), and institutionalisation of evidence-based decision-making through integrated planning.	Lessons from the project are reflected in the budget for city housing, waste management, food security, and area-based planning.	0	5 investments in the budget are influenced by the lessons from the project.	Annual budget of the city in the final year of the project.	<p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>• CoJ officials are not convinced by project results.</li> <li>• Not enough budget or other competing priorities for budget allocation.</li> </ul>

### Outcome 1

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
<b>Outcome 1: CoJ test eco-district prototypes to set improved environmental standards for City of</b>	Number of eco-districts modelled for optimised resilience and sustainability and number of new developments informing eco-district criteria completed or	None	1 eco-district modelled and 4 new developments informing eco-district design criteria modelled and under construction.	<ul style="list-style-type: none"> <li>• Baseline assessments of 4 levels (neighbourhood - Orange Grove; precinct - Paterson Park; block and site)</li> <li>• Green Building Policy:</li> </ul>	<ul style="list-style-type: none"> <li>• The project is not able to attract a developer in the eco-district.</li> <li>• Eco-district pilots are not successful.</li> </ul>

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
<b>Johannesburg</b>	under construction.			New buildings	
	The eco-district targets are recommended as the standard for the TOD Corridors	Not yet	Yes	<ul style="list-style-type: none"> <li>• Ambitious targets for TOD Corridors</li> <li>• Documented process for setting standards</li> </ul>	

### Outcome 2

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
<b>Outcome 2: CoJ adopts gender sensitive and resource efficiency guidelines for improved sustainability of social housing</b>	<p>Adoption by JOSCHO of revised guidelines that include improved sustainability criteria.</p> <ul style="list-style-type: none"> <li>• Evidence of participative and evidence-based production of guidelines</li> <li>• Evidence of formal adoption</li> <li>• Evidence of mainstreaming into operations manuals</li> <li>• Evidence of application in project design and execution</li> <li>• Evidence of ongoing performance monitoring</li> </ul>	<p>Current JOSCHO guidelines are not revised to include improved sustainability aspects or social housing are not constructed as planned.</p> <p>JOSCHO does not have a clear and shared understanding of what gender sensitivity and sustainability mean. Its existing procedural</p>	<p>JOSCHO adopts and implements the revised guidelines for new social housing development and retrofits.</p> <p><b>Midpoint milestones:</b> Guidelines in draft form.</p> <ul style="list-style-type: none"> <li>• Appointment of a gender specialist.</li> <li>• Strategically assembled (inclusive and targeted) focus group discussions (and workshops) conducted to improve shared understanding of gender sensitivity and sustainability (in all JOSHCO activities).</li> </ul>	<ul style="list-style-type: none"> <li>• Appointment letter/Contract.</li> <li>• Focus Group documentation (meeting agenda, minutes focusing on meeting conclusions).</li> <li>• Disaggregated questionnaire.</li> <li>• POE analysis report.</li> <li>• Incorporation of gender perspective into relevant policy and procedural documents.</li> <li>• Historical data on water and energy consumption to be compared with the current energy consumption data in</li> </ul>	<p><b>Assumption:</b></p> <ul style="list-style-type: none"> <li>• JOSHCO will be able to mobilise and speed up implementation to provide relevant data and information on schedule when required. Driven project management is needed.</li> <li>• JOSHCO will be able to expeditiously make up time lost in completing Midpoint milestones.</li> </ul> <p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>• The project is not able to recommend improvements on JOSHCO social housing commissioning process.</li> <li>• The project is not able to identify energy saving technical solutions</li> </ul>

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
	<p>and evaluation</p> <ul style="list-style-type: none"> <li>Evidence of learning</li> <li>Disaggregation of all reporting by gender</li> </ul>	<p>documents, guidelines and operations lack gender sensitivity and are not sufficiently sustainability-promoting.</p>	<ul style="list-style-type: none"> <li>POE questionnaire results disaggregated by gender.</li> <li>POE analysis report completed with lessons for guidelines identified.</li> <li>Gender perspective on letting, tenure, staff appointments, management (safety, children, evictions etc).</li> <li>Development of sustainability evidence-base via improved sustainability performance (re energy and water) on completion of a retrofit.</li> <li>Guidelines including learnings from above processes produced in draft form.</li> </ul> <p><b>End-Point milestones:</b></p> <ul style="list-style-type: none"> <li>Ensuring that mid-point milestones not achieved are attended to.</li> <li>Learning from pilot Greenfields project (where new guidelines are applied) is noted,</li> </ul>	<p><del>retrofitted units by Senior Architect.</del></p> <ul style="list-style-type: none"> <li>Draft guidelines (ensure that draft guidelines include lessons learned via focus groups and gender specialist)</li> <li>Report from Project Manager and Gender Specialist attesting completion.</li> <li>Agendas and minutes of meeting convened specifically to examine learnings from guideline application in Greenfields projects. Also, assessment document of the match between design and “as built outcome”. Moreover, assessment document on lessons re all other pertinent JOSHCO processes.</li> <li>Evidence of new guidelines.</li> <li>Evidence of inclusion in appropriate documents.</li> <li>M&amp;E system developed</li> </ul>	<p><del>for the retrofit or new buildings that are cost effectiveness.</del></p> <ul style="list-style-type: none"> <li>Not resolving project management issues may hinder the project (sorting out the driving, coordination and content guidance is crucial).</li> <li>Funds may not be available to appoint a gender specialist.</li> <li>Sensitization of all stakeholders on gender and sustainability may provoke some pushback although this is not anticipated.</li> </ul>

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
			<p>documented and incorporated into practices where appropriate.</p> <ul style="list-style-type: none"> <li>• New and further revised guidelines in place.</li> <li>• Inclusion of lessons of greenfield pilot in all operational documents (standard operating procedures, human resource practices, procurement procedures, project design and management)</li> <li>• Monitoring and Evaluation of gender and sustainability outputs and outcomes.</li> <li>• Ongoing learning and adaptation model established.</li> </ul>	<p>for ongoing monitoring and evaluation of gender and sustainability guidelines.</p> <ul style="list-style-type: none"> <li>• Learning and adaptation reports.</li> </ul>	

**Outcome 3**

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
<b>Outcome 3: Emerging urban farmers increasingly implement more environmentally sustainable food security solutions</b>	# m <sup>2</sup> of community gardens converted to certified organic production methods.	0 m <sup>2</sup>	<del>Midpoint milestone:</del> 5,700 m <sup>2</sup> under organic production methods.  <b>End of project target:</b> 5,700 m <sup>2</sup> under organic production methods and certified.	Documentation and evidence (photos and certificates) to be presented by the Agricultural Ecologist.	<b>Risks:</b> <ul style="list-style-type: none"> <li>Identified sites are not eligible for certified organic production.</li> <li>Budget is not available for needed upgrading.</li> </ul>
	Number of men and women emerging farmers and CoJ officials trained in and using basic sustainable and/or organic farming methods.	None	<del>Midpoint milestone:</del> 200  <b>End of project target:</b> 4000  Values disaggregated by gender.	Training records to be held by the Training Advisor.	<b>Risks:</b> <ul style="list-style-type: none"> <li>Attrition from the program resulting in trained persons not implementing learned practices.</li> <li>Farmers reverting to less sustainable farming techniques.</li> </ul>
	Number of men and women emerging farmers trained in and using certified organic farming methods.	None	<b>End of project target:</b> 40  Values disaggregated by gender	Training records to be held by the Training Advisor.	<b>Risks:</b> <ul style="list-style-type: none"> <li>Attrition from the program resulting in trained persons not implementing learned practices.</li> <li>Farmers reverting to less sustainable farming techniques.</li> </ul>

**Outcome 4**

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
<b>Outcome 4: CoJ adopts an</b>	Strategy for biodegradable	None	<b>Midpoint milestone:</b> Preliminary strategy	<ul style="list-style-type: none"> <li>The strategy will be peer reviewed by CoJ</li> </ul>	<b>Assumptions:</b> <ul style="list-style-type: none"> <li>CoJ remains committed to</li> </ul>



Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
<b>integrated biodegradable waste management strategy and has pre-investment documents to mobilise finance to implement the strategy</b>	component of CoJ's municipal waste.		completed. <b>End of project target:</b> Strategy is formally adopted by CoJ.	stakeholders, SA & international specialist, UNEP.  • EISD will have CAPEX and OPEX in the last year of the project to implement the strategy.	developing the strategy.  • Adequate resources mobilized.  <b>Risk:</b> • Cooperation amongst the various stakeholders.
	Weight of biodegradable waste diverted from landfill sites (by all means, including separation at source).	0 tons	<b>End of project target:</b> Weight of waste diverted 20,000 tons.	Independently estimate weight of biodegradable waste being diverted using.	<b>Assumption:</b> • Biodegradable waste streams available for project.  <b>Risk:</b> • Biogas technology does not work or business models are not feasible.

### Outcome 5

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
<b>Outcome 5: Enhanced capability of CoJ in evidence-based policy and strategy making</b>	<ul style="list-style-type: none"> <li>• Identification and onboarding of key platform users in priority departments and entities.</li> <li>• Number of departments and entities included in onboarding workshops for the platform.</li> </ul>	<ul style="list-style-type: none"> <li>• 0</li> <li>• 0</li> <li>• 0</li> <li>• 0</li> </ul>	<b>Midpoint milestone:</b> GIS platform is operational and has data from the 'pilot' departments/entities.  <b>End of project target:</b> <ul style="list-style-type: none"> <li>• Onboarding of key users in priority departments and</li> </ul>	<ul style="list-style-type: none"> <li>• Record of active platform engagement by key users in priority departments and entities through follow-up correspondence.</li> <li>• Signed attendance registers and checklist of representation from all remaining departments</li> </ul>	<b>Assumptions:</b> <ul style="list-style-type: none"> <li>• The GIS platform has to be developed with a monitoring system that tracks decisions being made supported by the platform.</li> </ul> <b>Risks:</b> <ul style="list-style-type: none"> <li>• Departments fail to keep their</li> </ul>

Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks
	<ul style="list-style-type: none"> <li>• <del>Number of online users of the platform per quarter.</del></li> <li>• Growth in number of departments/entities keeping the data in the GIS integrated platform up to date.</li> </ul>		<ul style="list-style-type: none"> <li>• entities completed and those users actively utilising the platform.</li> <li>• All remaining departments and entities have attended onboarding workshop to use the platform.</li> <li>• At least 50% of all I remaining departments and entities actively engaged with platform.</li> <li>• <del>100 users per quarter and all departments and entities have their spatial data integrated into the platform.</del></li> </ul>	<ul style="list-style-type: none"> <li>• <del>and entities.</del></li> <li>• External review at project midpoint and end (M&amp;E of projects).</li> <li>• Website traffic report and signed data sharing agreements with all departments and entities.</li> <li>• Trend analysis of traffic report showing increase in use of the platform as onboarding progresses.</li> </ul>	<ul style="list-style-type: none"> <li>• GIS layers up to date.</li> </ul>

# Appendix 3: Meeting, Interview and Site Visit Notes

## General MTE Meetings

Date	Topic
24 August 2023	Kick-off Meeting (Online)
25 August 2023	Inception Meeting (JHB)
20 October 2023	Roundtable and Discussion (JHB)
04 April 2023	Review of Draft Final MTE Report (Online)
26 May 2023	Gender Workshop (Hybrid)

## Outcome 3: Food Resilience

All information from interviews has been incorporated into the 'Comments' column of the Evaluation Matrix for Outcome 3. Details of verbal and written interviews conducted are as follows:

Interview Notes	
<b>Name and Surname:</b>	Vhuthu Gavi (CoJ project manager)
<b>Organisation:</b>	CoJ
<b>Date:</b>	Friday, 24 November, 2022
<b>Contact Details:</b>	Email: <a href="mailto:VhuthuG@joburg.org.za">VhuthuG@joburg.org.za</a>

Interview Notes	
<b>Name and Surname:</b>	Vhuthu Gavi (CoJ project manager)
<b>Organisation:</b>	CoJ
<b>Date:</b>	Monday, 28 November, 2022
<b>Contact Details:</b>	Email: <a href="mailto:VhuthuG@joburg.org.za">VhuthuG@joburg.org.za</a>

Interview Notes	
<b>Name and Surname:</b>	Matthew Purkis
<b>Organisation:</b>	SAOSO
<b>Date:</b>	Monday, 12 December, 2022

Interview Notes	
<b>Name and Surname:</b>	Mosebjadi Molatelo



<b>Organisation:</b>	Mothusi Tshegefatho Ya Karabo Cooperative
<b>Date:</b>	Wednesday, 25 January, 2023

Interview Notes	
<b>Name and Surname:</b>	Ndivhudzannyi, Netshithuthuni, Maesela Kekana, Pheku Motibele, Lindani Makhanya (Project manager and project staff members)
<b>Organisation:</b>	CoJ
<b>Date:</b>	Monday, 27 February, 2023

Interview Notes	
<b>Name and Surname:</b>	Thabang Makoloi
<b>Organisation:</b>	Siyakhana Project
<b>Date:</b>	Monday, 27 February, 2023

## Outcome 4: Biodegradable Waste

Interview Notes	
<b>Name and Surname:</b>	Attie Ferreira (DBSA), Darius Boshoff (Energidrop), Liana Strydom (CoJ), Lungani Zulu (Pikitup)
<b>Organisation:</b>	DBSA, Energidrop, CoJ, Pikitup
<b>Date and Time:</b>	09h00 – 11h00, Thursday, 24 November, 2022
<b>Contact Details:</b>	Email: <a href="mailto:AttieF@dbsa.org">AttieF@dbsa.org</a> ; <a href="mailto:darius@energidrop.com">darius@energidrop.com</a> ; <a href="mailto:LianaS@joburg.org.za">LianaS@joburg.org.za</a> ; <a href="mailto:lunganizulu@pikitup.co.za">lunganizulu@pikitup.co.za</a>
	<ul style="list-style-type: none"> <li>● Project seeded from UJ/CoJ to DBSA for procurement of professional contractors</li> <li>● Site was chosen due to the co-location of waste – Robinson deep is an active landfill site close to the Johannesburg Market with substantial amounts of food waste available</li> <li>● Documentation of various licenses (e.g. EIA/BA) to be provided by Energidrop. Site feasibility study too. The site is approved for a 100 t/day plant</li> <li>● Major Hazardous Installation License to be secured on commissioning.</li> <li>● Consent Use has been stalled by JRA and awaiting a tribunal as a local shop owner has raised concerns over smells coming from the dump and plant.</li> <li>● Letters of Intent (LoI) were challenging to get in place – All engagements will have to be refined and retuned with the Construction and O&amp;M operators of the plant.</li> <li>● Composting partner replacing JCPZ has still to be identified</li> <li>● Digestate use <ul style="list-style-type: none"> <li>○ Potential for onsite use as dust suppression (currently using water)</li> <li>○ Risk to water table identified – expected to coincide with landfill leachate treatment</li> </ul> </li> </ul>

Interview Notes	
<b>Name and Surname:</b>	James Beukes & other Metrobus representatives.
<b>Organisation:</b>	Metrobus
<b>Date and Time:</b>	11h30 – 12h30, Thursday, 24 November, 2022
<b>Contact Details:</b>	Tel: +27 (011) 403 4300. Email: <a href="mailto:jbeukes@mbus.joburg.org.za">jbeukes@mbus.joburg.org.za</a>
	<ul style="list-style-type: none"> <li>● Substantial 'green appetite' – Great interest expressed in the project and to be the key off taker.</li> <li>● Interest expressed to enter contractual agreements once plant has been commissioned and is operational.</li> <li>● Metrobus as a City entity is not paying for the gas.</li> <li>● Metrobus will not enter into a 'minimum quantity' contract</li> </ul>



- 146 dual fuel busses to be converted to gas-only busses to be run on natural gas or bio-methane
- Bio-methane spec from OEMs is not known
- Biogas and upgrading plant design was based on international best practices, thus minimal risk of not meeting the to be determined bio-methane spec.
- RfI for new busses from OEMs could inform biomethane specification for the biogas and upgrading plant.
- Energidrop will supply current international spec. to Metrobus for RFI
- Concern over the implications for not contributing to the road accident fund as there are no levies (also no road accident fund levies as with diesel and petrol) on biomethane. Biomethane will only attract VAT.

Interview Notes	
<b>Name and Surname:</b>	Charles Hamilton
<b>Organisation:</b>	Johannesburg Market
<b>Date and Time:</b>	14h00 – 15h00, Thursday, 24 November, 2022
<b>Contact Details:</b>	Tel: + 27 11 992 8000 E-mail: <a href="mailto:info@joburgmarket.co.za">info@joburgmarket.co.za</a>
<ul style="list-style-type: none"> <li>● Massive 'green appetite' – Great interest expressed in the project and to be the key waste provider.</li> <li>● Massive expansion and modernisation of the market planned, including an improved waste management strategy aligning with international best practice. (Phase 1 beginning in 2023)</li> <li>● Separation at source already in place and established (Separating organics from inorganics as well as waste classification)</li> <li>● Approx. 1.4m tonnes of produces with a waste fraction of 1% (Translates to approx. 14 000 tonnes/ annum)</li> <li>● High gate fees currently for waste management and thus have mature waste management structures in place to try reducing fees. Currently exploring modern technology options (mix of manual and automated) to improve separation further.</li> <li>● Transformation and Strategy board in place</li> <li>● Potential to become an off taker for both solid and liquid digestate to be used by their urban farmers</li> </ul>	

Interview Notes	
<b>Name and Surname:</b>	Niraj Naamdheew; Nonhle Dlamini; Zipho Moselakgomo
<b>Organisation:</b>	DBSA (Infrastructure Delivery Division [IDD])
<b>Date and Time:</b>	9h30 – 10h30, Friday, 25 November, 2022
<b>Contact Details:</b>	<a href="mailto:NiraiN@dbsa.org">NiraiN@dbsa.org</a> ; <a href="mailto:NonhleD@dbsa.org">NonhleD@dbsa.org</a> ; <a href="mailto:ZiphoM2@dbsa.org">ZiphoM2@dbsa.org</a>
<ul style="list-style-type: none"> <li>● Details regarding the structure of the tender and why they were previously unsuccessful</li> <li>● For the nature of the tender, three responses were thought to be a good response</li> <li>● Structure of the new tender has split the design, construction, and O&amp;M into different contracts. <ul style="list-style-type: none"> <li>○ Reason for this was learnt from second round of unsuccessful tenders where bids could not be compared on a like for like basis.</li> </ul> </li> <li>● Risk of contractors not wanting to take on another firm's design discusses and highlighted.</li> <li>● 'Turnkey' Suppliers are typically not responding to government tenders.</li> <li>● All suppliers had to be registered with CIBD – potential risk of excluding key suppliers highlighted.</li> <li>● Expressed interest in opening up tender to international market.</li> </ul>	

Interview Notes	
<b>Name and Surname:</b>	Mokgadi Maphoto
<b>Organisation:</b>	City of Johannesburg (CoJ)
<b>Date and Time:</b>	12h00 – 12h30, Tuesday, 30 November, 2022
<b>Contact Details:</b>	<a href="mailto:Mokgadima@joburg.org.za">Mokgadima@joburg.org.za</a>
<ul style="list-style-type: none"> <li>● Detailed the current standing of the separation at source initiatives in the CoJ</li> <li>● Intends to get input from Energidrop as to how to specify and pilot neighbourhood separation at source initiatives to structure a tender to send out in 2023 and get this model in place before the project begins construction such that it is well established once the project is finished construction.</li> <li>● Risks highlighted of becoming entirely dependent on the Johannesburg Market for waste and lack of gender</li> </ul>	

mainstreaming, diversification, and inclusivity.

- The scope of the problem for Outcome Indicator 4.2 has been simplified for the project pilot stage by proposing to only use JM waste and its associated practical advantages
- Further proposed to begin establishing neighbourhood projects now and assure that gender mainstreaming and neighbourhood inclusivity.
- Focus of Outcome 4 is very much on Outcome Indicators 4.1 & 4.2 as it does not make sense to bring forward 4.3 & 4.4 at this stage of the project.

#### Interview Notes

<b>Name and Surname:</b>	Nonhle Dlamini
<b>Organisation:</b>	DBSA (Infrastructure Delivery Division [IDD])
<b>Date and Time:</b>	Email and telephone conversations. Friday, 13/14 December, 2022
<b>Contact Details:</b>	<a href="mailto:NonhleD@dsba.org">NonhleD@dsba.org</a>

NOTE: During the evaluation process and as we collected our thoughts, we needed further clarification regarding the following questions which were discussed via both email and a telephone call with N. Dlamini. The following is a summary of the questions and **answers (in bold)** between L. Nell (verifier/Brundtland) and N. Dlamini (DBSA).

- The part concerning the biogas plant in the previous EPC tenders was based on an existing conceptual design. Did you get any response on whether this was a hurdle for prospective bidders?

**In bidders cover letters here were questions/comments regarding certain elements of the design that according to the prospective bidder could not work and should be changed. Note that bidders would also have had the chance to propose changes during the review of the conceptual design.**

- Were prospective bidders also allowed to come with alternatives to the conceptual design?

**Not allowed as otherwise bids would not be comparable.**

Background: realisation of a biogas plants that can perform successfully in practice has shown to be difficult. We have seen many failures in the country. Moreover, we know from experience that certain companies apply specific technology and methods to ensure successful operation. Design, construction and operational knowhow often come together in making a biogas plant a success.

- Intellectual property and know-how: the owner of the plant does not necessarily need to become the owner of the technology. In case the supplier wants to protect IP and knowhow, it provides a license to use the technology and design for the specific location.
  - In the EPC tenders and the new ongoing tender, transfer of ownership of IP in relation to technology and design a requirement?

**Standard construction industry terms have been used whereby the DBSA becomes the owner of the design after payment.**

- Have there been issues regarding IP and knowhow?

**Up to now bidders have not pointed out issues regarding IP ownership and protection of knowhow.**

- A potential risk may be that generic engineering firms find the project too small and may lack biogas specific expertise while the smaller specialised firms stick to their own designs and do not like to work with the design of others. This is however speculation at this stage but it would be good to monitor when going forward.

What is DBSA's perspective on this?

**Larger construction firms teamed up with biogas specialised firms sometimes from abroad.**

In the previous tenders, did specialised biogas firms participate or were these generic engineering and construction firms?

**No specialised firms responded on their own. Industry association SABIA was engaged though.**

**One should note that all tenders (the first two that were unsuccessful and the ongoing one) are all open tenders.**

#### Interview Notes

<b>Name and Surname:</b>	Attie Ferreira
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<b>Organisation:</b>	DBSA
<b>Date and Time:</b>	Telephone conversations. Friday, 14 December, 2022
<b>Contact Details:</b>	<a href="mailto:AttieF@dbsa.org">AttieF@dbsa.org</a>
<p>A follow up interview with A. Ferreira via telephone was requested for clarification on project timeline and budget.</p> <p>In terms of the project timeline, Ferreira highlighted that the revised timeline approved by GEF did not exactly align with the internal planning document (Document #37). Specific timelines discussed were the date of the commissioning of the plant and the end date of the project. The latest revised timeline, highlighted in the evaluation table above, for Outcome Indicators 4.1.7 does not distinguish commissioning dates from operating and maintaining the plant. This timeline states an end to this phase in April 2025, whilst internal planning suggests a commissioning date of January 2025, but makes no specific mention of operating and maintaining. It does, however, suggest that the operating contract will initiate in April 2026. Further clarification on the O&amp;M phase of the project was not achieved as the call had to be cut short.</p> <p>In terms of budget, Ferreira noted that the budget for the project had escalated from R80m to an anticipated budget of between R140m – R150m. This is due to the original budget being based on academic work by UJ and now contracted out to commercial professional contractors. Also escalations are incurred to due inflation and local currency depreciation.</p>	

## Outcome 5: Evidence-Based Planning

Interview Notes	
<b>Name and Surname:</b>	Dylan Weakley (Senior Specialist: Strategic Urban Planner; City Transformation and Spatial Planning)
<b>Organisation:</b>	City of Johannesburg
<b>Date and Time:</b>	25 August 2022; 15:00–16:00
<b>Contact Details:</b>	<a href="mailto:DylanW@joburg.org.za">DylanW@joburg.org.za</a>
<ul style="list-style-type: none"> <li>● Objective of the Outcome is to create an online spatial data portal that could be used by key stakeholders in the city (e.g., CoJ officials, but importantly private sector stakeholders such as property developers). The portal will indicate roads, sewerage networks, telecoms networks, etc. <ul style="list-style-type: none"> <li>○ This will help the city better plan for future developments, ensure greater development efficiency.</li> </ul> </li> <li>● Key challenge was that GEF project work were in additional to his own responsibilities – while other projects got dedicated staff to support implementation of GEF project, C5 did not.</li> <li>● A second major challenge has been procurement delays with the CoJ: <ul style="list-style-type: none"> <li>○ Initially there was significant confusion over the correct procedures to follow – very iterative process (see slides below, from presentation received from Dylan Weakly.</li> <li>○ Eventually decided to outsource procurement to third party – Johannesburg Development Agency <ul style="list-style-type: none"> <li>▪ This is common practice for UNEP under GEF projects, since procurement is often a key challenge, so they'll use e.g., UNEP country office or other suitable third party</li> </ul> </li> </ul> </li> <li>● They're now starting to procure the developer of the platform, contract will last 36 months: <ul style="list-style-type: none"> <li>○ TOR received from Dylan Weakly</li> <li>○ Working closely with CoJ CGIS department to ensure sustainability beyond platform development</li> </ul> </li> </ul>	

Interview Notes	
<b>Name and Surname:</b>	Dylan Weakley (Senior Specialist: Strategic Urban Planner; City Transformation and Spatial Planning)
<b>Organisation:</b>	City of Johannesburg
<b>Date and Time:</b>	10 January 2023; 13:00–13:30
<b>Contact Details:</b>	<a href="mailto:DylanW@joburg.org.za">DylanW@joburg.org.za</a>
<p>In this follow-up interview Dylan Weakley conformed the status of progress for Outcome Indicators 5.1. and 5.2., noting that the server infrastructure had been procured and installed within the CoJ but this was carried out through the internal IT department using CoJ funds rather than the GEF funding as had originally been anticipated. The ToR was conformed to still be active, being handled by the JDA. This ToR partially covers the need for assessing the data systems, which has been dealt with partly through internal consultations with different departments within CoJ. While the ToR is still open, the JDA confirmed in December 2022 that the process was in its final stages with a recommendation for a service provider for the ToR made by the JDA to be signed-off in the next committee meeting.</p>	

## Appendix 4: Gender Document Reviews

This appendix lists the documents reviewed for the assessment of Gender mainstreaming in the project and the comments for each document in this regard. This was used along with interviews and engagements to form the Gender findings detailed in Section 3 of this report.

### Outcome 2: Social Housing

Item	Description	Treatment of Gender
OUTPUT 2.1 2.1.1.2		
	Project Implementation Plan & Methodology 19/10/2020. Environmental sustainability assessment. Johannesburg Social Housing Company appoints LBM consultants.	Purpose: The purpose of the project is to assist JOSHCO adopt gender sensitive and resource efficient guidelines to improve the sustainability of social housing developments within the CoJ Municipality. Gender sensitive has not been defined in any available documents. It disappears from subsequent documents in favour of efficient and sustainable social housing developments.
	General description of works	Only mention of gender is in the title of one of the sections of description of work. No deliverables related explicitly to gender.
	Approach and Methodology	
	5.1 Data collection	Head of household and members disaggregated by sex. No age. Addresses costs but not decision making. No way to know if the survey is asking the right people the questions, brings data validity into question.
	5.2 --- 5.6	No mention of gender or decision making
	STAKEHOLDER MEETING WITH JOSHCO (MANCO) 23 August 2021 @ 9am  *“To have a gender sensitive approach in problem resolution and procurement.”  7. Procurement - what are the procurement policies and standards in place or that can be put in place to ensure a gender sensitive approach to procurement. After sales forward to supplier chain department.	*Gender mentioned in one of 3 aims but unclear if they are aims of the meeting, the PIP, or the project. *No documentation of how gender sensitive and sustainable becomes gender in problem resolution and procurement.  No direct linkage between component title and emphasis on gender sensitive approach to procurement. Focus on supply side—demand side gender issues ignored.
2.1.2.1	Report for Tshedzani Phase 3. Report based on post occupancy evaluation questionnaire; identifies conditions as a basis for design improvement by Architects and Engineers.	No mention of gender. No analysis of any problems related to specific types of households. No mention of safety in general or in development of play areas.
Attendance registers (n=29)	Tshedzani Phase 3 Retrofit Progress & Technical Meetings, Workshop, Sectional Handover, Site Visit	Participant sex disaggregated
Final Attendance Register	Tshedzani Phase 3 Register, December 2020. Assessment & Development of	23 F/10M

	Revised Sustainability Guidelines & . . . ARCH/001/2020	
2.1.2.2	POE Questionnaire Template	
2.1.2.2	City Deep Data Collection Jan 2021	Gender data for HH adults available. No indication of decision making, de-facto versus de-jure head, ages of respondents or of children.
2.1.2.2	JOSHCO Research – Data collection and POE worksheet	Difficult to interpret HH Head questions without knowing how they are asked. No mention of child heads of HH.
2.1.2.2	POE Questionnaire 1&2 Bed Families	Disaggregates family members by sex and age. No question about who makes decisions about which technologies/services in the HH.
2.1.2.2	Questionnaire Tshedzani Phase 3	Disaggregated HH members but no information on who makes which decisions, and who uses which services. Assumes everyone does the same thing regardless of sex and age.
2.1.5.1	Outcome 2 GEF Site Visit 23/06/22	Summary of Components Sustainable and Affordable Social Housing Guidelines (Completed). Gender removed from the outcome title.
	Slide 4—Summary of Components	Gender left out of 2.3
	Slide 29 –32 Gender Analysis: Gender Analysis of Project Team (Consulting and Client Teams), Sub-contractors and Labourers.	Inadequate treatment of gender. Data are completely unrelated to project purpose. Existing POE data could have been analysed to indicate differences between M/F headed HHs at the very least.
2.1.6.1	JOSHCO Design & Specs Guide Draft June 2021	Zero mention of gender.
OUTPUT 2.2		
2.2.1.1	Stakeholder meeting attendance (n=2)	Sex disaggregated participants
2.2.1.2	PIP & Methodology April 2022	See comments on PIP in 2.1.1.2 above. Same apply here
2.2.2.1	JOSHCO Development & Operational Process Manual v5 2021	Although JOSHCO’s mandate includes gender, there is no mention of gender in this 124 page document.
2.2.4.1	JOSHCO Development Operational Process Manual V6	No mention of gender
9145_2022_PIR_DBSA-UNEP_SC SouthAfrica_final	UNEP GEF PIR Fiscal Year 2022. Reporting from 1 July 2021 to 30 June 2022	See highlighted sections and comments in following section, abstracted from report.

# Appendix 5: Outcome 1 Supplementary Report

At the time of delivery for **Deliverable 2: Preliminary Findings Report** (Submitted 13 January 2023), the progress reports for Outcome 1 in December 2022 had not yet been completed, resulting in preliminary findings being developed based on an incomplete view of progress made. To mitigate the impacts of this on the evaluation of Component 1, a supplementary report was developed to capture what was available. This report is presented below, but it should be noted that the evaluation presented in the main body of this report is updated and based upon the completed, up-to-date reporting of progress for Outcome 1.

## Purpose of the Report

The purpose of this report is to provide supplementary information to the mid-term evaluation (MTE) template for Outcome 1 to elaborate on the work that has been completed but which cannot be reflected in terms of the structure of the template. During engagements for the MTE process, it was found that the reporting cycle for Outcome 1 was based on annual progress reports that are submitted in December of each year. The MTE Process was already in progress at this point, but as the reporting cycle was not yet completed, only the progress reports from the previous year (December 2021) were available for review for the MTE. As a result of this, the Evaluation Matrix for Outcome 1 does not capture progress made over the last calendar year of implementation (January 2022 to December 2022). The progress reports for this year were to be completed and submitted by 15 December 2022 and subsequently shared with the OneWorld Team so that the latest progress can be considered for the MTE process. As this is misaligned with the deadline for submission of this report, the Evaluation Matrix of Outcome 1 was completed based on the documents available from December 2021 and findings from interviews. The MTE and Evaluation Matrix will be updated to reflect the most recent progress once the December 2022 documents are made available to the OneWorld team. This supplementary report attempts to capture what progress has been confirmed through the interviews but that could not be interrogated through the project documentation.

### 1. Background

#### 1.1|CNdP appointment and brief

Key to this assignment is to assess signs of project success or failure with the aim of identifying the necessary changes to be made in order to set the project on track to achieve its intended results. The terms of reference mention that the outcome of Outcome 1 is for the CoJ to test eco-district prototypes to set improved environmental standards for the Corridors of Freedom (COF) (now named Transit Oriented Development (TOD) corridors). Three subcomponents are identified for this evaluation:

- 1.1 eco-district (at neighbourhood, precinct, block and site scale) modelled for optimised resilience and sustainability.
- 1.2 four new developments meeting eco-district criteria completed or under construction
- 1.3 evidence-based policies for the COF (now TOD corridors) support adopted by COJ.

## **1.2| Reports and documentation reviewed**

A large amount of documentation was reviewed by this sub-consultant for the MTE for Outcome 1.

This included the following:

### **1.2.1| Background documents**

Over 50 reports, presentations and documents were reviewed for Outcome 1.

These include:

#### **Background document to project (2019)**

This document, prepared, sets out the project description for Outcome 1 noting environmental and adaptation problems that need to be addressed including; increasing migration, globalisation, climate change, natural resource scarcity, unpredictable technological innovation, and inequality. The UN Sustainable Development Goals (SDGs) are mentioned. CoJ's 2011 growth and development strategy to 2040 (GDS2040) forms the overarching framework. The developmental challenges are linked to Greenhouse Gas (GHG) emissions. The document argues that providing housing, infrastructure, services transport and goods must occur via low carbon strategies.

This sets the scene for a focus on CO<sub>2</sub> emissions and how to reduce these. This leads to a vision of the TOD corridors (previously CoF corridors) comprising low energy consumption and high-density living. Within this framework Orange Grove Eco-district is identified as a candidate for testing emissions modelling and reduction at four scales; neighbourhood, precinct, block and individual site. Paterson Park within Orange Grove is the site of a CoJ medium density development on municipal land intended as the precinct scale candidate for emissions modelling.

#### **Special Development Zones: Orange Grove Urban Design report (2017)**

As part of the original CoF program certain geographical precincts on a corridor were identified as Special Development Zones (SDZs). Orange Grove was one of these. SDZs had three purposes: to provide an urban design framework as a physical guide to future development; to develop feasible market related development models; and to ensure there are adequate civil, electrical and ecosystem services to accommodate the envisaged densification/transformation of the SDZ.

Orange Grove's Urban Design report is extremely detailed and draws out low medium and high-density scenarios, illustrating the preferred character of streets and open spaces, appropriate urban design responses with particular emphasis on the quality of the street for a range of considerations including 10% green space, parking and vehicular access, building land use, build two lines, street property frontage, and street landscape. The report illustrates a large number of different development models, some hardly distinguishable from the other, intended to be used to guide future development and redevelopment. These low- and high-density scenarios are intended to be used as the basis for the emission modelling.

#### **CoJ eco-districts modelling protocol (Solid Green) (2019)**

This report describes Eco-districts™, noting that this is a trademarked US protocol with its own certification. This protocol appears to provide the basis for the emission modelling described in this report. This is then used as a platform for designing interventions to reduce carbon emissions. It provides for Eco-district certification by an external third party. Eco-districts must submit bi-annual progress reports in order to retain the certification.

The Eco-districts™ Certified Handbook provides templates and spreadsheets to assist with structuring modelling inputs and outputs. The protocol appears to recognise the closed ecological cycle and strategies



for decarbonisation around which the pathway to carbon neutrality should be organised: namely:

- decarbonisation of electricity generation
- fuel shifting to: renewable electricity and clean fuels
- improved efficiency and reduced waste
- preservation and increase in natural carbon sinks

It notes that at least 10 years is the minimum that should be allowed to start seeing progress in attaining decarbonisation targets. The Eco-districts™ Certified Handbook provides guidance and templates for carbon emissions calculation tools that can be used to calculate baseline profiles

### 1.2.2| *Project budget for Outcome 1 (5 worksheet spreadsheet)*

Original total budget (US\$)	1.120,450.
Major items include:	
Cost consultant (QS)	67,500
planner to set goals	105,300
GIS specialist for Gap analysis	105,300
Energy and building modelling	175,500
Training	73,500
Equipment: eco-district pilot	130,000
Building performance monitoring	43,500

This budget was originally intended to be spent over a five-year period from 2017 to 2021.

### 1.2.3| *Project programme*

The initial project programme envisaged the following:

**year one:** setup pre-modelling for 3 eco-districts and model CO<sub>2</sub> emissions for 5 years

**year two:** monitor for new developments meeting eco-district criteria for four years

**year four:** develop/revise codes, policies and guidelines at precinct, SDZ or citywide **including building codes through bylaws**

### 1.2.4| *SC-AP GEF tracking tool (contains contextual information for COJ)*

### 1.2.5| *Problem Tree and Theory of Change*

These two “before and after” diagrams describe a vision for CoJ as a “resilient, liveable, sustainable urban environment underpinned by low carbon emitting infrastructure”. Five Outcomes are identified as being key to achieving the changes necessary to achieve this vision including;

1. testing eco-district prototypes to create improved environmental standards, (subject of this evaluation report)
2. adopting gender sensitive and resource efficiency guidelines for social housing,
3. promoting urban agriculture,
4. adopting an integrated biodegradable waste management strategy, and
5. enhancing evidence-based policy and strategy making.

**Comment:** The focused nature of these five outcomes is notable. At first glance they would seem to omit the work of many of CoJ's line departments. Transport, civil and electrical engineering and finance departments come immediately to mind. Should these five Outcomes intend to cut through the work of the line departments on a matrix basis the project would need to enjoy the highest level of Mayoral and executive support. If this is not done the project would be vulnerable to being viewed as only applicable to environmental departments thus losing the all-important necessary and sufficient crosscutting approach.

**1.2.6| GEF project identification document**

This document outlines the GEF project financing contribution (US dollars 8,930,171) as an Outcome of the total project cost of US\$124,439,330 the balance of which is funded by CoJ and DBSA with an approximate 60% - 40% split. This project ID document also describes Outcome 1(eco-districts) is modelling 3 eco-districts and 4 new developments.

**1.2.7| 9 November 2022 Gender workshop transcript.**

At this workshop, the point was made that gender is a crosscutting issue that the other four Outcomes must also comment on the extent to which this very important issue is addressed in the work that has been completed.

**1.2.8| 10 May 2022 GEF PSC meeting presentation**

This presentation notes the following:

- CoJ first green building policy had been completed with inputs from the Eco-district project (note: a copy of this document highlighting the inputs from Eco-district process has not been received);
- modelling protocols had been completed;
- land use analysis to inform the model completed;
- model results for baseline assessment completed;
- one pilot project (presumably in lieu of four building projects in original brief) namely Turffontein clinic undergone design revision and under construction
- additional sub- meters procured;
- model presented to CoJ Climate Action Forum and City Power: Renewables;
- challenges and risks include: longer lead time to appoint consortium of experts than expected, databases for the model not accessible (CoJ Department of Finance) COVID-19 lockdown impacted on construction and community participation projects, developers not secured for four building projects in the eco-district, and pilot nature of project very complex and specialized;
- mitigation measures include no longer trying to attract green developers into the eco-district but rather working on green manuals and guidelines for key city projects; including green clinics, green social housing, and green community centres. Work is also proceeding on reports on the financial and other benefits of emission reduction;
- adjustments to original scope of project include: the empirical research in the Orange Grove eco-district is being reduced and the spatial scope of the project has moved citywide by producing manuals, guidelines and engagement sessions that will be applicable throughout the city;
- the original budget for Outcome 1 has accordingly been reduced. The UNEP budget revision 3 shows this budget being reduced by 44% to US\$628,944. Items cancelled include:
  - knowledge and lesson learnt management service provider.
  - building control and land-use training
  - stakeholder meetings
  - building performance metering and measure
  - lessons learned data collection and baseline.

- eco-district pilot and support
- work going forward (from May 2022) includes ending the service provider' contract and the preparation of final reports on emission reduction interventions, emission reduction pathways, financial and other benefits of emissions reductions, manuals and guidelines for key city project types, stakeholder engagement, final model and methodology and model training and capacity building will be submitted. (Note: none of these deliverables were available at the time of writing this supplementary report although, clearly, this reviewing this work should form part of this MTE.)

### 1.2.9| **Solid Green reports**

- **Tender advert** Closing date 25 October 2019
- **Tender documents.** These set out the requirements for the tender. At this point already only one Eco-district was required namely Orange Grove on the Louis Botha ToD/SDZ corridor. A number of projects for the detailed work were referred to. The focus was to be on modelling, design and costing and developing eco-districts methodology. The project was expected to be completed in June 2022.
- **Inception report (16 April 2020):** includes Orange Grove eco-district precinct boundaries, or – and approaches to developing the emissions model and protocols noting that the focus should not be so much on providing definitive answers for the Orange Grove eco-district but rather developing a model that can be applicable city wide. The emissions model was to operate at 4 scales. GIS was used for the precinct and neighbourhood scales and EDGE for the site and block scales.
- **Output 1.1: Baseline energy report** (November 2021- reported on elsewhere)
- **Output 1.1: Declaration of collaboration draft** (November 2021- reported on elsewhere)
- **Output 1.1: Declaration of commitment draft** (November 2021- reported on elsewhere)
- **Output 1.1: Roadmap draft** (November 2021 - reported on elsewhere)
- **Output 1.2: Participation reports:** presentation documents: to developers informing them of Eco-districts (Pittsburgh), GBCSA and EDGE design and operating protocols, to homeowners requesting permission to install smart meters, agenda for city improvement District meeting, (9 documents)
- **Output 1.2: Peer review presentations:** These proposed how a view consultant could assist the solid green team with various technical advice on green building/edge strategies.
- **Output 1.2: Erven 35 to 42, 11th Street Orange Grove, progress report** (December 2020) slide presentation on various net zero, emission reduction, green building rating system including SANS 10400-XA to improve building efficiency at the block scale.
- **Output 1.2: Glenn Hazel apartment block progress report** (December 2020) cut-and-paste of previous presentation focusing on one bedroom, two bedroom and four-bedroom apartment units.
- **Output 1.2: JPC/Stephen Nale JV progress report** (December 2020) cut and paste of previous report plus high-level illustration of EDGE app applied to project.
- **Output 1.2: Turffontein Clinic progress report** (December 2020) cut-and-paste of previous report plus energy performance targets to achieve net zero 2030 compared to SANS 10 400-XA
- **Output 1.2: Houghton estate progress report** (December 2020) cut-and-paste of previous report, nature of site in question not clear.
- **Output 1.2: Turffontein clinic updated progress report** (undated)
- **Output 1.3: Emission reduction goals and policies** - folder empty
- **28 progress reports from 1 April 2020 to 28 July 2022.** The last progress report notes that stage I: inception is complete, stage II: develop model is complete and that a draft report for stage III set emissions reductions goals and pathways has been completed.

Stage four: develop new standards and Stage 5: training and “capacitation” have not commenced at this point in time. It seems that these items have been removed from the brief in the mid 2022 revisions;

- **May 2022 Progress Report:** This report clearly indicates a concern around extensions of the consultant' appointment. Section 1 timeline status in this report proposes a number of changes to the

original task items including the following:

- item 6, 9 and 10 to become one document “feasible emissions reductions pathways and resource interventions impacts report” draft report tabled.
  - item 7 and 11 to become one document “green principles guidelines for selected land unit uses-clinics/M PCs/social/affordable housing and potential taxi ranks” item 8 focus groups to become one-on-one sessions with industry specialists to test finding of modelling and proposed interventions
  - item 12 remains as is “eco-district protocol summary document” feedback awaited as of July 2022
  - item 13 remains as is final standards and guidelines for neighbourhood-suggested that this should become an extension of item 7 and 11, see above
  - items 14, 17 and 18 to become a single deliverable on training
  - item 15: “final stakeholder engagement report” still to be completed at this point in time (July 2022)
  - item 16 “final report summary of standard-setting process and lessons learned” still to follow at this point in time
  - in the “next steps” section work to commence on the “high-density scenario roadmap” is noted
- Between July and November 2022, the project, including Outcome 1, underwent some major changes. Six documents describe these changes including amendments to the brief, results framework, budget and work plan.
  - Component One tasks envisaged for 2023 include measuring the impacts of the green technologies applied at the appropriate scales, analyse impacts achieved through piloting within eco-district and extrapolate for citywide application, and document process of standard-setting and lessons learned.
  - As the service provider, Solid Green, contract has ended it is assumed that these tasks will be completed by the CoJ.

### **1.2.10| Eco-district™ literature.**

Various websites and reports documenting the Eco-District movement in the United States were reviewed so as to gain a more complete understanding of this protocol so as to assist with assessing its applicability to the South Africa and CoJ context. There was little discussion on this in the documents made available.

## **2. Summary of process to date**

### **2.1|Budgets and changes**

Component one: eco-districts underwent significant changes during its course. Some of these were as a result of the lockdown arising from the Covid-19 pandemic. Others were related to the change in scope of the brief as limitations arising from lack of data or lack of capacity of stakeholders to engage in the process became apparent. Other changes arose from the change in political leadership at the city of Johannesburg who changed the term describing the city’s proposed structural corridors from the well-known Corridors of Freedom (COF) to Special Development Zones (SDZs) or Transit Oriented Development (TOD) corridors.

### **2.2|Challenges faced by service providers**

The service provider for Outcome 1 faced numerous challenges. This was to be expected given the ground-breaking and pilot nature of the project in the context of the City of Johannesburg. These included:

- The challenges that always occur when theory moves into practice and has to face a myriad of practical

challenges on the ground that are not always apparent at the desktop. This applies particularly to the modelling and the intended public participation;

- Lack of access to what should have been readily available data in the municipal Department of Finance with regards to billing records. It should have been relatively easy for the Department to provide aggregated data that wouldn't compromise the identity of ratepayers within the Eco-district;
- This may have been due to interdepartmental protocols and authorities which hadn't been resolved at the time;
- The circumstances faced by Orange Grove residents in their daily lives as the area is a transient, undergoing great change with older established residents in the bungalow housing on the one hand and new newly urbanised migrants moving into much higher density low-income accommodation on the other. This context makes it difficult to achieve public participation and buy in to an ambitious districtwide program such as Eco-districts; and,
- Thus, this key aspect of the Eco-district protocol, namely, citizen buy-in, could not be achieved.

### 3. Limitations

As will be seen from the evaluation template the reporting on a large number of outcome indicators and activities due at the end of 2022 was not available.

Four reports were available in November 2021, namely;

- i. baseline assessment,
- ii. declaration of collaboration,
- iii. declaration of commitment, and
- iv. Orange Grove roadmap.

Of these only the first report was substantially complete.

At a meeting on 8 December 2022 CoJ representative reported that final presentations of the outcome indicators and activities had been made by the service provider, Solid Green, in late November 2022 prior to their appointment ending on 15<sup>th</sup> December.

Reports of the presentations at the November meeting on these outcome indicators and activities were expected but CNDP Africa has not received these to date.

As this draft midterm evaluation report is due by 15 January 2023 this Outcome 1 evaluation has had to confine itself to the documentation available on 15 December 2022. Therefore, it should be borne in mind that while this evaluation report finds that a significant number of outcome indicators and activities are incomplete this work may have, in fact, been done but it's reporting received too late for inclusion in this evaluation report.

Due to time constraints, it was not possible to meet with the service provider whose appointment ended, as mentioned above on 15 December 2022.

As a result of the above items the preliminary findings report due on 1 December 2022 was held back in the hope that more comprehensive documentation on the various outcomes and activities would be available. However, this has proved not to be the case.

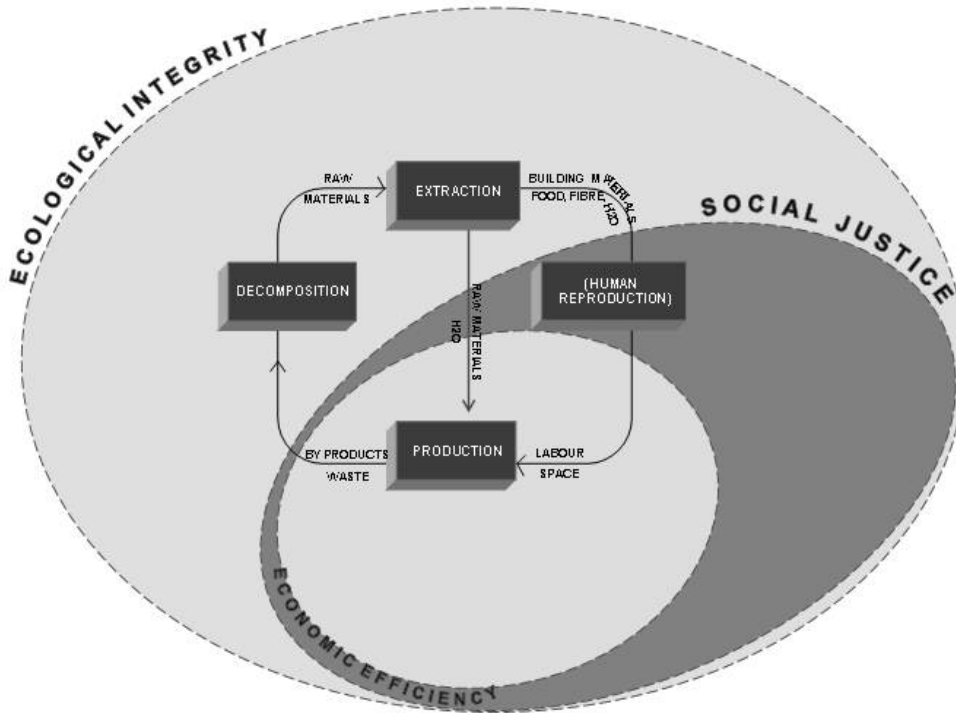
### 4. Critical Framework

The critical framework this evaluation uses is based on the Ecological Social Economic Relationship Framework© (ESER framework) developed by CNDP Africa, see Figure 8. It is based on the closed ecological cycle which acknowledges that extraction, reproduction, production and decomposition must be in balance even if, ultimately, but locally unsustainably, this happens at the level of the planet as a whole.

The only external input into the cycle is the sun's energy.

Graphically, see Figure 8 below, the closed ecological cycle is aligned with the nested circles of economic efficiency, within social justice, within ecological integrity. This acknowledges that economic efficiency cannot be achieved without social justice nor ecological integrity.

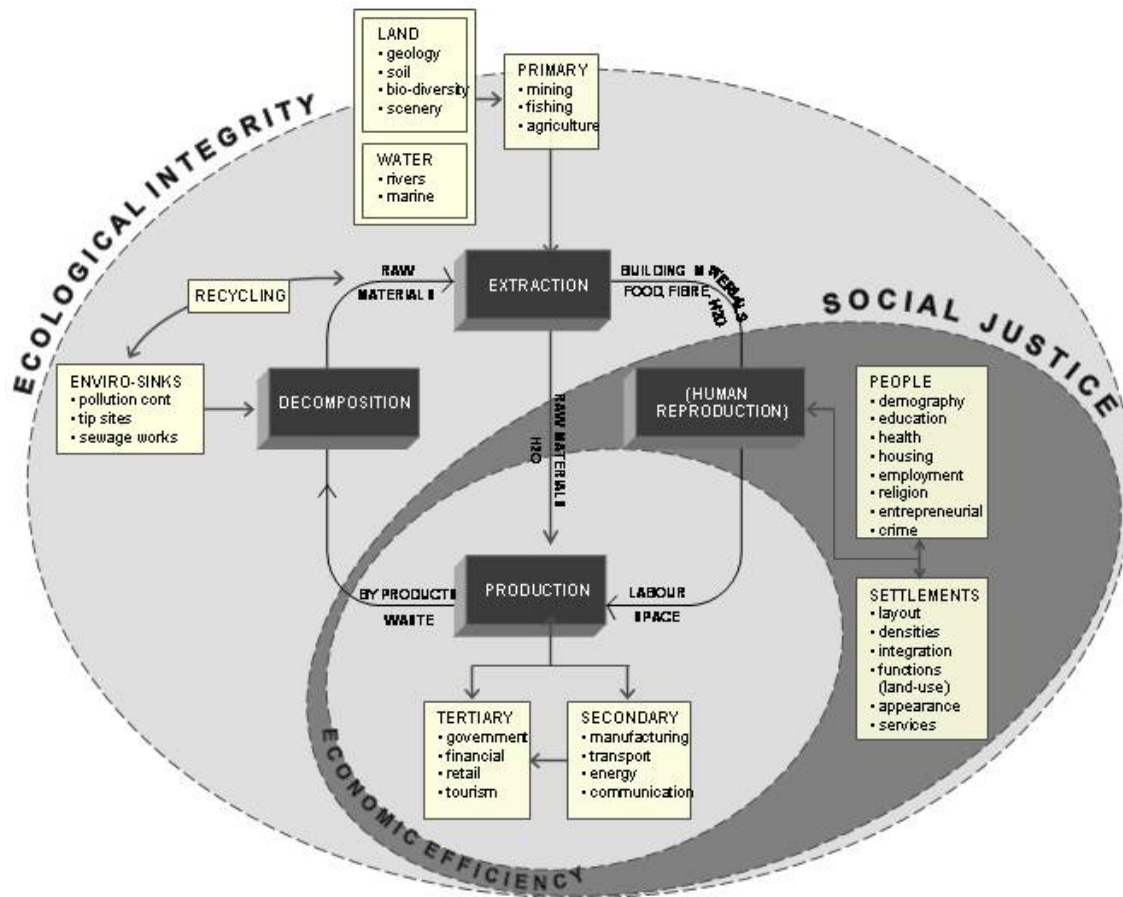
Figure 8. ESER Framework©



The ESER Framework© can be used as the basis for a quantitative model that can measure the extent to which an ecological system is in balance at any scale, from a residential building to a geographical nation state, see Figure 9.

For example, a water and electricity off grid residential property which has enough productive space to be self-sufficient in food, which buildings were constructed with found material on site, and whose residents can walk to work, shopping, social and recreational activities will be largely net zero. This principle can be extended at larger scales including the block, precinct, neighbourhood, urban settlement, geographic region and nation state.

Figure 9. ESER Framework© with key performance indicators.



## 5. Commentary

### 5.1] Conceptual underpinnings of the DBSA GEF Project and the role of “Eco-Districts” within that

The ESER Framework© illustrates that urban systems should be thought of as circular, rather than linear, systems in which inputs should balance outputs and vice versa.

The parent DBSA GEF project has five Outcomes. The ESER Framework© illustrates conceptually how these five Outcomes can be located in a closed ecological cycle and how they relate to one another.

- i. Eco-districts, focusing on emissions – Decomposition
- ii. social housing focusing on people and settlements - Human Reproduction
- iii. food resilience and urban farming, focusing on land, water and food production – Extraction
- iv. waste to energy programs focusing on by-products and waste - Decomposition;
- v. evidence-based spatial planning. This is a management activity that can help to optimise the efficiency of the urban system and closed ecological cycle

The ESER Framework© also illustrates that there are many other Outcomes that contribute to achieving a balanced, and therefore resilient and resource efficient system that are not explicitly addressed in the DBSA GEF project.

Given the above it would seem that it is more accurate to describe the “eco-district” Outcome 1 as an “emissions control district”. This is because the primary focus of the baseline model and the policies to be formulated therefrom are primarily aimed at reducing GHG emissions and moving towards net zero

targets. Other Outcomes of the ecological cycle are not addressed or only addressed in passing.

This contention is further reinforced by the attention given to GBCSA green star rating models and the EDGE protocol at the block and building scales. These two protocols are largely focused on energy and emissions reduction.

This contention was put to the CoJ representative at the meeting of 8 December 2022 who was in agreement. She noted that this focus on emissions had developed as a result of the logistical challenges arising from lack of access to data and the considerably greater efforts that had to be expended in order to achieve sufficient data for the baseline modelling to be completed. This included changing strategy from reviewing electricity billings from the municipal Department of Finance to installing sub-meters in sample properties.

It should be pointed out that the original Eco-district™ model aligns well with the ESER framework © as can be seen in the report CoJ Eco-districts-Orange Grove Roadmap – discussion document. In this report under section 6.1 Contextual Overview, 16 items are listed including; economy, employment, demographic highlights, land use, housing, recreation facilities and programs, historical and cultural resources, educational facilities and programs, health and human services, public safety, transportation (all modes), water supply, wastewater treatment, natural environment, climate, and baseline year indicator results.

However, the edition of this document, November 2021, available to this reviewer remains in the form of an incomplete template, presumably taken from the US Eco-district™ protocol, and no further work appears to have been done on these other Outcomes.

## **5.2| Responding to challenges and the changes in brief**

### **5.2.1| COVID-19 lockdown**

As the progress reports indicate, see section 2.2.9, the initiation of the project in late 2019 and all of 2020 was severely impacted by the COVID-19 lockdown and the move to virtual platforms for meetings and communication.

### **5.2.2| Stakeholder participation**

As mentioned above a key aspect of the original Eco-district™ protocol is obtaining residents' commitment to the process. This proved not to be possible not only because of the COVID-19 lockdown but also because of the social economic challenges and transient existence faced by many of the residents in the Orange Grove eco-district. It became clear early on in the project that this aspect of the Eco-district model required a much better resourced and more stable resident population for the various social compacts to be work shopped and agreed to.

Presentations were also made to developers with potential to operate in the precinct. However, it seems that developers are currently not sufficiently incentivised to implement projects in Orange Grove eco-district.

As a result of these challenges the attention of Outcome 1 moved to focus on completing the base model data and making inputs into various policies rather than attempting to obtain stakeholder commitment in the Orange Grove Eco-district.

### **5.2.3| Lack of access to municipal data**

The client team and service provider reasonably expected that a large amount of data on energy consumption in the Orange Grove Eco-district would be available from CoJ Department of Finance via residents' rates billings. This proved not to be the case. This reviewer has had experience in the past of the vast amount of data that can be obtained from municipal rates and billings accounts. However, access to this information requires the highest level of authorization, usually from the Mayor's office. Modern



platforms such as SAP may also require considerable programming in order to obtain usable data.

If this highest level of authorization is not obtained it usually proves very difficult for one line department to obtain such information from another on a transverse basis, as seems to have been the case in this project.

#### **5.2.4| Changes to the brief**

The client representatives and PSP made timeous changes to the original brief to ensure that at least the baseline model was completed, and one individual project addressed, namely the Turffontein Clinic. These changes also resulted in a considerable reduction of the budget demonstrating a responsible approach to avoiding fruitless and wasteful expenditure.

The initial model results also demonstrated that generalised energy consumption trends and patterns at the four scales surveyed in Orange Grove were generally in keeping with empirical survey results in these contexts worldwide. For example, electric hot water heating is generally always one of the highest energy consumers in residential areas. This alignment with universal trends meant that the third output of Outcome 1, namely policy development and implementation, could be initiated with confidence and without the need for further empirical data collection.

### **5.3| Usefulness of the data obtained and the model**

#### **5.3.1| Districts as a spatial model for managing the city**

The disaggregation of data collection to a spatial model based on the district or neighbourhood makes a lot of sense. It is usually at this scale where there is a relative level of homogeneity that attenuates the impact of outliers that make it difficult to discern trends and assess the impact of policy interventions.

Cities that successfully manage their data to provide effective local government decision-making usually do this on the basis of geographical districts or precincts to which all line departments, engineering, transport, waste management, health and education et cetera and city administrative functions are aligned.

Cities that struggle to do this usually have overlapping and conflicting management districts unique to each line department. Socially, the district approach also makes sense in that they can be based on walking distance or the notion of “urban villages”. This in turn aligns with the notion of neighbourhood identity;... “the hood” and urban “hearts” such as CBD’s or village and town centres.

It is strongly recommended that, although Outcome 1 has been realigned from focusing on policy development relevant to the TOD corridors (formerly the Corridors of Freedom) to citywide interventions, that the notion of spatially organising the city as a series of eco-districts or urban villages whose spatial boundaries should form the basis for a coordinated approach by all city line departments is developed for the entire CoJ, if it is to successfully achieve its environmental and sustainability goals.

#### **5.3.2| Outputs at the neighbourhood, precinct, block and site scales**

The main output of Outcome 1, namely the baseline survey results also had challenges. These were mainly with the building and site scale data collection. But the overall GIS scale neighbourhood and precinct modelling appears to have been successfully completed as documented in the Baseline Energy Use and Carbon Emissions Assessment report (November 2021). Various GIS models were produced and conversion factors from relevant calculators were used, for example:

- Green building Council South Africa’s greenhouse gas emissions calculator,
- Transport emission factors using the UK Department for environment Food and rural affairs emission factors.

- Factors from the Global Protocol for Community Scale Greenhouse Gas Emissions Inventory (GPC) reporting format was used.

All of this information was collated using the Eco-District's™ energy and emission templates.

Therefore, on the basis of the information in the reports made available baseline emissions inputs and outputs for the Orange Grove Eco-district as a whole appeared to have successfully been obtained.

The next steps, namely, to develop target interventions that will contribute to the carbon neutrality pathway with illustrative decarbonisation strategies, was not completed in this Baseline Emission report.

#### **5.4| Validity of an imported protocol**

EcoDistricts™ is a U.S.-based organisation focusing on racial equity and climate resilience (EcoDistricts webpage). It celebrated its 10<sup>th</sup> anniversary in 2022 in Pittsburgh, Pennsylvania. During this year it joined Partnership for Southern Equity (PSE), based in Atlanta, Georgia to help build a “Just Growth Revolution”. It has developed a protocol: “a comprehensive framework to guide urban and community development from planning to implementation”. The protocol has three imperatives; Equity, Resilience, and Climate Protection. Six priority areas for every Eco-district include; Place, Prosperity, Health and Well-being, Connectivity, Living infrastructure, and Resource restoration. The three implementation phases are Formation, Roadmap, and Performance. It offers a certification system which has three steps; Step 1, Imperative commitment, Step 2 Formation, and, Step 3, Roadmap.

Two of the early incomplete documents in Outcome 1, namely Declaration of Collaboration and Declaration of Commitment, were aimed at achieving step one of the Eco-district certification. Completing these commitments in order to achieve the first step in Eco- district certification presupposes a stable and well organised residential community. Due to Orange Grove’s state of social flux these conditions do not currently exist. The COVID-19 pandemic lockdown further undermined any attempts at achieving residence buy-in into the Eco-district process.

Advantages of using an imported protocol such as EcoDistricts™ include not having to reinvent the wheel in modelling complex systems. Disadvantages include:

- Extremely different socio-political and governance contexts in which the imported protocol was developed and that in which it is attempted to being applied.
- Certification costs for imported protocols such as Audubon can be extremely expensive when applied in the global South. The documentation does not clarify what the certification costs for EcoDistricts™ would be.
- Models developed in the global North can be extremely data hungry, often beyond the capacity of systems found in the global South.

#### **5.5| Integration of Gender into the work**

As Outcome 1 relinquished the community participation intentions as a result of various challenges and focused on the more technical aspects of generating a model there were few opportunities to integrate gender into the narrative of this Outcome. However, both CoJ and the service provider highlighted their understanding of the importance of including gender issues into the research work and compact building. To this end, gender was recorded in the few initial public meetings held on this Outcome.

Note: it was seen in the gender Outcomes lists of groups to be noted and included that there was no reference to women and children. Women and children are often ignored in spatial planning initiatives notwithstanding the special challenges that they have regarding transport, convenient (walkable) access to early childhood development centres and schooling and safe areas to play. It is suggested that this category be added to the other list of categories contained in the gender reports.

## 6. Recommendations

### 6.1|Need for More Data and the 80/20 Principle

It could be argued that the data and results presented to date, although in many ways incomplete, are both necessary and sufficient to inform the policy guidelines required Outcome 1.3. This is because the patterns revealed are in line with similar patterns resulting from such analysis all over the world. Therefore, it can be argued that there is not much need for further empirical research but the focus from here on should be developing effective policy to achieve carbon neutrality. This would be in line with the 80/20 principle that states that 20% of the available information sufficient to inform actions that will address 80% of the challenge. This helps to avoid the “analysis paralysis” situation that impedes so much of public policy and implementation.

As no documents containing the proposed policy proposals have been forthcoming to date (December 2022) it is not possible to comment on the efficacy of these or not.

### 6.2|Policy Development and Implementation

As mentioned above, it is believed that the work on Outcome 1 is at a stage where policy development and implementation thereof can commence.

As nothing has been seen of the proposed policies to date it is suggested that a second interim review of this work is conducted at the end of 2023. At this point hopefully, the proposed policies will be available, they will have been promulgated, and it will be possible to start seeing to what extent the implementation is having the desired impact on reducing energy consumption and thereby GHG emissions.

### 6.3|Location of the Initiative so as to Achieve City Wide Buy-in from all Departments

In general, an initiative such as the DBSA GEF program that cuts across a large number of municipal line departments can very seldom be run from within one of those line departments unless there is a highly unusual level of cooperation between the line departments. Usually, crosscutting initiatives have to be located at a high level in the organisation such as the Mayor’s office. Even then, there may be pushback from more technical departments who believe that their particular paradigms of value are free and should not be subject to scrutiny.

Therefore, it is strongly recommended that thought be given to locating this DBSA GEF program at a more overarching level within CoJ’s municipal organogram.

### 6.4|Need for a Clear Overview Report

This program to date has generated a large number of progress reports, presentations and report on stakeholders, and main reports, largely incomplete in terms of the November 2021 editions received by this reviewer, in excess of 50. It took an enormous amount of time to firstly, understand the sequencing and order of these many reports, and, once this was completed, secondly, be able to start reviewing the contents, Therefore, it is strongly recommended that:

- i. An annotated index is prepared as a way finder to all of these reports.
- ii. A concise summary report is prepared indicating the;
  - o The original intended programme,
  - o the many changes to the brief and the reasons therefore,
  - o the results of the baseline study including limitations
  - o the proposed policy interventions and, finally,
  - o implementation progress to date.