

# Client – World Bank and PPP Node

Implementing Agency - Kinondoni Municipal Council

Project - PPP pre-feasibility study for 8 municipal Projects in Dar-es-Salaam

Deliverable - Msasani Fish Market Final Pre-feasibility Report



October, 2018

# Abbreviations

Abbreviation	Full-form
AfDB	African development bank
BOQ	Bill of quantities
BRELA	Business registration and licensing agency
CA	Contracting authority
CAPEX	Capital Expenditure
CBD	Central business district
CRB	Contractors registration board
DBMO	Design, build, maintain and operate
DBFOMT	Design, build, finance, operate, maintain, and transfer
DPR	Detailed Project report
DSCR	Debt service coverage ratio
EOI	Expression of interest
EIRR	Economic internal rate of return
ELR	Employment and labor relations
EPC	Engineering, procurement and construction
EMA	Environmental management act
ENPV	Economic net present value
ERB	Engineers registration board
ESIA	Environmental and social impact assessment
ESMP	Environmental and social management plan
ESMS	Environmental and social management system
FRF	Fire and rescue force
GHG	Greenhouse gases
GoT	Government of Tanzania
ICMS	International construction market survey
IFC	International finance corporation
KMC	Kinondoni Municipal council
IRR	Internal rate of return
KPI	Key performance indicators
LCC	Life cycle cost
LGA	Local government authorities
LGDA	Local government district authorities
LGFA	Local government finance act
LTPP	Long term perspective plan

Abbreviation	Full-form
MIC	Municipal investment corporation
NEMC	National environment management council
NPV	Net present value
O&M	Operation and maintenance
OP	Operational policy
OPEX	Operation & Maintenance Cost
OSHA	Occupational safety and health authority
PO-RALG	President's office-regional administration and local government
PPP	Public private partnership
Project Co	Project company
PS	Performance standards
PV	Present value
PST	Project screening tool
QCBS	Quality and cost based selection
RFQ	Request for qualification
RFP	Request for proposal
SCF	Standard Conversion Factor
SQ M	Square meter
TDFC	Tanganyika development finance company
TIN	Tax identification number
TRA	Tanzania revenue authority
TZS	Tanzanian shillings
USD	US dollar
VAT	Value added tax
VGF	Viability gap funding
WACC	Weighted average cost of capital
WB	World Bank

# Contents

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1	Project summary .....	8
2	Background and objectives .....	11
3	Strategic case .....	14
4	Economic case .....	22
5	Commercial case .....	27
6	Financial case .....	41
7	Management case .....	54
8	Next steps .....	61
9	Annexure 1: Bill of Quantities (BOQ) .....	66
10	Annexure 2: Willingness to pay .....	70
11	Annexure 3: Demand study .....	74
12	Annexure 4: Legal due diligence .....	75
13	Annexure 5: Social and environmental aspects .....	79
14	Annexure 6: Revenue Collection .....	95
15	Annexure 7: City infrastructure assessment .....	96
16	Annexure 8: Municipal finance assessment .....	101
17	Annexure 9: Institutional review of KMC .....	105
18	Annexure 10: Social due diligence by World Bank .....	110
19	Annexure 11: Project screening tool values .....	112
20	Annexure 12: Conceptual drawings .....	115

# List of tables

---

Table 2.1: Main deliverables and the progress .....	12
Table 3.1: Charges at Ferry Magogoni Fish Market.....	16
Table 4.1: Summary of technical options and recommendations.....	23
Table 4.2: Economic indicators .....	25
Table 4.3: Sensitivity analysis .....	26
Table 4.4: Distributional Impact on various stakeholders.....	26
Table 5.1: Summary of responsibilities of the ProjectCo and municipal council .....	31
Table 5.2: Risk allocation matrix.....	32
Table 5.3: Risk mitigation matrix .....	33
Table 5.4: Output specifications of the project .....	34
Table 5.5: Minimum design specifications of the Project .....	36
Table 5.6: Technical components and area statement .....	36
Table 6.1: Charges at Ferry Magogoni Fish Market.....	41
Table 6.2: Financial assumptions .....	43
Table 6.3: Area statement and capex.....	44
Table 6.4: Opex of the project .....	45
Table 6.5: Annual revenue statement in the first year of operation.....	46
Table 6.6: Financial pre-feasibility .....	48
Table 6.7: Sensitivity analysis .....	48
Table 6.8: Equity IRR under different scenarios.....	50
Table 6.9: Weighted impact on PV .....	51
Table 6.10: Value for money (VfM) calculation.....	52
Table 7.1: Projects under Jurisdiction of KMC .....	54
Table 8.1: Procurement milestones.....	64
Table 8.2: Implementation plan .....	65
Table 9.1: Capex of the Project.....	66
Table 9.2: Detailed area statement of the project .....	66
Table 9.3: Bill of Quantities (BOQ) of the Project.....	67
Table 10.1: Market details as per the market manager.....	70
Table 10.2: Willingness to pay as per fishermen.....	71
Table 10.3: Willingness to pay as per fish retailers .....	71
Table 10.4: Willingness to pay as per food vendors.....	72
Table 10.5: Willingness to pay as per Kiosks owners .....	72

Table 11.1: Current revenue configuration .....	74
Table 12.1: Relevant licenses required .....	76
Table 13.1: Social and environmental mitigation measures .....	84
Table 13.2: Specifications of the material.....	92
Table 13.3: Cost estimate of floating foam .....	92
Table 13.4: Technical Specifications of the Ice Tube Plant – 25 TPD .....	93
Table 13.5: Automatic Ice Tube Machine .....	93
Table 13.6: List of equipment for Cold Storage.....	94
Table 14.1: Revenue collection of the Msasani fish market (January 2017- October 2017) .....	95
Table 15.1: Status of infrastructure in Kinondoni Municipal Council .....	97
Table 15.2: Summary of current status, demand and deficit of infrastructure sectors .....	99
Table 15.3: Potential Infrastructure sectors and areas for future PPP Projects.....	100
Table 16.1: Summary of revenues over the last five years .....	102
Table 16.2: Summary of expenditures over the last five years .....	102
Table 16.3: Summary of revenues, expenses and surplus/deficit over the last five years .....	103
Table 16.4: Future revenue, expenses and surplus Projections .....	103
Table 17.1: Projects under Jurisdiction of KMC .....	105
Table 17.2: Survey responses with respect to the current institutional capacity.....	105
Table 17.3: Survey responses with respect to the current level of preparedness .....	106
Table 17.4: Responses with respect to current capability of executing PPP Projects .....	108
Table 19.1: PST score based on various parameters .....	112
Table 19.2: Changes from first level assessment to final pre-feasibility stage.....	113

# List of figures

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Figure 3.1: Location map of Msasani Fish Market .....	19
Figure 5.1: Proposed PPP model .....	29
Figure 6.1: Contribution from various sources of revenue .....	47
Figure 6.2: Value for money .....	52
Figure 16.1: Revenue categories 2013-2017 (as % of total revenue).....	101
Figure 16.2: Expenditure categories 2013-2017 (as % of total expenditure) .....	102
Figure 16.3: Revenue, expenditure and surplus figures for last five years .....	103
Figure 16.4: Future revenue, expenses and surplus Projections .....	104
Figure 20.1: 3D view of the proposed fish market .....	115
Figure 20.2: Elevation of the proposed fish market.....	116
Figure 20.3: Left and right elevation of the proposed fish market .....	117
Figure 20.4: Ground floor plan of the proposed fish market.....	118
Figure 20.5: First floor plan of the proposed fish market.....	119
Figure 20.6: Second floor plan of the proposed fish market.....	120
Figure 20.7: Roof plan of the proposed fish market .....	121



# 1. Project summary

## Introduction and objectives

The World Bank has contracted a consortium to prepare public-private partnership (PPP) pre-feasibility studies for eight municipal projects in Tanzania. The consortium comprises the following international and local companies: (1) CRISIL (India), leading the consortium; (2) Clyde and Co (Tanzania) for providing legal support; (3) Crown Tech (Tanzania) for providing costing and engineering input; and (4) Knight and Frank (Tanzania) for providing demand and market input. The study commenced in December 2017 and will be completed by October 2018.

The project aims to redevelop the existing fish market at Msasani catering to 1,000 fishermen on a daily basis. The modern facilities will help improve hygiene conditions in the market and provide for cold storage rooms and an ice factory to prevent fish spoilage and wastage. The study's objective is to assess the project's strategic, technical, economic, financial, commercial, legal, regulatory and institutional feasibility using a PPP modality.

## Strategic case

The main stakeholders of the project are Kinondoni Municipal Council (the contracting authority), the PPP node (quality assurance of the process and content), World Bank (financing future steps in the transaction process), fishermen (users), retail outlets (as the off-takers and users), ProjectCo (or the special purpose vehicle, i.e. a private party/ developer/ concessionaire) and customers (as the users of the new market).

The project is both strategically important and also embedded in national and sectorial development plans. Benefits can be expected both for traders and customers. The market provides a state-of-the market facility while addressing the current unhygienic and congested structures. KMC owns the land but its title has not been submitted yet.

The main risks of the project are: (1) refusal by fishermen and fish-mongers to temporarily relocate; (2) insufficient expertise to deliver the project on time and in accordance with an agreed set of specifications as mentioned in the contract. We have formulated a comprehensive set of mitigation measures enabling the local government authority (LGA) to effectively manage these risks.

## Economic case

We have analyzed the project's main cost and value drivers and identified a comprehensive set of critical success factors. Moreover, we have worked out various technical options and, in an iterative process, propose a market catering to 1,000 fishermen/day. The economic appraisal builds on both quantitative and qualitative indicators taking into account various economic benefits such as health improvement, increased income of fishermen/ fish traders, reduction in food wastage, sustainability and job creation. With an economic internal rate of return (EIRR) of 20.1%, we can unequivocally conclude that the project is economically justified.

## Commercial case

Given the need to tie together both construction and operation in one contract as well as the LGA's limited financing ability, we recommend a design-build-finance-operate-maintain-transfer (DBFOMT) model. It optimizes the ProjectCo's incentives' structure and minimizes life-cycle costs of construction and operation. Tanzanian law does not separate ownership of the land from its immovable assets. However, moveable assets can be owned by the ProjectCo.



Project risks have been analyzed in detail and assigned either to the LGA or ProjectCo, or shared. In addition, we present a set of comprehensive mitigation measures prior and during commercial operations. As a payment mechanism, we recommend the ProjectCo collecting fees from users as it is incentivized to maximize revenue collection. In this way, it will be an end-user-pays PPP model. We recommend using a 15 years' concession period in keeping with local laws and regulations.

## Financial case

Our financial analysis is based on a rigorous market demand study and a willingness to pay survey. These exercises provide us with a high level of certainty on both the project's future demand and our proposed user charges. Both variables are key drivers in the project's financial analysis. With a project IRR of 19.2% and an equity IRR of 20.4%, the project is financially viable with a high probability of attracting market interest.

A value-for-money (VfM) analysis unequivocally confirms the financial advantage of the proposed DBFOMT model vis-a-vis traditional public procurement. In concrete terms, it is about USD 5.8 million cheaper to the Government of Tanzania (GoT) to pursue the proposed PPP strategy rather than following the public procurement route. We calculate this VfM costs advantage by comparing the present value of life-cycle costs and revenues of both procurement options over the 15 years' contract period.

## Management case

The LGA has limited institutional capacity, understanding and knowledge levels of PPP intricacies, for managing not only the bidding phase but also in the project's operational phase. To address these deficiencies, we have enlisted various recommendations in Section 7.1.

We have carried out a comprehensive legal due diligence and have reviewed pertinent laws and regulations. We do not observe any legal impediment for carrying the project as a PPP. Various legal non-material issues have been observed but we also define legal solutions to work around them.

From a social and environmental perspective, we do not discern any obstacles and we propose a comprehensive set of mitigation measures both during and after the construction. The social due diligence undertaken by World Bank independently recommends some steps to be taken to mitigate the minor social economic impacts. The project has been categorized as an International Finance Corporation (IFC) category-B with the need to do full environmental and social impact assessment (ESIA). In close conjunction with the LGA, and cognizant of the social impact of the temporary relocation of fishermen, we have prepared a relocation strategy.

## Project Screening Tool

Msasani Fish Market scores 3.9 out of maximum possible score of 5.0 on the six parameters presented in the Project Screening Tool. The fish market has a strong case of strategic suitability and preliminary feasibility as there is a high demand from the fishermen/ fish traders, which will lead to high occupancy of fish market. The fish market facility will have multiple revenue sources such as daily fees from fishermen, washroom fees, ice factory, cold storage fees, parking fees, advertisement, etc., which will make the Project viable as user charges are adequate to cover capex and opex. However, the Project which involves temporary relocation for about 400 fishermen for a period of three years, faces slightly higher risks in terms of Project execution and implementation, resulting in a low level of PPP suitability. The institutional capability is also limited as KMC is yet to execute any PPP Project. For further details refer to Section 19.

## Conclusions and next steps

Building on a rigorous, comprehensive and multi-disciplinary analysis, we confirm the proposed PPP is strategically, economically, commercially, financially and managerially viable. In addition, it is in keeping with all the requirements set out in local laws and regulations and, in particular, the PPP law. A project implementation plan has been prepared, identifying the next steps required to move the project forward, such as obtaining land title deeds and preparing support infrastructure. We present a procurement plan in which we

propose a two-phase procurement strategy with a prequalification and bidding phase. We also propose various options for the financial bidding variables. We estimate a total period of 15 months for the procurement including contracting the transaction advisor up to executing the PPP agreement.



## 2. Background and objectives

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*This chapter contains the background of the assignment and the objective of the project and this study. It also briefly explains the project timelines and provides the details of the consortium.*

### 2.1 Introduction

#### Leveraging the PPP platform in the country

In the last five years, Tanzania's annual gross domestic product (GDP) growth rate averaged 7%, compared with 4.4% for Sub-Saharan Africa, making it one of the 20 fastest-growing economies in the world. However, the ageing economy remains heavily dependent on agriculture, which accounts for over a quarter of the GDP and employs ~65% of the work force. There is an urgent need for a shift towards targeted industrial and manufacturing growth, along with growth in the tertiary sector, to support economic progress and poverty alleviation programs. Leveraging the PPP platform will help in the much-needed transition of the country from low- to middle-income with a focus on six priority areas, including infrastructure improvement.

#### Assignment description

Municipal governments in Tanzania plan to implement a number of investments through PPP, in particular those projects that may not require any public funding (aside from land contributions) and may generate new sources of revenues for the municipalities. In an era where central government funding for municipalities is intermittent and decreasing, municipalities are seeking new mechanisms to meet public service expectations. The limited size of municipal projects often creates a challenge when considering a PPP due to the associated transaction costs of project preparation.

With a view of further advising the municipal governments in Tanzania to help reduce the cost of these municipal projects, and achieve economies of scale in their preparation, the World Bank had appointed an international consortium consisting of CRISIL Infrastructure Advisory (India) and Tanzania-based local firms, i.e., Crown Tech Consult, Clyde & Co Tanzania, and Knight Frank Tanzania. The aim was to undertake pre-feasibility studies for potential PPP projects in municipal infrastructure. These projects were initially identified by the LGAs of Dar es Salaam. Based on the recommendations of the consultant, eight potential PPP Projects had been finalized by the World Bank for this assignment. Redeveloping the Msasani fish auction market in Kinondoni Municipal Council is one of them.

### 2.2 Consortium partners

The consortium partners (further the Consultant) for this assignment comprise four international and local firms as mentioned under:

#### CRISIL Infrastructure Advisory (lead partner)

CRISIL is the lead contractor and is responsible for all the deliverables, project management, infrastructure gap assessment, economic review, financial modelling/VfM analysis and risk assessment in addition to conducting capacity-building workshops.

#### Crown Tech Consult

Crown Tech is responsible for site and infrastructure evaluation, assessment of resettlement needs, and environmental impacts, and prepared the project conceptual design.

### Clyde and Co

Clyde and Co was responsible for the legal due diligence and a review of national and municipal laws, acts and guidelines of Tanzania relevant to identified projects, title deeds, ownership, use and user rights, and other relevant legal aspects.

### Knight Frank

The firm was responsible for the market and demand studies. It has studied the lease rentals, demand-supply gap, occupancy rates, and conducted the willingness-to-pay survey.

## 2.3 Objectives

### Project objective

The overall project objective is to redevelop the existing fish market at Msasani, which is near the seashore. It is currently in a dilapidated condition and has unhygienic conditions. The fish market is in dire need of modernization with proper cold storage facilities, public toilets and parking spaces. This would not only improve the hygiene conditions but also address the key issue of environmental pollution.

### Study objective

The study aims at preparing a pre-feasibility report encompassing the technical, financial, strategic, commercial, and economic aspects of the project. In addition, the management aspects involving the legal, regulatory and social and environmental issues have been also dealt in detail. Each of the above aspects has been detailed in separate chapters of the report which finally feed into an overall assessment of the pre-feasibility of the proposed project.

## 2.4 Study execution

The study commenced on November 17, 2017 and will be completed in October, 2018. The first level assessment report was submitted after conducting stakeholder discussions, to get a better understanding of the Project. Also, the draft pre-feasibility report was submitted and presented to the World Bank, PPP Node and KMC during the fourth mission in June 2018. Responses to verbal comments received during consultations and written comments from World Bank, PPP Node and LGA have been incorporated in the respective sections in the final pre-feasibility report. The study includes four main deliverables as presented below:

**Table 2.1: Main deliverables and the progress**

Deliverables	Progress	Actual / proposed submission
Inception report	100%	December 21, 2017
First-level assessment report	100%	February 16, 2018
Draft Pre-feasibility report	100%	June 4, 2018
Final Pre-feasibility report (Report on hand)	100%	October 25, 2018

Source: Consultant

## 2.5 Report layout

The report layout delineates the nine sections as mentioned under:





## 3. Strategic case

*The purpose of the strategic case is to establish the need for the redevelopment of the existing Msasani fish market. This chapter covers the rationale/ objective underpinning the project and the economic benefits it is expected to provide to the society as a whole. It delves into the roles and responsibilities of the various stakeholders involved in the project, and the existing arrangements between these stakeholders. Moreover, it details how the newly redeveloped fish market at Msasani can cater to stakeholder needs while taking into account the current environmental scenario and major risks involved in the project. Overall, the section validates the strategic case for developing the fish market.*

### 3.1 Project objectives

The primary objective is to provide a state-of-the-art fish auction market, which would cater to ~1,000 fishermen on a daily basis. The modern facilities will help improve the hygiene conditions in the market and provide cold storage rooms, preventing fish decays and wastage. It will ultimately drive higher prices and higher revenues for the fishermen. The various facilities planned for developed in the fish auction market are listed below:

- *Auction building* - The plan is to develop a modern fish auction market with a proper structure and better facilities/amenities. The ground floor of the market will accommodate ~1,000 fishermen currently operating in and around the Msasani market. It will also comprise an ice factory to provide ice blocks to the fishermen and a cold storage area. The first floor will comprise of an administrative office, fish restaurant and other office spaces. The second floor of the building will consist of administration office, frying area and other office spaces. The roof of the building will be used as fish drying area.
- *Parking space* - Some portion of the land area will be used to develop internal roads and parking slots for fish buyers. During the auction market operating hours, it can be used for car parking and internal movement for vehicles and customers.
- *Retail shops* - In addition to the auction building, the redeveloped market will have various food stalls along with dedicated rental shops for fishermen, fishmongers, food vendors (mamalishe) and sellers who would be selling different types of fish, vegetables and fruits.
- *Utilities/support infrastructure* - Additional facilities such as fish cleaning, processing and handling for scaling and cutting of fish will be developed. There is also an extended fish auction area with a tensile roof cover which will also serve as a parking area at night. Toilets, service lifts and the common area would be provided across all the three floors of the building.

### 3.2 Stakeholders

This section outlines the roles and responsibilities of the main stakeholders of the redevelopment of the fish market at Msasani.

#### Kinondoni Municipal Council

The KMC will be the main implementing agency of redevelopment of the fish auction market and responsible for monitoring the construction and implementation of the project.

PPP Node

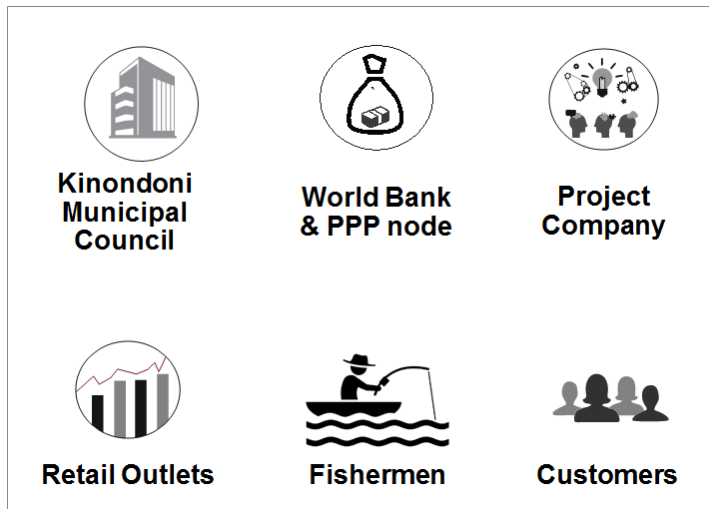
PPP Node, established under the President's Office-Regional Administration and Local Government (PO-RALG), will be responsible for assessing the project submitted by the municipal council and approving the project.

World Bank

The World Bank is collaborating with the PPP Node to undertake pre-feasibility studies for potential PPP projects identified by the LGAs of Dar es Salaam. It provides funding for selecting a consultant to undertake the pre-feasibility studies as well as selection of a transaction advisor for conducting detailed feasibility studies and for selection of ProjectCo.

ProjectCo

ProjectCo is the project company (or special purpose company), i.e., private party/ developer/ concessionaire and is responsible for the design, construction, financing, operating and maintaining the project.



Fishermen

The fishermen would benefit the most from redeveloping the market as they would have better facilities and a new auction building with multiple floors. Better hygienic conditions and cold storage facilities for storage of fish will reduce waste and increase their yields. Also, the ice factory will provide them ice blocks to preserve the fish and prevent wastage.

Retail outlets

The retail outlets for fish would be selling different kinds of fish, supplied by the fishermen during the auction, boosting income and cement their livelihoods.

Customers

The customers would also benefit from the project as they would improve their overall buying experience and be able to choose from a wide variety of fresh fishes. The redeveloped market will be more organized and hygienic and provide a pleasant and clean buying experience for customers.

**3.3 Strategy and sector review**

This section provides a brief overview of the fish auction market and its end users, the overall context of fish markets in the KMC area, and the project’s strategic alignment with municipal and national development plans.

Fish auction markets overview

Fish auction markets are generally established near the seashore as they need to be in close proximity to the sea. Fishermen go to the sea on a daily basis to catch fish and return back with their catch, which normally comprises of multiple species of fish. The fish auction markets normally consist of an auction building, toilets, ice block machine, retail outlets selling fresh fish and fish frying area where the fish is deep fried before transportation to other nearby councils in order to prevent wastage.



Fish market scenario in Kinondoni Municipal Council

Currently, there are six fish markets in the Kinondoni Municipal Council area. They are Kunduchi, Msasani, Ununio, Kawe, Mbezi, and Mbweni. The biggest fish market out of the three is Kunduchi, which is followed by Msasani and Ununio. The remaining three are akin to fish dropping points as they lack proper facilities.

Besides the six markets mentioned above, the biggest and more modern fish market in Dar es Salaam is the Ferry Magogoni Fish Market which is in Ilala district. The market was redeveloped and started operations in May 2002. Currently, it houses ~3,000 fishermen per day and the monthly revenue ranges from TZS 58 million (USD 25,200) to TZS 80 million (USD 34,800). Based on the market assessment, we found out this market may be asked to shut-down or relocate due to security concerns of nearby buildings. Therefore, the new Msasani fish market could attract a certain portion of fishermen and help improve the livelihood of the fishermen.

**Table 3.1: Charges at Ferry Magogoni Fish Market**

#	Type of fees/levies	Amount of fees/levies	
		Rate/day (TZS)	Rate/month (TZS)
1	Fees from wholesaler fishermen	5% of the revenue	Not applicable
2	Traders ( agents, retailers, fish cooks)	Not applicable	7,000-15,000
3	Rent on occupied spaces (retail shops, offices, tables etc.)	Not applicable	10,000-200,000
4	Rent for equipment depending on type (wheelbarrow, containers, boxes)	Not applicable	10,000-30,000
5	Customers and cargo vehicles, bicycles and tricycles entry charges	200-1,000 per entry	Not applicable

Source: Consultant

The Msasani fish auction market is located in Msasani ward and home to prime residential areas in Dar es Salaam. The area also has commercial buildings, hotels, shops, restaurants, beauty salons, pubs, and entertainment facilities. Economic activities in the area mainly include businesses including commercial and residential properties that are rented out, educational institutions, retail activities including shops, supermarkets, restaurants, and bars.

Strategic alignment to national goals

The proposed PPP project is strategically relevant and is aligned with government goals. Moreover, it is consistent with national development plans such as the Five Years’ Development Plan 2016/2017– 2020/2021, Long-term Perspective Plan (LTTP) 2011/12–2025/26, and Development Vision 2025. The project is driven by development goals such as improvement in healthcare, job creation and sustainability. It is expected the project will provide income and livelihood for additional families and also improve the livelihood of the existing fishermen.

**3.4 Business need**

This section highlights the need for a state-of-the-art fish auction market at Msasani as mentioned below:

1. Old and dilapidated structure

The existing structure is old and dilapidated. Main columns of the building are worn out, and the reinforced cement concrete (RCC) structure has rusted due to exposure to salty seawater and winds. The building is in a very poor condition, with no maintenance undertaken for a long time.



2. Small unhygienic auction table

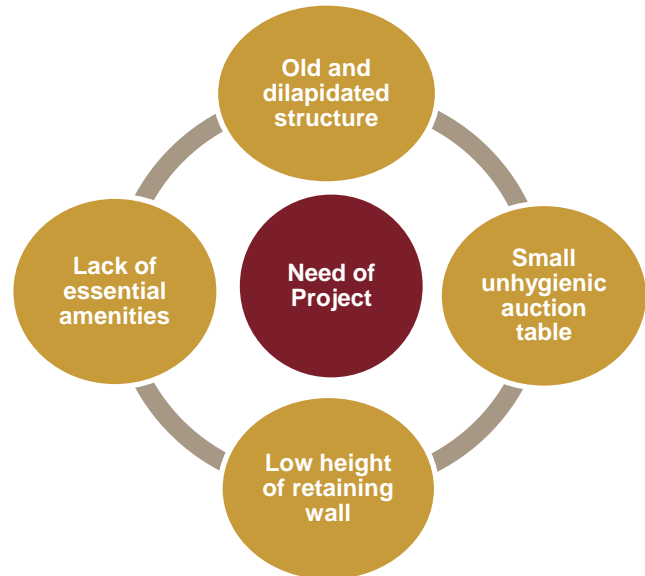
The existing auction table/platform is very small and highly inadequate for meeting the increased demand. Also, it is not cleaned regularly, on account of lack of availability of clean fresh water for cleaning the area.

3. Insufficient height of retaining wall

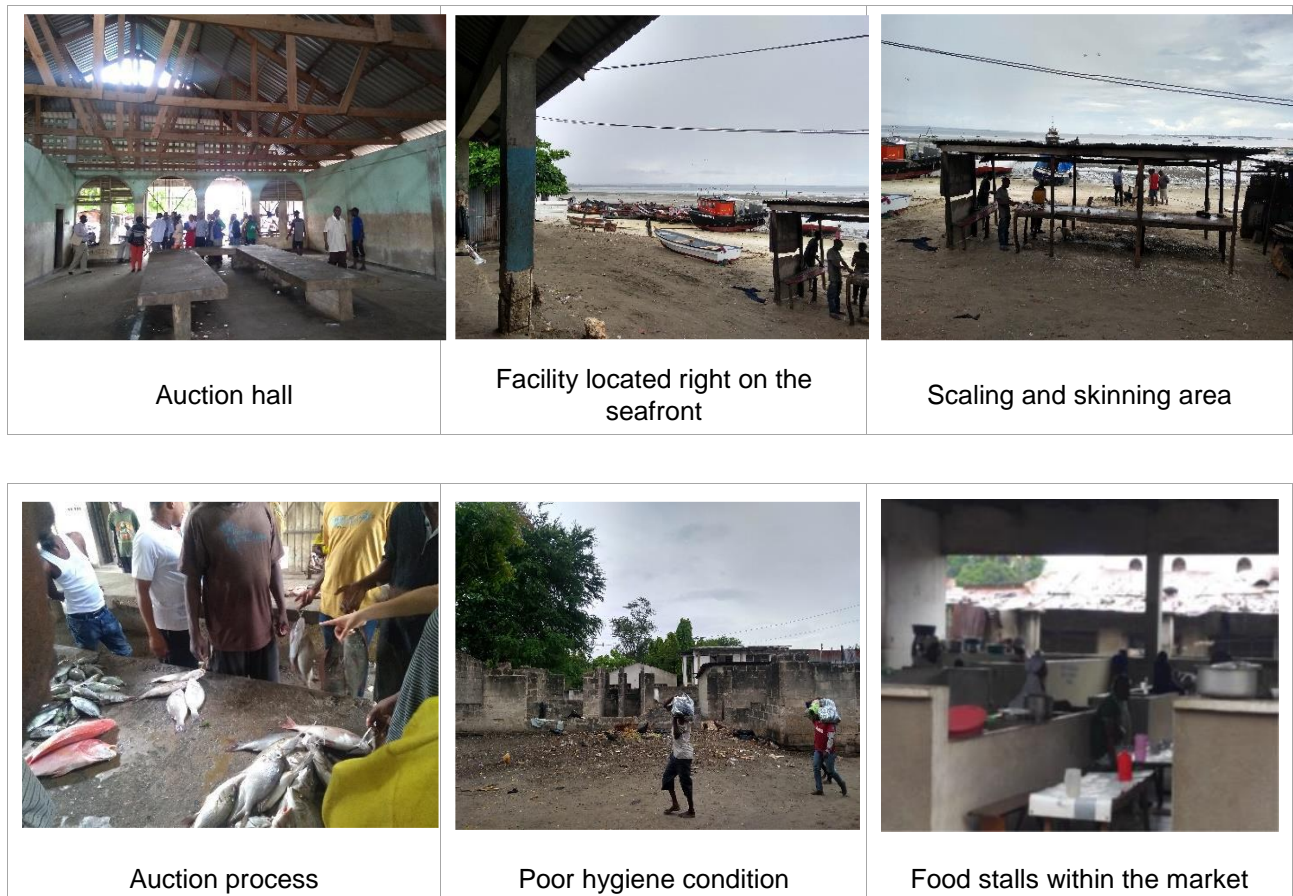
The retaining wall, meant to protect the building from high tides, has eroded over time on account of the tides. As a result, its height has reduced. Thus, the fish auction building has become dilapidated on account of continuous exposure to salty seawater and winds carrying sand particles.

4. Lack for proper essential amenities

The fish market currently lacks cold storage rooms and ice machines to produce blocks of ice, which results in faster fish decay due to a lack of a controlled environment.



The following images captured during the site visit highlight various aspects of the current status of the proposed project site:



Source: Consultant

We conclude there is a strong need for redeveloping the existing fish auction market from an environmental, operational and buyers' perspective.

### 3.5 Existing arrangements

This section outlines the existing legal arrangements already in place.

#### Land owned by KMC

In accordance with the PPP policy 2009 and PPP Act 2010, and the PPP Regulations 2015, the KMC may sell or lease any land or premises it owns to the ProjectCo to carry out a PPP project during the concession period, i.e., 15 years. There is no minimum required lease value and this should be assessed in detail in the feasibility stage. On the expiry of this period, the KMC will resume the operation and management of Msasani fish auction market. Thus, the title remains with the KMC whilst the operation and management of the assets and economic activities is transferred to the ProjectCo for the duration of the contract.

#### Project is eligible for PPP based on its cost

The Msasani fish auction market project falls under the agriculture and livestock category (Section 4(4) of the PPP Act 2010) and thus qualifies to be developed under a PPP arrangement. Further, the maximum limit for PPP projects to be carried out by an LGA is USD 70 million (Regulation 76(2) (a) of the PPP Regulations). The project capex of USD 4.1 million falls within the scope and can be carried out by the KMC as a PPP project.

#### KMC has the right to collect user fees

KMC may charge rent, fees or tariffs to businesses or persons occupying or using the facilities in Msasani fish auction market, according to the by-laws (Section 61(b) of the LGUA Act). Under the PPP agreement between the KMC and the ProjectCo, KMC may grant the right to collect fish auction fees from fishermen, fees for parking vehicles, lease rentals from retail kiosks, office space and restaurant, fees from usage of washrooms, and fees for using the drying space and sale of ice blocks. The PPP agreement will stipulate to whom these revenues accrue, i.e., either to ProjectCo or to the LGA or any sharing mechanism. Applicable taxes chargeable to the users will be paid to the Tanzania Revenue Authority (TRA).

### 3.6 Project overview

This section provides an overview of the project's location with respect to major landmarks and assesses the connectivity of the project site with major roads and arteries in the city. It also assesses the current status of the Project land in terms of ownership and availability of the title deed.

#### Location

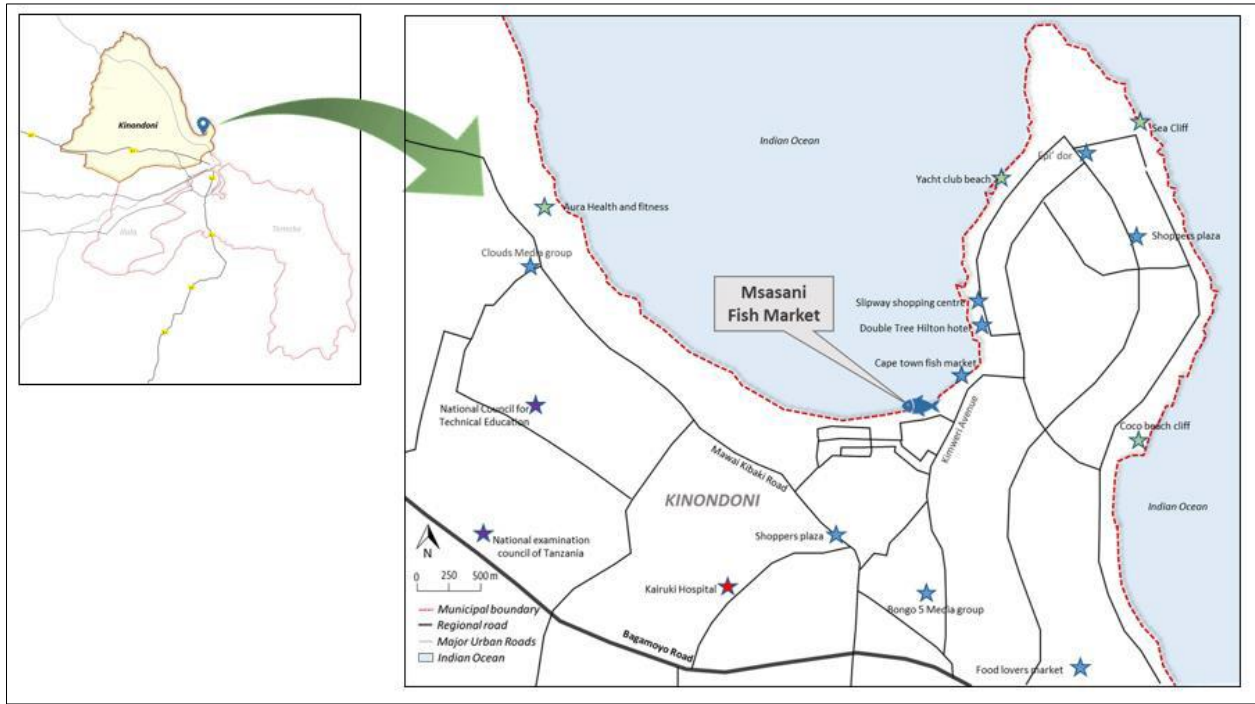
The project site is located in Msasani ward, which is geographically a peninsula, within the KMC area. The Msasani fish auction market is located on Bonde la Mpunga Street, about 8 kilometers from the city center. The market can easily be accessed via Kimweri Avenue. The site is bordered by the Indian Ocean to the north (front), Masjid Anwar to the east, and residential houses to the west. The project site is located ~10 kilometers north of the Ubungu bus terminal and nearly 20 kilometers north of Julius Nyerere International Airport. Various commercial and tourist landmarks are situated within a two-kilometer radius of the project site, which include Double Tree by Hilton Hotel Dar es Salaam - Oyster Bay, Slipway Shopping Center, Coco Beach Cliff, Yacht Club Beach, Shopper's Plaza, Food Lover's Market, etc.

#### Connectivity

The ward can be easily accessed via Kenyatta/ Toure Drive, Haile Selassie Road, and Kimweri Avenue, all of which are single-lane tarmac roads that connect to Ali Hassan Mwinyi Road, which is a dual carriageway. The

market can be easily accessed through the two-lane Ghuba Road, from Kimweri Avenue. The nearest landmark is the Cape Town fish market, located within a 200-meter radius of the Project site. The map below shows the location of the fish auction market and the access roads to the ward.

**Figure 3.1: Location map of Msasani Fish Market**



Source: Consultant

#### Land title deed

The fish auction market is spread over an area of 4,091 sq m. The land is owned by the KMC, and the payment for the land title has been made and is currently being processed. Thereby, the title document is yet to be submitted to the Consultant. KMC has informed the same is expected to be provided shortly. Additionally, approval from Minister of Maritime would be required as the proposed fish market is located on the seashore.

#### Land for temporary relocation

The fishermen and traders are proposed to be relocated to a place close to Masjid Al-nuur, a mosque, as a part of the relocation plan. The proposed 3,000 sq m area will accommodate the auction area and fish traders whereby the mosque authority will provide temporary space for car parking and the other side will accommodate food vendors (mamalisha) and other shops. The distance from the current location of the market to the proposed relocation site is about 139 m.

### 3.7 Main benefits

This section highlights the Project's main benefits both to fishermen and customers.

#### Improved livelihood of fishermen

Redeveloping this market will help improve livelihood of fishermen currently operating from the auction market. It will also improve the livelihood of those fishermen who will be attracted to use the modern market. Since the proposed market is located on the beach front, it is convenient for fishermen to anchor their boats on the beach and sell their catch in the adjoining auction house. This leads to savings in time and cost taken to travel to

distant locations to sell their catch. Additionally, it will also improve the livelihood of additional fishermen who will be attracted to use this market, resulting in enhanced livelihood.

Lower risk of diseases

The existing market operates in extremely unsanitary conditions. There is no proper disposal of fish waste, resulting in a large number of birds, stray dogs and cats feeding on them. Air, water and surface pollution is at high levels and is a major cause of concern. Redevelopment of the market will ensure safe living conditions for the local community. It will reduce the risk of food-borne diseases and cross-contamination of fish and fishery wastes.

Improved hygienic conditions

Poor sanitation in the market is a threat for human health. The modern market will be more organized and hygienic and provide an enhanced selling/buying experience for fishermen as well as customers.

Storing catch for longer time

Currently, there is no cold-storage facility in the market, resulting in huge wastage. The modern market will have cold-storage facilities for fishermen to store their catch for a longer time.

Better utilities

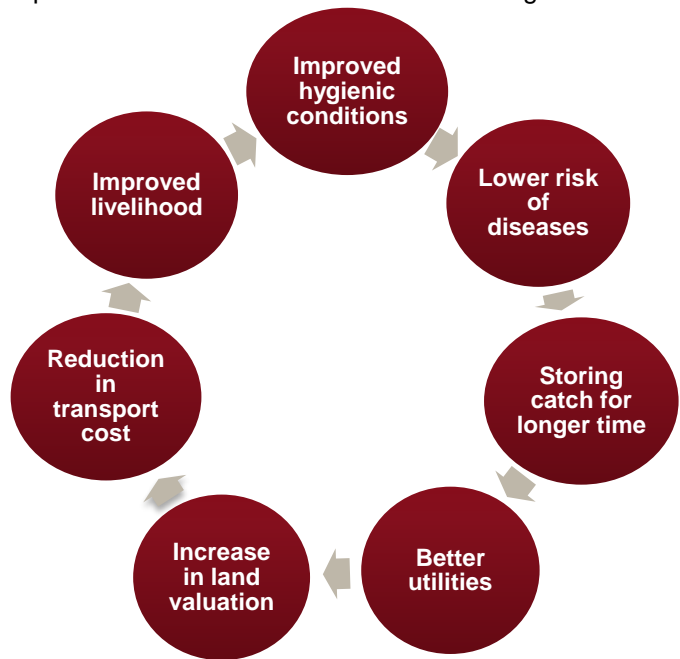
The market has no electricity, drainage or water facility, inconveniencing fishermen and affecting their business prospects. The developed market will provide basic necessities as well other amenities such as public toilets and parking space.

Reduction in transportation cost

Some fishermen have to travel to the ferry market (which is a major fish market) to sell their fish. The ferry market is over 10 kilometers away, resulting in high transportation cost. In addition, they have to pay 5% of total revenue as fees in the ferry market. The project will serve as an alternative to the ferry market and result in savings in transportation cost and time.

Increase in land valuation of nearby areas

The redevelopment of the Msasani fish market will give an impetus to the real-estate sector in the area surrounding it. This increase in the area's land value will directly benefit the local community.



**3.8 Main risks**

This section highlights the main risks of redeveloping the Msasani fish auction market Project.

Refusal of existing fishermen and fisher mongers to relocate

The project is brownfield and currently occupied by ~400 fishermen and fish traders. Relocating these occupants requires them being temporarily resettled at the proposed location near the mosque. The sample group of fishermen and fish retailers consulted during the willingness-to-pay survey agreed to relocate to the proposed location. However, we are appreciative that this could change in reality and this may delay the project's implementation. Our findings are also confirmed by the municipal council as they also had field

consultations pointing to majority of fishermen being willing to relocate. Summarizing we do not expect major issues in the temporary relocation of existing traders.

#### Insufficient expertise of ProjectCo

ProjectCo should have significant experience as a PPP developer and operator in fish auction markets. While a fish auction market PPP has not been done in Tanzania, there are private sector players active in fish processing, cold-chain and ice-making in Tanzania. Besides there could also be interest from regional players who are seeking to expand their presence in Tanzania through smaller Projects. ProjectCo should preferably be promoted by national or regional private investors who specialize in fish processing, exports and cold-chain logistics with sufficient experience in the Project components: design, build, finance, operate, maintain and transfer similar structures.

#### Steps for mitigation of potential risks

Detailed stakeholder consultations need to be undertaken and the group leaders of the unions of fish traders need to be taken into confidence as they will play an important role in convincing these traders to relocate to the proposed relocation site. The proposed relocation site is close to the existing site and temporary structures along with water, electricity, toilets, and other amenities, will be provided to facilitate transition during the relocation process. The increment in fees is only marginal given the level of improvement in the Project facility.





## 4. Economic case

*The main objective of the chapter is to demonstrate that redeveloping the Msasani fish auction market provides significant economic benefits to the local and regional economic fabric. It identifies the critical success factors for the PPP. It also identifies and appraises various realistic and achievable options, known as the 'alterative technical options', from which we select the preferred technical option.*

*An economic appraisal is undertaken to assess the economic impact of the redevelopment of the project and the benefits accruing to the wider economy in terms of increased employment opportunities and savings due to reduced healthcare spending. A distributional impact analysis sets out how the stakeholders are expected to benefit. A sensitivity analysis, meanwhile, reveals how the economic IRR (EIRR) is impacted by different variables. The chapter finally presents the economic case for the redevelopment of the Msasani fish auction market.*

### 4.1 Critical success factors

This section sets out the critical success factors driving the successful redevelopment of the Msasani fish auction market.

#### Financial closure

One of the key success factors of a PPP project is obtaining financial closure on time. In many cases, it can be seen that the government signs the contract and often the selected bidder takes significant time to arrange the financing. In the meantime, the government waits and often without any remedies or penalty clauses in the contract. This can be avoided by requesting the selected bidder to submit an irrevocable and first-demand guarantee, linked to the financial closure deadline agreed to. In the Msasani fish market project, financial closure should ideally be achieved in about 12 months. If after 12 months, financing agreements have not been signed, the government can exercise the guarantee.

#### PPP agreement

Generally, as part of the procurement process and post selection of the preferred bidder, the draft PPP agreement is finalized in a round of final negotiations. However, to ensure timely completion of the negotiation process, it is proposed the draft PPP agreement be shared with the shortlisted bidders. Feedback and comments can then feed into the contract's final version, which then serves as reference for the bidder's proposals. The final contract negotiations with the preferred bidder would therefore take limited time.

#### User charges

Rendering the project financially viable, there is a need to impose a recommended user fees as outlined in Section 6.5. This was discussed with the KMC. We believe the proposed fees seem reasonable and have been agreed to by the KMC and are based on the following arguments. The new fish auction market will provide more space to the fishermen to sell their catch and fish retailers alike and will provide a separate space for drying as opposed to the current situation. The KMC will make relevant changes in the municipal by-laws to include the proposed fees.

#### Willingness of fishermen to pay the newly enforced user charges

As mentioned above, to make the project financially viable, we propose fish auction fees to be charged from the fishermen along with the fees for utilizing the other services. A willingness-to-pay survey was undertaken

by the Consultant as well as the KMC and the outcome points to the majority of fishermen being willing to pay the proposed fees if they are provided with adequate space and proper facilities as outlined in Section 10. Additionally, it was discussed with the KMC that the increase in fees would be preceded by an educational campaign to raise awareness among the fishermen and fish traders on its proposed benefits.

Contract management skills

Both before and after the commercial operations start, the LGA should have enough skills to manage the PPP contract. These include project management capacities, capacity of designing and running awareness campaigns, managing contractual risks, and project financing skills. The institutional assessment review highlights the observed skills gaps with the LGA officials. It is recommended all concerned officials should attend adequate training that covers all the above mentioned aspects. In addition, we recommend bringing in a resident international PPP contract management consultant to support the LGA in these functions.

## 4.2 Technical options

This section explores the rationale of the various technical options to redevelop the Msasani fish market.

Option 1 - Do nothing

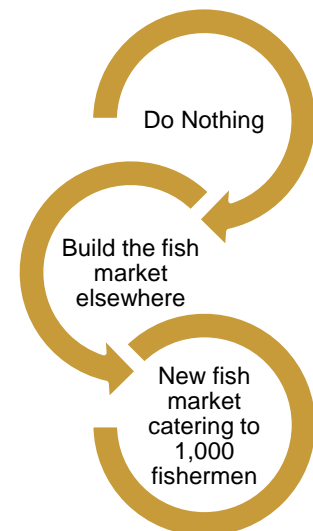
This option maintains the current status quo, which will result in no improvement in the current situation and would result in further deterioration of the existing auction building. Based on this, we discard this option.

Option 2 - Build the fish auction market somewhere else

The LGA would be required to identify a new land parcel for developing a new fish market. The current land parcel, which has been proposed for the construction, is owned by the LGA. Additional efforts would be required to identify and purchase another land parcel and the land parcel should also be near the seashore. Based on this, we discard this option.

Option 3 - New fish auction market catering to 1,000 fishermen (proposed by the Consultant)

Given the land parcel is only 1 acre, the proposed option has been devised to make the optimal use of the land. In this case, out of the land parcel of 1 acre, it is proposed 0.6 acres will accommodate the three-storied auction building. The proposed fish auction building would be optimal for providing space to 1,000 fishermen to sell their catch, assuming all 1,000 fishermen don't sell their catch at the same time. Thus, it is the most viable and recommended option.



**Table 4.1: Summary of technical options and recommendations**

S.N.	Technical option	Recommendation
1.	Do nothing	Discarded
2.	Build the fish auction market elsewhere	Discarded
3.	New fish market catering to 1,000 fishermen	Accepted

Source: Consultant

We conclude the recommended technical option of a market catering to 1,000 fishermen is our working assumption and this is the one driving all costs and revenues both in the financial and economic analysis.

## 4.3 Economic appraisal

This section assesses the economic impact of the project and the benefits accruing to the wider economy in terms of increased income of fishermen and fish traders owing to improved infrastructure, savings on account of reduced healthcare spending of both fish traders/ fishermen and consumers, reduction in food wastage due to cold storage facility and other environmental benefits. Financial and economic analysis have similar features; they both estimate the net-benefits of a project investment based on the difference between the with-project and the without-project situations. The basic difference is the financial analysis compares revenues and costs looking at the project only. In an economic analysis, we take a wider perspective and look at the project's contribution to the economy as a whole taking into account its externalities, both positive and negative.

### Assumptions and methodology

The economic analysis looks at both quantifiable and non-quantifiable factors such as incremental income, job creation, taxes paid, and savings in healthcare expenditure. We quantify the economic benefits to the greatest extent possible. When this is not possible, we present a qualitative description of its economic benefit. The various assumptions and considerations in arriving at the economic benefit for this project are presented below:

- *Period of analysis* - The economic appraisal for Msasani fish market has been undertaken for a time period of 30 years since the life of the asset and, in turn, its effect on the economy will exceed the contract duration of 15 years.
- *Economic prices* - In the financial analysis, we use market prices reflecting the financial costs to a project. In an economic analysis, we convert these financial prices into economic prices using a standard conversion factor (SCF). An SCF of 0.9 has been assumed to eliminate the effect of market price distortions especially taxes and subsidies.
- *Discount rate* - A discount factor of 12% has been assumed to calculate the economic net present value (NPV) of the project and this is in keeping with other infrastructure appraisal benchmarks used by the World Bank and other multilaterals.

### Economic indicators

The economic appraisal considers both qualitative and quantitative aspects. The qualitative aspects cover factors which cannot be quantified such as reduction in wastage of food due to cold storage facility and ice factory, improved security of fish traders, dust emissions (air pollution) during construction period, noise pollution during fish market operation, etc. The quantitative analysis considers the benefits (surpluses) accruing to three major stakeholders of the project, as follows:

- a) *Producer surplus*: The producer surplus covers the net benefits accrued to the fish traders and fishermen from the Project. It will include the overall increase in income of the fish traders, owing to improved infrastructure of the fish market. The overall savings in healthcare expenses of these traders due to the hygienic facilities such as clean toilets and proper solid waste management at the fish market is an additional economic benefit. The producer surplus will be calculated in real terms (i.e. account for inflation).
- b) *Consumer surplus*: The consumer surplus covers the net benefits accruing to the end-consumers of the fish market facility. The major economic benefit to the consumers is in terms of savings in healthcare expenses through consumption of fish from the modern facility. The fish market will provide hygienic and good quality fish for consumption, reducing the overall healthcare expenses of the household.
- c) *Developer surplus*: The developer of the fish market facility will get benefits in terms of overall profits generated from the project. The profits accrued will then be converted from their nominal to real value to get the economic benefits to the developer.

Aiming at calculating the economic benefits, we have used the following indicators presented in the table below:



**Table 4.2: Economic indicators**

S.N.	Component	Indicator	Quantified?
1	<b>Incremental income of the fishermen and fish traders</b>	Net incremental surplus 'with-project' scenario and reducing it by 50% to account for loss of livelihood elsewhere	Yes
2	<b>Savings in healthcare expenses of fishermen and fish traders</b>	Number of fishermen and traders operating from the facility multiplied by a proportion of per-capita spending on hygiene-related diseases	Yes
3	<b>Savings in healthcare expenses of consumer</b>	Number of people consuming products from the market multiplied by a proportion of per-capita spending on food-related diseases	Yes
4	<b>Profit after tax (PAT)</b>	PAT from the project is brought down to real terms by dividing it with inflation rate	Yes

Source: Consultant

### Metrics

For economic analysis, capex and relocation cost of traders of the Msasani Fish Market Project have been adopted from the financial analysis and multiplied by the SCF to arrive at the economic costs. Here, capex excludes VAT since VAT is considered as a form of transfer payment.

In the producer surplus, the current cost and revenue of the fish traders and fishermen presently operating in the Msasani Fish Market has been considered for the duration of 30 years in the without-Project situation. The proposed revenue after redeveloping the fish market has been considered in the with-Project scenario. The difference between two scenarios results in the incremental surplus for the fish traders generated by the improved infrastructure.

The savings in healthcare expenditure for these traders has been calculated by multiplying the number of fish traders and fishermen with average per capita healthcare expenditure on diseases in Tanzania.

In the consumer surplus, the savings in healthcare expenditure for the consumers has been calculated by multiplying the number of consumers of vegetables and fruits from the market with average per capita healthcare expenditure on diseases in Tanzania.

In the developer surplus, the overall profits generated from the project are taken into account. The profits accrued are then converted from their nominal to real value resulting in the economic benefits to the developer.

The net economic benefits generated by the project have been calculated by considering the capex and relocation cost incurred during the first two years of construction, and then adding the producer, consumer, and developer surplus incurred over the 30 years period.

Based on the above presented assumptions the project's EIRR for a 30-year period of analysis is calculated at 20.1%. The economic net present value amounts to USD 4 million. This implies the project is viable from a socio-economic viewpoint and underpinned with robust economic metrics. Moreover, efficiency benefits will be accrue to the traders by the removal of middle men who charge fish traders for their unofficial services.

### Sensitivity analysis

We consider the following scenarios: Project's capex (including relocation cost) increases or decreases by 20% as well as the case where the project's PAT (Profit after tax) increases or decreases by 20%. Even in these adverse circumstances, the EIRR remains high and convincing as depicted in the table below.

**Table 4.3: Sensitivity analysis**

Case	EIRR (%)
<b>Base case</b>	20.1%
<b>Scenario 1</b>	
With-project capex higher by 20%	18.2%
With-project capex lower by 20%	22.5%
<b>Scenario 2</b>	
With-project PAT lower by 20%	18.9%
With-project PAT higher by 20%	21.0%

Source: Consultant

## 4.4 Distributional impact

This section assesses the distribution of economic benefits across all the stakeholders and envisions all the stakeholders are better off with the project. The distributional impact has important implications for the project. For the project to work for all stakeholders, its benefits need to be redistributed ensuring that all stakeholders are made better off.

**Table 4.4: Distributional Impact on various stakeholders**

Beneficiary	Distributional Impact	Impact level
Kinondoni Municipal Council	It will be able to fulfill its social responsibility without any significant capex. The project gives the KMC an opportunity to leverage private sector efficiencies in redeveloping the Kinondoni market and still remain the owner of the asset.	High
Fishermen	They will be highly benefitted as they will get a dedicated space to sell their daily catch. Also, their sales would increase manifold on account of a hygienic marketplace wherein the customers would flock to meet their fish consumption requirements.	High
Customers	Their overall buying experience would be enhanced on account of the segregation of fisherman auctioning/ selling similar types of fish and a clean hygienic fish auction place, devoid of accumulated rain water. Separate washrooms would also be there for their needs.	High
Retail outlets	The fish retailers would also benefit as they would be getting a dedicated space to sell fish to retail customers, after buying the same in auction from the fishermen.	High
ProjectCo	ProjectCo will generate optimal returns for the investment made in the redevelopment of the Msasani fish auction market. Based on the commercial freedom provided, it can charge reasonable fees for drying of fish, sale of ice blocks, cold storage, and lease rentals for office space, restaurant and retail outlets. Rest of the fees would be as per the municipal by-laws.	Medium

Source: Consultant



## 5. Commercial case

*The main objective of the chapter is to demonstrate the recommended option results in a well-structured and viable PPP transaction. It provides an overview of the project's structuring aspects, outlines the proposed PPP model, and the roles and responsibilities of the municipal council and ProjectCo as well as the contractual arrangements.*

*The risk allocation matrix presents the allocation of the risks to each party in each of the project phases, i.e., DBFOMT. The output specification provides an insight in the area statement and the overall proposed fish market design related to technical components.*

*We have also provided a brief description of the proposed payment mechanism. The proposed term of the PPP, the procurement methodology, and the accountancy treatment of the proposed PPP model has also been detailed.*

### 5.1 Project structure

This section provides an overview of the project structuring aspects in terms of the roles and responsibilities allocated to the LGA and ProjectCo.

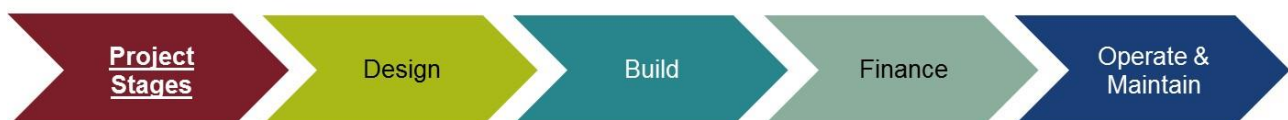
#### Project structuring overview

Structuring a PPP project boils down to allocating responsibilities, rights, and risks to each contract party. The aim is to structure a PPP that is technically feasible, economically and commercially viable, fiscally responsible, and also provide VfM to the LGA. A typical PPP structure involves contractual arrangements between a number of parties including the government, project sponsor, project operator, financiers, suppliers, contractors, engineers and end users.

Information from the feasibility study and economic viability analysis is a key input to the PPP structuring. For example, while structuring, information such as the key technical risks, and providing estimates for demand and users' willingness to pay for services has to be taken into account. The PPP structure is based on commercial viability, affordability and VfM analysis, which could iteratively result in changes to the proposed risk allocation. In short, PPP structuring is a crucial component in the overall development process of preparing a PPP project.

#### Different stages of project implementation

In PPP structuring, we discern the following building blocks which have to be allocated to either one of the parties and responsibilities have to be defined. This analysis then determines the PPP model proposed.



- *Design* - The task involved in this stage is preparing the conceptual design and the layout plans of the project facility as proposed in the development mix and components in the proposed project configuration. The proposed design should be approved by the concerned municipal council for the project to move ahead and the proposed design should take care of the regulations and municipal by-laws applicable to

the proposed project facility. Designing the project would also need to consider its environmental and safety regulations in addition to identifying the project scope of services, design characteristics and specifications for all project components, and performance and quality requirements. These aspects would form the conceptual and detailed design and finally the bill of quantities (BOQ) would be estimated from the detailed design.

- *Build* - The task involved in this stage is building the actual project facility as per the approved conceptual and detailed designs. Timelines and costs should be adhered to in this stage by the ProjectCo. ProjectCo is expected to contract an EPC (Engineering, Procurement and Construction) contractor who could also be a shareholding member of the special purpose company.
- *Finance* - The task involved in the stage is providing finance for the construction of the project facility and follows a typical project finance structure. Typical project finance or financial gearing is 30% equity and 70% debt arranged from commercial banks or multilateral financing institutions. Project finance could be challenging in our case given the immovable assets will remain in the ownership of the LGA and cannot be used as a lending security. This financing constraint brings an additional challenge to the table and is further discussed in the legal section.
- *Operate and maintain* - Post construction, it has to be decided which party takes up the responsibility of operating and maintaining the assets. ProjectCo is likely to sub-contract the operation to an operation and maintenance (O&M) contractor(s) that could also be a shareholder in the SPV.

## 5.2 Proposed PPP model

This section explores the different options of implementing the PPP project and also delves into aspects which we believe are crucial for the successful implementation of the project.

### LGA's constraints

As mentioned above, we discern various significant constraints in executing the proposed project under the public procurement model. The KMC's finances are already stretched (for further details refer to Section 16) and it does not have sufficient resources to fund the project on its own (the project capex is around USD 4.1 million). Furthermore, there is a clear need to combine the construction and operation phases to minimize lifecycle costs (LCC). The party responsible for the construction should preferably also operate avoiding contractual hand-overs and disconnects.

LCC is the total cost of ownership, and thereby, the design should ensure the lowest overall cost of ownership consistent with its quality and function. Life-cycle cost analysis should be performed in the early phases of the design process while there is the possibility of refining the design to ensure a reduction in LCCs. In addition, the municipal council has limited experience and limited skills in managing the construction of a state-of-the-art fish auction market projects within time and budget. The rationale for the PPP model is driven by the private sector resources and leveraging its expertise. It also helps the LGA in providing basic infrastructure services in the context of constrained financial budgets. Additional underpinning arguments for the PPP are explained below:

- *Sufficient experience in arranging finances* – ProjectCo is expected to have past experience in implementing similar kind of market projects and would have sufficient experience in arranging finances from different sources based on its technical and financial credentials.
- *Utilize modern technologies* – Having past experience in this field, the ProjectCo can leverage its expertise and modern construction technologies to develop the overall market building and can include features that the public sector might not have envisaged.

- *Minimize life cycle costs* – ProjectCo can not only integrate the development of these components but also innovate and cross-subsidize the development of some components with others and thus minimize the total life cycle costs of all assets combined.
- *Leverage past experience* – ProjectCo will leverage its past experience in EPC management and bring in efficiency in operation and maintenance techniques, which will in turn maximize profits.
- *Incentivized to collect revenues* – ProjectCo is incentivized to maximize the collection of fees. By assuming responsibility of construction as well as operation and maintenance of the facility, it is provided with the commercial freedom to exploit the fish auction market in the best way possible.

Recommended DBFOMT Model

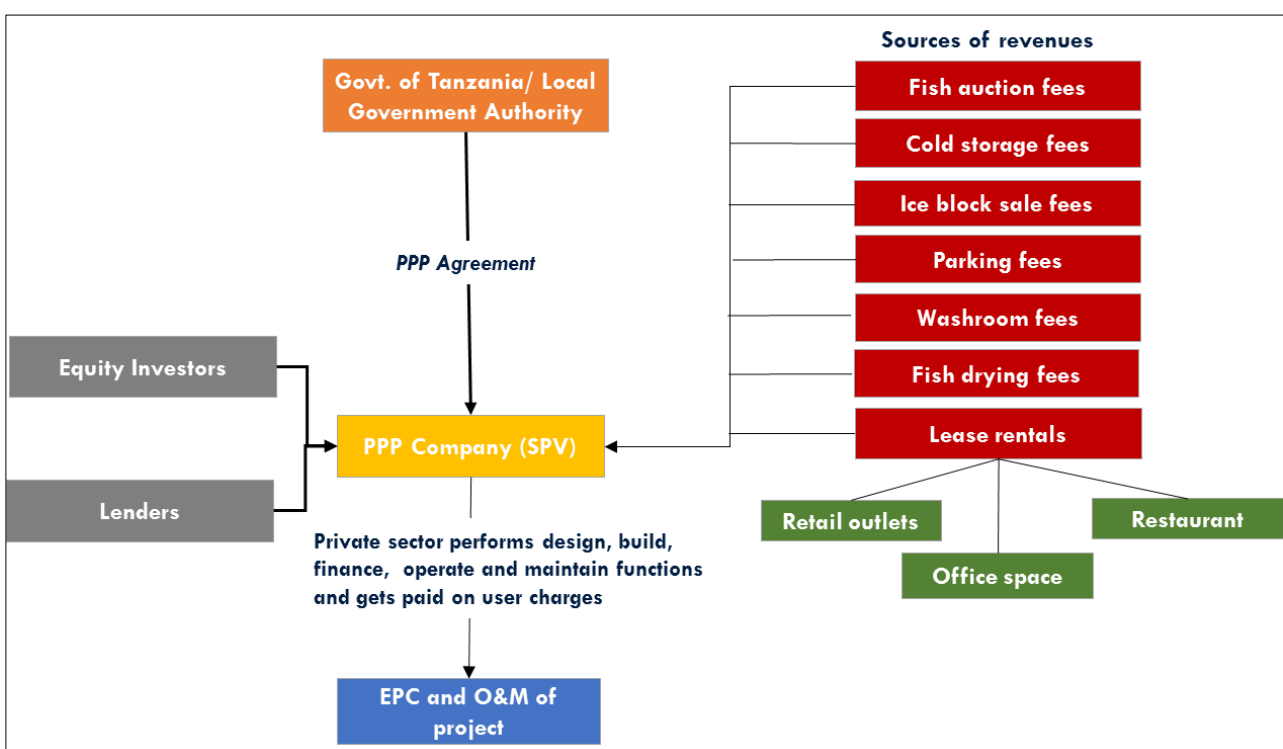
Based on the above constraints we recommend a DBFOMT model. In this model, the ProjectCo is responsible for designing, building, financing, operating and maintaining the project facility and finally transferring the project facility at the end of the concession period. The government will only be responsible for providing the land parcel in addition to the necessary approvals, such as environmental permits and regulating tariff charges as per the municipal by-laws where deemed necessary.

We also discern the need to tie together in one contract both construction and operation as well as the LGA’s limited financing ability. The recommended model also optimizes the ProjectCo’s incentives structure as it minimizes the life-cycle costs of construction and operation. The transfer of assets will only be partial as the land and structures remains with the LGA as Tanzanian law does not separate ownership of the land from its immovable assets. However, moveable assets can be owned by the ProjectCo.

### 5.3 Roles and responsibilities of the proposed PPP model

This section depicts the proposed PPP model and the allocation of roles and responsibilities of both the municipal council and ProjectCo. Additionally, it presents various main procurement components, such as bidding variables and concession period.

**Figure 5.1: Proposed PPP model**



Source: Consultant

The proposed PPP model will have Kinondoni Municipal Council as the concession's grantor, which will enter into an agreement with the ProjectCo (the SPV) to carry out the project during the concession period of 15 years. The ProjectCo will be responsible to finance the project, combining both equity investors and lenders (commercial banks or domestic financial institutions). It will bring in expertise to successfully construct and operate similar Projects. It will generate revenue through collection of fish auction fee, lease rentals from office space, restaurant, retail outlets, parking, washroom usage fees, sale of ice blocks and usage of cold storage.

### Responsibilities of KMC

- *Obtaining approvals* – The municipal council will take the project through the PPP process, in line with the provisions of the PPP Act 2010 and obtain the approvals necessary for entering into the PPP agreement with the ProjectCo.
- *Leasing of Project site to the ProjectCo, but the ownership remains with the municipal council* – The Project site will be leased to the ProjectCo by the Kinondoni Municipal Council during the concession period. The ProjectCo will hand over the project, along with the assets, to Kinondoni Municipal Council at the end of the concession period without encumbrances. Operating and maintenance works of the structure will be transferred, but not its ownership, as the municipality owns the land and its structures. For further details refer to Section 7.2. Private sector would be handed over the commercial user rights.
- *LGA to operate the fish auction market after the completion of concession period* – At the end of the concession period, Kinondoni Municipal Council has the right to directly operate the fish auction market, because, as per the Tanzanian laws, the maximum concession period is 15 years and an additional period of five years is provided only in case of delayed construction due to government delays.
- *Provision of supporting infrastructure by the LGA* – The municipal council will also provide for the improvement of support infrastructure, such as proper water supply connections, waste-water drainage connectivity and electric sub stations.
- *LGA to facilitate all environmental approvals* – The municipal council will also be responsible for facilitating the environmental approvals, going ahead on the project. There are a range of approvals – such as environmental, construction permit, operations permit, utilities permit that need to be obtained from municipal council and other authorities (as required) with well-defined timelines. However, the ProjectCo is responsible for driving the task of getting approvals.
- *LGA to collect licensing fees* – The municipal council will be responsible for the collection of licensing fees from the individual fishermen.
- *Option of follow-on PPP after completion of this PPP and handover to government* - This is a potential option which can be explored by the LGA, as the private sector is more efficient in managing the operations of any infrastructure facility by leveraging its past experience, as compared to the government sector.

### ProjectCo responsibilities

- *Obligations of ProjectCo* – Project will be responsible for designing, constructing, procuring, financing, operating and maintaining the project for the designated concession period.
- *Incorporation of the SPV* – ProjectCo will be contractually obligated to incorporate and register the SPV, as per the rules and regulations of Tanzania, for the performance of the PPP agreement.
- *Commercial operation of the fish auction market* – ProjectCo will be given the right to develop, build, finance, operate and maintain the project during the concession period. During this period, it would have the right to commercially operate the fish auction market, i.e., the economic use of the fish auction market and collection of revenue.



- *Management of the fish auction market* – ProjectCo will be responsible for the performance of the fish auction market (proper space allocation for fish drying, retail outlets, restaurant and office space) and for the discharge of all obligations to the municipal council throughout the concession period.
- *Sub-contracting to other firms* – ProjectCo will be given the right to sub-contract certain aspects of the operations to reputable parties.

Concession period

- *Contents of the PPP agreement* - The agreement will be entered into between the Kinondoni Municipal Council and the ProjectCo for the performance of the rights and obligations of the project, as detailed in the agreement.
- *Concession period* - The concession to develop, build, finance, operate, maintain and transfer the project will be given to the ProjectCo for a period of 15 years, which would include the construction period of two years.
- *Commercial freedom given to LGA, subject to certain conditions* - The PPP agreement would specify commercial freedom in respect of the development undertaken and would give the ProjectCo a right to increase fees as per the contract.
- *Setting up an escrow account* - A special account, specifically for this purpose would be set up wherein all the revenues collected by the ProjectCo would be deposited on a daily basis and these would be ring fenced avoiding uncontrolled diversion of funds.
- *Provisions in PPP agreement* - The PPP agreement so prepared should also contain provisions for conducting regular audits and impose penalties on the ProjectCo in case of overcharging.

**Table 5.1: Summary of responsibilities of the ProjectCo and municipal council**

Stages in PPP Contract	ProjectCo	Municipal Council
Design	√	-
Construction	√	-
Finance	√	-
Operate	√	-
Maintain	√	-
Transfer	√	-

Source: Consultant

## 5.4 Risk allocation

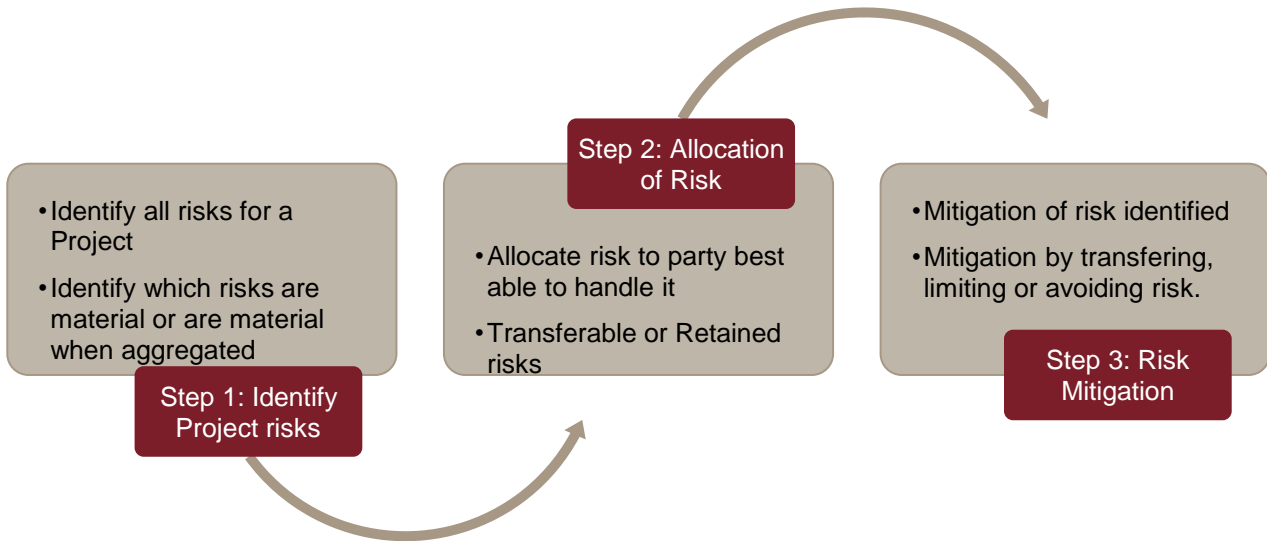
In this section, we identify and allocate risks to the contractual party that is best able to manage those risks.

Introduction

Project risk management is an iterative process conducted throughout the project’s life cycle. It involves systematically considering possible outcomes before they happen and defining procedures to accept, avoid, or minimize the effect of risks on the project. The first necessary step is the identification and allocation of risks. Given that PPP projects involve complex project financial and contractual structures, risk identification and allocation of risks to the appropriate contractual party is essential to successful implementation. The essential principle driving risk allocation is that management of risks should be allocated to the party best able to handle them.

Methodology of risk assessment

Risk assessment has been carried out through the following steps, which are detailed out as under:



- *Identify key risks of the project and the consequence of those risks* – Risks to the project’s success are generally low to moderate and are considered manageable. The risks of greatest concern relate to the ability to complete construction on a timely basis, that user charges will be paid without any exception, and that ProjectCo can secure affordable finance in time.
- *Allocate the risks to the appropriate contractual party* – The risk allocation matrix outlines the allocation of the risk to the party that is best-suited to handle and mitigate the risks. Risk allocation involves an analysis of the identified risks and determining whether the risk may be transferred to ProjectCo or retained by the LGA. On the basis of the risk analysis, the important risk categories relevant to project have been allocated to the contractual party best able to bear the risk. Or alternatively, to reduce the likelihood of the risk occurring and / or minimise the consequences of the risk.

**Table 5.2: Risk allocation matrix**

Risk	Description of risk	Risk assumed by
Site and approvals	Securing project approvals on a timely basis or site conditions not allowing excavations and new construction	LGA
Construction	Events during construction prevent the completion of the market facility	ProjectCo
Revenue	Not generating enough revenue, due to a leakage in revenue collection	ProjectCo
Performance	A sub-contractor engaged by the ProjectCo fails or delivers substandard work, or maintenance costs are higher than expected because of poor design, materials or installation.	ProjectCo
Financial	Ability to secure financing for the project	ProjectCo
Political	Changes in laws or regulations reduce the ProjectCo’s revenue/increase costs, or new policies reduce the importance attached to the development of the municipal market and government support	LGA
Force Majeure	Performance targets are not met or the project is terminated due to force majeure events	ProjectCo and LGA
Default	There can be a default from either sides – a government event of default and a ProjectCo event of default.	ProjectCo and LGA

Source: Consultant



## 5.5 Risk mitigation

Risk mitigation involves developing strategies and options on how to mitigate allocated risks. We present the main risk categories, their impact and mitigation measures below.

**Table 5.3: Risk mitigation matrix**

Risk	Mitigation measures	Likelihood
Site and Approvals	LGA should carry out geotechnical surveys to assess any issues prior to selection of ProjectCo. The LGA should proactively assist the necessary agencies and get their approvals on various aspects, such as land excavation and project design.	Medium
Construction	ProjectCo can sign fixed-price construction contracts with the subcontractors and also maintain contingency provisions.	Medium
Revenue	ProjectCo should ensure an optimal usage of the best of commercial facilities, as higher usage will result in higher revenue.	High
Performance	ProjectCo should ensure providing the services as per the service specifications in the contract.	Medium
Financial	ProjectCo should assess the current market situation, in which loans are being provided for commercial projects. It should also endeavor arranging finances from multiple sources, such as commercial banks, domestic financial institutions and multi-lateral agencies.	Low
Political	LGA should get appropriate legal advisors to validate the implications of the changes in regulations on the project and should compensate the ProjectCo for changes in laws. The LGA should assess the impact of the public policies and assess the loss, which would be borne by ProjectCo.	Low
Force Majeure	Obtain adequate insurance policies.	Low
Default	Both ProjectCo and LGA have to manage the project with an eye to avoiding events of defaults, triggering penalties and/or termination.	Low

Source: Consultant

## 5.6 Input and output specifications

This section presents an illustrative set of input and output specifications that the ProjectCo will be expected to fulfill under the PPP agreement for the Project. These specifications have been formulated in four parts to provide a clear understanding of the expectations from the ProjectCo of the Project.

- *Overall scope of the Project facility* - The Msasani fish market, spread over an area of 4,091 sqm, will be redeveloped to cater to ~1,000 traders. It will be a modern fish market with a proper structure and designated spaces allotted to all the traders/vendors in fish auction hall. The market building will provide various services for fishermen and customers such as toilet facility and fish restaurant. The cold storage with capacity of 500 pallets and ice factory with daily capacity of 25 tons will help reduce wastage of food. Average catch at the Msasani fish market will be close to 4,400 kg of fish per day to serve the customers. Parking facility will be available for over 35 cars at one time.
- *Detailed output specifications of the Project* - The section covers the output specifications of the Project, which define how the objectives of the Project will be attained. It covers both physical outputs such as fish market building, parking, toilets, etc. as well as services such as healthcare, security, hygiene, etc. which will ensure smooth operations of the modern Project facility.

**Table 5.4: Output specifications of the project**

Facility	Output specifications
Main building	<ul style="list-style-type: none"> <li>Market to have a cold storage facility to prevent wastage of food (fishes)</li> <li>Provision of ice factory to provide ice to fishermen for their catch on daily basis</li> <li>Administration office to accommodate the staff of the LGA including manager</li> <li>Provision of drying and frying area for fishes in the market building</li> </ul>
Toilets	<ul style="list-style-type: none"> <li>Toilet facility to be provided for both fish traders and customers</li> <li>Separate toilets for male and female traders and customers</li> <li>Provision for toilets in each floor of fish market building</li> <li>Toilet should have 24*7 water supply</li> <li>Toilets should be clean, hygienic and well maintained</li> <li>Toilets should have provisions for disabled traders and customers</li> <li>Standards for sanitary fittings should be complied as per Tanzanian standards</li> </ul>
Fish Restaurant	<ul style="list-style-type: none"> <li>Provision of a fish restaurant facing the seaside, serving fresh cuisines to customers</li> <li>Adequate seating facility will be available for customers</li> </ul>
Retail outlets	<ul style="list-style-type: none"> <li>Retail outlets to be developed for traders to sell seawater fish to customers</li> <li>Clean and hygienic conditions to be maintained in retail shops</li> </ul>
Water supply	<ul style="list-style-type: none"> <li>Potable drinking water to be provided to traders &amp; customers as per per-capita norms</li> <li>Regular supply of potable water to ice factory and cold storage system</li> <li>24x7 water to be supplied to fish traders for washing and cleaning purpose</li> <li>24x7 water to be supplied for cleaning of floors and other usage</li> <li>Water storage facilities for emergency purposes such as water shortage, fire accidents</li> <li>Water supply guidelines needs to be complied as per Tanzanian standards</li> </ul>
Parking area	<ul style="list-style-type: none"> <li>Provision for adequate space to meet parking requirement of customers and traders</li> <li>Adequate internal movement space to be provided for entry and exit of cars</li> <li>Sufficient and paved road at entry and exit points to avoid congestion</li> <li>Smooth movement of vehicles to reduce waiting time</li> </ul>
Floating platform	<ul style="list-style-type: none"> <li>Provision of a floating platform for berthing of the fish boats</li> <li>Adequate number of berths need to be provided to expedite the unloading process</li> </ul>
Electricity	<ul style="list-style-type: none"> <li>Provision for 24*7 electricity supply including backup for load shedding</li> <li>Adequate number of ceiling fans, lights &amp; charging points to be provided for traders</li> </ul>

Facility	Output specifications
Security	<ul style="list-style-type: none"> <li>• Provision of security cabin to avoid unauthorized operations outside fish market building</li> <li>• Adequate security staff to be provided to handle safety and security operations</li> </ul>
Drainage	<ul style="list-style-type: none"> <li>• Adequate drainage to be developed around the site</li> <li>• Drainage line needs to be connected with central drainage of the city</li> <li>• Drainage guidelines needs to be complied as per Tanzanian standards</li> </ul>
Sewerage	<ul style="list-style-type: none"> <li>• Provision of underground septic tank for collection of sewerage</li> <li>• Periodic sludging of septic tank through de-sludging trucks</li> <li>• Sewerage guidelines needs to be complied as per Tanzanian standards</li> </ul>
Solid waste management	<ul style="list-style-type: none"> <li>• Solid waste collection units shall be placed strategically on each corner of the floor</li> <li>• Collection of solid waste to be carried out on a regular basis during the day</li> <li>• Spoilt food and vegetables to be collected from each trader</li> <li>• Discarded food or thrown away in the internal circulation pathways to be collected</li> <li>• Solid waste collected to be segregated in recyclable and non-recyclable waste</li> <li>• Garbage collection trucks to transport the solid waste to the landfill site</li> <li>• Solid waste management guidelines should be complied as per Tanzanians standards</li> </ul>
Hardscape and landscaping	<ul style="list-style-type: none"> <li>• Outdoor areas of the market to be smoothly hardscaped to facilitate easy movement</li> <li>• Paving's surface quality to ensure durability as well as resistance against wear</li> </ul>
Maintenance and repair	<ul style="list-style-type: none"> <li>• Floors, gates, fences and stalls should be kept in good state of repair</li> <li>• Proper maintenance of refrigeration facilities to ensure product preservation</li> <li>• Other minor repair works need to be carried out</li> </ul>
Hygienic practices	<ul style="list-style-type: none"> <li>• Provision of daily cleaning, dusting &amp; mopping of common areas, stalls and equipment</li> <li>• Periodic removal of cobwebs, repair and cleaning of roof and wall finishes</li> <li>• Monitoring the water quality by examining harmful metals &amp; microbiological contents</li> <li>• Pest control measures to be taken both outside and inside the fish market</li> <li>• Regular cleaning of toilets and usage of naphthalene balls to prevent entry of pests</li> </ul>
Safety health and environment	<ul style="list-style-type: none"> <li>• Provision of adequate fire extinguishers and above ground fire hydrants in the market</li> <li>• Smoke detection and alarm systems to be installed in the fish market building</li> <li>• Health of staff and fish traders needs to be checked on routine basis</li> <li>• Management to comply with legislation relating to public health and safety</li> <li>• Installation of green building technologies (solar panels) to reduce carbon footprint</li> </ul>

Facility	Output specifications
	<ul style="list-style-type: none"> <li>Provision of techniques for waste water-recycling and rain water harvesting</li> <li>Adherence to environmental and social performance standards as per IFC</li> </ul>

Source: Consultant

- Minimum design specifications* - These are the minimum specifications which needs to be adhered to in order to provide adequate facilities for different stakeholders of the Project as mentioned under:

**Table 5.5: Minimum design specifications of the Project**

Facilities	Design specifications
Stalls	<ul style="list-style-type: none"> <li>Minimum area for each retail shop - 10 sqm</li> </ul>
Car parking	<ul style="list-style-type: none"> <li>Minimum equivalent car space (ECS) for cars -25 sqm</li> </ul>
Toilets	<ul style="list-style-type: none"> <li>Minimum area for each urinal -2 sqm</li> <li>Minimum area for each water closet -4 sqm</li> </ul>

Source: Consultant

- Detailed input specifications* - The plot area of 4,091 sqm, shall be developed as –
  - 35% (1,432 sq m) of the land should be earmarked for constructing a new market building that will house the fish auction market (ground floor), cold storage facility (ground floor), ice factory (ground floor), restaurant (first floor), admin block (first and second floors), office space (second floor), fish drying (rooftop) and fish frying area (second floor);
  - 32% (1,327 sq m) of the land area on the ground floor will have a tensile roof structure to accommodate underneath for an extended fish auction hall (630 sqm), fish cleaning, scaling and cutting area (409 sqm) and area for retail outlets (288 sq m); and
  - Remaining area of 33% (1,332 sq m) of the plot area could be developed for parking facilities and internal movement (1,128 sqm) and for other support infrastructure such as electric substation and solid waste collection units (204 sqm).

The following table provides a break-up of the total development and area statement.

**Table 5.6: Technical components and area statement**

Development mix	Land area (%)	Plot Coverage (sqm)	Total built-up area (sq m)
<b>Market Building</b>	35%	1,432	4,296
(i) Total built-up area for cold storage (GF)		800	800
(ii) Total built-up area for ice factory (GF)		190	190
(iii) Total built-up area for auction hall (GF)		270	270
(iv) Total built-up area for restaurant (FF)			1,100
(v) Total built-up area for admin block (FF:160sqm; SF:210sqm)			370

Development mix	Land area (%)	Plot Coverage (sqm)	Total built-up area (sq m)
(vi) Total built-up area for office space (SF)			300
(vii) Total built-up area for frying area (SF)			750
(viii) Total built-up area for toilets in the building (GF,FF,SF)		100	300
(ix) Total built-up area for stairs and common area (GF,FF,SF)		72	214
<b>Auction Building Rooftop - Area for fish drying; (with flexible &amp; retractable roof cover of water-proof material that can be rolled in or out as required)</b>			<b>1,432</b>
<b>Ground Floor under Tensile Roof Structure</b>	<b>32%</b>	<b>1,327</b>	<b>1,327</b>
Extended fish auction hall with tensile roof structure (GF)	15%	630	630
Fish washing, cleaning and processing (scaling/cutting) (GF)	10%	409	409
Retail outlets (selling dried Fish), selling vegetables/Fruits	7%	288	288
<b>Open Area</b>	<b>33%</b>	<b>1,332</b>	<b>1,332</b>
Parking space and internal movement	28%	1,128	1,128
Other facilities	5%	205	205
<b>Total</b>	<b>100%</b>	<b>4,091</b>	<b>6,955</b>

Source: Consultant

- **Market building** - It is planned as a three-floor building with a total built-up area of 4,296 sqm. The ground floor of the building would have the cold storage facility, ice factory and fish auction hall. The fish auction hall will be open from two or three sides and be partly within the building (270 sqm) and partly extend out on the ground floor beyond the building. The extended fish hall (630 sqm) would not be a concrete structure but will have a tensile roof structure and be open on all side walls to allow for free circulation and air-flow. The first floor would have restaurant and admin office. The second floor would have admin office, other office space and frying area. The roof-top of the building would be used for fish drying purposes and it would have a flexible & retractable roof cover of water-proof material that can be rolled in or out as required. Toilets, service lifts and common area would be provided across all the three floors of the building.
  - **Ice factory** - ProjectCo will build and operate an ice factory to provide for providing ice to fishermen for transporting and temporarily storing the fish. An area of 190 sqm is proposed for this purpose. A minimum capacity of 25 Tonnes per day (TPD) is proposed for this purpose, based on the assumption that the factory could cater to 1,000 fishermen with an average consumption of 25 kg per fishermen per day. The technology suggested is based on ammonia tube ice machine, which is energy efficient. The main part of the tube ice machine is the ice generator, a vertical shell-and-tube vessel surrounded by a water tank. The usual operating temperature tube ice plant is -8°C to -10°C. Indicative details on the equipment are provided in Section 13.2.
  - **Cold storage** - To increase the preservation and storage of fish for a longer duration, to help the fishermen better manage the demand-supply situations and therefore price fluctuations, the ProjectCo will need to build and operate a modern fish cold storage facility in its premises. The cold storage temperature should be in the region of -18 to -29 °C (0 to -20 °F) depending upon the nature of prevalent fish being cold stored. This should be consistent with the recommendations of the International Institute of Refrigeration, which recommends a storage temperature of -18°C for lean fish such as cod and haddock and -24°C for fatty species such as herring and mackerel. It is anticipated that the fish could be stored for a period of few weeks to 3-6 months depending upon the fish species

and the temperature conditions in the cold storage facility. It is suggested to build a 500 MT cold storage facility on the ground floor over an area of 800 sqm. It is anticipated that this capacity would be sufficient to store fish for a period of 3-6 months, depending upon the requirements. The fish market is targeting to handle about 8-12 MTPA of fish over a period of next 15 years (in comparison to ~26 MTPA being handled by the ferry market today). Therefore, a 500 MT cold storage facility will be equivalent to storing 50% of fish handled at the Msasani fish market over a 4-month period. Indicative details on the equipment are provided in Section 13.2.

- *Restaurant* - It is anticipated that the ProjectCo will lease out the space for the restaurant to a specialized third party. However, the ProjectCo could be provided with an option to furnish and operate the restaurant itself if it so proposes. An area of 1,100 sqm is being proposed on the first floor (sea facing) for the restaurant. This would be sufficient to provide specialty or fine dining experience to 200-300 covers at a time (assuming an average area requirement of 3-5 sqm per cover. It will also comprise of a large fish aquarium containing sea water fish. The restaurant area could be designed in such a manner so as to allow for flexibility to change the seating layout and also provide for 100-200 cover banquets also. Some of the area could also be an open deck facing the sea.
- *Administration block* - An admin block of 370 sqm is proposed for office accommodation for relevant officials of both the ProjectCo and the local council that would need to be present at the fish auction market during the operating hours. With a view to optimize revenue earning space, it is suggested to have minimal area for the admin block on the first floor. Therefore, it is suggested to have the administration block partly on the first floor (160 sqm) and partly on the second floor (210 sqm).
- *Fish frying area* - A frying area of 750 sqm is proposed on the second floor in the market building. The frying area will be a large hall with open columns and limited cover on the sides to enable adequate air circulation. In addition, this hall will have smoke filters on chimneys and use of advance oxidative process to minimize odour from the hot air emissions from the chimneys.
- *Fish drying area* - For the purpose of drying sardines and other fish, an area of 1,432 sqm on the rooftop is proposed with flexible and retractable roof cover of water-proof material that can be rolled in or out as required. The rooftop will have all sides open and only the retractable roof cover would be provided as shade or protection from rains. The roof top area would also have multiple slabs or racks for placing the fish for drying.
- *Toilet blocks* - The plan is to have toilet facilities on three floors of the market building. We have assumed a 12-hour operational period over which over 1,000 fishermen will be present. Also, we have conservatively assumed that each trader will visit the toilet a couple of times, which in reality might be higher (thrice or four times). In the overall toilet configuration, we have considered both urinals and water closets. Average time for using a urinal has been considered as three minutes and the average time for using the water closets has been considered as six minutes. Based on an indicative total daily usage of ~2,000 times by fishermen and considering each toilet fixture will require 6 sq m space (as per the minimum design specifications), the total area requirement of toilet fixtures will be 100 sq m on each floor (including both urinals and commodes).
- *Other office space* - To provide for office space to other private sector operators and fish related agencies, it is suggested to construct ~300 sqm on the second floor to be constructed and rented out at commercial rates to private sector tenants.
- *ATM machines* - Additionally, there will be a small space dedicated to ATM machines which can be used by the users of the fish market.
- *Stairs and ramps* - All the floors will have the access through staircases and ramps for the general users and fishermen. The staircase in the market building will be strategically placed to avoid congestion. The ramps will help the senior citizens/ handicapped people to access the higher floors of the fish market.



- *Ground floor under tensile roof structure* - Besides the market building, the plot shall have a ground area (1,327 sqm) that is covered with a tensile roof structure. This area shall house the extended fish auction hall (which shall be contiguous to the auction hall in the ground floor of the market building), an area for fish washing, cleaning and processing (scaling/cutting) and an area for retail outlets that would sell fish, vegetables and fruits.
- *Parking and support infrastructure* - About 28% of the ground area (1,128 sq m) could be utilized for open parking space, internal movement and other facilities.
- *Retaining wall* - As the plot is close to the seashore, it would be necessary to protect the market building by constructing a reinforced retaining wall with adequate column footings. The wall height should be at least 5 to 10 meters above the sea level so that building would be protected during high tides. The provision for spaces in the retaining wall to allow offloading of fish from boats to market is required.
- *Floating platform* - For the purpose of berthing of the fish boats and faster unloading of fish, a low-cost floating platform made of HDPE float is proposed to be installed. Each unit of the HDPE float is about 0.25 sqm and assuming that 2 floating platforms would be installed with each having a length of 30 m and width of 10m, the total area of HDPE floats required will be 600 sqm. This could provide simultaneous berthing of 6-8 boats at a time and expedite the unloading process.

#### Compliance to Tanzania Laws and Regulations

ProjectCo will have a general obligation to ensure that all works comply with relevant Tanzanian legislation and standards and good industry practice in Tanzania. Installation plans will need to be approved before works commence and construction standards will need to be met prior to handover of the assets.

#### Conceptual designs and layout plans

The conceptual designs and layout plans of the Project have been provided in the Section 20 and provide a broad overview of the project facility. These designs provide a base level understanding of the physical specifications of the fish market facility and its various components as mentioned above.

As per the conceptual design, the ground floor plan comprises a fish auction hall along with extended fish cleaning and washing area, cold storage, ice factory, toilets and ATM within the building, and parking area for cars outside the market building. The first floor of the fish market will have an administration office, fish restaurant and toilets. The second floor will comprise office spaces, fish frying area and toilet facility. Lastly, the rooftop of the fish market will be used as fish drying area with retractable cover.

These designs and layouts are indicative and subject to change during the transaction advisory stage.

## **5.7 Recommended payment mechanism**

We can discern two options for the payment mechanism as explained below:

- *LGA collects fees and pays the ProjectCo*: In this case, the LGA collects the auction fees from the fishermen, lease rental fees from restaurant, office space and retail outlets, charges for the cold storage and fees from sale of ice blocks, parking, washrooms and drying. Fees collected are then transferred to the ProjectCo as per the contract. Another option could be to contractually agree on a level of payment, and this would then be similar to an availability payment mechanism. However, the municipal council is not incentivized to maximize collecting these fees and enforce each fisherman, retail outlets and washroom users to pay the requisite fees. Further, this option might also be vulnerable to political pressure groups and lobbying aiming at fees exemptions. These would result in revenue leakage and might trigger contractual penalties.
- *ProjectCo collects the fees*: In this case, the ProjectCo collects the fees from all user groups, as it is incentivized to maximize the collection of revenues as it is only source of income.

We recommend that the ProjectCo collects fees from the fishermen, lease rental fees from restaurant, office space and retail outlets, charges for the cold storage and fees from sales of ice blocks and utilizing parking, washrooms and drying space as it is incentivized to maximize its collection. The current revenue collection efficiency of the LGA is low, resulting in loss of revenue generated (for details refer to Section 14) which will not be the case when ProjectCo will collect the fees.

## 5.8 PPP contract term

Ideally, the concession period should preferably match the economic life of the underlying assets or, as a minimum cover the assets' depreciation period. However, the length of the concession period as per Tanzanian laws is only 15 years. A shorter period may result in ProjectCo not able to recoup the investments incurred. We recommend extending the concession period to, for example, 25 years, as this enhances the financial pre-feasibility. However, 15 years is the legally maximum allowed term, but it is an overarching recommendation that could be considered by the Government of Tanzania.

## 5.9 Accountancy treatment

This section elaborates the accountancy treatment of the proposed PPP project in terms of ownership and transfer of assets.

### Financial reporting and accounting for PPP projects

Currently, there is no specific accounting guidance under the Tanzanian accounting standards for PPP arrangements. Generally, infrastructure companies account for the infrastructure as a part of their fixed assets at the construction cost and do not recognize any revenue during the construction period. Revenue is normally recognized for the amount recoverable from the public sector and/or the amount recovered from the customers for use of the infrastructure, only after the construction is complete.

The International Accounting Standard Board has issued an interpretation related to accounting treatment of service concession arrangements under its IFRIC 12, such as the DBFOMT model proposed for the project. It can be effectively interpreted that even though infrastructure assets are not recognized as the property, plant or equipment of the operator, it can account for them in its books. Similarly, it can recognize the revenue as measured in accordance with IAS 11 (for construction or upgrade services) and/or IAS 18 (for operation services, where the operator operates and maintains the infrastructure).

Financial reporting by the public sector of risks and liabilities in PPP transactions is not mandatory in Tanzania. Globally, best practices require governments to reflect most PPP assets and associated liabilities on the government's balance sheet. If they are not accounted for, then they are listed in the notes to account.

### Depreciation

Accordingly, the following provisions related to depreciation could apply.

- *Annual depreciation of immovable assets* - The standard depreciation rate of 5%, as given in the Finance Act of Tanzania, has been assumed for the fish auction building and other civil works, and straight-line method has been used for depreciation of this class of assets. It is noted that though the physical ownership of the asset remains with the KMC, the operation and management of assets and economic activities is transferred to ProjectCo for the duration of the concession period. Hence, its depreciation costs are allowed to be considered in the ProjectCo's financial statements.
- *Annual depreciation of movable assets* - For plant, machinery and electrical works, a depreciation rate of 12.5% has been assumed and a straight-line depreciation, as per the Finance Act. Additionally, there is a provision for accelerated depreciation for the plant and machinery and 50% initial allowance (first year allowance), as allowed under the Act, has been considered.





## 6. Financial case

The main objective of a financial appraisal is to ascertain the project's financial pre-feasibility. The financial analysis determines financial metrics such as the project IRR and equity IRR and debt-service coverage ratio (DSCR). This chapter details the assumptions used to arrive at costs, revenues and other financial modelling assumptions related to opex, occupancy rates, Project financing, depreciation and taxation. This chapter also analyzes the project's VfM, both qualitative and quantitative.

### 6.1 Market demand study

This section provides the results of a benchmarking study, undertaken across similar fish auction markets to assess typical user charges in similar fish markets.

Currently, there are six fish markets in Kinondoni Municipal Council. They are Kunduchi, Msasani, Ununio, Kawe, Mbezi and Mbweni. The biggest fish market out of the three is Kunduchi, which has 500 fish traders, which is followed by Msasani (400 fishermen, 80 fish retailers, 12 food vendors and about 15 retail kiosks) and then Ununio. The remaining three are more like fish-dropping points, as they lack proper facilities.

Apart from the six markets mentioned above, the biggest and more modern fish market in Dar es Salaam is the Ferry Magogoni Fish Market, which is within the Ilala district. There are 3,000 and possibly more traders, including the fishermen; the monthly revenue is ranging from TZS 58 million (USD 25,200) to TZS 80 million (USD 34,800) for Ferry Magogoni Fish Market, whereas the Msasani Market currently generates average monthly revenue of TZS 325,000 (USD 141).

**Table 6.1: Charges at Ferry Magogoni Fish Market**

#	Type of fees/levies	Amount of fees/levies	
		Rate/day (TZS)	Rate/month (TZS)
1	Fees from wholesaler fishermen	5% of revenue	Not Applicable
2	Traders (agents, retailers, fish cooks)	Not Applicable	7,000-15,000
3	Rent on occupied spaces (retail shops, offices, tables etc.)	Not Applicable	10,000-200,000
4	Rent for equipment depending on type ( wheelbarrow, containers, boxes)	Not Applicable	10,000-30,000
5	Customers and cargo vehicles, bicycles and tricycles entry charges	200-1,000 per entry	Not Applicable

Source: Consultant

### 6.2 Willingness to pay

This section provides an insight into the willingness of the fishermen to pay the proposed charges, when the new fish auction market at Msasani becomes operational.

The assessment involved the market manager and about 27 traders who volunteered. The number covers fishermen, fish retailers, food vendor and kiosks' tenants. Currently, the food vendors and kiosks pay TZS 200 on a daily basis, whereas the shops pay TZS 15,000 on a monthly basis. There is no fee or levies collected from the fishermen. A vast majority of the interviewees were willing to pay twice of what they pay currently, if

they are provided with good facilities and their daily sales increase while the remaining fishermen and traders were only willing to pay higher charges only after seeing the new market.

Thereby, it can be ascertained that the majority of food vendors, fish retailers and kiosk tenants were agreeable to the proposed charges. Further details are included in Section 10.

### 6.3 Assumptions and methodology of financial analysis

This section provides an overview of the financial assumptions of the financial model for the fish market. Key financial assumptions include the depreciation rate, corporation tax rate, cost of capital and the inflation rate.

#### Depreciation

The standard depreciation rate of 5%, as given in the Finance Act of Tanzania, has been assumed for market-building and other civil works and the straight-line method (SLM) has been used for depreciation of this class of assets. For plant, machinery and electrical works, a depreciation rate of 12.5% has been taken and the written down value (WDV) method has been used for this class of assets as per the Finance Act.

Additionally, there is a provision for accelerated depreciation for the plant and machinery and 50% initial allowance (first year allowance), as allowed under the Act, has been considered. It is noted that though the physical ownership of the asset remains with the KMC, the operation and management of the assets and economic activities is transferred to the ProjectCo for the duration of the concession period. Hence, its depreciation costs are allowed to be included in the ProjectCo's financial statements.

#### Corporate income tax

Currently, corporation income tax (CIT) in Tanzania stands at 30%, which has been assumed in our financial model. Moreover, there is no limit on the carry-forward period for tax losses in Tanzania and this has been used to set off losses in the initial operating years.

#### Carry-forward of losses

In Tanzania, there is no limit on the carry-forward period of tax losses; this has been considered in the financial model for this project. However, as per the latest Finance Act, an alternative minimum tax at the rate of 0.3% is imposed on the turnover of the third year of an entity with tax losses for three consecutive years.

#### Cost of capital

For the interest rate on long-term loans, based on market assessment, the bank lending rate in Tanzania is in the range of 14%-16% p.a. Hence, for the purpose of this financial model, an interest rate of 16% p.a. (inclusive of the processing charges) has been assumed as the standard interest rate on long-term loans. Moreover, the standard cost of equity is usually in the range of 19%-21% and this has been assumed to be 20% for the calculation of cost of capital. Considering a debt-equity of 70:30, the post-tax weighted-average cost of capital (WACC) is 13.8%.

$$\text{WACC (post-tax)} = g \times R_d \times (1 - t) + R_e (1 - g)$$

Where  $g$  is gearing;  $R_d$  is the cost of debt;  $R_e$  the post-tax cost of equity; and  $t$  is the corporation tax rate.

#### Tariff indexation and cost revision

Regarding the tariff indexation, it was agreed by the KMC that the tariffs/fees can be increased every three years and a rate of 25% was proposed and agreed. The assumed indexation has been considered only after detailed discussions with the investment team committee members across LGAs and they have given their consensus for the same. However, they have also proposed that the indexation should be applied every three years, rather than annually, as changing the bylaws every year is cumbersome and not practicable. For the cost escalation, an annual escalation of 6% (equivalent to the average inflation in Tanzania over the past five

years) has been assumed. With respect to ProjectCo’s perspective, it would have been reasonable to increase the user charges year-on-year, as the user charges would then be linked to the country’s inflation index. However, as per the discussions held with the LGAs, they asserted that the increasing user charges year-on-year will not be amenable to the majority of fishermen and further suggested that the increase should be done after every three years. The ProjectCo also gains as the user charges would increase by 25%, than the compounded 6% increase year-on-year, which would have translated into a 19% increase only at the end of the third year. The cumulative impact over the project period of 15 years would result in higher gains to the ProjectCo in case of the first option compared with the second option.

Grace period and tenor

We have assumed that the construction of the market will take about two years. A grace period for the loan repayment for this project has therefore been considered to be two years and the repayment period has been considered to be eight years (making the total loan tenor of 10 years). It should be noted that the interest grace period is generally not available and is therefore not considered in the financial model.

**Table 6.2: Financial assumptions**

Variable	Value
Depreciation rate (buildings and other civil works)	5% p.a.
Depreciation rate (plant and machinery)	12.5% p.a. 50% (first year allowance)
Corporation income tax	30%
Post-tax WACC (70% debt, 30% equity)	13.8%
Tariff indexation	25% (every three years)
Opex revision	6% p.a.
Principal grace period	2 years
Principal repayment period	8 years

Source: Consultant

## 6.4 Capital expenditure and O&M costs

This section provides an overview of the capex and opex involved in developing the Msasani fish market, in addition to an area statement that gives the proposed overall distribution of the total land area.

Indicative cost of land

It is proposed that the plot area of 4,091 sq m shall be developed for construction of the fish market. Based on the discussions with the municipal valuers, it was estimated that the land prices in the area were between TZS 770,000- 980,000 per sqm (or USD 335- 426 per sqm). Hence, the total land value of land for development of fish market ranges between TZS 3.1- 4.0 billion (or USD 1.4- 1.7 million).

Capex

Capex estimates for the proposed project is presented in the table below. It has been assumed that out of the 4,091 sq m land area available, a three-floor main auction building will be developed over 35% area and will house an auction hall, cold storage and ice factory on the ground floor, and restaurant, offices and frying area on the upper floors. The rooftop will be used as a drying area for fish. Apart from this, 32% of the land area on the ground floor will have a tensile roof structure to accommodate an extended fish auction hall, fish cleaning, scaling and cutting area and for retail outlets. Remaining 33% of the plot area will cover parking facilities, internal movement and for other support infrastructure. Total capex of the Msasani fish market is set at USD 4.1 million (inclusive of VAT) which can be split in two years in ratio of 30:70. The major cost contribution in

the first year being land development and part construction. While in the second year, the major cost contribution will be from civil cost, plant & machinery and supporting infrastructure.

**Table 6.3: Area statement and capex**

Area statement	% of land	Land area (sq m)	Floors	Total built-up area (sq m)	Capex (USD)	% of total cost
Land development	Lump sum				9,605	0.2%
Civil cost						
Buildings (G+2 and G+0)	67%	2,759	3 & 1	5,623	1,370,024	33.2%
Parking and internal movement	28%	1,128	1	1,128	27,464	0.6%
Other facilities	5%	204	1	204	164,698	4.0%
Water and drainage	for estimates refer to Section 9				329,118	8.0%
Solid waste management	for estimates refer to Section 9				53,155	1.3%
Plant and machinery	for estimates refer to Section 9				625,033	15.1%
Electrical works	for estimates refer to Section 9				248,107	6.0%
Common utilities and safety	for estimates refer to Section 9				17,396	0.4%
E&S capacity building	@ 0.5% of capex				14,223	0.3%
Design/engineering studies	@ 12.5% of capex				355,575	8.6%
Contingency	@ 10% of capex				284,460	6.9%
VAT	@ 18% of capex				629,795	15.3%
<b>Grand total</b>					<b>4,128,654</b>	<b>100.0%</b>

Source: Consultant

In the above capex estimates, the cost for civil works also factors in the construction of barriers on the boundary wall for a reduction in the dust and air pollution during the construction phase and a reduction in the noise pollution during the operation phase. Also, the cost for solid waste management includes not only the cost of waste collection trucks and construction of a 60 sqm solid waste collection unit, but also includes cost for separate waste collection bins at each floor of the market. Lastly, the environmental and social awareness and capacity building cost has been considered 0.5% of capex which includes the costs related to Environmental & Social awareness training and other activities for the project.

### Opex

Operation and maintenance of the fish market (as will be required and legally drafted in the PPP contract) is crucial to ensuring optimal operating conditions. The total opex of the project comprises salary expense, utilities cost, solid waste management charges, electricity expense and other annual maintenance expenses.

It has been considered that about 20 people will be employed in the market for administration works and a monthly salary of USD 200 has been assumed for them. An additional 10 workers have been considered for the cleaning and solid waste disposal. The cold storage facility and the ice factory will incur higher operating costs. Based on secondary research, the opex for the cold storage as a percentage of yearly revenue stands at 37% (inclusive of staff costs, input costs and electricity expense) and that for ice factory stands at 50% (inclusive of staff costs, input costs and electricity expense). In addition to this, an annual utilities cost including electricity cost of 1% of the capex has been considered. Desludging cost has also been considered in the opex, the desludging of septic tanks of the fish market will be done every two months.

Additionally, a cost equal to 5% of the capex has been assumed for periodic repair and maintenance at the interval of every five years. An annual cost escalation of 6%, equivalent to the average inflation in Tanzania over the past five years, has been assumed for the projection of these costs over the entire concession period.

**Table 6.4: Opex of the project**

Parameter	Calculation
Salary expense/ month	20 workers - USD 200 per month 10 workers – USD 100 per month
Utilities cost (including electricity expenses) / year	1% of capex p.a.
Cold storage operation/ year	37% of revenue p.a.
Ice factory operation/ year	50% of revenue p.a.
Annual Maintenance cost	0.5% of capex p.a.
De-sludging cost	USD 77/ trip every two months
Periodic repair and maintenance cost/ five years	5% of capex every five years

## 6.5 Revenue sources

This section presents the identified revenue sources for the fish market during the first year of operation:

### Auction fees from fishermen

This includes fees charged from fishermen for auctioning of fish. Currently, in the Ferry market (largest fish market in Dar es Salaam), a fee equivalent to 5% of the total sale during the day is charged from the fishermen. While for Msasani fish market, it has been set at 3.5%. Based on data provided by the Manager at Ferry market, the daily volume of fish sold is over 26 tonnes and it has been assumed that about one-third of this volume can be achieved at the Msasani fish market due to space constraints. An annual escalation in the volume of fish sold has been pegged at 2% p.a. as the marine fish catch in Tanzania has stagnated, a small growth percentage has been taken assuming that there will be a shift from other markets due to better facilities and improvements in fishing boat productivity over the coming years.

Also, based on market assessment and secondary research<sup>1</sup>, it has been considered that the sale price of fish in Dar es Salaam is USD 2,400 per tonne and an annual escalation of 8% in this price has been assumed (the average inflation between 2000-2014 in the sale of fish prices has been 8.2% p.a., and given that the marine produce is not expected to increase substantially in the coming years the inflation rates are expected to be maintained). The annual catch has been considered 50% in the first year and has been ramped up to 100% over the years. The total annual fee collection from the fishermen in the first year of operation is calculated at ~USD 0.1 million.

### Lease rentals

As explained earlier, restaurants and offices are planned to be developed on the upper floors of the auction building and lease rental of USD 8.7 (TZS 20,000) per sqm per month can be charged from them. Additionally, rent collected from fish vendors/retail outlets would be amended according to the market rental rate of USD 4.3 (TZS 10,000) per sq m per month.

### Cold storage charges

It has been considered that a cold storage facility will be developed on 800 sq m and will have a capacity of 500 metric tonnes. The cold storage facility has been assumed to have an occupancy rate of 50% in the first year of operation and will increase to 70% over the course of 4 years. This 70% occupancy rate takes into consideration the usage rate of 90% during the peak season and a usage rate of 60% during the lean season.

<sup>1</sup> A recent study has estimated the average price per ton for fish at ~ US\$ 2432 per ton. Source: Baseline study on Tanzania fisheries, Robert Ulric Lee & Paul Namisi, Megapesca Lda. Portugal, Danish Ministry of Foreign Affairs, 24 June 2016

The facility will have 500 pallets and a charge of USD 0.75 (TZS 1,725) per pallet per day can be charged for the cold storage.

#### Ice factory charges

It has been considered that an ice factory will be developed on 190 sq m and will have a peak production capacity of 25 tonnes per day. It has been assumed that each fishermen uses, on an average, 15-20 kilograms of ice cubes per day with an estimated peak utilization of 25 kilograms per day. The ice factory facility has been assumed to have a utilization rate of 50% in the first year of operation and will increase to 80% over the course of 4 years. A charge of USD 100 (TZS 23,000) per tonne per day can be charged for the ice cubes.

#### Drying charges

A drying area for sardines and other fishes is proposed to be developed on the roof-top and as per the KMC officials, a charge of USD 0.15 (TZS 300) per sq m per day can be charged from the fishermen/fish vendors for the same. The drying facility has been assumed to have an occupancy rate of 50% in the first year of operation and will increase to 80% over the course of 4 years.

#### Parking charges

The parking fee can be charged on per-hour basis and the rate can be fixed at USD 0.2 (TZS 500) per hour. This will match the prevailing rate charged by the other public parking run by the National Parking System in Dar es Salaam. A total of 36 car-parking slots have been planned and it has been assumed that the market will be operational for 10 hours per day; an occupancy rate of 50% have been assumed in the first year of operation.

#### Washroom fees

The washroom fees currently charged at various places in Dar es Salaam is around USD 0.15 (TZS 300). The same has been maintained for the project. It has been assumed that each of the fishermen will use the washroom facility twice during the day.

**Table 6.5: Annual revenue statement in the first year of operation**

Annual revenue statement	Number	Daily fees (TZS)	Daily fees (USD)	Total revenue (USD)
Fish auction fees	4,371 average catch in kg/day	193	0.1	134,019
Cold storage charges	500 pallets/ day	1,725	0.75	68,438
Drying charges	1,289 sq m area	300	0.15	30,679
Ice factory charges	25 tonnes/day	23,000	100.0	456,250
Parking charges	360 cars/ day	500	0.2	14,283
Washroom fees	2,000 users/ day	300	0.1	95,217
Annual revenue statement	Area (sq m)	Fees / sq m / month (TZS)	Fees / sq m / month (USD)	Total Revenue (USD)
Lease rental – restaurant	1,100	20,000	8.7	103,304
Lease rental – offices	300	20,000	8.7	22,539
Lease rental – retail stalls	288	10,000	4.3	12,013
<b>Total annual revenue</b>				<b>936,741</b>

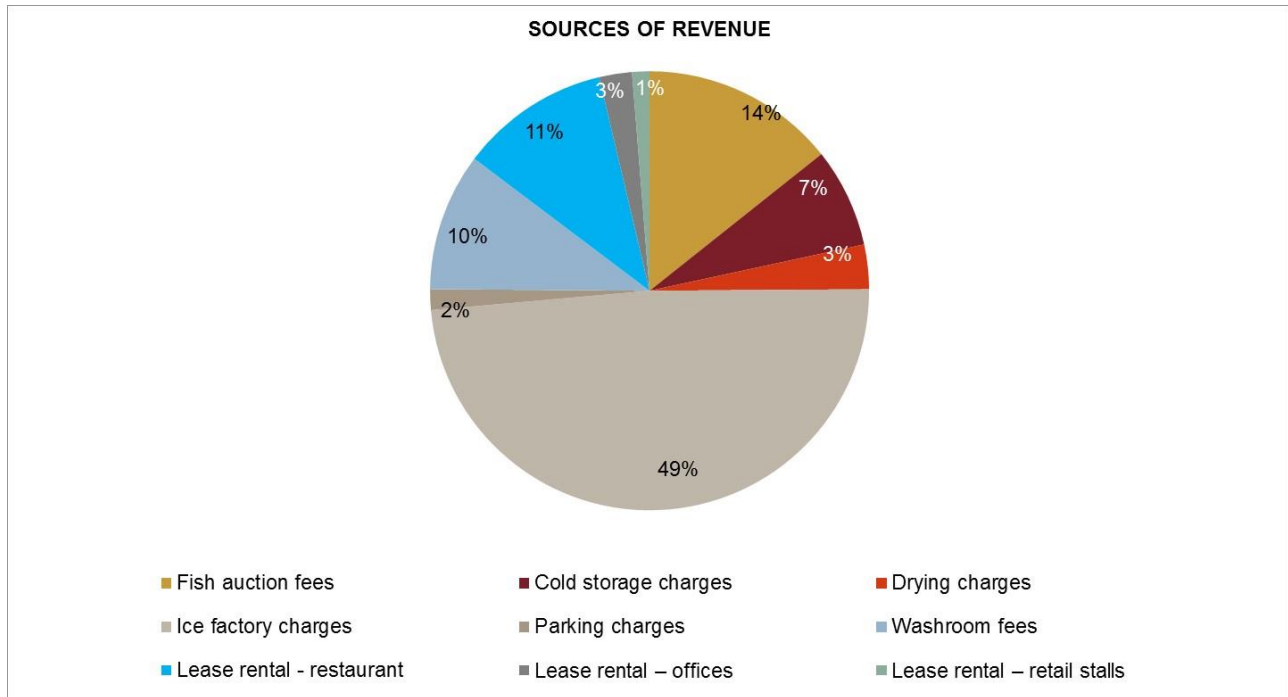
Source: Consultant

From the above table, we can see that the revenue generated from ice factory is the major revenue contributor for the market. It contributes to more than 49% of the total revenue generated from the fish market. Other



major sources of revenue are fish auction fees (14%), lease rental from restaurant (11%) and washroom fees (10%). The minor sources of revenue are cold storage charges (7%), drying charges (3%), lease rentals from offices (2%), parking fee (2%) and retail stalls' rent (1%). The contribution from various sources of revenue can be depicted from the figure 6.1 below.

**Figure 6.1: Contribution from various sources of revenue**



Source: Consultant

## 6.6 Financial pre-feasibility

This section presents the base-case equity and project IRRs to assess the financial pre-feasibility of the project.

Our financial analysis shows that the project is financially viable and is expected to attract interest from ProjectCo. The various financing assumptions considered in preparing the base case of this model include:

- Interest rate of 16% on the long-term loan;
- Grace period of two years for principal repayment.
- Repayment period of eight years,
- Equity contribution of 30% of the project cost,
- CIT of 30%; and
- Daily fee of 3.5% of the daily sale value from the fishermen.

Also, as per the current PPP Act 2010, a maximum concession period of 15 years is allowed for municipal PPP projects and a similar period has been considered for calculating the project's financial metrics. Since the useful life of the civil structures will exceed the 15-year concession period, a residual value, equivalent to the inflation-adjusted value of the asset at the end of the concession period, has been calculated. We have assumed this as an income accruing to the ProjectCo.

Our calculations result in a post-tax project IRR of 19%, a post-tax equity IRR of 20% and an average DSCR of 1.8. These returns are robust and should be acceptable to ProjectCo as well as to financiers. Also, the maximum DSCR is 3.5, while the minimum DSCR of the project is 0.6 during the initial years of operation, this shows that the ProjectCo will need to arrange for additional working capital during this period to meet its debt obligation.

**Table 6.6: Financial pre-feasibility**

Item	Metric outcome	Comparison with	Conclusion
Project IRR	19.2%	WACC of 13.8%	Higher project IRR versus WACC suggests that the project is financially viable
Equity IRR	20.4%	Equity return of 20%	Higher equity IRR versus the equity rate of return suggests that the Project will be able to attract ProjectCo
Average DSCR	1.8	DSCR of 1.25	DSCR is higher than the minimum DSCR required in infrastructure projects to secure bank finance. It shows that the project will be able to service its debt obligation in time.

Source: Consultant

As suggested by the LGA during the draft pre-feasibility discussions, the fish auction fees have been reduced to 3.5% of the daily sales from 5% of the daily sales as considered earlier, to make it more affordable for the fishermen. This will lead to a drop in revenues, and decline in equity IRR from 22.8% to 20.4%.

## 6.7 Sensitivity analysis

As discussed earlier in Section 6.4, in our estimates of the project's capex we have included a contingency of 10% as a buffer. However, in the case of an unforeseen event, if the capex and opex of the project increase beyond this buffer or if the revenue generated or tariff revision rate have been overly estimated or interest rate on debt has been considered too low, the equity IRR of the project could decrease. We have undertaken a sensitivity analysis to test the resilience of equity IRR under adverse scenarios. Here, capex, opex and revenue have been assumed to increase or decrease by 20%, while interest rate on debt has been checked at 18% p.a. and 14% p.a. and three-yearly tariff revision rate has been considered at 20% and 30% and the corresponding effects in the equity IRR (of the base case) are depicted in the table below:

**Table 6.7: Sensitivity analysis**

S. No.	Case	Equity IRR	Average DSCR
1	Base case	20%	1.8
2	20% increase in capex	15%	1.4
3	20% decrease in capex	28%	2.2
4	20% increase in opex	17%	1.5
5	20% decrease in opex	24%	2.0
6	20% increase in revenue	28%	2.2
7	20% decrease in revenue	12%	1.2
8	Debt interest rate @18% instead of 16%	19%	1.7
9	Debt interest rate @14% instead of 16%	22%	1.8
10	Three-yearly tariff revision rate @30%	21%	1.8
11	Three-yearly tariff revision rate @ 20%	19%	1.7

Source: Consultant

The above table shows that the project’s revenue is the most-sensitive factor. Under any unforeseen event, the project revenue may decrease by 20% or capex may increase by 20% compared with the base case, then the equity IRR of the project falls to 12% and 15%, respectively. These rate of return might not considered acceptable to the equity stakeholders, as it is lower than the project’s return on equity project of 20%.

We infer that in the base case, the project is viable, but in certain cases, the assumptions considered may differ, thereby impacting the viability of the project. In such cases, various sweeteners or financial enhancers may be required to make project viable. These enhancers are further discussed in the section below.

## 6.8 Financial enhancers

Based on our analysis, we confirm the project’s financial pre-feasibility. In particular, with an equity IRR of 20%, the project is likely to have a market interest. However, as discussed above, if these Project estimates are revisited, the project’s financial viability will decrease. In these cases, various sweeteners or financial enhancers might be required to make the project viable. Various sweeteners are listed below:

### Upfront viability-gap financing (VGF)

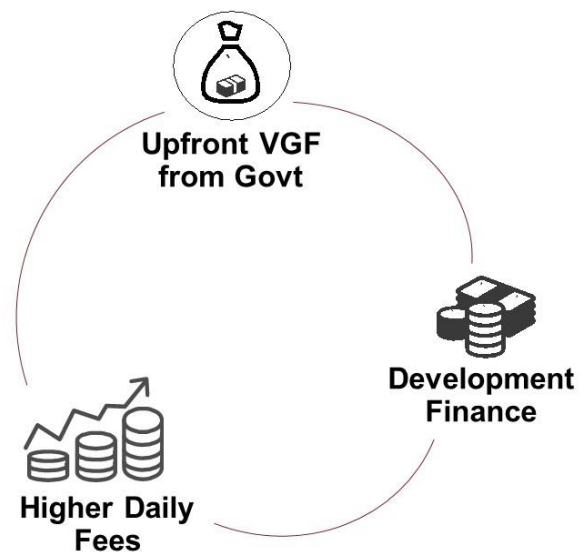
The government could consider an upfront financing support for this project in the form of a VGF. It has been assumed that the government will invest certain proportion of the total project cost, spread over the two-year construction period. A 10% VGF has been considered by the consultant for Pre-feasibility. The debt and equity contribution in each case is assumed as a proportion of the amount remaining after the VGF funding.

### Development finance from multilateral institutions

Considering the project’s strong contribution as a public good, we have considered the possibility of securing development finance for this project to improve the viability of the project. In case of development finance from multi-lateral institutions, such as World Bank and African Development Bank, the interest rate on a USD-denominated loan has been considered to be much lower at 12% per annum. Moreover, the principal moratorium period has been considered to be higher at three years and the repayment period at 12 years, as opposed to the base case.

### Higher daily fees

To improve the project’s viability, this scenario considers higher daily fees, to be levied from traders. These higher fees have been proposed to be levied because of a larger trading area that will be available for traders, better hygiene facilities, dedicated trading spaces (allowing for a full-day trade), increased customer base (due to better common facilities). The following case has been considered for Pre-feasibility: a daily fee from fishermen is charged at 4% of the daily sale value.



**Table 6.8: Equity IRR under different scenarios**

S. No.	Case	Base Case	VGf @10%	Development finance	Higher Fees
1	<b>Base case</b>	20%	24%	27%	22%
2	<b>20% increase in capex</b>	15%	18%	19%	16%
3	<b>20% increase in opex</b>	17%	20%	22%	18%
4	<b>20% decrease in revenue</b>	12%	15%	15%	NA
5	<b>Debt Interest rate @18% pa instead of 16% pa</b>	19%	23%	NA	20%
6	<b>Three-yearly tariff revision @20% instead of 25%</b>	19%	23%	25%	21%

Source: Consultant

Based on our analysis, we propose the following financial enhancement strategies to be applied in case the viability of the project comes into question on account of proposed project estimates being revisited. For instance, if capex increases by 20%, we recommend that the government must either provide 10-15% upfront VGf in order to make the project viable. And if the project revenue decreases 20%, we recommend that the government should provide 15-20% upfront VGf in order to make the project viable.

## 6.9 Value for money

This section assesses the value for money (VfM) for the project, both on a qualitative as well as quantitative perspectives. The quantitative aspects include ascertaining the net difference in costs for the government in implementing the project using public procurement versus PPP procurement. The qualitative aspects deal with public sector capability, time and the government's financing availability.

### Quantitative assessment

Quantifying VfM hinges on comparing the total costs associated with a PPP procurement approach versus the conventional public procurement approach. The former is calculated as the NPV of total amount invested by the public sector in the form of upfront VGf and/or annual payments made to ProjectCo over the entire concession period plus the portion of retained notional risk by the public sector, i.e., total project risk less the risk transferred to the special purpose vehicle (SPV) / private entity. The Public Sector Comparator (PSC) procurement total project cost is calculated as the sum of the present value (PV) of total costs – i.e., capex and opex, plus the notional risk retained by the public sector. Since the PSC approach is assumed to entail no SPV, the entire proportion of risk is borne by the government. As a means of quantifying the project risks, the following categories of risk have been assessed:

- *Construction risks* – These are the risks that have a direct impact on capex. These include cost and time overrun risks as well as design risk, i.e., the possibility that, post rollout, infrastructure and technical specifications are misaligned to the functional requirements for the services offered.
- *Operational risks* – They include the factors that directly influence the opex of the project. This includes, inter alia, direct opex overrun. Moreover, under a PPP procurement approach, an independent Project management office (PMO) may be required to oversee the integration between various stakeholders and ensure that the project is executed effectively and efficiently – as per the stipulated guidelines in the PPP agreement. The potential need to bolster the personnel capacity of the PMO may result in additional opex.
- *Financial risks* – They cover the parameters that impact both capital and operational components of the project. Specifically, interest rates and inflation rates that trend higher than historical norms will impel higher cumulative costs over the project concession period. Similarly, costs denominated in foreign currencies will be hurt by devaluation/depreciation of the Tanzanian Shilling relative to the USD.

- *Revenue risks* – They cover the demand risk related to the project, including the possibility of potential revenue leakage. They also cover marketing and administrative capability of the operator to attract more customers and traders that will lead to better revenue generation.

The below table presents a high-level risk matrix, which encompasses the aforementioned risks. Four different scenarios - such as worst case, pessimistic, most likely and optimistic - have been considered and the allocation of risk probabilities and impacts have been considered in each case to arrive at a weighted-average risk factor. The quantification of the impact of each risk on the present value (PV) of opex, capex and project revenue is predicated on probabilistically weighted averages, as per the following formula:

$$\text{Impact on PV} = \text{weighted average risk factor} \times \text{PV}$$

**Table 6.9: Weighted impact on PV<sup>2</sup>**

Risk category	Specific risk	Probabilistically weighted loss (%)	Weighted impact on PV (USD million)
Construction risk	Cost over-run	9%	0.3
	Time over-run	34%	1.2
	Design risk	9%	0.3
Operational risk	Opex over-run	16%	0.6
	Project management office cost over-run	16%	0.6
Financial risk	Interest rate risk	12%	0.8
	Exchange rate risk	12%	0.8
	Inflation risk	12%	0.8
Revenue risk	Revenue risk	35%	3.3

Source: Consultant (based on past experience in PPP Projects)

Given that the main driver of the PPP procurement approach is premised on an effective transfer of risk to the ProjectCo, 90% of the total probabilistically weighted PV of risk is transferred, while 10% (i.e., USD 0.9 million) is retained by the government. This 10% risk accounts for the risks that have been assigned to the public sector and that the ProjectCo might exercise during the course of the project and this includes: (a) site risk; (b) construction risks beyond the ProjectCo's control (for instance, geotechnical faults that were unknown when the contract was signed); (c) events of default in the public sector; (d) compensation on termination due to public sector default; (e) political risks; and (f) force majeure risk.

The net cost under the PPP procurement approach is thus the PV of the VGF investment and/or annuity payments to ProjectCo plus the portion of retained risk minus the PV of the tax revenue to be collected from the ProjectCo on the profits that they generate from the project. The net cost for the PPP procurement approach for the 15-year concession period comes out to be USD (0.1) million.

On the other hand, under the conventional public-sector procurement framework, the total value of risk (i.e., USD 8.1 million) is borne entirely by the government. The net cost for the public-sector procurement has been obtained by adding the total PV of capex and opex and the entire retained risk and subtracting from it the PV of the project revenue. The net cost for this approach comes out to be USD 5.7 million. This is summarised in the table below.

An assessment period equal to the concession period of 15 years has been considered. Also, as per the monthly economic review, March 2018 by Bank of Tanzania, 10-year Treasury bond rate in February 2018 stood at 15%, Similarly, Treasury bond rates for 7-year, 5-year and 2-year stood at 13%, 12% and 9%

<sup>2</sup> Given the lack of empirical data in Tanzania, we had to make certain assumptions. The risk matrix assumption values in VFM analysis have been developed based on the consultant's experience in PPP Projects across sectors and across regions. We feel that we have been conservative in our assumptions.

respectively. So, we can see that the discount rate applicable will also depend on the tenor of loan that the government will avail. Thus, considering these factors we have assumed an average discount rate (for public procurement) of 12% for the calculation of VfM.

**Table 6.10: Value for money (VfM) calculation**

Variable	PSC procurement – net costs (USD million)	PPP procurement – net costs (USD million)
PV of revenues	9.4	1.0
PV of capex	3.4	-
PV of opex	3.6	-
PV of retained risks	8.1	0.9
<b>Total PV of net costs</b>	<b>5.7</b>	<b>0.1</b>
<b>Value for money</b>	<b>USD 5.8 million</b>	

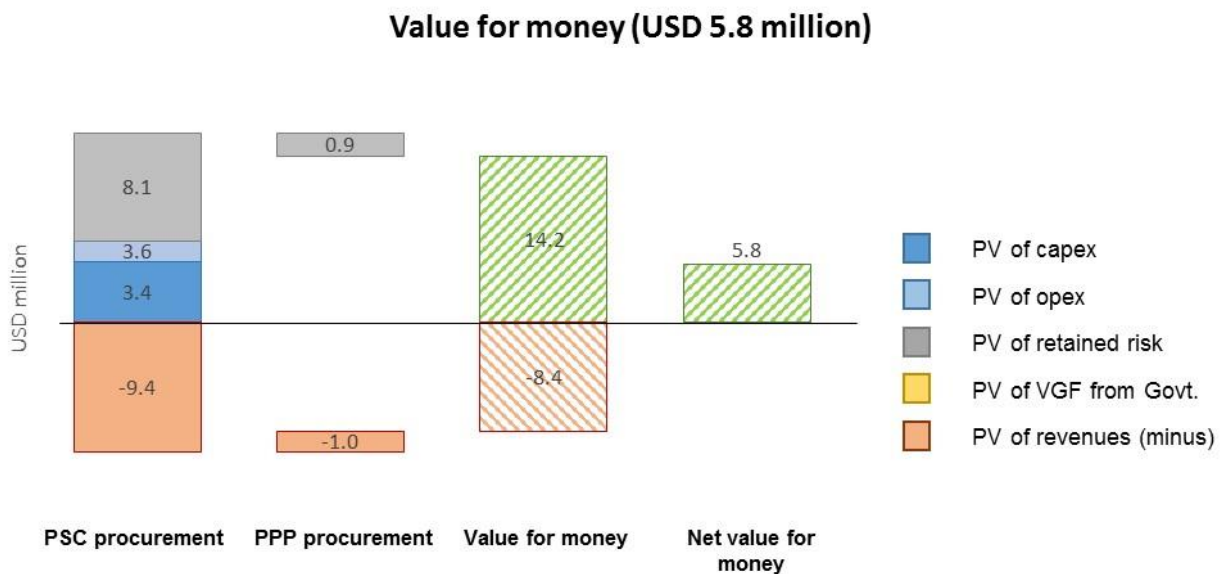
Source: Consultant

The above table suggests that, from a public sector perspective, the project revenue in case of public procurement goes to the government, whereas in PPP procurement, the public sector will only be entitled to the revenue collected in the form of tax on profits. Also, in case of public procurement, the entire capex as well as the opex are borne by the government. In PPP procurement, these costs are borne by ProjectCo and hence the cost to the government is nil.

The VfM has been obtained by comparing the net cost for both PPP and public-sector procurement approaches. The risk-adjusted net cost for the PPP approach (USD -0.1 million) is significantly lower than that of the public-sector procurement approach (USD 5.7 million). In other words, it is USD 5.8 million cheaper to the government to carry out the project as a PPP.

The above reasoning is also depicted in the figure below:

**Figure 6.2: Value for money**



Source: Consultant

Qualitative assessment



The VfM aims at deciding between a conventional public procurement and PPP strategy. The below pointers provide an additional understanding to this VfM from a qualitative standpoint.

- *Public sector capability and experience* – Though the KMC has developed a few fish-auction markets in the past, it has limited experience in constructing a modern fish-auction market. A private player, with experience in this sector, can use its expertise and utilise modern construction technologies to develop the fish auction market and can include features that the public sector might not have envisaged.
- *Time taken for project implementation* – Involving the private sector in various stages of project development, including design, construction, operation and maintenance, will ensure that the time delays are minimised. As the private sector is better incentivised and hence more equipped for timely completion of projects, as it will otherwise affect its profit margins.
- *Cost incurred for Project implementation* – The project is proposed to be developed on a high-value land and will not only provide the auction space but also the parking space, food stalls, fish processing area and cold-storage facilities. The public sector does not have adequate experience in developing these components and integrating them into one market, and hence will not be able to capitalise on the synergies, resulting in higher project cost. ProjectCo can not only integrate the development of these components, but also innovate and cross-subsidise the development of some components by others and thus optimise the life cycle costs of all the assets combined.
- *Demand for project* - There are no large-scale modern fish auction markets in the Kinondoni municipal area. This project will be one of its kind. The private sector, with its assumed high level of marketing skills and know-how, can use this opportunity to attract not only more traders to operate from the market but also more customers to use this market. Ultimately generating higher revenue than a public entity could, all other things being equal.

Based on the above assessment of both quantitative and qualitative perspectives, we conclude that undertaking this project using the PPP mode has significant advantages compared with public procurement. We recommend executing the project on a PPP basis and in particular, through the DBFOMT mode.



## 7. Management case

*This chapter sets out the institutional, legal and regulatory aspects as well as the social and environmental aspects that are applicable to the proposed redevelopment of the Msasani fish market.*

### 7.1 Institutional review

This section provides an overview of the applicable institutional structure, the approach undertaken for institutional review, the responses provided by the KMC with respect to the current institutional capacity, preparedness for PPP Projects and capability to execute the PPP Project efficiently.

#### Approach for undertaking the institutional review

The consultant has carried out a comprehensive assessment with the investment committee members of the municipal council. A detailed questionnaire was prepared with specific questions related to assessing the institutional capability of the LGA. The frameworks and methodology provided in the World Bank's Public Private Partnership Screening Tool were used to develop the questionnaire. The questions were divided into three major groups:

- Institutional capacity,
- Preparedness of the LGA to undertake the PPP Project,
- Capability of the LGA to execute the Project effectively and efficiently.

The responses provided by the investment team members offered inputs for preparing a diagnostic report on the institutional capacity of the municipal council, which would determine its ability to manage the proposed PPP Project during the implementation and operational phases.

**Table 7.1: Projects under Jurisdiction of KMC**

Name of municipal council	Projects under jurisdiction
Kinondoni Municipal Council	Msasani fish market

Source: Consultant

#### Institutional capacity of KMC

- *Composition of PPP Team:* In case of KMC, there is a 15-member investment committee and six of the 15 members form the core PPP team. However, all the investment committee members have their own full-time responsibility, and being part of an investment committee and a PPP team are just additional responsibilities. The PPP team has recently included a technical expert / engineer and procurement officer.
- *Academic qualifications and training in PPPs:* The members have basic qualifications such as a bachelor's or master's degree relevant to their job roles. So, we presume they would possess the ability to understand the basics of PPPs. It is understood that the LGA has, in the past, executed small contracts for the private sector that were either pertaining to real estate development on LGA-leased property or outsourcing of small public toilet facilities. As such, the team does not appear to have any significant experience or expertise in executing PPPs. In terms of formal training in PPPs, only three of the six members in the PPP team have undergone WB PPP training/ MoF workshop for two weeks. The rest of the investment committee members have not yet undergone any PPP training. Therefore, the team will require substantial training in various aspects of the PPP Project preparation as the Project moves forward.

- *Budget constraints:* KMC is financially better off than other LGAs on account of increasing positive surplus over the previous five years. Therefore, it is reasonable to assume that the LGA will have some budget flexibility to engage one or two consultants. However, it is unlikely to have adequate funding available for a robust PPP Project preparation exercise.

#### Preparedness of LGAs to undertake PPP Projects

- *Strong commitment:* KMC is highly committed to seeing this Project implemented. KMC has set aside indicative budgets for some of the activities.
- *Need for Project planning:* KMC currently does not have well-defined plans to deal with Project management, stakeholder consultations, and implementing external connectivity for the Project. No specific timelines for the same have been identified.
- *Need for technical assistance:* KMC will require considerable technical assistance and hand-holding to successfully implement the Project preparation processes for the PPP Project. KMC does not envisage any constraints that could delay Project implementation. It has already consulted the existing fishermen operating at the site and they are willing to relocate.

#### Capability of LGA to execute the Project effectively and efficiently

- *Need for dedicated personnel within LGA:* There should be at least one dedicated person deployed in the LGA, who should be the primary contact point between the PPP team and the central Project management support team. This person would be responsible for steering the Project, tracking overall progress, and monitoring adherence to timelines.
- *Support from central government to fund hiring of transaction advisors:* Given that the surplus with the LGA might not be sufficient to procure transaction advisors on a full-time basis with respect to the Project, the LGA should estimate the overall budget depending on the amount of work and time required for the transaction advisor and put in a requisition for funds to the central government.

#### Key recommendations

Based on the survey and discussions with officials of the LGA, the consultant suggests the following actions to strengthen the institutional capacity of the LGA with respect to implementing the PPP Project:

- *Central Project management support team:* There is a need for hand-holding the LGA in various aspects of Project preparation. Therefore, it is suggested that a central pool of technical, financial, legal, E&S experts be set up, whose members could be sourced on a part-time basis to meet the specific needs of individual PPP Projects. The central PMS team could report to the PPP node and be used to assist all the LGAs on the eight PPP Projects, including those of Kinondoni.
- *Hiring of transaction advisors:* While public procurement for small Projects takes close to six months, the procurement on PPP basis is envisaged to take a longer duration of one year or more, given the intricacies and negotiations involved in the PPP procurement process. The central PMS team could provide hand-holding support to the LGA in terms of drafting agreements.
- *Focused training and knowledge sharing:* The PPP team in the LGA would require continued and focused training on Project preparation, procurement and contract management as the PPP Project progresses. The staff should be acquainted with the best practices, knowledge and tools being developed in the World Bank Group, so that they can benefit from the global repository of knowledge being created by the World Bank. It would also help them to exchange ideas and experiences through a knowledge-sharing platform that could be created by the PPP node for all the LGAs preparing PPPs in Tanzania and the African region.
- *Ensuring continuity of LGA staff in the PPP unit:* As the Project preparation and procurement process will be spread over 2-3 years, it would be beneficial if the LGA staff that is getting trained continues with the PPP unit for that period. Frequent staff changes could disrupt the capacity development process.

- *Strengthening the PPP team:* Depending upon the development of a PPP pipeline in the LGA, it is suggested that full-time staff or consultants be recruited to be placed in the PPP team of the LGA to address technical, financial and Project management issues.
- *Use of tools and applications:* It would be beneficial for the LGA to institute systems and processes to embed tools and applications developed by the Bank and other development partners, to streamline the PPP lifecycle process relevant to the contracting agencies. For further details refer to Section 17.

## 7.2 Regulatory and legal due diligence

The main findings of our legal due diligence are presented below:

### Assets (fixed assets and land)

- *Land title deed* – According to the KMC officials, the Project land is completely owned by the Council by virtue of the Government Notice No. 13 of 2000. Previously, LGAs were not required to have a certificate of title for land allocated to them for various Projects, therefore KMC did not have a title for the Msasani fish market. However, due to increased trespassing and land disputes in areas with no titles, all LGAs are now required to survey and obtain certificates of title for all land they own. Accordingly, KMC are in the process of obtaining a title and have requested the Commissioner of Lands at the Ministry of Land (**the Commissioner**) to process the title (**KMC title**).
- *Right to acquire land* – Generally, local government authorities (LGAs) have the right to acquire land or a right to use any land within or outside its jurisdiction for the purpose of any of its functions given in Section 118 of the Local Government (District Authorities) Act, 1982 (LGDA Act). Specifically in relation to PPPs, Section 12 of the PPP Act 2010 provides that where a PPP Project requires acquisition of land for its implementation, it shall be carried out in accordance with the Land Act, Village Land Act, Land Use Planning Act, the Land Acquisition Act, and any other relevant laws.
- *Lease of land* – The Land Act states that non-citizens shall not be allocated or granted land unless it is for investment purposes under the Tanzania Investment Act (Section 20 of the Land Act). Section 20(4) of the Land Act further states that, a body corporate whose majority shareholders or owners are non-citizens shall be deemed to be a foreign company. A foreign company will not be able to own land in Tanzania under a Granted Right of Occupancy (**GRO**), which is the highest form of title, but it can hold land through the Tanzania Investment Centre (**TIC**) granting the foreign company a Derivative Right for investment purposes. However, a foreign company can rent out land without holding title for a specified period in a lease/sub-lease agreement. According to Section 61(a) of the LGUA Act, LGAs may sell, exchange, let, mortgage or charge any land or premises in its ownership or disposition, with the approval of the Minister in the President's Office-Regional Administration and Local Government.

With this mandate, the LGA as the contracting authority for the purpose of a PPP may sell or lease any land or premises it owns to a private party in order to carry out a PPP Project. However, the process of transferring title in Tanzania may be cumbersome, i.e., as this is government property, any disposition must adhere to the procurement laws under the Public Procurement Act and costly, i.e., payment of capital gains tax by the buyer, which is 10% of the purchase price for a resident and 20% of the purchase price for a non-resident person. Therefore, it would be advisable for KMC to lease the land to ProjectCo for a specified period rather than to transfer the KMC Msasani title to the latter. The provisions of the lease will be provided for under the PPP Agreement should include ProjectCo's obligations to build, operate and maintain the fish auction market for a period of 15 years. There is no minimum required value for the lease, the parties will have to decide on this during the negotiations. On the expiry of this period, and in the absence of an extension, KMC will resume the operation and management of the Msasani fish auction market. Thus, the ownership of the KMC Msasani title remains with the KMC, while the operation and management of the assets and economic activities is transferred to the ProjectCo for the duration of the Project.

- *Land as security* – Land owned by the LGA can be used as security for a loan. According to Section 119(a) of the LGDA Act, with the approval of the Minister in the President's Office-Regional Administration and Local Government, LGAs may sell, exchange, let, mortgage or charge any land or premises in its ownership or disposition. Thus with this mandate, KMC may use the land in the Msasani fish auction market to secure a loan from a lender. As ProjectCo will only lease out the land from KMC and will not have the KMC Msasani title, ProjectCo cannot use the title as security. Moreover, Section 8(2) (b) of the PPP Act 2010 provides that the ProjectCo is responsible for mobilizing resources, thus ProjectCo will be required to secure the funding without relying on the KMC Msasani title.

Moreover, Regulation 74 of the PPP Regulations provides that the contracting authority and the Ministry of Finance must approve any proposed refinancing of the debt extended by lenders to the Project. If the ProjectCo requires securing a loan by using the land owned by KMC in order to develop Msasani fish auction market, ProjectCo must seek the approval of the KMC and the Ministry of Finance. Any liabilities on KMC and ProjectCo must be clearly provided for in the PPP agreement to ensure KMC does not lose the land in case of default. Additionally, the loan provided should not exceed the duration of the Project. The loan can only be for a maximum of 20 years (where PPP agreement has been extended).

However, in practice, KMC would be reluctant to allow the KMC title to be used as security for a loan. KMC would expect ProjectCo to finance the Project without relying on the KMC title as security for a mortgage.

#### PPP implementation

- *Eligibility for PPP* – The following is a non-exhaustive list of Projects in productive and social sectors that are eligible for PPP in Tanzania (Section 4(4) of the PPP Act 2010): agriculture, infrastructure, industry and manufacturing, exploration and mining, education, health, environment and waste management, information and communication technology, trade and marketing, sports, entertainment and recreation, natural resources and tourism and energy. The Msasani fish auction market Project falls under the trade and marketing category and thus qualifies to be developed under a PPP arrangement. Further, the maximum limit for PPP Projects to be carried out by an LGA is USD 70 million (Regulation 76(2) (a) of the PPP Regulations). Thus the Project amount of USD 4.1 million falls within the scope for an LGA, in this case the KMC, carrying a PPP Project.
- *Transfer of assets* – According to Section 11(3) of the PPP Act 2010, a contracting authority and the ProjectCo may enter into an agreement which among other things provides that the ProjectCo would return any assets belonging to the contracting authority at the end of the agreement. Further, Section 11(4) of the PPP Act 2010 provides additional conditions to be included in the PPP agreement to ensure that the ProjectCo undertakes to perform the functions of the contracting authority on the latter's behalf for a specified period and will be liable for any risks arising from the performance of its functions.

Pursuant to the provisions mentioned above, KMC may transfer any assets within the Msasani fish auction market to ProjectCo for the duration of the PPP agreement. These assets may include the facilities, such as retail outlets, washrooms and parking among others which ProjectCo will build operate and manage. The ProjectCo can perform functions on KMC's behalf for a specified period of time which shall not exceed 15 years being the duration for small-scale PPP Projects as provided for under Regulation 76(2) (b) of the PPP Regulations 2015. However, the duration may be extended for a maximum of five years in case of delay or interruptions unforeseen by both parties, Project suspension not caused by the ProjectCo or an unforeseen increase of costs arising from the contracting authority (Regulation 84 of the PPP Regulations 2015).

At the end of the PPP agreement, the ProjectCo will be required to hand back the assets to KMC. The procedure and requirements for handing back assets has been provided under Regulation 97 of the PPP Regulations 2015 to include the description of assets to be handed over, maintenance requirements and the right of the contracting authority to inspect the assets before hand-back

- *Right to collect user charge* – LGAs have been mandated to charge rent or fees in respect to the occupation use or hire of land or premises (Section 61(b) of the LGUA Act). Further, Section 66(1) of the LGUA Act provides that LGAs may charge fees for any service or facility provided by it or for any license or permit



issued by the LGA. Thus, KMC may charge rent, fees or tariffs to businesses or persons occupying or using the facilities in the Msasani fish auction market according to the by-laws. Under the PPP agreement, the contracting authority and ProjectCo may stipulate what the contracting authority will pay the ProjectCo by way of compensation from a revenue fund of charges or fees collected by the ProjectCo from users or customers of the of the service provided by it.

Accordingly, the PPP agreement between the KMC and the ProjectCo may provide (among other things) to lease and collect rent from the tenants (fishermen/ fish retailers/kiosks) occupying the buildings developed under the PPP. The transfer of these rights will be for the stated period in the PPP agreement, which should not exceed 20 years where there is an extension.

In terms of revenue derived from the user rights, the PPP agreement should indicate how the revenue will be split between the LGA and ProjectCo. As the ProjectCo is able to charge any user charges such as parking fees, shop rental fees, use of facilities, the ProjectCo may set up an account where such funds will be deposited. However, applicable taxes chargeable to the users will be paid to the Tanzania Revenue Authority (TRA) and these will not be remitted to the ProjectCo.

In conclusion, Msasani fish auction market Project can be carried as a PPP. Once the tendering process has been carried out, KMC and ProjectCo will enter into a PPP agreement stipulating the terms for carrying out the Project. The duration of the PPP Agreement should not exceed 15 years unless an extension that shall not exceed five years has been granted.

With regard to the land title, KMC has to ensure that they obtain the KMC title prior to initiating the Msasani fish auction market Project. Failure to obtain the land title in time may cause a delay in the commencement of the Project. The PPP agreement between KMC and the ProjectCo will provide, among other things, for KMC to lease out the land and its assets to ProjectCo.

Therefore, there will be no need for a separate lease agreement, as this will be sufficiently provided for under the PPP agreement. We also recommend that KMC should not permit the KMC title to be used as security for the ProjectCo to obtain funding. The buildings constructed on the land remain under the ownership of KMC, and this is an important constraint in the PPP structuring, as it prevents the use of the buildings as security for a loan.

## 7.3 Social and environment aspects

### Social and environmental challenges

The Msasani fish market Project involves challenges related to both social and environmental aspects. These challenges will differ from one phase to another (from construction period to operation period). Potential environmental challenges include demolition, construction waste and dust, noise nuisance, traffic congestion, air pollution, soil and water pollution. Potential social challenges include risk of diseases, workers safety and rights and temporary relocation of fishermen and fish retailers. The magnitude, extent and duration of these risks will be helpful in determining its severity and will help in prioritising the challenges accordingly. Lastly, appropriate mitigation strategies have been suggested to overcome these challenges and mitigate their impact. Details are included in Section 13.1.

### Project categorisation

According to the IFC categorisation scheme, the proposed Msasani fish market Project in Dar es Salaam, Tanzania falls under Category B Project. The Projects in this category entail business activities with potential limited adverse environmental or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures. However, according to Tanzania EIA and Audit Regulations (2005), the proposed Msasani fish market Project falls under mandatory list, which entails a full-fledged environmental and social impact assessment.

### IFC Performance Standards



The IFC Performance Standards (PS), which are relevant or will be triggered by the proposed development of Msasani fish market Project, include PS1, PS2, PS3 and PS4.

- *Performance Standard 1 (PS1)* - Covers assessment and management of environmental and social risks and impact, which require a thorough environmental and social assessment that includes undertaking adequate stakeholder engagement and disclosure of Project information.
- *Performance Standard 2 (PS2)* - Covers labor and working conditions which recognises that the pursuit of economic growth through employment creation and income generation should be accompanied by protection of the fundamental rights of workers.
- *Performance Standard 3 (PS3)* - Deals with resource efficiency and pollution prevention, which recognises that increased economic activity and urbanization often generate increased levels of pollution that may threaten people and the environment at the local, regional, and global levels. At the same time, more efficient and effective resource use and pollution prevention and GHG emission avoidance and mitigation technologies and practices have become more accessible and achievable in virtually all parts of the world.
- *Performance Standard 4 (PS4)* - Covers Community Health, Safety, and Security and recognises that Project activities, equipment and infrastructure can increase community exposure to risks and impacts. These IFC-PS are covered in detail in Section 13.1.

#### Relocation strategy

Currently, the Kinondoni Municipal Council owns about 1 acre of land at the Project site, which is sufficient for the development of a fish market. Following the guidance from the LGA and the Project needs, we have only considered the existing 1 acre of land for development under the current Project and hence Relocation Action Plan (RAP) would be required as the existing fishermen would need to be relocated which has been explained below.

The relocation strategy submitted by LGA proposes to relocate all the fishermen and fish retailers to a place near the mosque (Masjidi Al, nuaar), adjacent to Block B plot 20-22 Msasani Village. The land is owned by the Masjidi Al, nuaar Mosque. These will accommodate auction area and fishermen as well as the fish retailers where by the mosque authority will provide temporary space for car parking and the other side will accommodate food vendors (mamalishe) and other shops. The size of land parcel where the trader would be relocated is spread over 3,060 sq m area and is only 139 meters away from the existing Msasani fish auction market.

More than 90% of the fisherman and fish retailers are willing to relocate. Their only concerns were the availability of basic facilities, such as water supply and electricity, in the relocation area and assurance of acquiring spaces after redevelopment of the market. They would only be willing with assurance to get their space back after construction and assurance to be relocated in a place where they can continue to conduct their daily fishing activities.

Currently, there are no existing facilities at the relocation site. Thereby, it has been proposed that temporary shelters shall be set out in place to accommodate fishermen and fish retailers and auction area (costs to be borne by Kinondoni Municipal Council). Temporary toilets would be allocated around the relocation area and electricity facilities as well as water tank will be extended towards the planned relocation area.

Based on the above, we do not discern any environmental or social impediment in the implementation of this Project.

## **7.4 Social due diligence undertaken by World Bank**

Based on the study conducted by the World Bank safeguard team, the construction of the Msasani fish market will have the following social economic impact:

- *Loss of livelihood:* Temporary loss of business and livelihood of around 500 traders/fishermen, following their temporary relocation to pave the way for construction

- *Diseases:* Overpopulation at the new relocation site may increase the chance of spread of waterborne diseases such as diarrhea

As per the World Bank safeguard team, the following steps are recommended to address the situation:

- *Stakeholder consultations and engagement plan (SCEP):* Prepare a SCEP and communicate it to the World Bank. The SCEP is very important, particularly to inform people about the Project
- *Relocation action plan:* Prepare a RAP. As part of the RAP, conduct an economic baseline survey and generate baseline data for all traders in the market. The baseline data will help geo-reference traders with existing trading space and personal information, as well as the type of business a trader is engaged in. This data should be gathered based on business categories. The process involves detailing the process of temporary relocation, compensating the traders for the temporary loss of income due to relocation, registering all the traders interested in returning to the market following the completion of the upgrade and assigning designated slots to the returning traders
- *Detailed assessment of potential host markets:* Carry out a detailed assessment of the current capacity of the proposed site where traders from MFAM are to be temporarily hosted and share the report with the World Bank. In choosing the host market, traders are to be consulted
- *Assurance to traders:* Assurances should be in place that the traders will be placed in the newly-constructed market on a priority basis, following the registration information included in the database
- *Facilities at relocation site:* Furnish the proposed site with basic facilities such as a shed, washroom, electricity and water
- *Phasing of construction:* Undertake the construction in phases so that some activities such as 'mama lishe' can continue in the old market

The detailed social due diligence undertaken independently by the World Bank can be referred to in section 18 of the final pre-feasibility report.



## 8. Next steps

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*This chapter ties together the conclusions from the previous chapters. It also explains the Project implementation and procurement plans, including the proposed bidding criteria and procurement strategy. It deepens our understanding of how the Project's milestones can be achieved within the given timeframe.*

### 8.1 Conclusions

Based on our current findings, we assess the proposed Project to be economically, commercially and financially viable, besides providing the VfM to Kinondoni municipal council (KMC). The proposed Project meets all requirements set out in local laws and regulations, in particular the PPP law.

#### Strategic case

We observe a strong demand for the Project's services from fishermen, fish retailers, and fish consumers. We confirm that the Project is strategically aligned with various national development plans of Tanzania and will help in improving economic conditions and contribute to social welfare.

#### Economic case

The Project entails economic internal rate of return (EIRR) of 20.1% and economic net present value (NPV) of USD 4 million. Even in the worst case scenario (project capex increases by 20%), it results in a convincing EIRR of 18.2% and economic net present value (ENPV) of USD 3.5 million over 30 years. We thus conclude that the Project is unequivocally economically viable.

#### Commercial case

We recommend a design, build, finance, operate, maintain and transfer (DBFOMT) contract with a concession period of 15 years. Based on the PPP structure, the various Project risks have been distributed among the contract parties.

Msasani fish market is planned as a three-floor building. The ground floor would have a cold storage facility, ice factory, and fish auction hall; it would be partially within the building and partially extended outward. The first floor would have a restaurant and an admin office. The second floor would have an admin office, other office space, and frying area. The roof of the building would be used for fish drying purposes and there would be proper toilets on each floor along with service lifts. Our recommended payment mechanism clearly points to Project Co collecting fees, as this would ensure robustness of the incentive structures. A revenue-sharing percentage might be considered. This section also covers details of the procurement process, recommended payment mechanism and its accountancy treatment.

#### Financial case

A VfM analysis was carried out pointing to the preference of doing the Project on a PPP basis as it is USD 5.8 million cheaper than the public procurement route. Also, based on the financial model prepared, we found that the Project is financially viable with Project IRR of 19% and equity IRR of 20% for the 15-year concession period.

Our Project estimates can be revisited in following phases of Project development. If capex or opex is higher or revenues are lower than financial enhancement strategies might be required. For instance, if capex increases by 20%, then the government must provide 10-15% upfront VGF to make the Project viable. And, if

revenue decreases by 20%, then the government must provide 15-20% upfront VGF to make the Project viable.

#### Management case

Capex is estimated at USD 4.1 million and under the maximum limit of USD 70 million, which renders the Project eligible for PPP. The PPP agreement signed will be of maximum 15-year duration. KMC would retain ownership of the land and lease it out to Project Co for the concession period. KMC should not allow the land title to be used as security by Project Co to obtain financing. From a social and environmental perspective, Msasani fish auction market Project can be categorized as Category B under International Finance Corporation's (IFC) categorization scheme. Various IFC performance standards, which the Project will involve, have been identified and mitigation strategies for the same have been formulated.

## 8.2 Procurement strategy and plan

This section covers the Project's procurement strategy which comprises the procurement process to be used, bidding criteria for evaluation of bids and a detailed plan to execute this procurement strategy and select the best bidder in terms of both technical and financial capability.

#### Procurement strategy

The proposed procurement strategy aims at an international competitive bidding process in accordance with the Tanzanian PPP policy, PPP law and PPP Regulations 2015. The procurement process would involve two phases – prequalification and proposal stages. We propose a two-envelope system with separate technical and financial proposals. We recommend a technical proposal evaluation as pass/fail and a scoring mechanism for the financial proposal.

As financial bidding variables, we list proposed fees (lower the better), required VGF (lower the better) or a revenue-sharing percentage (higher the better). Decisions regarding these will be taken in the feasibility phase.

Finally, in the procurement process, we recommend to pay attention to the structure of proposed consortium, combining for example, a developer, an engineering, procurement and construction (EPC) contractor, and an O&M contractor. It is crucial that the ProjectCo has adequate past experience in all PPP components, i.e., the DBFOMT components, in addition to a sound financial position. Bid bonds or similar arrangements requiring bidders to commit to the terms of their bids should be considered.

The potential bidders will be provided guidance during the procurement process in order to improve participation by providing briefing sessions on what is involved in a PPP. Also, template financial models and draft PPP agreement will be shared with the bidders.

An online data room will be established to provide background information to potential bidders. This will include standard building design plans, which bidders will be allowed to refine through the bidding process. The data room will also include a stock-take of total number of traders, types of traders, daily or monthly fees currently being paid by them, current locations, and connectivity to the proposed Project site.

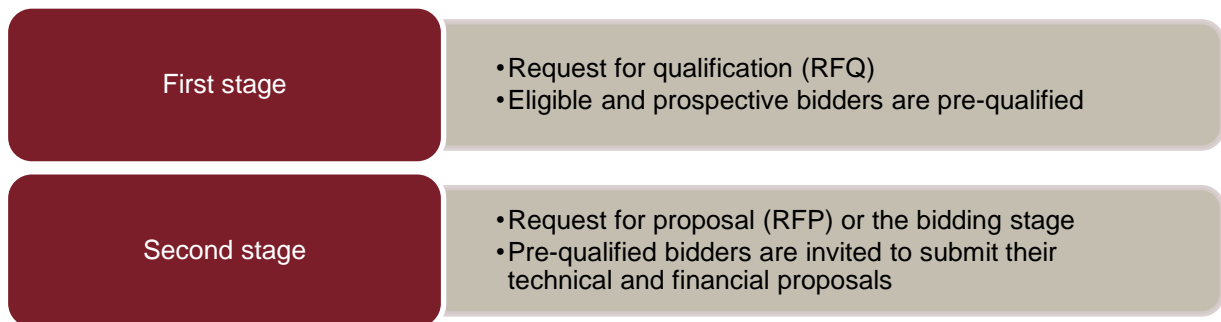
#### Project procurement plan

The plan consists of the following main stages:

- *Stage 1 - Appointment of transaction advisor* - Post submission and approval of the final pre-feasibility report prepared by technical and financial consultants, the PPP node will float a request for qualification (RFQ). RFQs submitted will be evaluated and then requests for proposal (RFP) would be floated to select the transaction advisor based on quality and cost-based selection (QCBS). In the QCBS method, a transaction advisor is selected, based on its technical and financial qualifications to carry out transaction advisory services to the Project.

- *Stage 2 - Feasibility study and final procurement plan* - The transaction advisor would revisit our study (effectively resulting in a feasibility study) and then come up with the final structure and all pertinent details, post which he can prepare the bidding documents. The transaction advisor selected would also be responsible for undertaking a detailed social-cum-environmental study. Post approval of the same by local government authorities (LGA) and PPP node, the transaction advisor, in conjunction with the Project procurement team of Kinondoni Municipal Council, would be responsible for selecting ProjectCo for construction, operation and maintenance of the fish auction market.
- *Stage 3 - Prequalification stage* - In this phase the bidding documents including the RFQ, RFP and draft PPP agreement will be prepared. The procurement will be conducted in accordance with the PPP Policy, 2009, PPP Act 2010 and PPP Regulations 2011. According to the PPP Act 2010, a two-stage open tender process needs to be adopted. In line with the PPP Policy 2009 and the PPP Act 2010, RFQ will be issued as an advertisement for the pre-qualification stage and shortlisting qualified bidders.
- *Stage 4 - Bidding phase* - The shortlisted bidders will be issued the RFP which shall set out the bidding details and presentation of the financial and technical bid. Preferably a draft PPP agreement will also be issued in the bidding phase and bidders would be asked to seek any clarifications on it. This is to help finalize the PPP agreement so the final negotiations with the preferred bidder are minimal.

A bidders' conference should preferably be organized in which shortlisted bidders can raise questions. We recommend a two-envelope system, separating financial and technical bids. The technical proposals should preferably be assessed on pass/fail basis. Only the technical proposals that pass, proceed to opening their financial proposals.



- *Stage 5 - Signing of PPP agreement* - Kinondoni Municipal Council will be the contracting authority. Project Co and KMC will be signatories to the PPP agreement. KMC is responsible for:
  - a) Measuring outputs of the PPP agreement;
  - b) Monitoring implementation of the PPP agreement and performance of ProjectCo;
  - c) Overseeing day-to-day management of the PPP agreement; and
  - d) Reporting on the PPP agreement in the contracting authority's annual report.

For any material amendments in the PPP agreement, approval of the PPP node under President's office-regional administration and local government (PO-RALG) is required. The PPP node shall provide a variation only if it is satisfied that the PPP agreement, after the amendments, will continue to provide VfM, affordability and substantial technical, operational and financial risk transfer to ProjectCo. Strict handover conditions will be set in the PPP agreement to ensure the asset is handed over in a well-maintained, workable condition.

- *Stage 6 - Monitoring during the construction period* - During the construction period, KMC may appoint an owner's engineer with the required experience to review designs prepared by the ProjectCo, provide recommendations for approval of the designs, and supervise construction works to ensure that the development of facilities meets the standards and specifications provided for in the PPP agreement. The owner's engineer shall provide periodic reports and updates to the municipal council regarding the progress of the construction till the commissioning of the facilities.

Preliminary procurement schedule

The tentative procurement schedule presents the main tasks of procuring a transaction advisor, issuing request for qualifications, shortlisting potential applicants, and getting approval from higher authority in bidding phase during which the request for quote is issued to potential applicants. The bids are evaluated and the preferred bidder is selected and notified. The preferred bidder is then invited for final contract negotiation following which the Project agreement can be executed. Tentative procurement milestones are depicted in figure below.

**Table 8.1: Procurement milestones**

Tasks	Q1			Q2			Q3			Q4			Q5			
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	
Transaction Advisory	█															
Request for Qualification							█									
Shortlisting and Getting Approval									█							
Bidding Phase										█						
Evaluation of Bids													█			
Selection of Preferred Bidder														█		
Final Contract Negotiation														█		
Executing Project Agreement															█	

Source: Consultant

### 8.3 Project implementation plan

Clear definitions and procedures of the various tasks and administrative approvals from competent authorities at different stages of Project implementation process are necessary in running a successful PPP programme. Presented below are the main activities to be carried out by the KMC.

Proof of land ownership

As per preliminary discussions, the municipal council currently owns one acre of land. The payment for title deed of the land has been made and the title is currently being processed. As such, a copy of title deed of the land has not been provided to the consultant as of now. The copy of the land title deed needs to be provided to conduct a land search to verify ownership of the property.

Future increment in fees

Fees to be raised by the municipal council every three years; the increment should be linked to inflation rate implying that at current rates, the tariffs can be revised to the tune of 25% every three years. The municipal council will need to include the bylaws to reflect future increments in rates, and disseminate the same information among fishermen, fish retailers, food vendors, and kiosk tenants.

Resettlement of existing fishermen, fish retailers and others

The municipal council would bear the costs of setting up temporary shelters, to accommodate existing fishermen, fish retailers, food vendors and kiosk tenants, as well as an auction area. Temporary toilets need to be set up around the relocation area and water tank needs to be extended towards the planned relocation area along with electricity facilities.



**Table 8.2: Implementation plan**

Tasks	Selection of Transaction Advisor	Bidding Phase	Construction Phase	Operation Phase
	(0-0.5 Year)	(0.5- 1 Year)	(1- 3 Years)	(3-15 Years)
Proof of land ownership				
Resettlement of fishermen, retailers				
Increment of fees				

Source: Consultant

## 9. Annexure 1: Bill of Quantities (BOQ)



The bill of quantities (BOQ) for the Project has been prepared using bottom-up approach. The technical team has calculated the individual cost of development of auction halls, cold storage, ice factory, office spaces, admin block, retail outlets, restaurants, etc. to arrive at overall cost. Total capex for Msasani fish market has been estimated to be TZS 9,496 million (USD 4.13 million) for a total built up area of 6,955 sqm. Hence, the cost/sqm of built up area has been derived as TZS 1.37 million (USD 594). Civil works denotes the major share of the total Project capex i.e. 47% followed by plant and machinery cost i.e. 15.3% and electrical works i.e. 6% of the total Project capex. Consultancy fees and contingencies share 8.7% and 6.8% of the total Project capex respectively. Below is a table presenting estimated capex for the proposed Project.

**Table 9.1: Capex of the Project**

S/No.	Particulars of the work	Amount (in TZS Million)	Amount (in USD Million)	Percentage share of total Project cost
1	Site development	22	0.01	0.2%
2	Civil works	4,472	1.94	47.0%
3	Plant and Machinery	1438	0.63	15.3%
4	Electrical works	571	0.25	6.1%
5	Common utilities	40	0.02	0.5%
6	E&S capacity building cost @0.5%	33	0.01	0.24%
7	Consultancy fee @12.5%	818	0.36	8.7%
8	Contingency @10%	654	0.28	6.8%
	<b>Grand total</b>	<b>8,047</b>	<b>3.5</b>	-
9	VAT tax @18% of grand total	1,449	0.63	15.3%
	<b>Total Project capex</b>	<b>9,496</b>	<b>4.13</b>	100.0%

Source: Consultant

**Table 9.2: Detailed area statement of the project**

Area statement	Total built-up area (sq m)
Auction building	4,296
Total built-up area for cold storage	800
Total built-up area for ice factory	190
Total built-up area for auction hall	270
Total built-up area for restaurant	1,100
Total built-up area for admin block	371
Total built-up area for office space	300
Total built-up area for frying area	750
Total built-up area for toilets in the building	300
Total built-up area for stairs/lifts and common area	215

Area statement	Total built-up area (sq m)
Total roof-top area for fish drying	1,432
Extended fish auction hall	630
Fish washing, cleaning and processing (scaling/cutting)	409
Retail outlets (selling dried fish), selling vegetables/fruits	288
Parking space and internal movement	1,128
Other facilities	205
<b>Total</b>	<b>6,955</b>
<b>Total project capex (in TZS in Million)</b>	<b>9,496</b>
<b>Total project capex (in USD in Million)</b>	<b>4.13</b>
<b>Cost per sq m of built-up area (in TZS in Million)</b>	<b>1.37</b>
<b>Cost per sq m of built-up area (in USD)</b>	<b>594</b>

Source: Consultant

**Table 9.3: Bill of Quantities (BOQ) of the Project**

S/No.	Particulars of the work	Amount (in TZS Million)	Amount (in USD Million)
1	Site development		
1.1	Land development, drainage, miscellaneous services, etc.	22	0.01
2	Civil works		
2.1	Preliminary Item	212	0.09
a	Definition and terms	0	0.00
b	General requirements and provisions	0	0.00
c	Contractor's establishment on site and general obligation	177	0.08
d	Engineer's accommodation and attendance upon engineer and his site personnel	275	0.12
e	Environmental protection and waste disposal	36	0.02
2.2	Sub-Structures	1,166	0.51
a	Site preparation	12	0.01
b	Excavation and disposal	28	0.01
c	disposal of water and planking and strutting	2	0.00
d	Hardcore or the like	44	0.02
e	Anti-termite treatment	13	0.01
f	Insitu concrete (plain and reinforced)	479	0.21
g	Reinforcement	167	0.07
h	Formwork to insitu concrete	232	0.10
i	Block work	100	0.04
j	Damp proof courses	6	0.00
k	Insitu finishing	42	0.02
l	Three coats weather guard paint	42	0.02

S/No.	Particulars of the work	Amount (in TZS Million)	Amount (in USD Million)
2.3	Frames (Beams and Columns)	1,142	0.50
a	<i>In situ concrete, reinforced</i>	544	0.24
b	<i>Reinforcement</i>	598	0.26
2.4	Walling, Fence and protection wall	178	0.08
a	<i>Block work</i>	45	0.02
b	<i>Building fence</i>	112	0.05
c	<i>Decorating fence</i>	22	0.01
2.5	Roofing	71	0.03
a	<i>Roof covering</i>	47	0.02
b	<i>Structural timber</i>	23	0.01
c	<i>Carpentry sundries</i>	0	0.00
d	<i>Carpenters metal work</i>	0	0.00
2.6	Doors	96	0.04
a	<i>Wood work</i>	74	0.03
b	<i>Iron mongery</i>	22	0.01
2.7	Windows	45	0.02
a	<i>Aluminum windows</i>	45	0.02
2.8	Finishing	204	0.09
a	<i>Floor finishing (tile, slab or block finishing and skirting)</i>	170	0.07
b	<i>Wall finishing (insitu finishing)</i>	35	0.02
2.9	Painting and decorations	37	0.02
a	<i>Internal (plastering)</i>	28	0.01
b	<i>External</i>	9	0.00
2.10	Roof on building top to cover the sardine drying area + slabs and other civil works	34	0.01
	Ground Floor area with floor and tensile roof structure		
2.11	Floating platform (Dock)	345	0.15
2.12	Solid waste management		
	Garbage collection hut	7	0.00
	Trucks for collection of garbage	115	0.05
2.13	Water and drainage		
	Plumbing and drainage	637	0.28
	Overhead Tanks	120	0.05
2.14	Parking space and internal movement		
	Hardcore before concreting	12	0.01
	Concreted parking and internal movement (m <sup>3</sup> )	51	0.02
3	Plant & machinery		
3.1	Service lifts/Pulley system	269	0.12

S/No.	Particulars of the work	Amount (in TZS Million)	Amount (in USD Million)
3.2	Ice making machine	327	0.14
3.3	Cold Storage Equipment and Installation	748	0.33
3.4	Fume hood	94	0.04
4	Electrical works		
4.1	Panel boards, electric cables, fittings, street lights	478	0.21
4.2	DG set	93	0.04
5	Common utilities		
5.1	Firefighting system	37	0.02
5.2	Toilet for hygiene	1	0.00
5.3	Telephone, office furniture, personal computer, photocopier, fax, printer etc.	1	0.00
6	E&S capacity building cost @0.5%	32.71	0.01
7	Consultancy fee @12.5%	818	0.36
8	Contingency @10%	654	0.28
9	Vat tax @18%	1,449	0.63
<b>Total Project capex</b>		<b>9,496</b>	<b>4.13</b>

Source: Consultant



## 10. Annexure 2: Willingness to pay

Below is the summary of findings obtained from assessment conducted in existing Msasani fish auction market with respect to acceptance of development of the proposed Project.

### Current scenario and key participants of survey

The assessment involved the Market Manager and approximate of 27 traders who volunteered. The number covers fishermen, fish retailers, food vendor and kiosks' tenants. The current Project site caters to more than 400 fishermen, 80 and possibly more fish retailers, 12 food vendors, and about more than 15 retail kiosks. The key findings of the willingness to pay survey undertaken at the Msasani fish auction market are as mentioned under:

### Services expected

- *Auction building facilities* -- There should be provision for cold rooms, store, offices, a small meeting room, and toilets along with a hall for auction. The premises should be cross-ventilated and ceiling fans should be provided. Tables with lockers should be provided for fish retailers to store their stuff after working hours. Kiosks should be provided with separate meters for electricity.
- *Separate usage areas* – Food vendors and kiosk tenants mentioned that they preferred to be separated from the fishing activities, e.g., being on their separate building or floor.
- *Ancillary facilities* – Parking spaces for customers and cargo trucks should be provided. Proper restaurants with kitchen, store, dining area, and changing rooms should also be made available.

### Willingness to pay

The responses provided by various interviewees (fishermen, fish retailers, food vendors and kiosk tenants) have been segregated as mentioned under:

**Table 10.1: Market details as per the market manager**

S/N	Item	Comments/ Views
i.	Current Fee from washroom and toilets	The charges are TZS 300 and TZS 500 for using toilet and for showering respectively.
ii.	Number of trader operate in the Market	<p><b>There are:</b></p> <ul style="list-style-type: none"> <li>• More than 80 –fish retailer</li> <li>• Registered 400- fishermen, however there are more</li> <li>• 12 food venders</li> </ul>
iii.	Issues Facing traders	<ul style="list-style-type: none"> <li>• The Market appears to have poor facilities,</li> <li>• The parking space appears not to be enough,</li> <li>• Some sheds appear to be leaking,</li> <li>• Food venders operate on the same shed with fish retailers and they are not well organised.</li> </ul>

Source: Consultant



**Table 10.2: Willingness to pay as per fishermen**

S/N	Item	Comments/ Views
i.	Currently daily income	Up to TZS 1million, but it depends with the capital
ii.	Currently daily fees	None
iii.	Currently Area occupying	There are two auction rooms measures approx. 350 sqm in total.
iv.	The required space	The area appears enough for the current existing number of fishermen
v.	For providing better space additional (50% additional), better facilities which might results in 30% or 50% rise in income how much will you be willing to pay	A fee of 5% of the revenue appears a lot they suggest 3% of the revenue.
vi.	Willingness to be relocated during the Project redevelopment period	Traders may be willing only with assurance to get their space back after construction and assurance to be relocated in a place where they can continue to conduct their daily fishing activities.
vii.	Required facilities	The following are the facilities and features requested: <ul style="list-style-type: none"> <li>• Cold room</li> <li>• Store</li> <li>• Offices</li> <li>• Meeting room</li> <li>• Hall for auction</li> </ul>

Source: Consultant

**Table 10.3: Willingness to pay as per fish retailers**

S/N	Item	Comments/ Views
i.	Currently daily income	Not willing to share
ii.	Currently daily fees	TZS 200 per day
iii.	Currently Area occupying	7.5 sqm concrete table used by 3 traders,
iv.	The required space	2 users to occupy a table of 7.5 sqm rather than to be used by 3 users,
v.	For providing better space additional (50% additional), better facilities which might results in 30% or 50% rise in income how much will you be willing to pay	Some are willing to pay TZS 500 while others are willing to pay up to TZS 1,000 per day,
vi.	Willingness to be relocated during the Project redevelopment period	Traders may be willing only with: <ul style="list-style-type: none"> <li>• assurance to get their space back after construction</li> <li>• Assurance to be relocated in a place where they can continue to conduct their daily fishing activities.</li> <li>• Provision of the basic needs e.g. water, electricity, toilets etc. on the relocation area.</li> </ul>
vii.	Required facilities	The following are the facilities and features requested: <ul style="list-style-type: none"> <li>• Cold room</li> <li>• Area under their tables to store their stuffs after working hours</li> <li>• An area with cross ventilation</li> </ul>

Source: Consultant

**Table 10.4: Willingness to pay as per food vendors**

S/N	Item	Comments/ Views
i.	Currently daily income	Not willing to share
ii.	Currently daily fees	TZS 200 per day
iii.	Currently Area occupying	7.5 sqm concrete table
iv.	The required space	An area reasonable to have cooking area, serving area, dining area and changing are
v.	For providing better space additional (50% additional), better facilities which might results in 30% or 50% rise in income how much will you be willing to pay	Traders are willing to pay TZS 500 per day
vi.	Willingness to be relocated during the Project redevelopment period	Traders may be willing only with: <ul style="list-style-type: none"> <li>• assurance to get their space back after construction</li> <li>• Assurance to be relocated in a place where they can continue to conduct their daily fishing activates.</li> <li>• Provision of the basic need e.g. water, electricity, toilets etc.</li> <li>• To be relocated with fishermen as they depend on them</li> </ul>
vii.	Required facilities	The following are the facilities and features requested: <ul style="list-style-type: none"> <li>• An area with cross ventilation,</li> <li>• Water,</li> <li>• Proper restaurant with kitchen, dining, store, changing rooms,</li> <li>• To be separated with fishing activities e.g. being on their separate building or floor</li> </ul>

Source: Consultant

**Table 10.5: Willingness to pay as per Kiosks owners**

S/N	Item	Comments/ Views
i.	Currently daily income	Not willing to share
ii.	Currently monthly fees	both are paying TZS 15,000 per month
iii.	Currently Area occupying	1.72sqm and 2.88 sqm for micro finance dealer and a shop respectively
iv.	The required space	At least 4sqm and 6 sqm for micro finance dealer and a shop respectively
v.	For providing better space additional (50% additional), better facilities which might results in 30% or 50% rise in income how much will you be willing to pay	Traders are willing to pay up to TZS 30,000 per month upon redevelopment
vi.	Willingness to be relocated during the Project redevelopment period	Traders are willing to be relocated only with: <ul style="list-style-type: none"> <li>• assurance to get their space back after construction</li> <li>• the area for relocation to be in a close proximity,</li> <li>• Provision of the basic needs e.g. water, electricity, toilets etc.</li> <li>• To be relocated with fishermen as they depend on them</li> </ul>

vii.	Required facilities	<p>The following are the facilities, features requested:</p> <ul style="list-style-type: none"> <li>• An area with cross ventilation,</li> <li>• Ceiling fans and good floor,</li> <li>• The stall to have power each with its own separate metre,</li> <li>• To be separated with fishing activities e.g. being on their separate building or floor.</li> </ul>
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Source: Consultant

Willingness to relocate

Currently, the Kinondoni Municipal Council owns about 1 acre of land at the Project site, which is sufficient for the development of a fish market. Following the guidance from the LGA and the Project needs, we have only considered the existing 1 acre of land for development under the current Project and hence Relocation Action Plan (RAP) would be required as the existing fishermen would need to be relocated which has been explained below.

The relocation strategy submitted by LGA proposes to relocate all the fishermen and fish retailers to a place near the mosque (Masjidi Al, nuaar), adjacent to Block B plot 20-22 Msasani Village. The land is owned by the Masjidi Al, nuaar Mosque. These will accommodate auction area and fishermen as well as the fish retailers where by the mosque authority will provide temporary space for car parking and the other side will accommodate food vendors (mamalishe) and other shops. The size of land parcel where the trader would be relocated is spread over 3,060 sq m area and is only 139 meters away from the existing Msasani fish auction market.

More than 90% of the fisherman and fish retailers are willing to relocate. Their only concerns were the availability of basic facilities, such as water supply and electricity, in the relocation area and assurance of acquiring spaces after redevelopment of the market. They would only be willing with assurance to get their space back after construction and assurance to be relocated in a place where they can continue to conduct their daily fishing activities.

Currently, there are no existing facilities at the relocation site. Thereby, it has been proposed that temporary shelters shall be set out in place to accommodate fishermen and fish retailers and auction area (costs to be borne by Kinondoni Municipal Council). Temporary toilets would be allocated around the relocation area and electricity facilities as well as water tank will be extended towards the planned relocation area.



## 11. Annexure 3: Demand study

*This section provides a background of current market rates for commercial and retail development in and around the Project area. It outlines current revenue configuration of the Project and also proposes various revenue sources that can be looked at, to enhance overall revenues.*

### Property rates assessment

The 2012 National Census put Msasani ward's population at 48,920, marking approximately 12% increase from 43,457 of 2002 National Census. The area is occupied by high net worth individuals and thus features a number of shopping centers such as Sea Cliff Village Supermarket, Shoppers Plaza, Mayfair Plaza, and Msasani Mall. Some retail outlets along the main roads like Oyster Bay Hotel shopping area and Dar free market also support daily retail shopping around the area. The



retail outlets measure 2,000 - 13,000 sq m each and rents range from USD 6 to USD 22 (TZS 13,636 to TZS 50,000) per month.

Prime office market in Dar es Salaam is located across several areas – some of them fall in the Msasani Peninsula. Relocation of the US embassy to the southern end of Oyster Bay has further strengthened the commercial nature of the area. Prevailing rents range from USD12 to USD 23 (TZS 27,272 to TZS 52,272) per month. (Exchange rate USD 1 = TZS 2,300).

### Current revenue configuration

As the name suggests, the core commodity of the market is fish. Some fishermen sell the fish through auction and some are retail fish traders. There are also food vendors and retail kiosks in the area. Apart from the fish retailers, there are also individual customers, mostly buying fish for home consumption. Some of these prefer to buy fish via auction while others buy fish from retailers who purchase it from fishermen. The proposed Project is a brownfield Project, on account of which the current revenue configuration has been mentioned as under.

**Table 11.1: Current revenue configuration**

SI No.	Types of traders	Quantity (units or traders)	Fees per day per unit/traders (TZS)	Fees per month per unit/shed (TZS)
1.	Fishermen	400+	Nil	Nil
2.	Fish retailers	80+	200	Not Applicable
3.	Food vendors	12	200	Not Applicable
4.	Shops	15+	Not Applicable	15,000

Source: Consultant



## 12. Annexure 4: Legal due diligence

*This section outlines additional laws which would be applicable for implementation of proposed Project.*

### Use and user rights

Msasani fish market is used as a fish market and some of the land uses identified under the Land Use Regulation include Use Group D- Shops; Use Group E– Special Retail Services (which includes retail markets); and Use Group L- Wholesale and Storage Warehouses. However, since we have not obtained the KMC title, we are unable to provide all the uses attached to the land as this is usually provided for in the title.

Some user rights in Msasani Fish Market include social services/amenities such as public toilets and parking, as well as rent and levies paid to KMC by vendors or suppliers in the market. Project Co may set up an account where such funds will be deposited. However, applicable taxes chargeable to users will be paid to Tanzania Revenue Authority (TRA) and will not be remitted to Project Co

Section 11(4) of the PPP Act 2010 provides additional conditions to be included in the PPP agreement, to ensure that the ProjectCo undertakes to perform the functions of the contracting authority on the latter's behalf for a specified period and will be liable for risks arising from the performance of its functions. Government facilities, equipment or any other state resources required for the Project must be transferred or made available to the ProjectCo in a timely manner and public and private assets clearly specified.

The PPP agreement between KMC and Project Co may provide (among other things) to lease and collect rent from tenants (traders/merchants) occupying the buildings developed under PPP.

### Relevant environmental law and heritage rights

While operating the market, KMC will need to attend to waste management; solid waste management; urban upgrading through drainage canals construction; street lighting; ground water; infrastructure; maintenance of hygiene; and food safety among others. These requirements are provided for under Sections 106, 113, 114, 120, and 123 of Environmental Management Act (EMA). Further provisions related to food safety and hygiene are provided for under TFDC Act.

Section 57(1) of EMA prohibits human activities of a permanent nature or which may, by their nature, compromise or adversely affect conservation and/or the protection of ocean or natural lake shorelines, river bank, water dam or reservoir within 60 meters from the shoreline. Users are required to carry out their human activities 60 meters away from the areas around the coastline, to avoid disruption of their state during the whole lifecycle of that business undertaking or activity. From our visit to Msasani Fish Market, we noted a number of human activities being carried out less than 60 meters from the shoreline.

However, the Minister may issue guidelines to waive the 60 meter requirement, depending on the human activity being carried out in the area (Section 57(2) EMA). For example, in the case of Kivukoni Fish Market of Kinondoni Municipal Council, the 60 meter requirement was waived as the activities being conducted in the fish market, i.e., selling and auctioning of fish relate to the water source (the ocean). Therefore it would have been impractical to require the fishermen to conduct their activities further away from the shoreline. Further, the activities being carried out were not deemed to adversely affect conservation and protection of the ocean.

Below are some relevant licenses which KMC should obtain for Project Co to operate the refurbished Msasani Fish Market.

**Table 12.1: Relevant licenses required**

Permit/Consent/License	Issuing authority	Legislation	Duration
Workplace registration certificate	OSHA	Section 16 of the Occupational Safety and Health Act, Act No. 5 of 2003	The certificate is valid specifically for the workplace and occupier of the workplace for the whole lifecycle of the Project
Compliance certificate	OSHA	Section 17 (3) of the Occupational Safety and Health Act, Act No. 5 of 2003	The certificate is valid for one year and subject to inspection and renewal
Fire safety certificate	FRF	Section 6 of the Fire and Rescue Act, Act No. 14 of 2007, the Fire and Rescue Force (Safety Inspections and Certificates) Regulations, GN No. 106 of 2008	The certificate is valid for the whole lifecycle of the Project and specific to the workplace, or premises The certificate also subjects the holder to inspections
Water discharge permit	Basin Water Board	Section 63 of the Water Resources Management Act, Act No. 11 of 2009, the Water Resources (Water Abstraction, Use and Discharge) Regulations, GN No. 190 of 2010	The permit is valid for the period specified in the permit issued to the occupier

Source: Consultant

### Tax legislation

- *Main tax / revenue laws in Tanzania* - These include the East African Community Customs Management Act, 2004; Income Tax Act, 2004; Stamp Duty Act, Cap. 189; Tax Administration Act, 2015; and Value Added Tax Act, 2014.
- *Main tax / revenue law administered by LGAs* - Local Government Finance Act (LGFA) imposes obligations on how LGAs charge fees on various services within their jurisdiction. Generally, Tanzania Revenue Authority (TRA) tax legislation imposes the following taxes / charges on all types of businesses: Corporate tax of 30%, withholding tax on service fees of 5%; and value-added tax of 18%.

### Labor legislations

The main labor legislations that govern employees and labor matters in Tanzania are ELR Act, ELR Rules made thereunder, labor institutions' legislation, and Wage Order. ELR Act and ELR Rules provide for rights and obligations of employees and employers, employment contracts, wages, types of leave, holiday, probation, trade unions and termination procedure among others. It is important to offer employees contracts which comply with the provisions of ELR Act such as employee particulars, place of recruitment, job description, duration of the contract, probation, annual leave, notice of termination, and employee benefits, i.e., social security contributions among others.

Notably, there are two types of employment contracts in Tanzania, namely, contractual employment, i.e., a traditional 'employee' and an employment for service as an independent contractor. In the former, the employee enters into an employment contract with the employer and works solely for the employer and the employer does not become a client of the employee. In the latter, the employer becomes a customer of the employee and the employee/contractor offers person services not only to the employer but to others as well. The former is governed under ELR Act while the latter is outside typical employment regime.

The Wage Order provides for minimum wages (hourly, daily, weekly, fortnightly, and monthly) to be paid to employees working in various sectors such as domestic workers, small-scale contractors, drivers, trade,



industry and commerce as well as other sectors not mentions. Project Co will be required to adhere to relevant employment legislation, in relation to the employees it hires to carry out operation and management of the Msasani fish auction market.

It is worth noting that if Project Co intends to hire foreigners for construction, operation and management of the Msasani fish auction market, such foreign workers must obtain relevant work and resident permits from the Ministry of Labour and Immigration Department respectively. All engineers and contractors must be registered with the Engineers Registration Board (ERB) and Contractors Registration Board (CRB) respectively. Recent legislative changes favor promoting local content in Tanzania; thus Project Co may be required to outsource most of the goods and services from within Tanzania. Exceptions may be made where the level of expertise of technology required cannot be sourced locally.

### Foreign exchange legislation

Payment in foreign currencies for goods and services in Tanzania is quite unclear. On one hand, Section 26 of BOT Act specifies that legal tender in Tanzania is Tanzania shillings (**TZS**), in the form of bank notes and/or coins. On the other hand, Section 5(b) of Foreign Exchange Act lays down that any person whether resident or non-resident in Tanzania may hold any amount of foreign currency in Tanzania. Further, Section 5(d) of the Foreign Exchange Act authorizes a person, whether resident or non-resident, to open a foreign currency account with any authorized bank. Thus, a wide interpretation of Sections 5(b) and 5(d) of the Foreign Exchange Act may be read as allowing for foreign currency to be used in Tanzania. However, in December 2017, Finance Minister Philip Mpango stated that the law needs to be amended to the effect that Tanzanian residents should not have to pay in foreign currencies for goods and services in-country.

The Ministry of Finance also issued a public statement on their website declaring that it is not prohibited to make price quotations using foreign currencies, as stated under Section 5 of Foreign Exchange Act. Nonetheless, these applications should mainly target clients that are foreigners. Conversely, what may be prohibited is refusing to accept payment in TZS which is the legal tender in Tanzania as provided under Section 26 of BOT Act. Thus, although one can request for payment in foreign currency such as USD, refusal to accept equivalent payment in TZS could be construed as contravening Section 26 of BOT Act.

### Competition legislation

Fair Competition Act 2003 prohibits anticompetitive agreements which are unenforceable if the object, effect or likely effect of the agreement is to appreciably prevent, restrict or distort competition. Fair Competition Act covers markets as well if the underlying agreements could be deemed to be anticompetitive.

### Building and fire codes, as applicable

For Project Co to conducts its business in Tanzania, it would require the following licenses and permits:

- Certificate of incorporation issued by Business Registration and Licensing Agency (**BRELA**);
- Business license from the Ministry of Trade and Industry;
- Tax identification number (**TIN**) certificate issued by TRA;
- Value added tax (**VAT**) certificate issued by TRA;
- Workers compensation fund certificate by Workers Compensation Fund;
- Social security registration;
- Workplace registration certificate -- Occupational Safety and Health Authority (**OSHA**);
- Compliance certificate issued by OSHA;
- Fire safety certificate issued by Tanzania Fire and Rescue Force;

- Building permit from KMC;
- Contractors registration board (CRB) registration; and
- Engineers registration board (ERB) registration.

#### Compliance with land usage regulations

The following uses identified under Land Use Regulations above may be applicable for Msasani fish auction market:

- *Use Group D - Shops* - Buildings for retail trade or retail services but excluding cafés or restaurants, bars (licensed or unlicensed for sale of intoxicating liquor), hairdressers, cleaners and dyers, shops for sale of uncooked meats, fish or fried fish, retail markets and petrol service stations
- *Use Group E* – Special retail services which include shops for retail sale of uncooked meat or fish, fried fish and other hot food, retail markets and informal trade activities
- *Use Group L - Wholesale and storage warehouses* -- Wholesale warehouses designed both for storage of goods and transaction of business (other than retail business) relating to such goods; storage and transit warehouses and go-downs (not including storage of offensive goods or materials); furniture repositories; and wholesale markets where no retail trade is carried out; including, in every case, necessary offices.

Moreover, Section 38 of the LGUA Act provides that each planning authority shall determine planning space standards; density of buildings on land; height, design and appearance and sitting of buildings; and manner of access to land and buildings in its area of jurisdiction in accordance with national standards.

#### Dispute settlement mechanism and legal jurisdiction

The PPP Act 2010 and PPP Regulations 2015 provide that disputes shall be resolved through negotiation, mediation or arbitration (Section 22 of the PPP Act 2010).

In addition, PPP agreements shall be governed by Tanzanian law. This indicates that any arbitration proposed under a PPP agreement, would have to be executed pursuant to the Tanzanian arbitration laws as opposed to international arbitration. Section 11(1) of Permanent Sovereignty Act provides that permanent sovereignty over natural wealth and resources shall not be subject to proceedings in any foreign court or tribunal. There is a wide definition of natural wealth and resources which may encompass goods sold in the fish auction market. Therefore, our interpretation of this provision means that the Government of Tanzania 'refuses' to submit itself before any foreign court or tribunal.

Accordingly, since the PPP agreement will be governed by Tanzanian law, the agreement will state that arbitration will take place in Dar es Salaam.

# 13. Annexure 5: Social and environmental aspects



*This section outlines various social and environmental challenges that the Project will face during different phases and how Project Co will overcome these challenges. It also covers IFC performance standards that the Project must satisfy. Project Co will undertake ESIA and obtain environment certificate as per Tanzanian guidelines. LGA needs to continuously monitor the same by maintaining ESMS.*

## 13.1 Environmental and social challenges

### Challenges in construction phase

- *Construction demolition debris and other solid waste* – Construction debris will be generated from site clearance as a result of demolition of existing stalls and structures. Some of the materials can be salvaged by stall owners. Other solid wastes related to construction that will also be generated include spoil materials, used cement bags, wood and metal cuttings, etc. Mitigation measures could also include: (i) providing wind breakers of appropriate height (~10 meters could be provided); (ii) covering all loose soil or sand or construction or demolition waste or any other construction material that causes dust; (iii) regular water sprinkling on exposed surfaces to reduce dust emissions; (iv) providing adequate waste receptacles; and (v) ensuring regular waste collection.
- *Noise pollution* – High noise pitch arising from construction equipment and machinery can be a cause of complaints from adjoining residents. This is because the site is within built-up, high-density residential area. However, the major source of noise will be trucks that bring materials or supplies to the construction site. Mitigation measures could include: (i) controlling the duration of construction works, especially during night; (ii) providing noise-dampening gadgets; and (iii) ensuring regular maintenance of vehicles and machinery.
- *Traffic management problems* – The Msasani fish market is located within the built-up area, specifically medium to low residential area (beach area). Any jam at the site will quickly be felt in the Msasani neighborhood. Mitigation measures for the traffic impact during construction phase include: (i) managing movement of construction equipment and construction-related vehicles during peak traffic hours, especially on Uhuru Street, (ii) traffic supervision during peak traffic hours on streets surrounding the Project site, (iii) smoothening circulation roads around the fish market area, and (v) creating construction vehicle parking space within the fish market area.
- *Soil and water pollution* – Construction vehicles will generate hydrocarbon discharges (from a limited working area) that will pollute the soils around the Project site. Storm runoff will carry the freshly deposited oil and grease pollutants and transfer it almost directly to the adjacent Indian Ocean. To address this concern, key mitigation measures would include ensuring: (i) regular maintenance of construction vehicles and machinery, and (ii) that the contractor keeps on-hand appropriate equipment, supplies, and materials for containment and clean-up of chemicals in the event of a spill. These materials could include: commercially available spill kits for construction equipment; sorbents for containment and quick pickup of spilled liquids; shovels and backhoes for excavation of contaminated materials; drums, barrels, temporary storage bags for containment and transportation; absorbent pads, oil booms, mats, or equivalent; and washable, reusable rags for cleaning up small lubricant leaks onto machinery.
- *Risks of diseases* – Presence of large-scale construction activities and several construction workers can lead to potential risk of communicable diseases. Mitigation measures include the following: (i) As the Project proposes to deploy local workers at the construction site during working hours who will return to

their residential accommodation at the end of the day, it is expected that this Project will not result in significant increase in interactions or cause unwanted interactions with local communities. In most cases such interactions lead into conflicts due to negative social behavior such as theft, harassment, and even spread of diseases such as STDs especially HIV/AIDS. Therefore, cases of sexual interactions among workers and local communities, unplanned pregnancies and divorce among families are also expected to be low in the absence of worker camps and influx of an outside labor force. (ii) Adequate information will also be provided to workers to prevent communicable diseases and to maintain proper hygiene and health standards. (iii) In addition, the Project will provide for proper drinking water and sanitation facilities for workers, and also for adequate waste collection to properly manage hygiene and sanitation during construction phase.

- *Workers safety and rights* – Work accidents and workers' remuneration can demoralize the working staff, leading to many social problems. Mitigation measures could include: (i) formulation and implementation of Safety, Health and Environmental (SHE) Guidelines, (ii) training workers, (iii) providing personal protection equipment for workers, and (iv) ensuring all workers are given work contracts as well as registering them with Workers Compensation Scheme. As it will not be practical to create any worker camps on the sites, it is suggested that (v) the contractor employs local workers or provides for temporary worker accommodation away from the site. (vi) in addition, temporary facilities on-site could include catering services for food and refreshments, facilities for clean drinking water, temporary toilets for men and women workers, medical first-aid care and health facilities.
- *Temporary relocation of traders* – There are two concerns related to temporary relocation of traders. Firstly, the traders might not agree to shift. A feedback from initial market consultations suggests that traders are likely to shift if they get a temporary relocation place and an assurance that they will be provided permanent fish stalls in the new market. To meet these requirements, the City Council is proposing to temporarily relocate the fish mongers (some may shift to Kivukoni ferry and others to Kunduchi). Secondly, there is a related concern that while these traders opt for temporary relocation, some new traders may illegally set up their stalls or undesignated market points evolve near the present fish market and continue to serve customers. This could erode potential market for traders who opt for temporary relocation. To address this concern, the Council shall discourage emergence of undesignated micro-markets during construction phase through regular inspections and full enforcement, and create awareness amongst Mwasini residents to support the Project.

#### Environmental and social challenges during operation phase

- *Market solid generation and haulage challenges* – Fish markets generate characteristic organic waste that needs immediate attention. The major sources are rotting goods (fish, remains from fish preparations, etc.). Others include packaging materials (mostly worn-out plastics and wooden boxes); food left-overs (from restaurants), sweepings etc. Most of these are highly biodegradable in nature and would cause foul smells. In addition, fish wastes attract flies and other insects. Moreover, in Dar es Salaam, solid waste haulage problems are being experienced by many municipalities. Though markets are among facilities on a priority list for solid waste haulage, of Kinondoni Municipal Council, the resource capacity does not guarantee daily and therefore adequate market waste haulage. It is thus normal to see uncollected market wastes, at many times improperly stored at site. Apart from becoming an eyesore, the uncollected waste heaps are potential sources of food contamination and transmission of diseases like dysentery and diarrhea. Principal mitigation measures include: (i) provision of adequate waste receptacles and (ii) ensuring regular solid waste collection. The Project cost also includes creation of a waste aggregation system including garbage disposal truck for the market.
- *Noise pollution* – Though in general market activities could be a source of noise (especially during peak hours and holidays), noise may not be a concern in this case, since the market has been in existence in the area for many years. Mitigation measures could include: (i) controlling the duration of market operations, especially during nights; (ii) providing noise barriers such as boundary wall, fences and natural

green barriers; and (iii) ensuring regular maintenance of vehicles and machinery within the market compounds.

- *Traffic management problems* – Improved market physical infrastructure will attract many customers and that may cause traffic concerns. The access road serving the market seems inadequate for even existing traffic density. Mitigation measures for traffic impact include improving traffic management around the fish market in Msasani, by clearing obstructions, and/or creating a parking space within the market area.
- *Effluents and hygiene* – This is a major concern. Generally, many markets (normal markets) in Dar es Salaam city are characterized by poor effluent (sewage) disposal facilities and hygienic practices. This exposes traders and customers to great public health risks. Toilets are not sufficient and generally poorly maintained. At many times, there is no flowing water and overflow of effluents. This situation can cause pollution of both groundwater and adjacent Indian Ocean, and thus the beach. Mitigation measures include: (i) provision of adequate drainage around the site; (ii) installation of adequate toilets and sanitation facilities in the Project site; (iii) management of sewage discharge to Dar es Salaam central sewer, (iv) provision of efficient cleaning, sanitation and waste management services in the Project, and (v) training and advocacy of good hygienic practices for both market goods and toilets.
- *Risks of diseases* – Pooling people together in a market environment can be a source of communicable diseases. Much risk is associated with poor functioning of inadequate sanitary systems (public toilets and other wash points). Poor waste collection can aggravate human health risks. Principal mitigation measures could include: (i) maintenance of good hygiene and sanitation in the market facility, and (ii) improved effluent and waste management as mentioned previously.
- *Energy consumption* – Creation of a modern market could result in higher energy consumption. This could be minimized by adopting cost-effective and technically and financially feasibility measures such as energy-efficient designing of the building and use of low-energy consumption equipment. The Project could also examine cost-effective options for rain-water harvesting.

#### IFC Performance Standards

The IFC Performance Standards (PS) that are relevant or will be triggered by the proposed Msasani fish auction market include PS1, PS2, PS3 and PS4.

- *Performance Standard 1 (PS1):* Assessment and management of environmental and social risks and impacts. This requires a thorough environmental and social assessment that includes undertaking adequate stakeholder engagement and disclosure of Project information. PS1 is consistent with national-legal requirement in Tanzania for all Projects to pass through an environmental impact assessment process. According to the Environmental Management Act of 2004 (Cap. 191), it is mandatory to conduct environmental and social impact assessment (ESIA) for all development Projects to be implemented in Tanzania. The law also establishes a system for environmental and social impact assessment and administration that includes screening of Projects, guidelines to conduct ESIA, review, monitoring, etc. The law mandates National Environment Management Council (NEMC) to oversee ESIA administration and give certification and relevant condition on Project implementation.
- Thus, the potential investor for the proposed development of Msasani fish auction market will be required to undertake ESIA in line with Tanzania's guidelines and obtain the environmental certificate before Project implementation.
- *Performance Standard 2 (PS2):* Labor and working conditions: PS2 recognizes that the pursuit of economic growth through employment creation and income generation should be accompanied by protection of fundamental rights of workers. IFC believes that for any business, workforce is a valuable asset and sound worker-management relationship key to sustainability of a company. Failure to establish and foster a sound worker-management relationship can undermine worker commitment and retention, and can jeopardize a Project. The applicability of PS2 is established during the environmental and social



risks and impacts identification process in PS1. According to IFC, implementation of actions necessary to meet requirements of PS2 is managed through the client's environmental and social management system (ESMS).

In Tanzania, three principal legislations address issues of labor and work conditions: (i) Occupation Safety and Health Act (2003), (ii) Employment and Labor Relations Act No. 6 of 2004, and (iii) Workers Compensation Scheme Act. The legislation ensures that workers are treated well and their rights are protected including the right to work in a healthy environment. It also includes other issues pertaining to working hours, remuneration schemes, prohibition of child labor, etc. All these issues will be addressed in the ESIA Report.

- *Performance Standard 3 (PS3): Resource efficiency and pollution prevention:* IFC recognizes that increased economic activity and urbanization often generate high levels of pollution to air, water, and land, and consume finite resources in a manner that may threaten people and the environment at local, regional, and global levels. There is also a growing global consensus that current and Projected atmospheric concentration of greenhouse gases (GHG) threatens public health and welfare of current and future generations. At the same time, more efficient and effective resource use, and pollution prevention and GHG emission avoidance and mitigation technologies and practices have become more accessible and achievable in virtually all parts of the world. These are often implemented through continuous improvement methodologies similar to those used to enhance quality or productivity, which are generally well-known to most industrial, agricultural, and service sector companies. The applicability of PS3 is established during the environmental and social risks and impacts identification process in PS1. According to IFC, implementation of actions necessary to meet the requirements of PS3 is managed through the client's ESMS.

In Tanzania, several legislations address issues of efficient resource use and pollution prevention. These include:

- a) The Environmental Management Act of 2004 – Carrying out ESIA, dealing with pollution issues, waste management, environmental standards, etc.
- b) The Water Resources Management Act No. 11 of 2009 – Issues of water quality and sanitation
- c) Public Health Act 2009 – Issues of control of communicable diseases and ensuring hygienic handling of food in market places
- d) The Environmental Management (Air Quality Standards) Regulations, 2007
- e) The Environmental Management (Water Quality Standards) Regulations, 2007
- f) Solid Waste Management Regulation, 2009 GN. NO. 263 – Issues of solid waste management
- g) The Environmental Management Act (Hazardous Waste Control), 2009

The ESIA for the proposed Msasani fish auction market shall respond to the requirements of these legislations. In addition, Tanzania is a signatory to several international treaties and conventions, including climate change. The ESIA shall also respond to relevant international aspects of the Project in respect to environmental and social sustainability.

- *Performance Standard 4 (PS4): Community health, safety, and security.* PS4 recognizes that Project activities, equipment, and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already subjected to impacts from climate change may also experience an acceleration and/or intensification of impacts due to Project activities. While acknowledging the public authorities' role in promoting health, safety, and security of the public, PS4 addresses the investor's responsibility to avoid or minimize risks and impacts to community health, safety, and security that may



arise from Project-related activities, with particular attention to vulnerable groups. The implementation of actions necessary to meet the requirements of PS4 is managed through the client's ESMS.

In Tanzania, the EIA and Audit Regulations (2005), will require the investor for Msasani fish auction market to take appropriate actions and mitigation measures to ensure that the Project is safe for workers and surrounding communities during mobilization, construction and operation phases of the Project. In addition, PS4 will be complied with, by adhering to the requirements of other relevant legislation such as:

- a) The HIV and AIDS (Prevention and Control) Act of 2008- control of HIV/AIDS spread in Tanzania
- b) Public Health Act 2009 – issues of control of communicable diseases and ensuring hygienic handling of food in market places
- c) Occupation Safety and Health Act (2003) – health and safety during construction and operation phases
- d) National Gender Policy (2002)

Proposed mitigation measures

To offset environmental and social changes that have been identified during this evaluation, mitigation measures have been suggested and are summarized as under.

**Table 13.1: Social and environmental mitigation measures**

No.	Impact indicator	Project activity	Potential impact	Impact qualifier			Mitigation	Monitoring
				Magnitude	Extent	Duration		
<b>Construction phase</b>								
1	Livelihood of existing traders	Temporary relocation of existing traders	Loss of livelihood	M	SS	ST	Provide temporary market site; assist traders in the new location	Number of affected persons and relocated traders
2	Air quality	Demolition of existing structures; foundation works; construction activities	Generation of debris, dust, PM10	M	SS	ST	Application of good construction practices and air quality management procedures, such as: (i) wind breakers of appropriate height (~10 meters); (ii) covering all loose soil or sand or construction or demolition waste or any other construction material that causes dust; (iii) regular water sprinkling on exposed surfaces to reduce dust emissions; (iv) providing adequate waste receptacles; and (v) regular waste collection.	Dust generation, PM10
3	Noise pollution	Demolition of existing structures, foundation works, construction activities	Noise and vibrations issues	S	SS	ST	Application of good construction practices and noise quality management procedures, such as: (i) controlling duration of construction works, especially during nights; (ii) providing noise-dampening gadgets; and (iii) ensuring regular maintenance of vehicles and machinery	Noise levels
4	Solid waste generation	Demolition of existing structures, excavation of foundation	Generation of loose soil, waste material	M	SS	ST	Provide concurrent system for spoil materials collection; reuse the loose soil	Amount of soil and demolition waste generated
5	Worker safety and health	Demolition and construction works	Workers' safety	M	SS	ST	Formulation and implementation of Safety, Health and Environmental (SHE) Guidelines, including: (i) training	Number of worker safety accidents on

No.	Impact indicator	Project activity	Potential impact	Impact qualifier			Mitigation	Monitoring
				Magnitude	Extent	Duration		
							of workers, (ii) provision of personal protection equipment for workers, and (iii) ensuring all workers are given work contracts and registering them with the Workers Compensation Scheme. As it will not be practical to create any worker camps on the sites, it is suggested that: (iv) the contractor employs local workers or provides for temporary worker accommodation away from the site. (v) In addition, on-site temporary facilities could include catering services for food and refreshments, facilities for clean drinking water, temporary toilets for men and women workers, medical first-aid care and health facility.	site; number of trained workers; use of PPEs; Health awareness programmes
6	Traffic accidents and delays	Movement of construction vehicles and materials transportation	Road safety issues	S	R	ST	Traffic management measures, such as: (i) managing movement of construction equipment and construction-related vehicles during peak traffic hours; (ii) traffic supervision during peak traffic hours on the streets surrounding the Project site; and (iii) creation of construction vehicle parking space within the Project area	Implement traffic management plan; number of traffic accidents
7	Soil and water contamination	Movement of construction vehicles, materials and construction activities	Pollution due to chemicals, oil and grease in soil and storm-water run-off to Indian Ocean	M	R	ST	(i) Ensuring regular maintenance of construction vehicles and machinery, and (ii) ensuring that the contractor keeps on-hand appropriate equipment, supplies, and materials for containment and clean-up of chemicals in the event of a spill. These materials could include: commercially available spill kits for construction equipment; sorbents for containment and quick pickup of spilled liquids; shovels and backhoes for excavation of contaminated materials; drums, barrels, temporary storage bags for containment and transportation; absorbent pads, oil booms, mats, or equivalent; and washable, reusable rags for cleaning up small lubricant leaks onto machinery.	Spillage from site

No.	Impact indicator	Project activity	Potential impact	Impact qualifier			Mitigation	Monitoring
				Magnitude	Extent	Duration		
<b>Operation Phase</b>								
1	Traffic accidents and delays	Transportation of goods and passengers to the market	Road safety issues	S	R	LT	Traffic management measures, including: (i) clearing obstructions, and (ii) creation of parking space within the market area	Number of traffic accidents
2	Solid waste and air quality	Goods storage and selling	Solid waste generation and risks of foul smell	L	SS	LT	Implementation of a solid waste management system, including: (i) provision of adequate waste receptacles, (ii) ensuring regular solid waste collection, (iii) creation of a waste aggregation system, and (iv) use of garbage disposal truck for the market	Amount of waste generated; daily waste disposal via market's truck; ambient air quality
3	Effluents and hygiene issues, risk of diseases	Goods storage and selling	Health hazards and diseases	L	R	LT	Implementation of sanitation and effluent management systems (public toilets and other wash points), including: (i) provision of adequate drainage around the site; (ii) installation of adequate toilets and sanitation facilities in the Project site; (iii) management of sewage discharge to Dar es Salaam central sewer; (iv) provision of efficient cleaning, sanitation and waste management services in the Project; and (v) training and advocacy of good hygienic practices for both market goods and toilets.	Functioning public toilets; sewage discharge; epidemics eruption and number of casualties
4	Noise quality	Goods storage and selling	Noise levels due to market operations	S	SS	LT	Implementation of noise control measures, including: (i) controlling duration of market operations, especially during nights; (ii) providing noise barriers such as boundary wall, fences and natural green barriers; and (iii) ensuring regular maintenance of vehicles and machinery operating within the market compound	Noise levels
5	Energy efficiency	Goods storage and selling	Energy consumption	M	SS	LT	This could be minimized through use of cost-effective and technically and financially feasibility measures to reduce energy consumption such as energy-efficient design of the building and use of low-energy consumption equipment. The Project could also examine cost-effective options for rain-water harvesting.	Energy savings

**Impact qualifier: Magnitude (Mt): small (S), medium (M), and large (L); extent: site-specific (SS), regional (R), national (N), and trans-boundary (TB); duration: short term (ST), medium term (MT), and long term (LT).**

Note:

1. Cost of temporary relocation of traders to temporary relocation site and related facilities to be provided thereon shall be estimated and borne by the local council, as per their temporary resettlement plan. No requirement for involuntary resettlement and compensation is anticipated.
2. Costs related to preparing and implementing the Environmental and Social Management Plan shall be borne by the ProjectCo and will be part of the bill of quantities and the Project cost.
3. Costs related to monitoring the implementation of ESMP have been included in design and supervision costs and aggregated under total Project cost estimates.

## Annexure A: Temporary relocation plan for existing fishmongers

### Size

The size of the land parcels for the relocation of the traders is about 3060 sq m. Since the relocation area is close to the beach, there is a need to ensure earth filling to make up level, the level can be up to 3-4 m above. This is essential to avoid overflowing during high tides.

### Capacity

About 60 traders can be accommodated at the proposed site. People will shift to the place close to the mosque (Masjdir Al, nuar) as a part of the plan. These will include auction area and fish traders where by the mosque authority will provide temporary space for car parking and the other side will accommodate food vendors (mamalishe) and other shops.

### Distance

The distance from the current location of the market to the proposed relocation sites is about 139 m. Relocation is expected to take place at the area adjacent to Block B, Plot 20-22, Msasani Village.

### Willingness

100% of the traders interviewed were willing to be relocated to the proposed locations. Their only concerns were availability of basic facilities like water supply and electricity at the relocation area and assurance of acquiring spaces after redevelopment of the market.

### Existing facilities

Temporary shelters shall be set out to accommodate traders and the auction area (costs to be borne by Kinondoni Municipal Council). It is advised that temporary toilets be allocated around the relocation area, and water tank be extended towards the planned relocation area, as well as electricity facilities.

### Ownership

Part of the proposed site area for relocation is owned by Masjdir Al, nuar Mosque, Plot no 196, Title deed number 31757, Land office no 80324, while another side is a public place.



## Annexure B: Overview of IFC performance standards

IFC strives for positive development outcomes in the activities it supports. IFC believes that an important component of achieving positive development outcomes is the environmental and social sustainability of these activities, which IFC pursues and expects to achieve through the application of a comprehensive set of environmental and social performance standards. In cases of business activities with defined use of proceeds and a clearly defined environmental and social footprint, IFC's requirements regarding environmental and social risk management will apply to the business activities financed from funds provided by IFC. However, IFC will encourage its clients to manage environmental and social risks consistently in all their operations.

The performance standards consist of the following:

- *Performance Standard 1:* Assessment and management of environmental and social risks and impact
- *Performance Standard 2:* Labor and working conditions
- *Performance Standard 3:* Resource efficiency and pollution prevention
- *Performance Standard 4:* Community health, safety and security
- *Performance Standard 5:* Land acquisition and involuntary resettlement
- *Performance Standard 6:* Biodiversity conservation and sustainable management of living natural resources
- *Performance Standard 7:* Indigenous peoples
- *Performance Standard 8:* Cultural heritage

Performance Standard 1 establishes the three major importance aspects. First, it integrates assessment to identify the environmental and social impact, risks and opportunities of Projects. Second, it ensures effective community engagement through disclosure of Project-related information and consultation with local communities on matters that directly affect them. Thirdly, it requires the client's management of environmental and social performance throughout the life of the Project. Performance Standards 2 through 8, on the other hand, establish objectives and requirements to avoid, minimize, and where residual impacts remain, to compensate/offset for risks and impact to workers, affected communities, and the environment. While all relevant environmental and social risk and potential impact should be considered part of the assessment, Performance Standards 2 through 8 describe potential environmental and social risks and impact that require particular attention. Where environmental or social risks and impact are identified, the client is required to manage them through its local environmental and social management system (ESMS), consistent with Performance Standard 1.

As part of the review of environmental and social risks and impact of a proposed investment, IFC uses a process of environmental and social categorization to reflect the magnitude of risks and impacts. The resulting category also specifies IFC's institutional requirements for disclosure in accordance with IFC's access to information policy. These categories are:

- *Category A:* Business activities with potential significant adverse environmental or social risks and/or impact that is diverse, irreversible, or unprecedented
- *Category B:* Business activities with potential limited adverse environmental or social risks and/or impact that is limited in number, generally site-specific, largely reversible, and readily addressed through mitigation measures
- *Category C:* Business activities with minimal to no adverse environmental or social risks and/or impact

## Annexure C: Environmental legislation and procedures in Tanzania

### Environmental legislation in Tanzania

Tanzania aims to achieve sustainable development through the rational and sustainable use of natural resources and to incorporate measures that safeguard the environment in any development activities. The drive is envisaged in the National Environmental Policy (NEP) of 1997, which is the policy document that underpins the overall environmental management in the country. As the environment is a cross-sectoral issue, other sectoral policies demand sound management of the environment. The NEP directs the adoption of Environmental Impact Assessment (EIA) as a tool for screening development Projects which are likely to have an adverse environmental impact.

The principal piece of legislation to enforce environmental management is the Environmental Management Act (EMA) No. 20 of (2004), Cap. 191. The EMA (2004) forms an umbrella law on environmental management in Tanzania. Among the major purposes of the EMA are to provide the legal and institutional framework for sustainable management of the environment in Tanzania; to outline principles for management, impact and risk assessment, the prevention and control of pollution, waste management, environmental quality standards, public participation, compliance and enforcement, etc. The Act imposes an obligation on developers to conduct an environmental impact assessment prior to the commencement of the Project to determine whether the Project may or is likely to have, or will have, a significant impact on the environment. Section 81 makes EIA mandatory for all development Projects. On matters pertaining to EIA, the EMA (2004) has been operationalized by the EIA and Environmental Audit Regulations of 2005. The EMA (2004) mandates the National Environment Management Council (NEMC) to manage the EIA process pertaining to Project screening to determine the level of environmental assessment, approval of EIA Terms of Reference and review of EIA Reports, to name just a few. Upon receiving recommendation from NEMC, the minister responsible for environment approves the EIA report and issues an environmental certificate, which is the prerequisite documentation before a Project gets other approvals for implementation. Annex 1 provides a pictorial representation of the EIA process in Tanzania.

### EIA administration

Administratively, the EIA process is handled by the NEMC. The process begins with Project registration (using special forms), accompanied by a Project brief that provides an overview of the Project components and anticipated impact. The NEMC then screens Project by categorizing them in accordance with the Schedules specified in EMA (2004). There are basically two schedules, the mandatory list for which a full EIA is needed and a preliminary assessment list. The entire EIA process from registration to award of certificate may take 90 days (though in practice, it takes longer, between 4-6 months). The PPP Projects shall be subjected to the EIA process in Tanzania. It is important to factor in the timelines to obtain the environmental certificate. Major civil works are subjected to a full EIA study. In this case, a full EIA study entails a comprehensive stakeholder consultation, a thorough appraisal of baseline conditions, formulation of mitigation measures and preparation of an environmental and social management plan (ESMP) and impacts the monitoring of the plan. The classical point of entry of the EIA study in the Project cycle essentially begins at the point of the conception of the Project idea. However, Project registration with NEMC can either be done during the feasibility study or during the detailed design stage. No intermediate certificate is given in the EIA process, although stage approvals are needed for scoping report and draft ToR.

## Annexure D: Estimate of waste generation from the Project

The indicative waste generated from the Project during the operations phase has been quantified.

Water demand						
Sea water	Usage rate		Volume handled		Water demand	
Fish cleaning	1	L/ Kg	8750.12	Kg/ Day	8.75	KLD
Auction hall and other area cleaning	5	L/ Sq m	1668.47	Sq m	8.34	KLD
Fresh water	Usage rate		Volume handled		Water demand	
Ice factory	1	L/Kg	25	TPD	25.00	KLD
Cold chain	5	L/ Sq m	800	Sq m	4.00	KLD
Human demand	30	L/ pax	1000	people	30.00	KLD
Miscellaneous	10%				7.61	KLD
<b>Total</b>					<b>83.70</b>	<b>KLD</b>
Wastewater						
From seawater use ( to be replenished to sea)	80%				13.67	KLD
From fresh water use ( to be taken to septic tank)	80%				33.29	KLD
<b>Total</b>					<b>46.96</b>	<b>KLD</b>
Solid waste generation						
	Waste					
Fish offal and waste	15%	of Kg	8750.12	Kg/ Day	1.31	TPD
Other solid waste	25%	of above			0.33	TPD
<b>Total</b>					<b>1.64</b>	<b>TPD</b>

- *Proposed solid waste management system-* The Project will have two methods of solid waste management, viz.
  - (1) Disposal to composting: For fish offal and related biodegradable waste, the Project will segregate such waste and transport it to municipal site for appropriate disposal. It is anticipated that the local council will develop a common composting facility
  - (2) Disposal to municipal solid waste landfill: It is anticipated that there would be limited municipal-grade solid waste generated in the facility. This would primarily be the inorganic and organic waste generated by the staff, establishment and various inputs and processes that are utilized. It is anticipated that the facility will transport this waste to a municipal waste management site for disposal
- *Proposed waste water management system-* The Project will have two methods of wastewater management, viz.
  - (1) Disposal to sea: The seawater that will be used for fish cleaning and cleaning of auction hall floors and related areas. This water will not have any major pollutants and hence shall be pre-treated through settling tank and disposed to sea
  - (2) Disposal to septic tank: The sewage waste shall be collected in a septic tank which shall be cleaned on a weekly or fortnightly basis, depending upon the usage. As and when the municipal sewer system is made available, the Project shall be connected to the same

## 13.2 Technical Specifications

### Floating Platform

The floating platform can be made from High Density Polyethylene (HDPE) with UV treatment. The material has anti-static and anti-corrosive properties, and skid resistant surface. The HDPE has high strength and has found several uses in marine applications such as floating platforms. The indicative specifications of the material is presented in the following table.

**Table 13.2: Specifications of the material**

Specifications	
Size	L: 50 cms, W: 50 cms, H: 40cms
Weight	7 kg
Load Capacity	350 kg per sqm
Material	High Density Polyethylene
Quality	100% virgin
Life	~ 10 years depending on usage and site conditions

### High Density Polyethylene (HDPE) with UV treatment



**Table 13.3: Cost estimate of floating foam**

Particular	Value	Units	Remarks
1 unit of HDPE float	0.25	sqm	-
Area estimate for Msasani	600	sqm	-
Length	60	m	Assuming 2 floating platforms of 30 m length and 10 m width
Width	10	m	-
Cost per Sqm	250	USD per sqm	-
Cost for building floating platform	15	USD mn	Project supervision, contingency and taxes are additional

Indicative list of equipment for Ice Factory

Ammonia tube ice machine with 169 nos. 1 1/2" O.D. 10' stainless steel tubes, KC3 reciprocating compressor, 94 HP electric motors and conventional stainless steel cutter, freezer water pump, completely piped and wired with stainless steel control panel for automatic operation. The detailed specifications of the proposed 25 TPD capacity tube ice plant is furnished below

**Table 13.4: Technical Specifications of the Ice Tube Plant – 25 TPD**

S/N	Parameter	Details	Quantity
1	Production capacity	25 TPD	1
2	Motor	94 HP	1
3	Ice freezer and accumulator	Ice machine with 135 no's 1 1/2 "O.D. 10" stainless steel tubes	1
4	Cutter	Stainless steel ice cutter driven by 1.5 hp gear motor	1
5	Chilled water pump	2 hp centrifugal cast iron mono block pump with motor	1
6	Water tank	Top and bottom water tank made from stainless with sole noid float level valve	1
7	KC3 reciprocating compressor	Operating as single stage ammonia compressor on steel base completed with Suction and discharge stop valve Oil separator with oil return float valve Pressure gauges panel and pressure switches Water cooled systems for cylinder head top covers Capacity control solenoid Direct - coupling/ V - Belts band guard	1
8	Electrical motor	T9EFC 60hp, 1,440Rpm 400-440V/2ph/50 Hz	1
9	Shell and tube condenser	Fitted out with 10g boiler quality M.S. tubes of tata make with tube sheet and removable end covers with all ammonia and water connections	1
10	Induced draft cooling tower	75TR capacity with 5hp fan	1

**Table 13.5: Automatic Ice Tube Machine**

Sl. No.	Item	Descriptions	Quantity
1	Ice freezer and accumulator	Ice machine with 135 no's 1 1/2 "O.D. 10" stainless steel tubes	1
2	Cutter	Stainless steel ice cutter driven by 1.5 hp gear motor	1
3	Chilled water pump	1.5hp centrifugal cast iron mono block pump with motor	1
4	Water tank	Top and bottom water tank made from stainless with sole noid float level valve	1
5	KC2 reciprocating compressor	Operating as single stage ammonia compressor on steel base completed with Suction and discharge stop valve Oil separator with oil return float valve Pressure gauges panel and pressure switches Water cooled systems for cylinder head top covers Capacity control solenoid	1

Sl. No.	Item	Descriptions	Quantity
		Direct - coupling/ V - Belts band guard	
6	Electrical motor	T9EFC 50hp, 1,440Rpm 400-440V/3ph/50 Hz	1
7	Shell and tube condenser	Fitted out with 10g boiler quality M.S. tubes of tata make with tube sheet and removable end covers with all ammonia and water connections	1
8	Receiver	Provided with liquid inlet and outlet connections couplings for connection of pressure relief valve, purge valve, oil drain valve and for the fixing of liquid level sight glass. The vessel will be given double coat of zinc chromate primer	1
9	Ammonia shut- off valves and control	Stop Valve: "Danfoss" or equivalent Control Valve: "Danfoss" or equivalent	1
10	Ammonia piping and fitting	Pipe: TATA "C" class or equivalent Pipe insulation: Polyurethane foam claded with PVC tape	1
11	Induced draft cooling tower	"50 TR capacity" with 2hp fan	1
12	Condenser water pipe and fixing	(6 meters) Consisting of: Pipe; galvanized TATA "B" class	1
13	Main switch control panel (all the controls used are siemens make)	Main circuit breaker with fuses Branch circuit breaker with fuses Star/Delta starter for compressor motor DOI starter for chilled water pump and condenser water pump DOI starter for cooling tower fan motor Pilot lamps and push button switches	1

Indicative list of equipment for Cold Storage

**Table 13.6: List of equipment for Cold Storage**

A.	Capital Cost	Value	Unit	Total (USD)
A.1	Cold store civil and electrical installations	800	sqm	0.079157
A.2	Equipment			0.245951
	Pallets	500	numbers	0.008
	Racks	8	numbers	0.034
	Stacker	1	numbers	0.028
	Reach Truck	1	numbers	0.071
	Refrigeration Unit	2	numbers	0.085
	Generator	1	numbers	0.014
	Miscellaneous	1		0.006
	<b>Total</b>			<b>0.325108</b>





## 14. Annexure 6: Revenue Collection

Based on the revenue collection study by the market assessment team, we can see that the monthly revenue collected by the LGA has been inconsistent over the period (January 2017 to October 2017). Maximum revenue collected in a month is TZS 487,300 and minimum is TZS 217,500, which is less than 50% of the maximum revenue. Also, during this period, there has been decrease in revenue in four out of ten months. Thereby, we conclude that there is a loss of revenue owing to inefficiency in collection of revenue by the officials. Once, ProjectCo takes charge of the operations of the redeveloped market, it is envisaged that no revenue collection leakage will pertain as ProjectCo is incentivized to maximize revenue and collection of fees is its only source of income.

**Table 14.1: Revenue collection of the Msasani fish market (January 2017- October 2017)**

Year	Month	Revenue collected (TZS)	Revenue collected (USD)
2017	JAN	344,700	151
	FEB	346,600	151
	MAR	487,300	212
	APR	358,400	156
	MAY	250,850	109
	JUN	260,720	113
	JUL	234,600	102
	AUG	405,050	176
	SEP	217,500	95
	OCT	239,900	104

Source: Consultant

# 15. Annexure 7: City infrastructure assessment



*This section deals with the socio-economic profile, demographic status and key economic drives of the KMC, along with the infrastructure levels across six major infrastructural segments i.e. roads, water, solid waste, education, markets and healthcare.*

## Socio-economic profile of Kinondoni Municipal Council

- *Demographics* - Kinondoni municipality in Dar es Salaam covers 321 sq km, and is bordered by the Indian Ocean to the northeast, Ilala district to the south, and Ubungo district to the north. It has good road and communication linkages to the rest of the city and country. The municipality is divided into 20 wards and 106 sub-wards. As per the 2012 census, the municipality had a population of 0.9 million. In 2016, the population was estimated at 1.1 million, clocking a growth rate of 5% per annum – of which males numbered ~0.5 million and females ~0.6 million. The population density in the municipality also rose from 2,896 people per sq km in 2012 to around 3,533 people per sq km in 2016. In 2016, the municipality had 283,552 households, with an average of four persons per household.
- *Economic drivers* - The working population in 2016 comprised ~72% share of the municipality's overall population. Of this, 61% were engaged with the private sector, 35% were self-employed, and 4% employed in the public sector. The most common jobs were that of petty traders, fishing, livestock keeping and agricultural activities.

## Benchmarking of infrastructure metrics

The following section outlines the current status, demand and overall deficit with regard to six types of infrastructure facilities, namely roads, water supply, solid waste, education, municipal markets and healthcare. The World Bank and World Health Organization (WHO) norms, or norms applicable in comparable developing countries, have been considered for the overall demand and deficit parameters.

**Table 15.1: Status of infrastructure in Kinondoni Municipal Council**

Roads			Water supply				Solid waste				
Tarmac/ gravel/ dirt	Good/ fair/poor condition	Single lane/ 2-lane/4-lane	% coverage		Per capita supply of water	Generation	Collection				
Total road length – 1,509 km Tarmac: 141 km (9%) Gravel: 381 km (25%) Dirt: 988 km (66%)	Good condition: 109 km (7%) Fair condition: 526 km (35%) Poor condition: 873 km (58%)	All are single lane	51 million liters provided by DAWASA 23 million liters provided by bore wells 69% connected to water supply grid 6% depend on bore wells 25% depend on publicly available water sources		65 lpcd	1,223 tons	826 tons				
Schools			Municipal markets		Healthcare						
No of primary schools	No of students enrolled	Average capacity of school	No of secondary schools	No of students enrolled	Average capacity of school	No of municipal markets	Average area of municipal market	No of hospitals	Average no of beds per hospital	No of health centers	Average no of beds per health centre
140	114,359	Not Available	86	34,707	31,200	15	2,200 sq m	13	254	2	10

Source: Discussions held with LGAs

## Current infrastructure demand and deficit

- **Roads:** The council has a total road length of 1,509 km, with all roads currently single lane. 66% of the roads are dirt roads, with the remaining 34% either tarmac or gravel roads. Further, 58% of the roads are in poor condition, with 42% in either good or fair condition. Demand for development of roads is driven by primarily two factors:
  - Comparison with national-level norms
  - Redevelopment of roads that are in poor condition and need to be renovated

As per Africa Development Indicators, published by the World Bank, average road density (road km per 100 sq km of land area) for Tanzania was calculated as 9.6. Given the total road length of 1,059 km over an area of 321 sq km, the road density in Kinondoni Municipality is more than the country average by a significant margin, i.e 470 km per 100 sq km (land area of Kinondoni municipal council is 321 sq km). Thereby, the total road length that needs to be redeveloped is ~874 km (58% of the roads), which are in poor condition.

- **Water supply:** The water supplied by DAWASA is around 51 million liters per day, whereas water extracted from bore wells is around 23 million liters per day. Thus, total water supply is around 74 million liters on a daily basis. Given the total population of the municipal council is 1,134,211, total water being supplied per capita per day is around 65 liters only. 69% of the households are connected to the water supply grid, whereas close to 6% source water from bore wells. The remaining 25% obtain water from publicly available water sources. As per norms followed in comparable developing countries, the water supplied in liters per capita per day (lpcd) should be between 100 and 150 lpcd. Hence, there is a deficit of approximately 26 to 74 lpcd.
- **Solid waste:** Total solid waste generated per day is ~1,223 tons, whereas solid waste collected is only 826 tons. There are currently 27 trucks with a carrying capacity of 15 tons each. The vehicles make two trips per day to the Pugu Kinyamwezi landfill site. Given the solid waste collected is only 826 of 1,223 tons, either 13 additional trucks with a capacity of 15 tons each will be required or the current trucks will need to make three trips daily.
- **Education:** There are 154 primary schools (government and private) with a capacity of ~185,640 students. The total number of students enrolled is 114,359, resulting in a high enrolment ratio of 91%. However, the total number of students within 7-13 years (eligible for primary education) is 147,049.

There are 86 secondary schools (government and private) with a capacity of 31,200 students. However, currently, the total number of students enrolled is 34,707, resulting in an enrolment ratio of over 100%. Assuming that the capacity of every secondary school is ~360 students, an additional 10 secondary schools would be required.

- **Markets:** The municipal council has 15 markets, the average area per market being ~2,200 sq m. This translates into retail space of 0.03 sq m per capita, considerably lower than comparable developing nations which have a retail space of 0.19 sq m per capita, a deficit of 0.16 sq m per capita. Thereby, an additional 83 markets will be required to match the standards of comparable developing countries.
- **Healthcare:** Given that Kinondoni has a population of 1,775,049, a total of 8,875 beds will be required as per WHO norms. Currently, there are only 13 hospitals with 254 beds each and two health centres with 10 beds each. Thereby, only 3,322 beds are available within the municipal council. Thus, there is a deficit of 5,553 beds in the municipal council, which is ~62% of the total requirements.

**Table 15.2: Summary of current status, demand and deficit of infrastructure sectors**

Kinondoni Municipal Council	Current status	Demand	Deficit
Roads	Total road length – 1,509 km 34% tarmac or gravel 66% dirt roads	Redevelopment of roads that are in poor condition and need to be renovated.	874 km of roads need to be reconstructed
Water	Per capita supply: 65 lpcd Connection: 69% DAWASA, 6% bore wells 25% public water sources	Per capita supply: 135 lpcd Connection: 100% DAWASA	Per capita supply: 70 lpcd Connection: 31% DAWASA
Solid waste	Collection/ generation ratio - 67% No. of trucks – 27 No of trips – 2 per day	Collection/ generation ratio- 100%	Collection/ generation ratio - 23% Additional no. of trucks – 13 or No of trips – 3 per day
Education	<b>Primary schools</b> Capacity – 185,640 students Eligibility: 149,049 students <b>Secondary schools</b> Capacity: 31,200 students Enrolment: 34,707 students	Primary and secondary schools should be adequate to provide education to all	10 secondary schools would be required
Municipal markets	Total markets - 15 Retail space - 0.03 sq m per capita	Retail space - 0.19 sq m per capita	Retail space - 0.16 sq m per capita Additional markets - 83
Healthcare	3,222 beds in 13 hospitals and 2 health centres	8,875 beds as per WHO norms	Additional 5,553 beds required

Source: Discussions held with LGAs

Key conclusions

- **Roads:** It was observed that only 34% of roads were tarmac roads. Most of the roads are gravel or dirt roads, which would become unusable during the rainy season. Further investments would be required in terms of redevelopment of roads network.
- **Solid waste:** It was found that in the municipal council, about 67% of the waste collected was being transported to landfills at Pugu Kinyamwezi. The collection capability of the LGA is constrained due to lack of sufficient truck loaders, compactors and skip loaders.
- **Water supply:** We observed that 67% of total households are currently connected to the water supply network. Close to 33% of the population depends on bore wells and other public sources of water such as public water taps. Further investments would be required in the water supply sector in terms of connecting households with investments in water pumping sets and pipelines.
- **Education:** In the case of Kinondoni, government-funded primary schools face a significant deficit in terms of student capacity. As a result, each class often has more than 45 students at the primary educational level. The situation is even more severe in the case of government-funded secondary schools where each class often has more than 40 students at the secondary educational level. Hence, the number of students per class in both government primary and secondary schools is about double the norm. Investments are required in setting up of both primary and secondary schools to ensure that class sizes and occupancy rates comply with the norm.
- **Municipal markets:** The retail space for municipal markets per capita is only 0.03, whereas in comparable countries this stands at 0.19. Investments are needed to increase market area per capita to better shopping opportunities and reduce congestion at the existing markets.

- *Healthcare:* The municipal council faces a deficit in terms of number of hospital beds per capita, as per WHO norms, which delineate five beds per 1,000 persons. The existing number of hospital beds stands at 3,222 across hospitals and health centers, with a deficit of 5,553 beds as benchmarked against WHO norms. Investments are required to increase capacity in hospitals and health centres.

Potential PPP sectors

We have identified infrastructure sectors where PPP Project could be developed in the coming years. Presented below are the identified priority sectors and pertinent details.

**Table 15.3: Potential Infrastructure sectors and areas for future PPP Projects.**

Infrastructure sector	Sub- segment	Area
Urban transport	Bus terminals	Makumbusho and Morocco
	Car parking	Namanga, Oysterbay beach and area near Commission for Science and Technology building
Housing	Residential houses	Oysterbay (0.3 million population)
	Satellite town	Mabwepande ( 29,000 population)
Municipal markets	Municipal markets	Tandale, Magomeni, and Msufini Areas in the 20,000 plots Project
City Development	NA	Oysterbay and Msasani water front areas combining residential and commercial properties

*Source: Discussions held with LGAs*

# 16. Annexure 8: Municipal finance assessment



This section provides an overview of the key revenue sources and major expenditure heads across the municipal council and the inferences drawn from the provided information. Revenue and expenditures Projections for the coming five years have been calculated by extrapolating historical trends over the last five years.

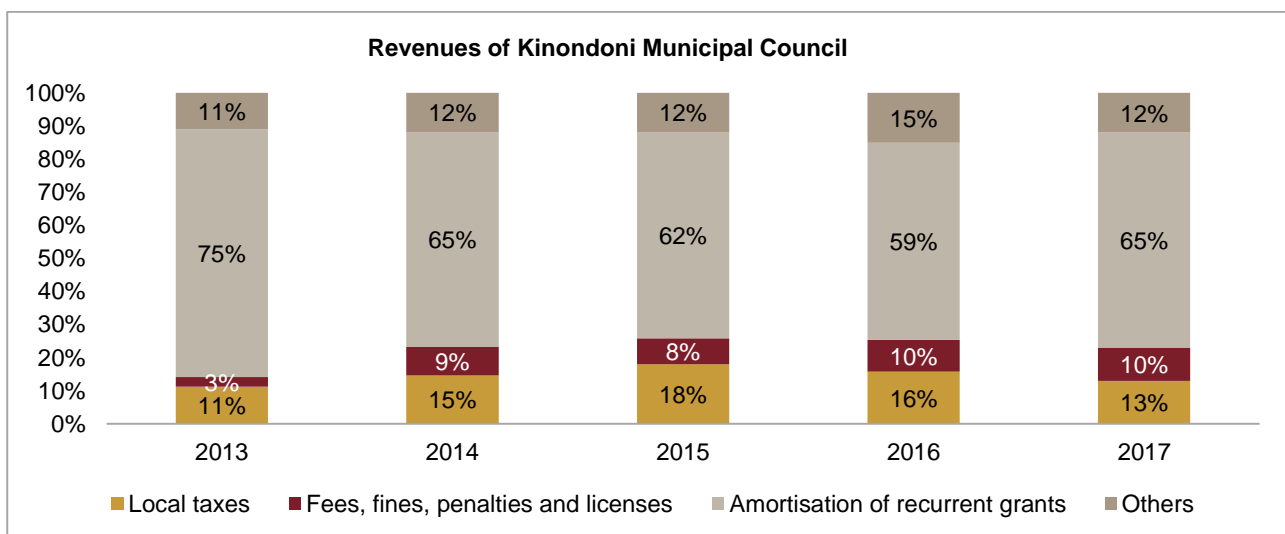
## Revenue trend

The revenue of the council increased from TZS 103 billion in 2013 to TZS 163 billion in 2017. Revenue sources majorly comprise local taxes, fees, fines, penalties, and licenses, revenue generated from exchange transactions, amortization of recurrent and capital grants, and interest income. The council has successfully increased the percentage revenue share from local taxes from 11% in 2013 to 13% in 2016, as well as from fees, fines, penalties and licenses from 3% to 10% during this period. As a result, it succeeded in decreasing its dependency on government grants from 75% to 65% of total expenditures during the same period

Over the past five years, of the total revenue generated by the Kinondoni Municipal Council, the recurrent operational and capital grant components averaged ~67% and ~5%, respectively. Local taxes averaged ~14% of the total revenue; fees, fines, penalties, and licenses ~7%, with the remainder comprising other sources and levies on business activities.

The property tax component contributes to 10-14% of the tax revenue component, which, in turn, is merely 15% of the total revenue generated. Thus, the property tax component comprises a negligible 2-3% of the overall revenue. Further, the Local Government Act was amended in 2017, owing to which the Tanzania Revenue Authority (TRA) was given the mandate to collect property tax in all districts, instead of the municipal authorities This action by the central government further limits the ability of the municipal councils to generate revenue from the increasing residential and commercial settlements across Dar es Salaam. Currently, property tax is levied at 0.15% on residential properties and 0.20% on commercial properties for the Dar es Salaam region.

Figure 16.1: Revenue categories 2013-2017 (as % of total revenue)



Source: Discussions held with LGAs



**Table 16.1: Summary of revenues over the last five years**

Year	Revenues (TZS bn)
2013	103
2014	122
2015	134
2016	168
2017	163

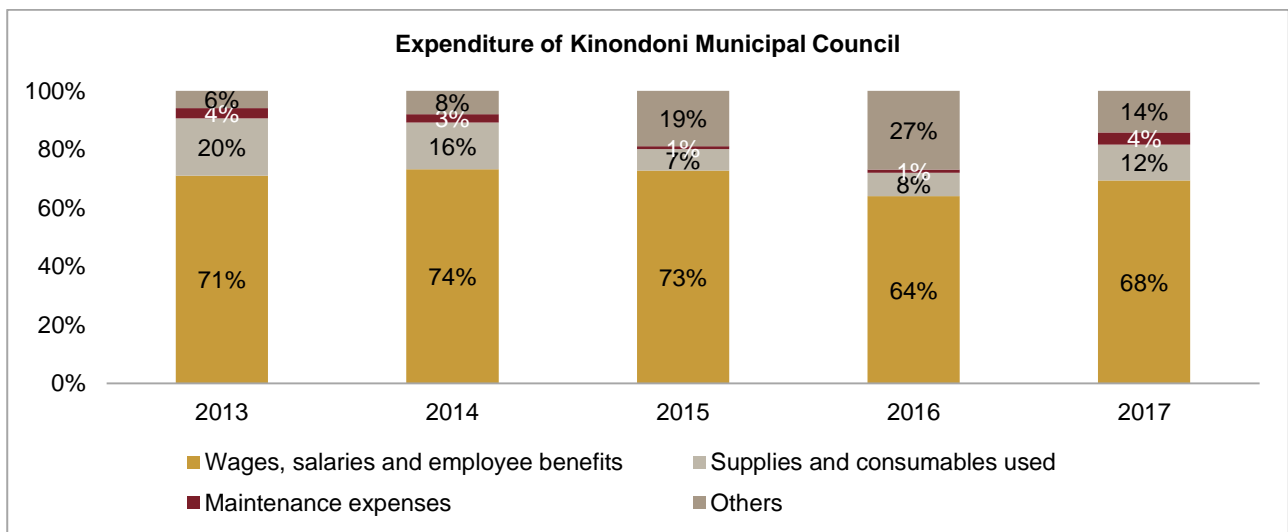
Source: Discussions held with LGAs

Expenditure Trend

The Kinondoni Municipal Council's expenditure has risen on-year over the past five years from TZS 100 billion in 2013 to TZS 156 billion in 2017. This increase was primarily driven by an increase in salaries and employee benefits due to an increase in contracted staff. As a result, there was an increase in consumption of items such as supplies and consumables.

Wages, salaries and employee benefits averaged ~70% of expenses; supplies and consumables ~13%; depreciation of property, plant and equipment ~8%, and maintenance expenses 4%. The average surplus over the past three years was about 4.4% of the revenue.

**Figure 16.2: Expenditure categories 2013-2017 (as % of total expenditure)**



Source: Discussions held with LGAs

**Table 16.2: Summary of expenditures over the last five years**

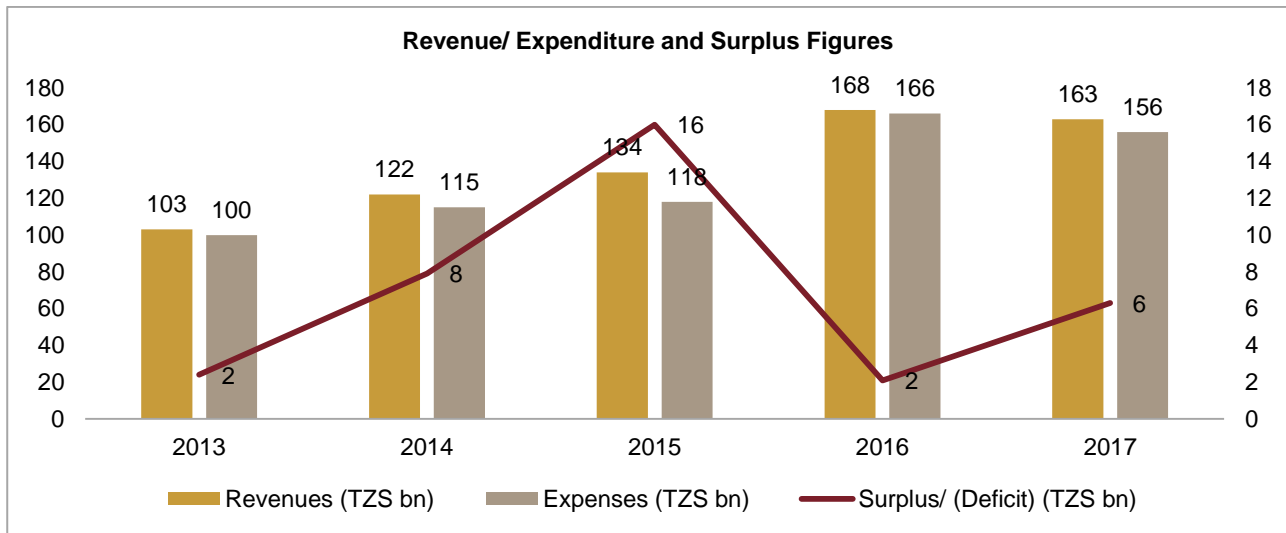
Year	Expenses (TZS bn)
2013	100
2014	115
2015	118
2016	166
2017	156

Source: Discussions held with LGAs

Conclusions

The Municipal Council of Kinondoni has current surpluses as per their respective income statements. However, the surplus amounts are very insignificant at 3-4% of revenue. Thereby, the financial capability of the municipal council to provide any funding support, in case of any PPP Projects, is highly constrained and the central government would be required to step in to provide viability gap funding, if required.

**Figure 16.3: Revenue, expenditure and surplus figures for last five years**



Source: Discussions held with LGAs

**Table 16.3: Summary of revenues, expenses and surplus/deficit over the last five years**

Year	Revenues (TZS bn)	Expenses (TZS bn)	Surplus/ (Deficit) (TZS bn)
2013	103	100	2.4
2014	122	115	7.9
2015	134	118	16.0
2016	168	166	2.1
2017	163	156	6.3

Source: Discussions held with LGAs

Financial Projections

This section provides the future Projections of revenue and expenditure trends, as well as the forecasted surplus/deficit trends for the next five years. The compounded annual growth rate (CAGR) for the last five years have been considered for future Projections.

- *Revenue, expenditure and surplus Projections* - The revenue and expenditure Projections for the next five years has been calculated by extrapolating the past revenue and expenditure trends for the last five years of the respective LGAs. The surplus/ deficit trends for the next five years have been calculated by subtracting the future expense trend from the future revenue trend.

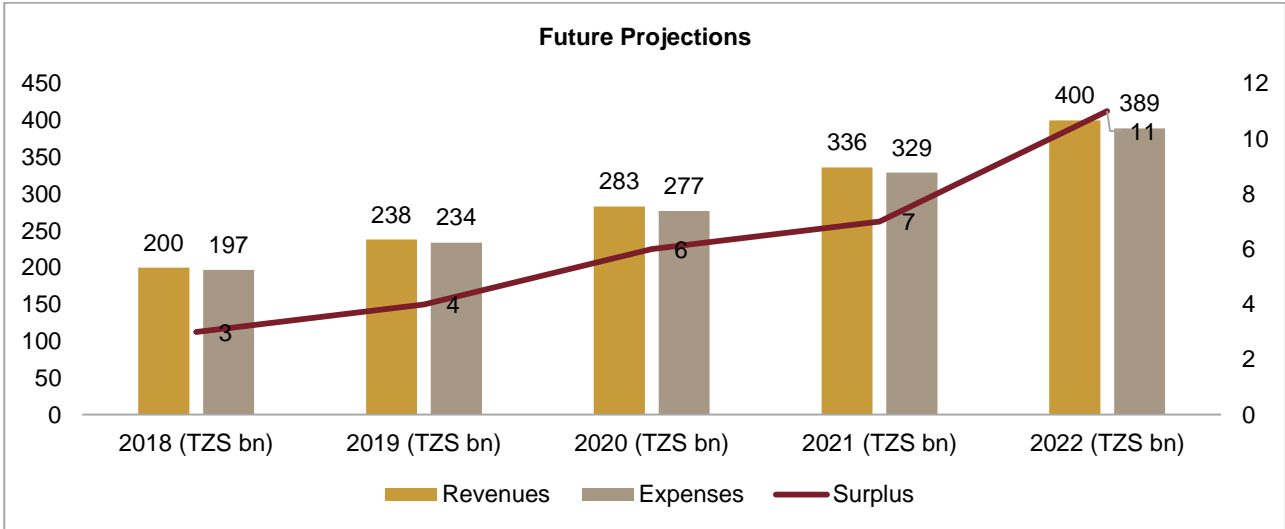
**Table 16.4: Future revenue, expenses and surplus Projections**

LGA	Past CAGR (%)	2018 (TZS bn)	2019 (TZS bn)	2020 (TZS bn)	2021 (TZS bn)	2022 (TZS bn)
Revenues	18.88	200	238	283	336	400
Expenses	18.55	197	234	277	329	389

LGA	Past CAGR (%)	2018 (TZS bn)	2019 (TZS bn)	2020 (TZS bn)	2021 (TZS bn)	2022 (TZS bn)
Surplus		3	4	6	7	11

Source: Discussions held with LGAs

Figure 16.4: Future revenue, expenses and surplus Projections



Source: Discussions held with LGAs

## 17. Annexure 9: Institutional review of KMC



*This section provides an overview of the applicable institutional structure, the approach undertaken for institutional review, the responses provided by the KMC with respect to the current institutional capacity, preparedness for PPP Projects and capability to execute the PPP Project efficiently.*

### Approach for undertaking the institutional review

The consultant has carried out a comprehensive assessment with the investment committee members of the municipal council. A detailed questionnaire was prepared with specific questions related to assessing the institutional capability of the LGA. The frameworks and methodology provided in the World Bank Public Private Partnership Screening Tool were used to develop the questionnaire. The questions were divided into three major groups:

- Institutional capacity,
- Preparedness of the LGA to undertake the PPP Project,
- Capability of the LGA to execute the Project effectively and efficiently.

The responses provided by the investment team members offered inputs for preparing a diagnostic report on the institutional capacity of the municipal council, which would determine its ability to manage the proposed PPP Project during the implementation and operational phases.

**Table 17.1: Projects under Jurisdiction of KMC**

Name of municipal council	Projects under jurisdiction
Kinondoni	Msasani fish market

Source: Consultant

### Institutional capacity of KMC

The responses provided by the investment committee members with respect to the institutional capacity are as follows:

**Table 17.2: Survey responses with respect to the current institutional capacity**

Questions	Response	Consultant's comments
PPP focal point within LGA	Yes	There is a PPP focal point with KMC
Investment committee within LGA	Yes	There is an investment committee with KMC
No. of members in investment committee	15	The total number of members =15
No. of members who have undertaken PPP training in the past	3	Members who have undergone training in the past =3
Full-time or deputation (part-time)	Full-time	The team is deployed full-time in KMC. However, they have additional responsibilities, too
Experience of undertaking Projects on contract with private sector	Yes	Although the LGA has done some public procurement, their experience with large and complex procurements is highly limited

Questions	Response	Consultant's comments
LGA personnel have past experience	Yes	The experience they have is in building small public toilets, which is insufficient for handling larger PPP Projects
Access to transaction advisors and/or consultants for Project preparation and procurement	Yes	Don't have budgets or ability to procure consultants/ transaction advisors on their own

Source: Discussions held with LGAs

• *Key findings:*

- *Composition of PPP Team:* In case of KMC, there is a 15-member investment committee and six of the 15 members form the core PPP team. However, all the investment committee members have their own full-time responsibility, and being part of an investment committee and a PPP team are just additional responsibilities. The PPP team does not have a technical expert / engineer, procurement officer and a dedicated financial officer.
- *Academic qualifications and training in PPPs:* The members have basic qualifications such as a bachelor's or master's degree relevant to their job roles. So, we presume they would possess the ability to understand the basics of PPPs. It is understood that the LGA has, in the past, executed small contracts for the private sector that were either pertaining to real estate development on LGA-leased property or outsourcing of small public toilet facilities. As such, the team does not appear to have any significant experience or expertise in executing PPPs. In terms of formal training in PPPs, only three of the six members in the PPP team have undergone WB PPP training/ MoF workshop for two weeks. The rest of the investment committee members have not yet undergone any PPP training. Therefore, the team will require substantial training in various aspects of the PPP Project preparation as the Project moves forward.
- *Budget constraints:* KMC is financially better off than other LGAs on account of increasing positive surplus over the previous five years. Therefore, it is reasonable to assume that the LGA will have some budget flexibility to engage one or two consultants. However, it is unlikely to have adequate funding available for a robust PPP Project preparation exercise.

Preparedness of LGAs to undertake PPP Projects

The responses provided by the investment committee members with respect to the preparedness of LGAs for PPP Projects are:

**Table 17.3: Survey responses with respect to the current level of preparedness**

Questions	Response	Consultant's comments
Project plan for PPP Projects with deadlines	No	Currently, they have not identified any specific deadlines. They will be required to create a detailed Project plan for the proposed PPP Project along with deadlines, which will help them monitor the progress of the Project and seek assistance from the PPP node when required.
Standard terms of reference for consultants	Yes	Although they mention there is availability of generic TORs, they would need to draft specific functional TORs for transaction advisors, environmental and social, monitoring and evaluation, and contract management.
Undertaken social consultations	Yes	Some level of consultations with fishermen, fish mongers and fish vendors with respect to relocation has been undertaken. More extensive and formal consultations would be needed to generate

Questions	Response	Consultant's comments
		consensus on the temporary relocation plan and, thereafter, on the Project plan.
Plan to undertake social consultations	NA	KMC will require assistance in preparing a Project specific social consultation plan. KMC will require Environmental & Social management assistance.
Identified the requirement of connecting infrastructure and utilities	Yes	In the present study, the LGA has benefitted from discussions with bank staff and consultants. This has led to a better understanding of what infrastructure linkages are required for the Project. The LGA has budgeted for funds of TZS 35 million for this market, which could be used for providing support utilities. However, this is likely to be insufficient and specific planning, preparation and budgeting for full requirements are still needed.
Requires land acquisition	No	As the Project involves redevelopment of the existing fish market and the temporary relocation site has been identified, the Project does not require additional land acquisition. However, there might be some need for right-of-way for strengthening the road infrastructure and connecting utilities that the LGA would need to plan separately.
Require resettlement plan	Yes	An outline of the temporary relocation strategy has been prepared. This would need to be transformed into a more detailed temporary resettlement action plan and the LGA will require external technical support for this.
Cost to be incurred by LGA for Project preparation and engineering studies	No	As mentioned previously, budgets have not been prepared, and hence, are unlikely to be made available through the LGA's funds as of now.
LGA budgeted the funds for the same	No	As above
Internal and external stakeholders identified	Yes	As mentioned previously, an early identification of stakeholders has been done. However, this has been mostly limited to the fishermen, fish mongers and fish vendors. There is a need to identify and engage with other key stakeholders such as the residents and establishments in the surrounding area, other government entities dealing with water supply, sewerage, electricity, road improvements and traffic management, maritime authorities and other statutory agencies.
Plan to engage with stakeholders	Yes	While the LGA has shown good intent to interact with the stakeholders, a comprehensive and time-bound engagement plan is required.
Any constraints delaying Project implementation	No	While a fish auction market PPP has not been executed in Tanzania, there are private sector players active in fish processing, cold-chain and ice-making in Tanzania. Thereby, the proposed consortium needs to have construction experience and as well as experience in fish handling and processing, which will be helpful in managing the Project.
Project management plan to address the issues	NA	This would be required as the Project progresses.

Source: Discussions held with LGAs

- **Key findings:**
  - **Strong commitment:** KMC is highly committed to seeing this Project implemented. KMC has set aside indicative budgets for some of the activities.

- *Need for Project planning:* KMC currently does not have well-defined plans to deal with Project management, stakeholder consultations, and implementing external connectivity for the Project. No specific timelines for the same have been identified.
- *Need for technical assistance:* KMC will require considerable technical assistance and hand-holding to successfully implement the Project preparation processes for the PPP Project. KMC does not envisage any constraints that could delay Project implementation. It has already consulted the existing fishermen operating at the site and they are willing to relocate.

Capability of LGA to execute the Project effectively and efficiently

Survey responses: The responses provided by the investment committee members with respect to the capacity of the LGA to execute the PPP Projects in an effective and efficient manner are:

**Table 17.4: Responses with respect to current capability of executing PPP Projects**

Questions	Response	Consultant's comments
Average time for procurement	6 months	This is likely to be true for smaller public procurement and not for PPP Projects.
Problems faced in procurement	Yes	Contract negotiations and contract management
Past experience of implementing PPP Project	Yes	KMC has responded in the affirmative, considering real estate Projects and public toilets, however it has limited experience on larger and complex PPP procurements.
Effective in managing contractual risks	No	KMC has faced contractual risks in the recent past and litigation has been going on for some time.
Has Project management capability	No	Given the lack of experience in implementing proper large-scale Projects, the Project management capability is limited.
Develop a dedicated Project management unit	Yes	This would be required for both steering the Project preparation process as well as contract management.
Awareness of key contractual risks in the implementation of PPP	No	Given the lack of experienced personnel in the PPP team, KMC is unaware of the typical contractual risks that need to be taken care of during implementation of the PPP.
Help of independent consultants for engineering and procurement required	Yes	Even though KMC is slightly better off financially compared with other LGAs, it has not sought the help of independent consultants for engineering and procurement when needed, because of financial constraints.
Hire independent engineers or consultants	Yes	Despite being slightly better off than other LGAs financially, KMC has not hired independent consultants for engineering and procurement when needed on account of financial constraints. The central government should provide for budgetary transfers as operational grants so that KMC can hire some reputed, recognized consultants for this purpose.
Help of independent consultants for Project management and monitoring required	Yes	KMC has not sought help from independent consultants for management and monitoring when needed as these activities are undertaken by in-house personnel. Project management and monitoring is not done on a regular basis, which leads to further delays in Project completion.
Hire independent consultants to periodically assess Project performance	Yes	KMC does not have experience in hiring independent consultants for periodic assessment of Project performance. The central government should provide for budgetary transfers as operational grant so that KMC can hire some reputed, recognized consultants for this purpose.



Source: Discussions held with LGAs

- *Key findings:*
  - *Need for dedicated personnel within LGA:* There should be at least one dedicated person deployed in the LGA, who should be the primary contact point between the PPP team and the central Project management support team. This person would be responsible for steering the Project, tracking overall progress, and monitoring adherence to timelines.
  - *Support from central government to fund hiring of transaction advisors:* Given that the surplus with the LGA might not be sufficient to procure transaction advisors on a full-time basis with respect to the Project, the LGA should estimate the overall budget depending on the amount of work and time required for the transaction advisor and put in a requisition for funds to the central government.

#### Key recommendations

Based on the survey and discussions with officials of the LGA, the consultant suggests the following actions to strengthen the institutional capacity of the LGA with respect to implementing the PPP Project:

- *Central Project management support team:* There is a need for hand-holding the LGA in various aspects of Project preparation. Therefore, it is suggested that a central pool of technical, financial, legal, E&S experts be set up, whose members could be sourced on a part-time basis to meet the specific needs of individual PPP Projects. The central PMS team could report to the PPP node and be used to assist all the LGAs on the eight PPP Projects, including those of Kinondoni.
- *Hiring of transaction advisors:* While public procurement for small Projects takes close to six months, the procurement on PPP basis is envisaged to take a longer duration of one year or more, given the intricacies and negotiations involved in the PPP procurement process. The central PMS team could provide hand-holding support to the LGA in terms of drafting agreements.
- *Focused training and knowledge sharing:* The PPP team in the LGA would require continued and focused training on Project preparation, procurement and contract management as the PPP Project progresses. The staff should be acquainted with the best practices, knowledge and tools being developed in the World Bank Group, so that they can benefit from the global repository of knowledge being created by the World Bank. It would also help them to exchange ideas and experiences through a knowledge-sharing platform that could be created by the PPP node for all the LGAs preparing PPPs in Tanzania and the African region.
- *Ensuring continuity of LGA staff in the PPP unit:* As the Project preparation and procurement process will be spread over 2-3 years, it would be beneficial if the LGA staff that is getting trained continues with the PPP unit for that period. Frequent staff changes could disrupt the capacity development process.
- *Strengthening the PPP team:* Depending upon the development of a PPP pipeline in the LGA, it is suggested that full-time staff or consultants be recruited to be placed in the PPP team of the LGA to address technical, financial and Project management issues.
- *Use of tools and applications:* It would be beneficial for the LGA to institute systems and processes to embed tools and applications developed by the Bank and other development partners, to streamline the PPP lifecycle process relevant to the contracting agencies.

#### Overall findings:

During the PPP training workshop it was found that while the LGAs could not formally describe issues related to the technical and financial viability of the Projects, such as IRR, DSCR, WACC, they were able to outline the Project needs, revenue and cost profiles in relation to the Project. This indicated that there is a heightened awareness of the PPP approach and a general intent to adopt/ explore it. However, the staff still lacks systematic utilisation of the basic concepts of a PPP feasibility. It is likely that similar issues might come up during procurement and contract management.

## 18. Annexure 10: Social due diligence by World Bank



The proposed Msasani Fish Auction Market (MFAM) is located in Msasani peninsular in Msasani ward along the Indian Ocean. This is an old market currently hosting 500 traders. The MFAM is owned by the Kinondoni Municipal Council, under the purview of the fisheries department. According to the registered plan No 17644, the market constitutes a land size of 4,166 sq m, spread over three plots: No. 20 (2028 sq m), 21 (1065 sq m), and 22 (1073 sq m), all located in Msasani village, Block B. The Kinondoni municipal director reported that the council is in the final stages of acquiring a title deed which is expected to be released by the end of July this year.

A site visit confirmed that the market is operating under unhygienic conditions due to dilapidated market infrastructure and the higher number of traders the market serves. During the site visit, traders were seen conducting diverse activities, from fish auction and retailing, mama lishe, and fish frying to boat engine repair. The market has 24 stalls (vizimba'), each accommodating four traders, which is not enough to accommodate all the traders. There are also 20 privately owned temporary structures within the market premises

An observation and discussion with the MFAM leaders revealed that the market faces a number of challenges including theft, power blackout, poor sanitation, lack of parking space and office space, storage facilities and cold rooms, domestic water, and inadequate washrooms for daily market operations. Also, the market is not served by public transport routes which could help to commute people from all social classes, leading to a substantial increase in the market for fish products.

To address these problems, the council is planning to construct a modern fish market with cold storage facilities, common toilets, parking space, auction building with proper facilities, retail shops and other supporting facilities such as fish cleaning, processing and handling, as well as an area to fry fish.

Meeting with stakeholders at the MFAM revealed that they are informed about the upcoming market development plan and are positive about it. Msasani market leaders reported that "in February 2018, the council contacted us and carried out need assessment which identified our needs, which we hope will be accommodated in the modern market plan".

With respect to what will happen to traders during and after construction, the Kinondoni investment team coordinator reported that the construction will last for one year. During this period, traders will be temporarily relocated to another place closer to the MFAM. The team also added that the council will conduct a census of all traders and issue them temporary ID cards for identification while placing them in the new market. The site visit noted that the area proposed for temporarily relocation of traders is small compared with the number of traders operating at MFAM.

### Potential impact

The construction of the MFAM will have the following socio-economic impact:

- Temporary loss of business and livelihood of about 500 traders following their temporary relocation to pave the way for construction
- Overpopulation in the new relocation site, which may increase chance of spread of waterborne diseases such as diarrhea

### Recommendation

The following steps are recommended to address the situation.

- Prepare stakeholder consultations and engagement plan (SCEP) and communicate it to the World Bank. The SCEP is very important, especially to inform people about the Project
- Prepare a RAP. As part of the RAP, conduct a social economic baseline survey and generate baseline data for all traders at the market. The baseline data can be used to geo-reference traders with existing trading space, personal information, and the type of business a trader is engaged in. This data should be gathered based on business categories. Detail the process of temporary relocation, compensation for the temporary loss of income due to relocation, the registering of all traders interested in returning to the market following the completion of the upgrade and the assigning of designated slots to the traders
- Carry out a detailed assessment to ascertain the current capacity of the proposed site where traders from MFAM are expected to be temporarily hosted and share the report with the World Bank. Traders to be consulted in choosing host market
- Assurances should be in place that the traders will be placed in the newly-constructed market on a priority basis, following the registration information included in the database.
- Furnish the proposed site with basic facilities such as a shed, washroom, electricity and water
- Undertake the construction in phases so that some activities such as 'mama lishe' can continue to operate within the old market



## 19. Annexure 11: Project screening tool values

The Project screening tool (PST) is an excel-based tool that screens Projects to determine their potential suitability for PPP procurement. It has been developed by the World Bank Group Infrastructure, Public-Private Partnerships and Guarantees (IPG), in partnership with the Global Infrastructure Hub (GIH). The PST evaluates a Project on six parameters viz. strategic suitability, preliminary feasibility, risk assessment, PPP suitability, fiscal affordability and institutional capacity. The PST contains structured questions detailing each of the parameters. The tool helps to identify the deficiencies in the Project, suggest areas for improvement and reach an overall conclusion on the suitability of the Project for PPP.

Msasani fish market scores 3.9 of a maximum possible score of 5.0 on the six parameters presented in the project screening tool and driven by the following factors. The fish market has a strong case for its strategic suitability and preliminary feasibility as there is a high demand from the fishermen/ fish traders which will lead to high occupancy of the fish market. The fish market facility will have multiple revenue sources like daily fees from fishermen, washroom fees, ice factory, cold storage fees, parking fees, advertisement, etc. which will make the Project viable, as user charges are adequate to cover capex and opex. However, the Project which involves temporary relocation for close to 400 fishermen for a period of three years, faces slightly higher risks in terms of Project execution and implementation, resulting in a low level of PPP suitability. The institutional capability is also limited as KMC is yet to execute any PPP Project.

**Table 19.1: PST score based on various parameters**

Name of project	Strategic suitability (10%)	Preliminary feasibility (30%)	Risk assessment (20%)	PPP suitability (20%)	Fiscal affordability (10%)	Institutional capability (10%)	Total score (100%)
Msasani fish market	5.0	4.7	2.5	4.0	5.0	2.0	3.9

**Table 19.2: PST evaluation based on various parameters**

Parameters	Questions	Final pre-feasibility
Strategic suitability	Is there a consensus on users' and stakeholders' expectations from the Project?	Yes
	Does the technical solution clearly address the service need in a cost-effective and affordable manner?	Yes
	Is the user base identified for the Project in terms users, geography, growth trends, etc.?	Yes
Preliminary feasibility	Are the life cycle costs for major components of the Project reasonable and affordable?	Yes
	Will the completed Project likely to be carbon neutral or net carbon negative, in terms of GHG emissions?	No
	Is there a reliable initial social analysis related to the Project?	Yes
	Is there support for the Project from affected communities and key stakeholders?	Yes
	Is the economic rate of return likely to be higher than the threshold ERR requirements of the government?	Yes
	Is there a preliminary financial analysis based on assessment of net present value or internal rate of return of Project's cash flows?	Yes
	Are the demand or volume Projections backed by surveys or demand forecasting models using reliable historical data?	Yes
	Are the financing assumptions comparable to similar Projects? Such as, the debt-to-equity ratio, interest rate and tenure of debt, and cost of equity.	Yes
Risk assessment	Have similar PPP Projects achieved financial close in the country or region?	No
	Are there financiers who will be, or have expressed interest in the PPP?	Skip
	Will there be independent reviews of designs, monitoring of construction progress and oversight during testing and commissioning phases?	Yes
	Will the PPP have a ready baseline of demand or offtake that has been well established either through historical data or through firm off-take commitments or through an exclusivity of service area?	Yes
	Are there precedents of similar Projects in the country or in the region, where the actual usage or off-take from the Project facility in the initial years has been atleast 85% of the originally Projected usage or off-take?	Skip
	In case of delays in ramping up of demand, will the private sector have some flexibility in repricing tariffs to manage and off-set demand shortfalls in any given year; or would the government provide some level of cash deficiency support or assurances?	No

Parameters	Questions	Final pre-feasibility
	Are costs of mitigating the environmental and social impact of the project considered in the PPP?	No
PPP suitability	Are the modeling assumptions backed by historical or empirical data?	Yes
	Is the VFM for the Project greater than the threshold VFM requirement?	Yes
	Will the VFM for the Project remain greater than the threshold rate in case of stress (or low) case scenario?	Yes
	Is there a favourable response expected from the private sector towards the Project? For example, as gauged by the contracting agency through preliminary market consultations or similar investor interactions.	Skip
	Have similar PPP Projects been successfully implemented in the past in the country or in the region?	No
	Is the Project eligible for government funding support?	No
	Is the Project eligible for funding/ guarantees from multilateral/ donor agencies?	No
Institutional capability	Does the proposal have a Project plan on the next stages of the Project with identified deadlines and responsibilities allocated?	No
	Has the contracting agency budgeted funds, or does it have access to funds to complete Project preparation? This includes the costs of preparing required studies, securing land, resettlement costs, and environmental and social impact cost mitigation.	Yes
	Does the Project plan incorporate a strategic communications plan to engage with internal and external stakeholders of the Project during the next stages of the Project?	No
	Has the contracting agency been effective in managing key contractual risks and monitoring performance of PPP Projects during their operations phase?	Skip
	Will the contracting agency insist on Project level disclosure to the public in relation to Project's performance and in meeting contractual obligations from time to time?	Skip



## 20. Annexure 12: Conceptual drawings

**Figure 20.1: 3D view of the proposed fish market**

The picture underneath presents the 3D view of the proposed Msasani fish market in Kinondoni ward. The Project building would be a three-storied structure with a fish auction hall, drying and frying area, cold storage rooms, ice factory, fish restaurant, etc. There will be dedicated parking space for the cars and taxis. It will be surrounded by a compound wall.





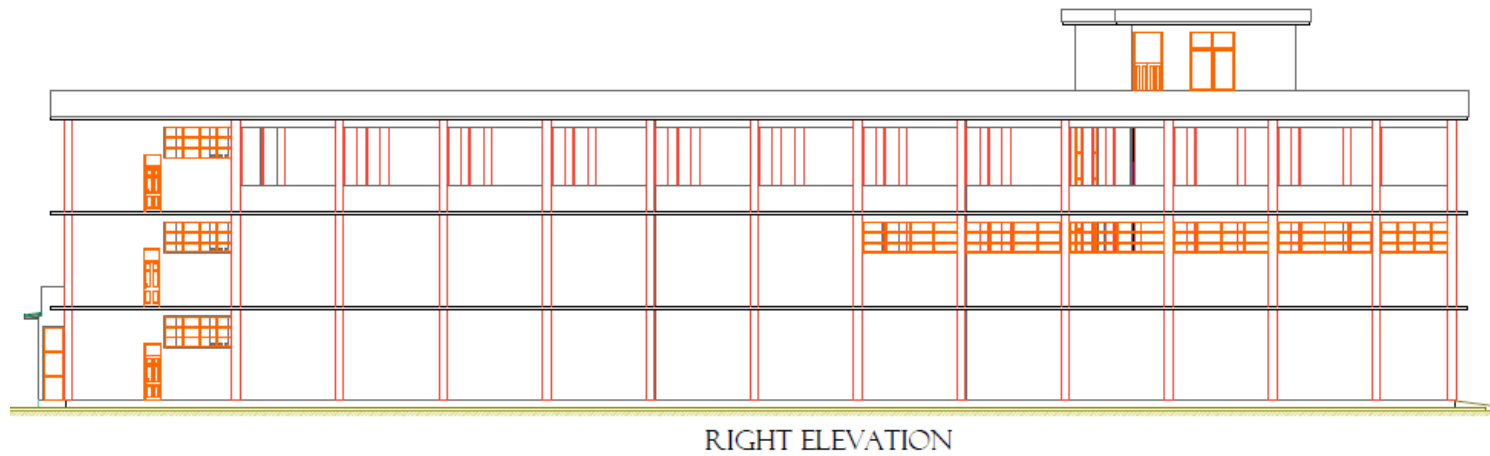
**Figure 20.2: Elevation of the proposed fish market**

The picture underneath showcases the front and rear elevation of the proposed Project facility. The main building will be a three floor structure, with an extension on the ground floor for cleaning and washing of fishes. The building would have connectivity through stairs, lifts and ramps to the higher floors. The retail shops would be present towards the main access road of the fish market facility.



**Figure 20.3: Left and right elevation of the proposed fish market**

The picture underneath showcases the side elevations of the proposed Project facility. The building would have connectivity through stairs, lifts and ramps to the higher floors. The access to the car parking area would be available from the left side of the fish market building.



**Figure 20.4: Ground floor plan of the proposed fish market**

The picture underneath showcases the ground floor plan of the proposed Project facility. The ground floor of the fish market building covers the fish auction hall, along with extended fish cleaning and washing areas. There will also be provision for an ice factory and cold storage facility on the ground floor. There will also be provision for car parking and retail shops within the market facility.

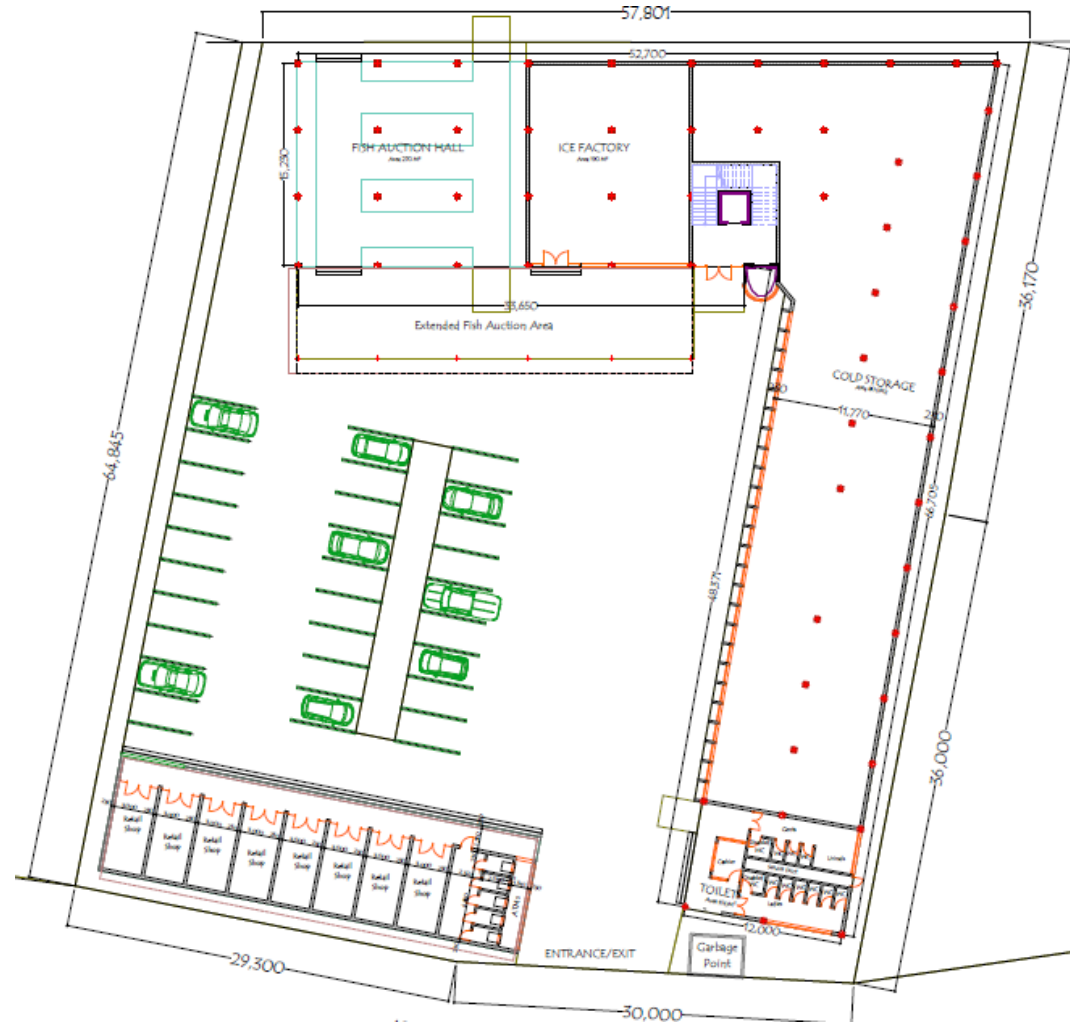
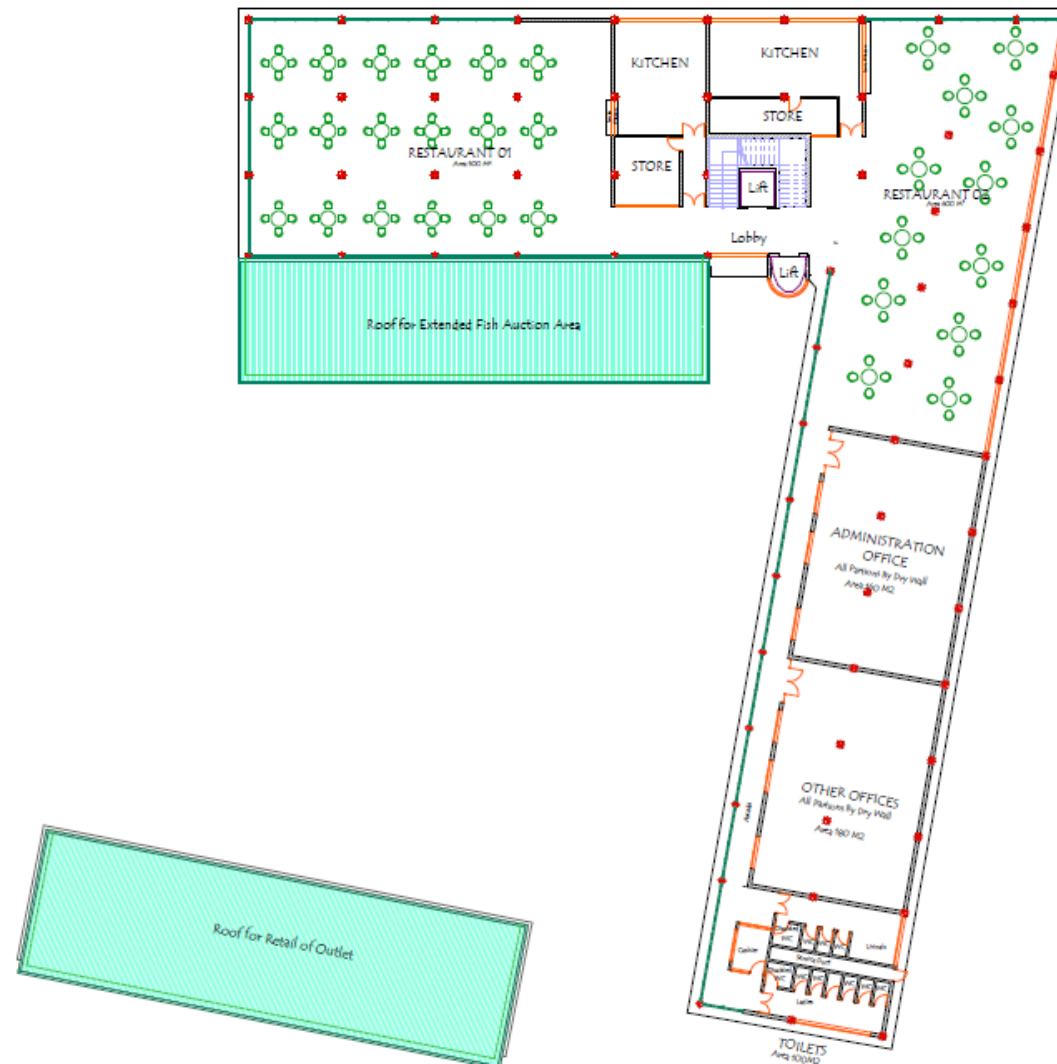


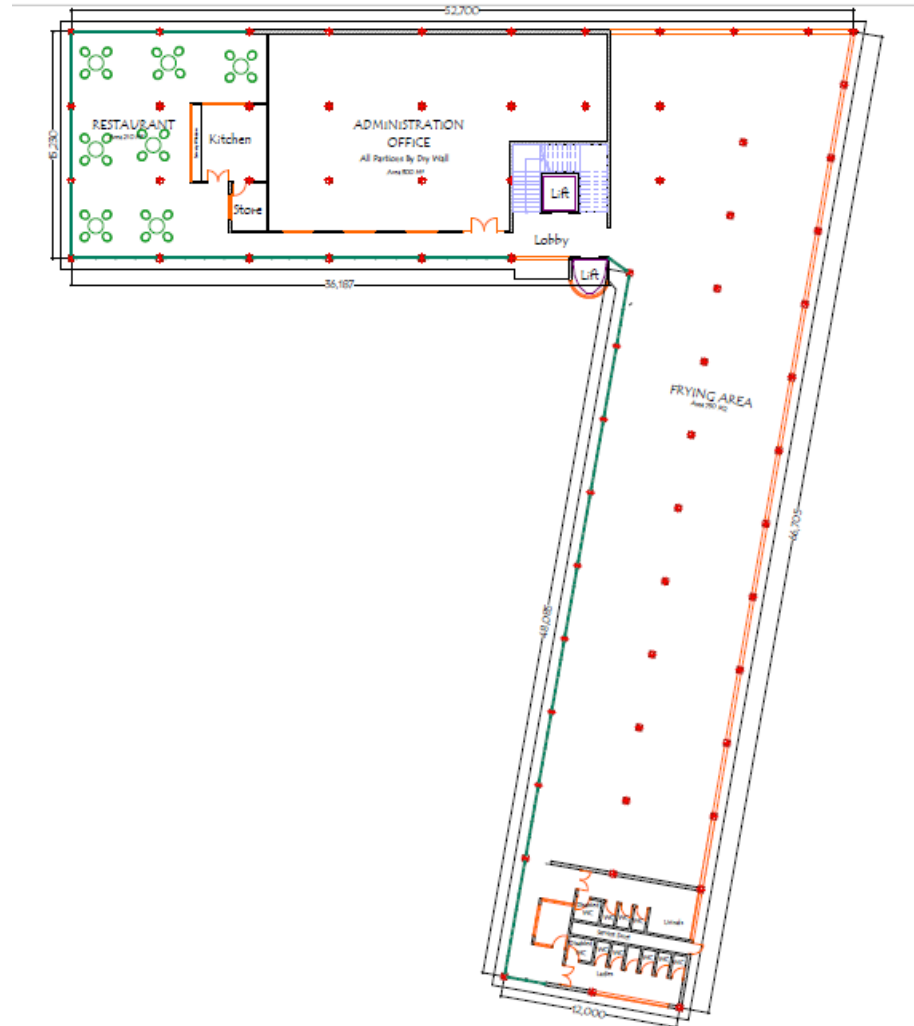
Figure 20.5: First floor plan of the proposed fish market

The picture underneath showcases the first floor of the proposed Project facility. The first floor of the fish market will have the administration room for staff along with other office spaces. There will also be a provision for a seaside facing fish restaurant providing fresh cuisine to customers.



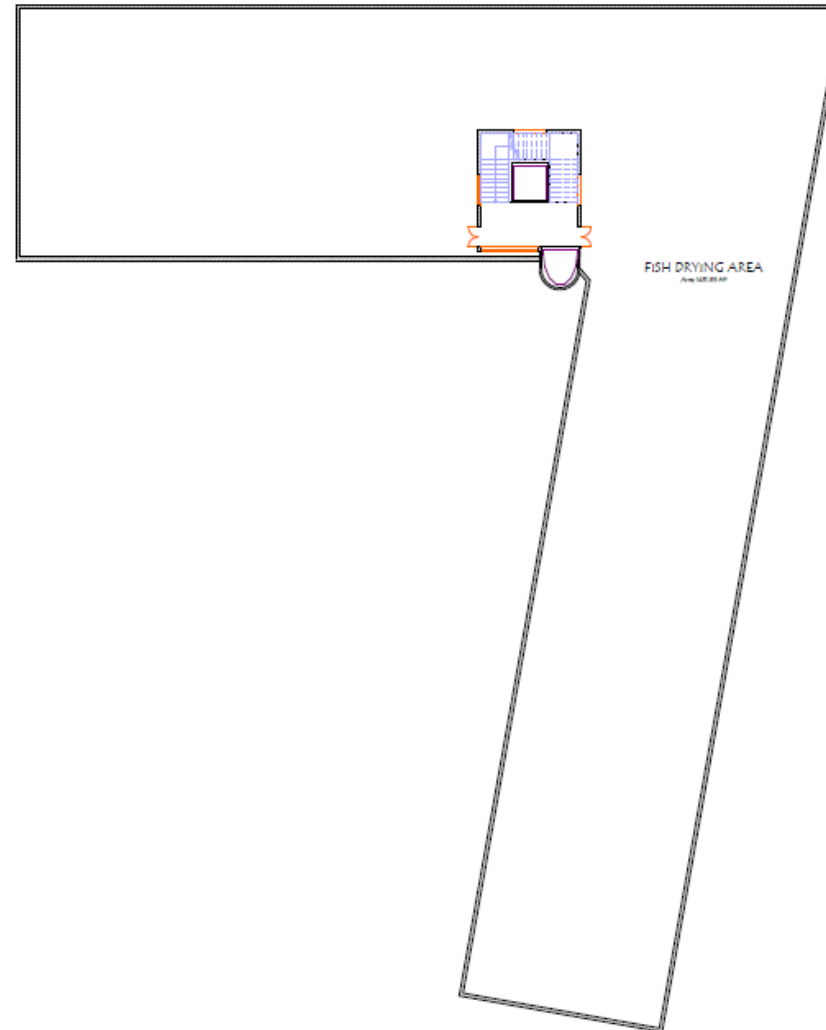
**Figure 20.6: Second floor plan of the proposed fish market**

The picture underneath showcases the second floor of the proposed Project facility. The second floor of market will have office spaces, along with a restaurant. There will also be a dedicated area for frying fish on this floor.



**Figure 20.7: Roof plan of the proposed fish market**

The picture underneath showcases the roof of the proposed Project facility. The roof of the building will be used for drying fish.



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