



**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND
TECHNOLOGY**

**SCHOOL OF ARCHITECTURE AND BUILDING SCIENCES
DEPARTMENT OF CONSTRUCTION MANAGEMENT**

ABC 2505: THESIS PROJECT

PROJECT:

**EFFECTIVE PUBLIC PRIVATE PARTNERSHIP MODEL FOR
REFURBISHMENT AND MANAGEMENT OF A STADIUM
FACILITY**

BY: ERICK BRIAN OMONDI

AB243-0561/2010

RESEARCH THESIS RECAP

RESEARCH THESIS TITLE:

A CASE STUDY OF PUBLIC PRIVATE PARTNERSHIP BUILDING PROJECTS IN NAIROBI CITY COUNTY

OBJECTIVES

The main objective of this study is to examine the performance of selected operational PPP projects in Nairobi City County in relation to the projects' PPP set objectives.

Other supporting specific objectives are:

- i. To determine whether PPP is generally superior model to other conventional models in term of cost effectiveness, schedule and quality.
- ii. To determine the constraints to the implementation of the PPP model on building projects.
- iii. To establish whether the implementation of the PPP model is facilitating the improvement of the country's economy to achieve the MDGs.

PURPOSE OF STUDY

The research had the purpose of determining the superiority of the PPP model in relation to other models of construction project delivery, finding out the constraints facing the implementation of the model and establishing the effect of its implementation to the country's economy towards achieving the MDG's.

CONCLUSIONS

On the winding up of this study, a number of conclusions were reached in connection with the Public Private Partnership model of construction projects delivery in Kenya.

The conclusions drawn are as follows:

- i. The PPP model is superior to other models of construction project deliver especially when the initial capital investment is too high and the public sector lacks the funding.
- ii. That the best suited model for building construction projects in Kenya is the use of Professional Construction Management model will be the best option especially for those building projects that require no transfer of risks to a private party.
- iii. The PPP model has not been effectively utilized in the delivery of construction projects in Kenya and this is mainly based on fact that the model had just been recently embraced and in practice, it is still in its pre-mature stages with just a handful of projects having been or are being undertaken using the model.
- iv. The major constraint to the implementation of the PPP model is inadequate level of awareness and training regarding the model in Kenya.
- v. The major concerning issue involving improving the country's economy is the fact that, most the private sector is involved in PPP contractual agreement are not locally based and this impedes the "Buy Kenya Build Kenya" slogan. This is harmful to the Kenyan economy.
- vi. The PPP model used for procurement is determined by the type and nature of the proposed project, the expected value for money gained and the degree of public interest.

RECOMMENDATIONS

From the above discussions, I hereby come to the following recommendations:

- I. The government should pursue PPP model widely not only to deliver the on demand economic infrastructure such as roads but also in the managing of government social infrastructure such as hospitals, prisons and stadiums.
- II. Initiatives that will echo out the practicability of the PPP model should be put in place by the government and this may include introduction of such a programme in our education system and frequent seminars on the topic with guests from countries with much experience in the PPP model such as South Africa.
- III. Train personnels in this area so as to increase and improve the level of professionalism in public private partnership sector as the country strives to achieve the MDGs.

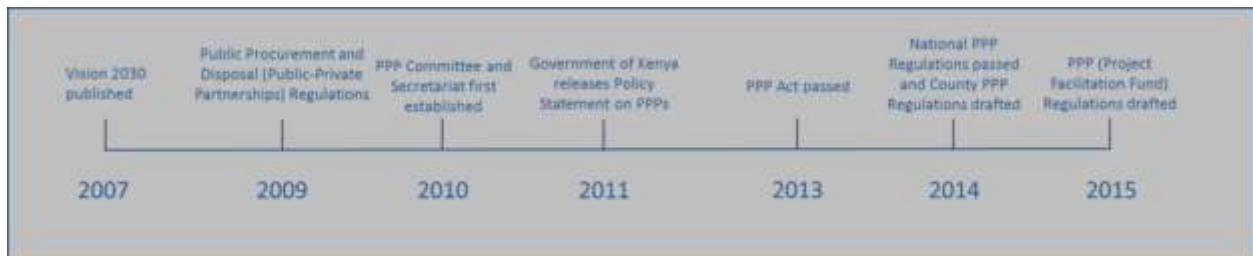
PROJECT BRIEF

Effective Public Private Partnership model for refurbishment and management of a stadium facility

A Study of Nairobi City Stadium

The second Medium Term Plan (MTP) of the Vision 2030, to be achieved within the 2013-2017 span incorporate increasing the investment in infrastructure under PPP arrangements. This has been apparent especially since the assenting of the PUBLIC PRIVATE PARTNERSHIPS ACT, 2013 No.15 of 2013 with the National Treasury, through the PPP Unit coming with an approved pipeline of PPP projects (currently 71) it periodically update their status to the public. From the list, it evident that the government, since the embracement of the PPP arrangement has been concentrating its effort in undertaking the provision of economic infrastructure under the arrangement. Majority of the cases are proving to be effective and it will be therefore an upgrade if the government steps up the implementation of the PPP arrangement to provide and manage social infrastructure facilities such as stadiums for the public.

Figure 1.1.: Timeline of the enabling framework for PPPs in Kenya



Source: CEPA analysis.

Mega-sport events (FIFA World Cup and Olympic Games) represent unique opportunity for urban development and important source of revenues. Consequently, most governments have resolved to finance and invest on the necessary infrastructure including building and refurbishment of sport facilities with the aspiration of hosting a major sporting event in the region if not in the world. The Kenyan government too is not left behind when it comes to such a vision. Kenyan government has set aside US\$ 18.3 million in the 2015/2016 financial year for the construction of three major stadiums. The stadiums are to be erected in Nairobi, Eldoret and Mombasa under Public Private Partnership arrangement in the preparation as the country bids to host the 2017 IAAF World Youth Championship in Nairobi. At the same time, the Jubilee Government, in their manifestos, promised to construct five stadia in Mombasa, Kisumu, Nakuru, Eldoret and Garissa as well as rehabilitating the existing ones in five years.

Inadequate capital and lack of political goodwill has slowed the drive to create up to standard sporting amenities in Kenya with the last to be constructed in the 1980s. This is despite the excellent performance of the country in athletics, cricket and rugby over the years. Accordingly, Kenya continues to miss out on hosting various international events due to inadequate facilities. Stadiums present some common traits with other public goods i.e., they generate benefits related to consumer surplus through the fans who attend games and other events hosted within the stadium, positive externalities to non-attenders, increased community visibility and enhanced community image (Siegfried & Zimbalist, 2002). The construction and maintenance of mega-sporting infrastructure do also require heavy cash outlay hence it will be effective for the government to adopt a Public Private Partnership arrangement to deliver and manage a stadium facility.

Currently, Kenya can only boast of two stadiums that can host international sporting events that is Moi International Sports Centre Kasarani and Nyayo National Stadium which are not yet fully

refurbished. Within Nairobi, there also exists the Nairobi City Stadium which holds a historical record of being the first major sporting facility in the country. Built in the 1930s by the colonial government, it was the main sporting facility for the country until the 1980s. Being one of the iconic landmarks within Nairobi City, the stadium standards have been deteriorating and feeling the neglected attitude until the year 2010 when under the financial assistance by FIFA, an artificial turf was laid to improve the playing surface of the 15,000 capacity stadium making it again the first of such a kind in the country.

These days, stadiums and arenas are no longer just places to spend 90 minutes watching a favorite football team and then leaving the ground. They have become places of [family] entertainment, providing entertainment to keep visitors engaged for longer periods of time, before and after the events. With this in mind, there is a great demand of such public facilities especially in Nairobi and this calls for the quick rehabilitation of the Nairobi City Stadium. Activities to be carried out to achieve this include renovating the dressing rooms, building the drainage system, increasing seating capacity, constructing a proper operating control room and providing an ample parking space around the stadium. A PPP arrangement will be the best suitable way to undertake this plan since PPPs:

- i. improve the delivery of services and operation of infrastructure by tapping the expertise and efficiency of the private sector.
- ii. mobilize private capital to speed up the delivery of infrastructure and services and eliminate subsidies.
- iii. enable more efficient use of resources by improving the identification of long-term risks and their allocation, while maintaining affordable taxes.

For that reason, this thesis project intends to come up with an effective PPP arrangement model that can be used to rehabilitate and manage the Nairobi City Stadium.

Objectives

The key objective of this thesis project is to determine an effective PPP arrangement model which could be used in implementing the refurbishment and management of a stadium facility over its entire life cycle.

Other inclusive objectives are;

- i. Provide additional insight for policy makers and private agents involved with investment decisions in sport facilities.
- ii. Carry out a feasibility study and develop a master plan for architectural designs of the proposed renovation of the stadium facility.
- iii. Develop systemic models to attest the relationships between resources, activities and outcomes in relation to the key objective.
- iv. Analyzing cost, schedule, value for money and risk management on projects undertaken employing the PPP arrangement compared to other conventional methods.

Project Concept

Public Private Partnership arrangements are yet to be fully utilized in Kenya especially in the delivery and management of social infrastructure. The government has fully embraced and set laws to govern and monitor its implementation on mostly economic infrastructure and currently, a lot of proposed construction projects are in line to be delivered under various models of the PPP arrangement. On account of that, it is therefore necessary to come up with an effective PPP arrangement model that could be implemented in the provision and management of social infrastructure especially a stadium facility as in this case.

Public Private Partnership arrangements have a variety of cooperative procurement models such as BBO, BOO, BOOT, DBO, BTO, DBFO, BLOT and BOT just to name a few. Coming up with the most effective model for a given PPP project mainly depends on the degree of risk involved, mode of private sector entry especially in the financing of the project and concession period if needed. It is however clear that the PPP models outline the degree of private sector involvement and degree of private sector risks. A good model will hence for sure attract private investors and investments to stadium construction, refurbishment and management.

With regards to the main objective of this thesis project, a case study of the current status quo of the Nairobi City Stadium will be involved to identify the deteriorating conditions of the facility, and eventually come up with an effective PPP arrangement model that will suit its renovation and improved management for future sustainability of the facility.

Project Concept Justification

Large financial shortfall in available public funds, inability of international institutions to cover the costs and the aim to attain the MDGs to achieve the Vision 2030, most governments including the Kenyan have opted to adopt the PPP arrangement in the delivery of in-demand infrastructure to the public. Ever since embracing the implementation of the PPP arrangement, the Kenyan government has given the green-light to a pipeline of projects to be undertaken under the arrangement.

Under the arrangement too, a variety of public social infrastructure such as hospitals, schools, prisons and stadiums can not only be constructed but also managed efficiently allowing the government to concentrate the limited public funds elsewhere. With this in mind, the Kenyan government has set aside some funds to aid in the construction and maintenance of three stadiums under the PPP arrangement. The Sports, Culture and Arts Ministry has also invited bids from investors to carry out feasibility studies and develop a master plan for architectural designs of the proposed facilities. This depicts the seriousness of the plan and therefore it will be essential at this point to come up with an effective PPP arrangement model to be implemented for the realization of the infrastructure. This thesis project hereby aims at establishing an effective Public Private Partnership arrangement model for the construction and or renovation and management of a stadium facility.

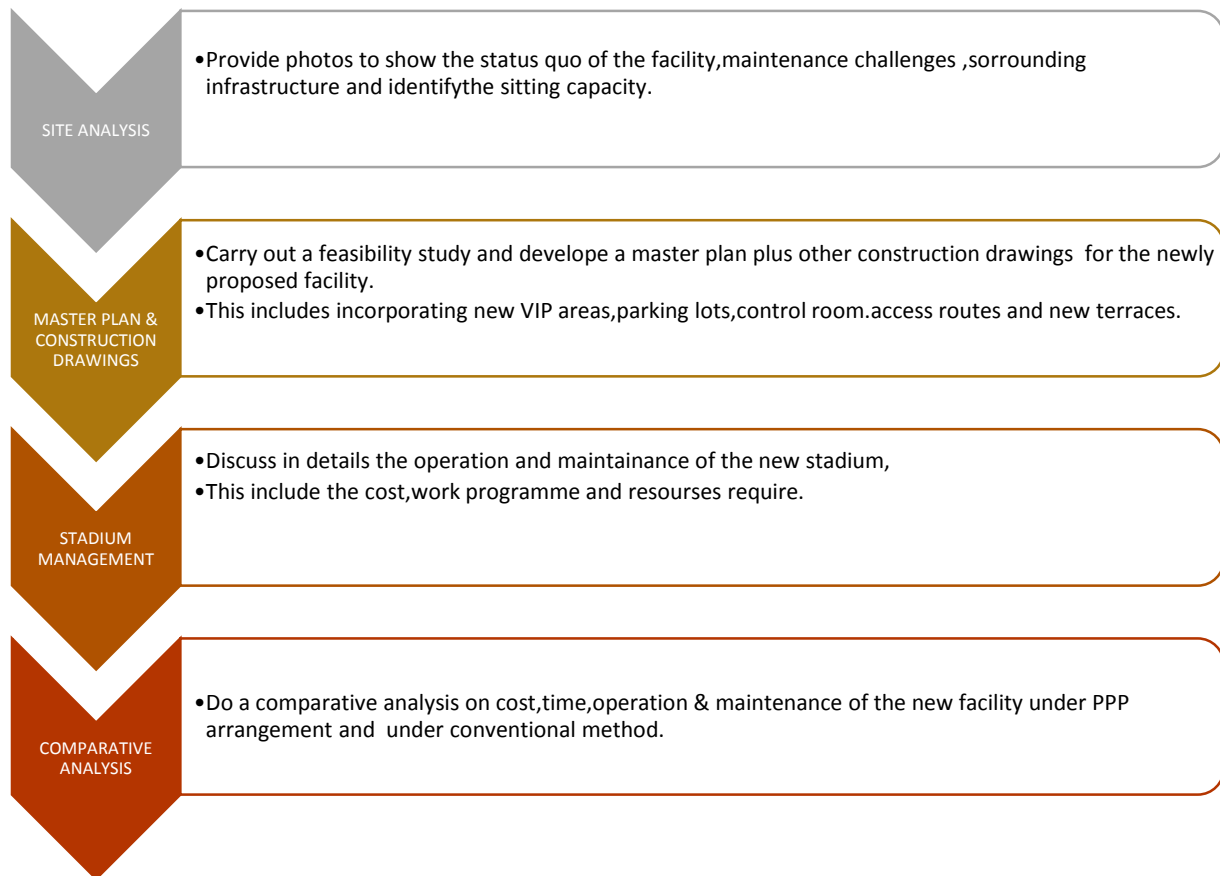
Methodology

The implementation process will mainly incorporate a comparative analysis in terms of cost, time and maintenance of the stadium facility when renovated and managed under a PPP arrangement and if the same is done under a conventional arrangement by the government.

To achieve the above mentioned objectives, the implementation process will comply to the below laid down procedure:

- 1) Do a case study of the Nairobi City Stadium and carry out a site analysis to identify features that need to be upgrade during the renovation process to ensure functional requirements of the facility are met.
- 2) Carry out a feasibility study and develop a master plan and construction drawings for the newly proposed facility
- 3) In details, discuss the management issues concerning the facility including costing, programme of works and resource requirements.
- 4) Lastly, carry out a comparative analysis on cost, time and maintenance of the improved facility putting onto consideration the facility being refurbished under the PPP arrangement and when the renovation is done using another conventional method mainly Design-Build under government procurement.

The entire methodology process has been summarized in a framed-structure as shown below.



From the methodology, the findings, recommendations and conclusions are to be realized from which an effective Public Private Partnership arrangement model would be realized for the refurbishment and management of the Nairobi City Stadium.

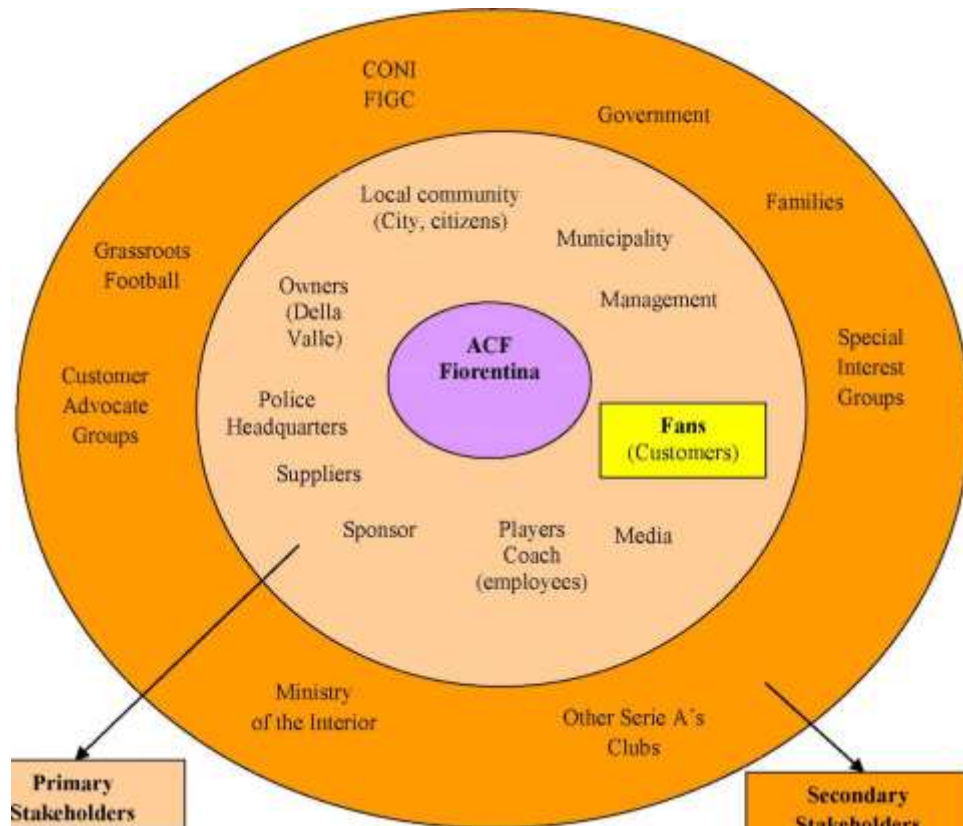
PUBLIC PRIVATE PARTNERSHIP IN FOOTBALL STADIUMS

Generally, the term “public–private partnership” depict a range of possible relationships among public and private entities in the context of infrastructure and other services. It present a framework that, while engaging the private sector, acknowledge and structure the role for government in ensuring that social obligations are met and successful sector reforms and public investments achieved.

A strong PPP allocates the tasks, obligations, and risks among the public and private partners in an optimal way. The public partners in a PPP are government entities, including ministries, departments, municipalities, or state-owned enterprises. As we know, the private partners can be local or international and may include businesses or investors with technical or financial expertise relevant to the project. Increasingly, PPPs may also include nongovernment organizations (NGOs) and/or community-based organizations (CBOs) who represent stakeholders directly affected by the project.

A stadium facility do to entail a wide variety of stakeholders who may be as obvious as one of our local football clubs who will be the tenant for the football stadium as the venue to play their home matches. The strategic partners will involve the stadium tenant team such as their kit sponsors or the general team sponsors.

Below is the breakdown of the core involved in stadium stakeholders using the ACF Fiorentina Stadium in Italy.



The key project stakeholders do also have their own visions and objectives regarding a stadium facility, their own levels of involvement, interest and investments in the project and hence it will be critical to manage these inputs through regular meeting and proper documentation.

Motivation for Engaging in PPPs

The three main needs that motivate the governments to enter into PPPs are:

1. Mobilization of private capital to speed up the delivery of infrastructure and services and eliminate subsidies.
2. Enables more efficient use of resources by improving the identification of long-term risks and their allocation, while maintaining affordable tariffs.

3. Improves the delivery of services and the management and operation of infrastructure by tapping the expertise and efficiency of the private sector.

Mobilization of Private Capital

The government is financially challenged by the demands of increasing urbanization, the rehabilitation requirements of aging infrastructure and the need to expand networks to new populations. With the government facing the ever-increasing need to find sufficient financing to develop and maintain infrastructure required to support growing population, it has become difficult for the Kenyan government to at least rehabilitate one of the oldest stadium facilities in the country. The Nairobi City Stadium has been somehow “neglected” with no major renovations having been undertaken on the entire facility.

With limited financial capacity, the government could hence be driven with the desire to mobilize private sector capital for infrastructure investment and that in this case, to refurbish the city stadium. Structured correctly, a PPP may be able to mobilize previously untapped resources from the local, regional, or international private sector which is seeking investment opportunities.

PPP as a Tool for Greater Efficiency

Public resources have proven to be scarce and the efficiency in their use is a critical challenge to the governments. This is because the public sector typically has few or no incentives for efficiency structured into its organization and processes and is thus poorly positioned to efficiently build and operate infrastructure. The private sector operators, however, enter into an investment or contracting opportunity with the clear goal of maximizing profits, which are generated, in large part, by increased efficiency in investment and operations. If the PPP is structured to let the private

operator to pursue this goal, then the efficiency of the infrastructure services will likely be enhanced.

Financing stadium developments

In all stadium projects, arranging the financing structure for the development is a challenging task in most cases. It's evident that the foundation of any financing effort is a robust business plan. Just as well, stadium owners and operators need to think ahead and identify the expected revenues and costs of operation over their planning stage. The exercise will result in understanding the financial need and its varying structure over time, the success factors of raising finance are a large and loyal fan base, strong real and predictable revenue flows, a positive operating budget and a stable cash flow position.

Although each case will be different, the methods for funding stadium development usually involve a combination of private and public sources including equity, debt, shareholders and some other special arrangements.

Securitization, which involves clubs pre-selling part of their future revenues to raise finances for stadium developments is in the rise. The typical subjects of securitization are revenues from naming rights, shirt sponsorship, catering facilities, premium seat licenses (PSLs) and more recently season ticket sales. For example, before opening its doors in 1997, the naming right of Stoke City's new stadium was sold to financial services company, Britannia, which contributed to the overall financing and finishing of the project. Apart from the naming right, the agreement between Arsenal and Emirates included an eight-year shirt sponsorship as an instrument of the new stadium's financing. Delaware North also contributed to the capital costs of Emirates Stadium, signing a 20-year exclusive contract to run the stadium's catering operation.

Public authorities may also choose developing stadia for wider socio-economic reasons. Public participation in financing stadium developments includes various forms of allowances and grants provided by governments, local municipalities and other public bodies. Tax allowances can also be used. Authorities can also contribute to financing through the provision of land at favorable terms, building access roads and upgrading adjacent public infrastructure.

There is the bond issuing as a method to raise finances for a stadium development. This instrument was used by Arsenal in 2006, when the club issued the first publicly-marketed, asset-backed bonds to refinance its bank debt used for the development of the new Emirates Stadium.

The loan structure of a PPP finance package can take the form of debt arising from loans and debentures, and, or equity finance.

Debt financing usually takes the form of bank loans or a bond issue. For example, half of the cost of Juventus stadium was financed by two commercial loan contracts signed and guaranteed by a mortgage. Generally, the conditions of loan finance depend on the criteria of the lender and the risk level of the project under consideration. The main feature that is normally agreed upon are the repayment method, the interest rates and the security. When securing a commercial mortgage against the property value of a stadium, the realizable value of the facilities should be carefully assessed. This is influenced by the fact that the revenues generated in a stadia largely depends on the variable sport success of the local team and there are usually few alternative options for venue use.

Equity financing entails an injection of risk capital into the project. The providers of equity are compensated with dividends from profits, if the project is successful, but no returns if the venture is loss making. Equity investors are often committed to the success of a project. Sources of equity

may include, public share issues, financial institutions, companies, contractors, operators, governments and international agencies.

PPP AND RISK ALLOCATION IN FOOTBALL STADIUMS

Football stadiums present some characteristics in common with other public goods in that they can generate benefits related to consumer surplus through the fans who attend games, positive externalities to non-attenders, increased community visibility and enhanced community image (Siegfried & Zimbalist, 2000; Crompton, 2004). Following this reasoning, some football stadiums are publicly-owned such as San Siro in Milan and the Rome Olympic Stadium.

Government financial support for football stadiums might be a controversial subject, though, on a closer look, we see that public funds have been widely used to this end and to consider this matter, the government and private investors would in a wise manner share the investment and the associated risks linked with football stadiums and this sharing would be achieved under the Public Private Partnership (PPP). In this sense, in order to assure public interest ,i.e., minimize the government participation without constraining private investments; it is necessary to take into account issues related to risk sharing between investors and public entities and the related allocation criterion (Martimot & Pouyet,2008)

Nevertheless, what are the risks associated with the construction and operation of football stadiums? The Lille Council of Local Municipalities (LCMU) in France pointed out that the main risks can be grouped in:

- a) **Preliminary Risks;** those related to the possibility of the existence of acceptable offers and to the objection of bidding procedures.
- b) **Conception & Construction Risks;** these apply to the definition of requirements, legal authorizations to initiate the construction and also the construction risks.
- c) **Financial Risks;** these are associated to fluctuations in interest and inflation rates.
- d) **Exploitation Risks;** these covers the sports performance risks of the host team and also the errors in the ex-ante estimation of the operation and maintenance costs (LCMU 2006)

As second question arises: how should such risks be allocated? On assuming the classical assumption in which the government (principal) is risk neutral and private operator (agent) is risk averse, the risk should be allocated to the party best able to manage it or to the agent able to bear the risk at the lowest cost (Oudot, 2007) Although in some cases it is the agent who is best able to control the risks, the agents may not be able to handle some risks in a low cost way (Medda, 2007).

Generally, Public Private Partnership come with a variety of relevant risks which need to be shared and mitigated between/among the parties' involved. The table below expounds on these risks.

Relevant risks in PPP projects

Nr.	Risks	Description of the risk
1	Site risks	Factors having to do with location such as the availability of project land, weather (frost, windstorm, etc.), public image, neighborhood, environmental issues and sustainability have negative effects on construction progress, operation or utilization.
2	Demand risks	Varying projected user demand in terms of quality, quantity, flexibility or functionality (e.g. created excess capacity).
3	Subsoil risks	Soil properties unknown to the project team and unexpected finds/discovery and contamination delay and hinder the project progress or lead to increased costs.
4	Building structure risks	Variations of assumptions regarding type or condition of existent buildings or structural parts lead to additional requirements, delay and/or additional cost.
5	Tendering and awarding risks	Poor consultation, defective contract documents, an unsuitable awarding procedure, insufficient number of bidders as well as process deficiencies lead to termination or delay of the whole awarding process or one of its phases, e.g. due to verification/review in case of deficiencies or objection.

6	Complaint and protest risks	Lack of political support and protests lead to early breaking off of the project or delays.
7	Design risks	Incomplete or deficient documents (for example, technical specifications) and/or planning errors concerning content, process/course of business/progress and process engineering lead to additional costs or delay.
8	Contractual risks	Inconclusive description of scope of services, of performance standards or of performance limitations, indistinct regulations after termination of the contract and/or deficient documentation of stipulated performances may cause contract conflicts, conciliatory proceedings or suit proceedings.
9	Approval risks	Delayed issuing (or no issuing) of required adjudication, clearance and/or approval lead to additional costs or delay.
10	Input risks	Production factors plus real estate which could only be procured with inferior quality, in small quantities, at increased costs and/or may not be procured in due time.
11	Interface risks	Disruptions during the processing of goods and services as a consequence of the joint coexistence of the essential performance to be achieved and the performance of the private partner.

12	Management risks	Defective temporal planning and/or insufficient description of the competence, the communication paths, the personnel application and resource application, or an insufficient control of subcontractors as well as the neglected controlling duties and executive functions disturb the smoothness of the project course (negative effects on the achievement production) and lead to delays or cost increases.
13	Technical implementation risks	Conversion mistakes in construction logistics, quality management, fault removal, worker security, conservation of monuments and historic buildings, art in the construction and or construction method lead to the disregard of technical demands.
14	Technology risks	Technical innovations require the exchange of outdated technical arrangements and facilities to guarantee competition ability.
15	Operation risks	The technical or judicial disturbances of service which hinder the performance and the availability, quality or quantity of the services to be rendered.
16	Risks arising from change in service standards	Unforeseen changes of the service standards (functional space planning program, space allocation plan, facilities, constructive and operational demands of the user) during the construction and operation

		period by the principal or user require the reworking of the planning or rebuilding and change-over measures.
17	Maintenance risks	Faulty or omitted inspections, servicing and repairs lead to secondary damages, cost increases or delays.
18	Vandalism risks	Non-operational, deliberately caused damages (e.g. theft, destruction) lead to additional necessary measures, costs not calculated as well as delays.
19	Financial risks (incl. changes in interest rates)	The capital to be introduced (including the conveyance means) for middle- or long-term financing cannot be raised or not according to the planned conditions (e.g. level of interest rates, terms).
20	Inflation risks	Inflation-conditioned undeterminable divergences between actual and planned costs or services worth the cost.
21	Tax risks	Change of the tax laws and rise of the tax rates which lead to additional financial charges for the project and/or for the partners.
22	Income risks	Revenue from the use (e.g. entrance fees) deviates from the estimated revenue (decisive in user-financed projects, e.g. baths).
23	Risk of the principals insolvency	The principal cannot pay his bills of debt, or at least not on time

24	Risks of contractors insolvency	The insolvency or the breakdown in service of one or several private project partners hinder the handling of the project and lead to delays and/or additional costs.
25	Risks of changes in law and standards	Changes of more general legal regulations (e.g. construction regulations) and/or norms to be applied, ordinances and directives with effects on the achievement production
26	Force majeure	Effects of force majeure (natural disasters, war etc.) damage or destroy the project.
27	Exploitation risks	Uncertainty about the market value of the object of the contract at the end of the contract (at the end of the contract period or with premature termination of contract).

Source: Leidel, Alfen, 2009, p. 7-9.

PPP COOPERATION MODELS

PPPs are complex contract schemes which have to be entered into with caution, on a case by case basis.

PPP models can be used for two broad infrastructure purposes:

- 1) Use for new infrastructure e.g. Greenfield projects,
- 2) Use for already existing infrastructure i.e. brownfield, as in this case, the rehabilitation of Nairobi City stadium.

There are a range of PPP models that allocate responsibilities and risks between the public and private partners in different ways.

Construction Support

It is the most wide-ranging form of PPP contract, where the private operator is involved in the design and construction phases of new infrastructure, and carries at least some of the associated risks. Some of the most common forms of construction support include:

Lease Build Operate (LBO): A private firm is given a long-term lease to develop and operate an expanded facility using its own funds. It recovers its investment, plus a reasonable return over the term of lease and pays a rental fee. The facility remains publicly owned

Design Build Operate (DBO): The public authority entrusts the private sector with the design, construction and operation of new facilities, for a fixed period of time, however, they remain the property of the public authority.

Build-Transfer-Operate (BTO): Private sector after designing and building the facility, entitles the facility to the public authority. Afterwards, private sector operates the facility for a specific period. This PPP model is also referred as Design-Build-Operate (DBO).

Build Operate Transfer (BOT): A private developer is awarded a franchise in the form of a concession, to finance, build, own, and operate a facility. Hence, this is sometimes referred to as build, own, operate, and transfer. The developer collects the user fees for a specified period, after which ownership of the facility reverts back to the public sector. This arrangement is similar to BTO, but may encounter legal, regulatory, and liability issues during the long period of private ownership before the transfer.

Build-Own-Operate (BOO): The private sector finances, builds, owns and operates a facility or service in perpetuity. The public constraints are stated in the original agreement and through on-going regulatory authority.

Buy-Build-Operate (BBO): Transfer of a public asset to a private or quasi-public entity usually under contract that the assets are to be upgraded and operated for a specified period of time. Public control is exercised through the contract at the time of transfer.

Design-Build-Maintain (DBM): Private party assume same responsibilities as in the previous BT model, however, private sector also maintains the facility. Like in the BT-model, public sector is responsible for operations.

Build-Own-Operate-Transfer (BOOT): This model combines previous PPP models with private financing. In addition to the design-build-operate requirements of private partner, government grants a franchise to the private partner giving it also responsibility of project financing.

Alternatively Government can also grant these rights under a long term lease. At the end of the specific period, private partner transfer ownership of the franchise back to the government.

Build-Lease-Operate-Transfer (BLOT): A private entity receives a franchise to finance, design, build and operate a leased facility (and to charge user fees) for the lease period, against payment of a rent.

Design-Build-Finance-Operate (DBFO): The private sector designs, finances and constructs a new facility under a long-term lease, and operates the facility during the term of the lease. The private partner transfers the new facility to the public sector at the end of the lease term.

Service Contracts

The private sector provides a package of specific services to a public institution but the public sector retains the overall operational responsibility. Service contracts can in practice, take many forms, but two of the most common ones are:

Management support: The private operator supplies the public institution with human and technical resources for a fee. It provides logistical, operational, and financial support for the institution.

Operation & Maintenance Contract (O & M): The private operator is in charge of the daily maintenance of the facilities. It is paid for its services by the public authority according to specific and qualified performance criteria. Unlike management support, the private operator may in some cases take on the responsibility for operating the facilities.

Delegated Management Contracts

In this type of contract, the public sector retains overall ownership of the assets, but delegates the responsibility for the operation of the assets to a private operator, for a definite period of time.

Concession: The public authority fully entrusts the private operator with the management of services and all necessary investment for a period of 20 years or more. The private operator invoices the end-users directly, with the public authority retaining strict control over service terms, as well as all key decisions related to applicable rates and targets.

Lease agreement: The private operator manages the facilities for a period usually between 5 and 15 years, and is responsible for maintaining and reviewing the facilities according to the terms of the contract. In this capacity, it takes charge of all personnel and existing assets, but is not responsible for financing new facilities. The public authority remains responsible for all new investment and compliance to existing norms. The private sector operator invoices the end-users directly.

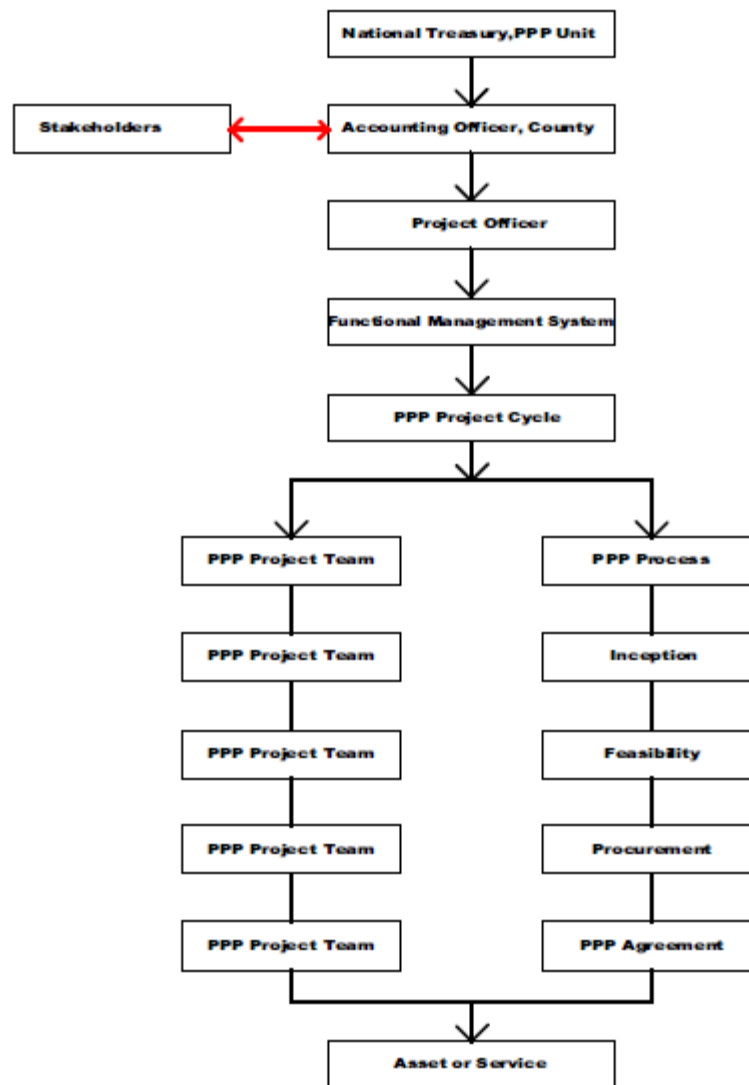
Each PPP model has its strengths and weaknesses which must be recognized and integrated. PPP does not provide a “quick fix” and should be applied only where suitable and when clear benefits and advantages can be demonstrated. PPP structures must be adapted to sectoral and project context. Desired impacts and benefits will influence PPP selection and design.

Enabling Frameworks

Enabling legislation must be in place before PPP programmes can be embarked on in a country.

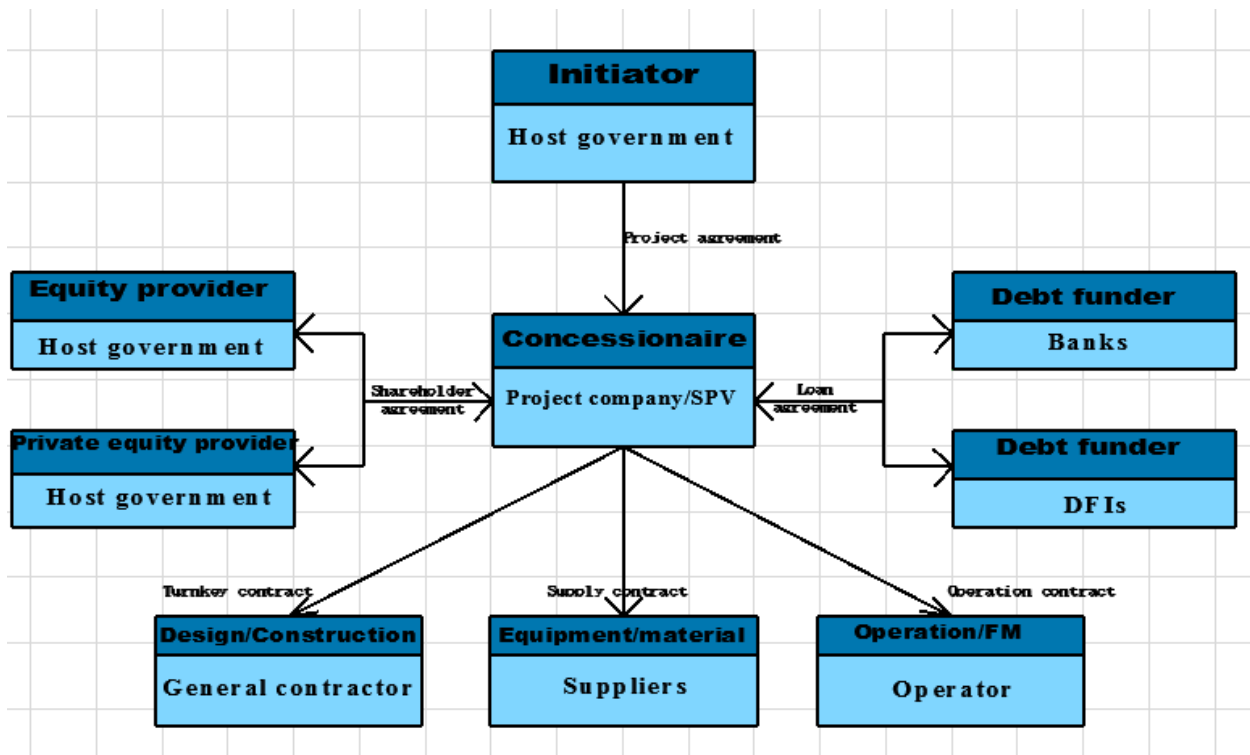
The Kenyan Government has demonstrated this by coming up with various legal, regulatory and administrative frameworks to demonstrate a clear, long-term political commitment to the use of PPP. This is because PPP unavoidably involve highly complex commercial and financial structures as an attributable to, firstly, the many stakeholders involved and, secondly, the wide range of risks associated with the project which has to be allocated properly.

With legal, regulatory and administrative frameworks in place, plus the inclusion of relevant evaluation and performance indicators, a relevant generic PPP model framework shown below can be developed.



Contractual Framework

A PPP project involves a number of important contractual arrangements among the participants. It is a complex network of relationships involving multiple parties and their formal relationships are defined by contracts. The figure below illustrates the principle parties and contracts in a typical PPP project structure.



Instead of the public sector procuring a capital asset by paying it up-front and in full out of the state budget, in a typical PPP project a single, stand alone, special purpose business, the Project Company (or SPV), is created. This company is operated and financed by the private sector alone or with public shares, and delivers the necessary service to the public sector under the framework of a long-term concession in return of payment commensurate with the service levels provided. The Project Company raises the required finance, both debt and equity, secured against the performance of the contracts for the underlying service. The funds are raised against the expectation of the projected cash-flows generated by the project.

Project Shareholders and their Perspectives

Every PPP project will involve the following main shareholders;

1. The project executing organization.
2. The project company.
3. Lending banks.
4. Development finance institutions (DFIs).
5. Contractor, operator and other supplier

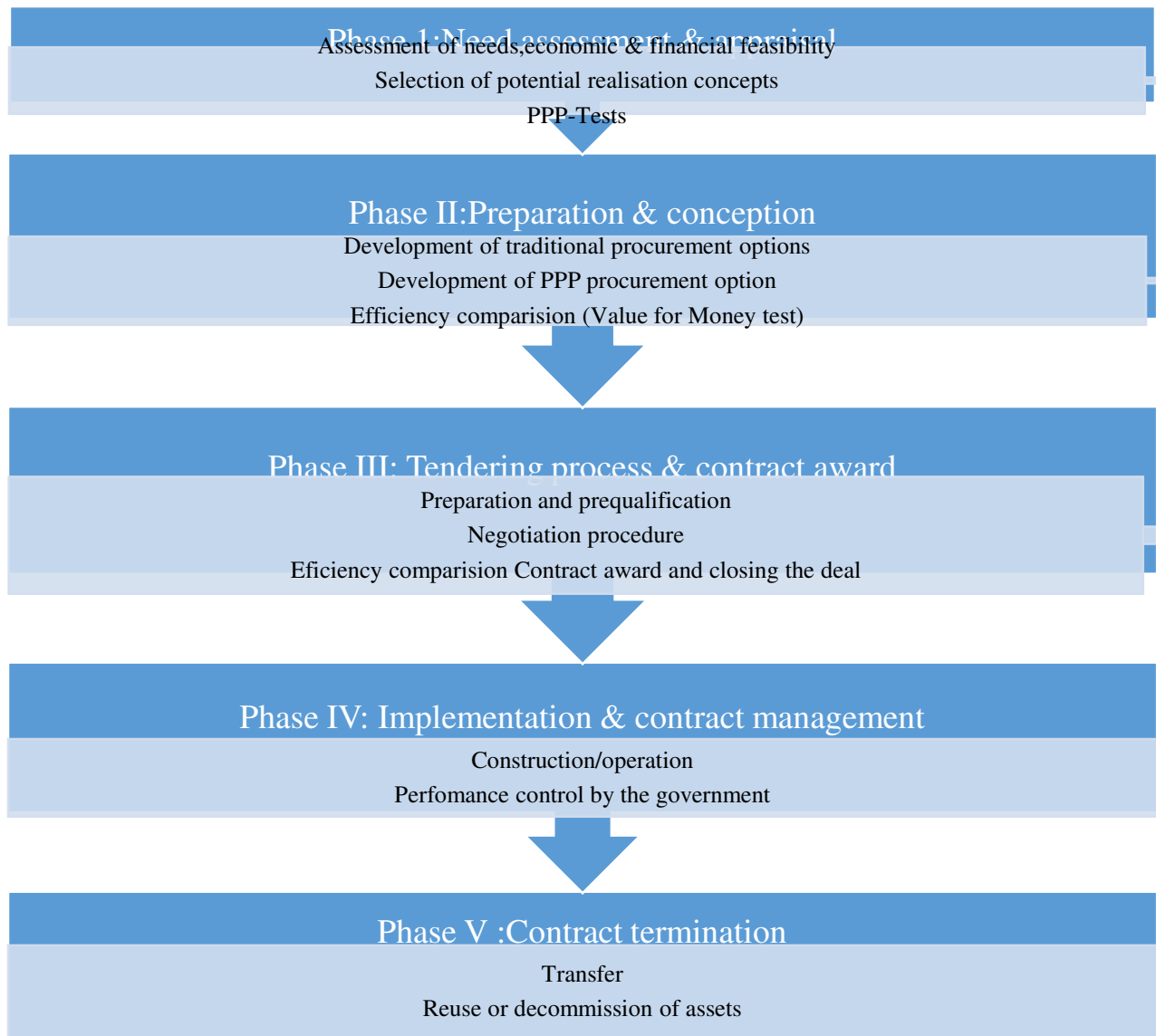
It is difficult to generalize each of the shareholders' objectives because of the diversity of subject-matter of the PPP projects. However, those objectives at the highest level remain the same from one project to another. The principal project stakeholders and their contributions to the project are summarized in the table below;

Objectives	Contributions
<u>Project executing organization</u> Efficiency gain Leveraging of government budget Acceleration of the project Better service quality Compliance with requirement and regulations	Concession/ licenses Service fee
<u>Sponsors</u> Adequate rate of return	Equity

Strategic capability	Competence and experience
<u>Investors</u> Maximizing of return	Private equity Monitoring of quality Financial competence
<u>Lending banks</u> Loan repayment Careful financial evaluation	Debt Monitoring of quality Financial competence
<u>Development finance institutions (DFIs)</u> Loan repayment Support of development goals	Debt Monitoring of quality Financial competence
<u>Construction contractor</u> Sufficient margin	Required construction work Turnkey fixed-price contract
<u>Facility manager and operators</u> Sufficient margin	Required service Fixed-price contract

Phases of a PPP Project

The phases of PPP projects may vary with the different categories of PPP as described so far, but PPP generally evolves through a series of the following phases depicted in the figure below.



The Nairobi City Stadium

The following information is based on the construction of a new stadium to meet the needs of football. It is, however, recognized that the refurbishment of an existing stadium may provide a more cost effective solution.

Specific Requirements for Football

A high quality floodlit 'reinforced' natural grass football pitch for competition use. The pitch dimensions will be of a FIFA standard pitch dimensions area of 105m x 68m with a minimum width of 1.5m around the full perimeter.

Cost Drivers

There are a number of variables in stadium / grandstand design which have a significant impact on the design and cost of the building. These cost drivers are to be considered at an early stage of the design to ensure the stadium proposal is feasible from both financial and operational perspectives.

Gross Floor Area

The GFA of the proposed Nairobi City Stadium will definitely increase and similarly will the capacity from 15,000 to 23,000. This will result to a balanced cost per seat.

Pitch Level - Sunken Bowl

The pitch and lower tier are to be excavated below the existing ground level;

This is to reduce the overall height, which may assist planning regulations;

Reduce unwanted space below lower tier is not created;

No framed structure below the lower tier is required as the tier is constructed on the ground;

Shape – Radial (continuous or circular bowl)

- Improved sightlines
- Potential aesthetic improvements
- Less efficient use of internal space due to curvature.
- Larger footprint required
- Increased cost of curved materials
- Increased difference from pitch for central viewing areas
- Construction cost premium of up to 5% over orthogonal design on total stadium cost.

Shape – Orthogonal

Simple structural design allows repetition of materials and structure

Efficient internal space planning

Smaller footprint possible

Seating arrangement in closed corners are often aesthetically poor.

Main/Primary Stand

The primary stand carries a higher cost than other stands. This may be due to larger hospitality areas in the prime viewing stand, changing rooms, offices, etc.

Benchmarking

The table below identifies the £/m² for four stadium/ grandstand projects;

Project	Nr /Seats	£/seat	M²	M²/seat	£/m²	£
Harlequins	3872	1146	4072	1.05	944	4,437,777
Aberdeen	25000	1043	30089	1.20	866	26,063,633
Hull	25000	1149	35810	1.43	802	28,730,029
Huddersfield	8500	1996	10894	1.29	1557	16,962,209

Expressed as costs £/m² the costs identify a range from £800/m² to £1,600/m². Costs at the £800 end of the scale generally reflect a basic design and level of finishes. Costs near to £1,600/m² generally reflect a more complex design, two or more tiers, and a greater level of finish.

In terms of cost per seat, the range is £1043 to £1,996/seat. This cost is a function of the building cost £/m² and the ratio of built area per spectator. Although common, this is not a particularly useful expression since in itself it provides no further explanations for differences that might appear between one set of costs and another.

The guideline cost for the proposed Main Stand in the Nairobi City Stadium has been set at £1,000/m². A basic level of finish has been assumed with adjustments for the levels of hospitality and orthogonal shape.

The guidelines below were also found useful appropriate in determining the cost of the refurbishment of the new stadium.

Accommodation Type	Seating Bank	Spectator Stand	Main Stand
Description	Simple uncovered, seating terrace, external concourse with separate concession points and toilet provisions	Covered stand with seating terraces, basic concourse, concession points and toilet accommodation	As spectator stand but including player accommodation, and facilities for premium/hospitality seats (suites, lounges etc.) for approx. 5% of overall capacity
Area per seat	0.5m ² /st	0.85 - 1.25m ² /st	1.30 - 1.80m ² /st
Cost per seat	£220 - 300	£650 - 1,250	£1,300 - 2,000

Cost Summary

Description	Unit	Quantity	Rate	Amount
Main Grandstand	M ²	9,690	154,000	1,492,260,000
Ancillary Buildings	M ²	460	61600	28,336,000
Synthetic Training Pitch	Item	1		58,520,000
Seating	Nr	23000		1,487,640,000
Car Park and Landscaping	Nr	200	123,200	24,640,000
TOTAL				<u>3,091,396,000</u>

Analyzing the cost of the proposed renovated Nairobi City Stadium

Project	Nr /Seats	£/seat	M ²	M ² /seat	£/m ²	£
Renovated Nairobi City Stadium	23,000	872	24,000	1.04	836	20,074,000

ESTIMATED PROJECT COST

	DESCRIPTION	AMMOUNT (KSHS)
1	Total construction cost Construction cost of multipurpose stadium + Associated facilities @Ksh 128,808/m2	3,091,396,000
2	Preliminaries Preliminaries (5% Of The Construction Costs)	154,569,800
3	Contingencies Construction Contingencies (5% Of The Construction Costs & Preliminaries)	162,298,290
4	Licenses and Approvals NEMA License Drawing Approvals (Architectural & Structural) Topographical Survey Geotechnical site investigation	3,500,000 1,000,000 100,000 100,000
5	Professional Fees - 8.0% Of On-Site Works (Architect, Civil & Structural Engineers, Quantity Surveyors, Mechanical & Electrical Engineers)	274,311,680
6	Professional Fees -2% of on-site works incl.VAT *(Project Manager)	61,827,920
7	Legal & Administrative Fee	2,000,000
8	Cost of Land	40,000,000
9	Total Project Cost	3,764,103,690

