



# NGORONGORO CONSERVATION AREA AUTHORITY

Software Requirements Specification

## Ngorongoro E-Auctioning Module

Version: 1.1

Date: 2025-09-10

Status: Updated Draft

[www.ncaa.go.tz](http://www.ncaa.go.tz)

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# 1 Document Information

| Field           | Value                          |
|-----------------|--------------------------------|
| Project Name    | Ngorongoro E-Auctioning Module |
| Version         | 1.1                            |
| Date            | 2025-09-10                     |
| Project Manager | TBD                            |
| Tech Lead       | TBD                            |
| Qa Lead         | TBD                            |
| Platforms       | ['Web']                        |
| Document Status | Updated Draft                  |



## 2 Project Overview

### 2.1 What Are We Building

#### 2.1.1 System Function

A comprehensive electronic seasonal campsite allocation and management module within the Safari Portal platform, featuring competitive bidding, automated compliance verification, and payment processing. The module replaces manual seasonal campsite allocation with transparent electronic auctions.

#### 2.1.2 Users

- Investors/Camp Owners (tourism companies seeking seasonal campsite concessions)
- Reviewers/Compliance Officers (NCAA staff for verification and compliance)
- Performance Recorders (monitoring and evaluation staff)
- System Administrators (technical module management and maintenance)
- Planning and Monitoring Users (NCAA planning and oversight staff)
- Machine/Non-Person Users (module-to-module authentication for internal communications)

#### 2.1.3 Problem Solved

Current Status: NCAA currently uses a manual, paper-based allocation process for seasonal campsites that lacks transparency, automated compliance verification, and efficient payment processing. The module addresses the need to transition from manual seasonal campsite allocation to a modern electronic auction platform within Safari Portal. This focuses specifically on seasonal campsites (3-6 month temporary operations) as opposed to permanent physical campsite infrastructure. The solution ensures fair competition, proper compliance verification, efficient payment processing, and better revenue optimization for seasonal camping operations.

#### 2.1.4 Key Success Metric

100% electronic auction completion rate for all seasonal campsite allocations with 95% automated compliance verification accuracy (5% requires manual review for complex cases requiring human judgment) and revenue optimization through competitive bidding meeting minimum deposit thresholds

## 2.2 Scope

### 2.2.1 In Scope

- Electronic Competitive Bidding Platform for seasonal campsites within Safari Portal
- Real-time bidding capabilities with live auction updates
- Real-time notification system for bid alerts and auction status (email and SMS)
- Anonymous Bidding functionality (showing bid amounts only, not bidder identity)
- Automatic Eligibility Verification using authentication module and MNRT data (TTLB is inside MNRT)
- Document Management and Verification Module with upload capabilities
- G-EPG Payment Gateway Module for government payments
- Automated Invoice Generation (TZS 1,000,000 application fees per selected site)
- Deposit Management (minimum TZS 48,841,380.00 camping fees per site)
- Contract Management Module (3-year renewable contracts, 3-6 month seasonal operation)
- Automated Evaluation Module (70% commitment deposit, 30% bookings with evidence)
- Compliance and Performance Monitoring with NCAA regulations
- Season End Management (site vacation, structure removal, waste disposal tracking)
- Virtual Site Visit module for campsite viewing
- Physical visit booking module alongside virtual visits
- Multi-site Application support (maximum 2 sites per season per applicant)
- Visitor data acquisition from other Safari Portal modules
- GIS data and imagery module for campsite visualization
- Campsite status management (vacation, healing, disabled, active)
- Notification reminder module (email and SMS) for bidding and season end processes
- Excel document upload for booking evidence with visitor names
- FIFO tie-breaking mechanism for identical evaluation scores
- No upper limits policy for deposit amounts and visitor numbers

### 2.2.2 Out Of Scope

- Physical campsite infrastructure development or maintenance
- Wildlife conservation management modules beyond seasonal campsite allocation
- General tourism booking modules outside seasonal campsites
- Financial auditing and accounting modules (beyond automated invoicing)
- Permanent campsite management (only seasonal 3-6 month operations)

- Mobile applications for tourists or any mobile platform development
- Digital token management (focus on seasonal campsite auctioning only)
- Credit note management (handled by external financial modules)
- Visitor management (visitor data obtained from other Safari Portal modules)
- Equipment rental and logistics management for camping operations



## 3 User Requirements

### 3.1 Authentication User Management

| Feature Code  | I Want To   | So That I Can   | Priority | Notes   |
|---------------|---|---|----------|---|
| FT-AUTH-REG   | Create internal users and assign roles to them. By default, all users are sourced from Safari Portal. | Created users can later login the digital auction site.                       | Must     | User Flow: Registration phase for internal users.<br>Roles: System Administrator.<br>Dependencies: None   |
| FT-AUTH-LOGIN | Log in and out securely with role-based access  | Access my dashboard and perform role-specific functions based on my user type | Must     | User Flow: Authentication phase for all user roles.<br>Different access levels for Investors, Reviewers/ Compliance, Performance Recorders, System Administrators, Planning and Monitoring Users, Machine/ Non-Person Users. Username and password managed by authentication module.<br>Dependencies: Safari Portal |

| Feature Code    | I Want To   | So That I Can   | Priority | Notes  |
|-----------------|---|---|----------|--|
|                 |   |   |          | authentication module  |
| FT-AUTH-VERIFY  | Complete automatic eligibility verification during registration | Ensure only qualified companies can participate in bidding                  | Must     | User Flow:<br>Investor Verification phase. Audited Financial statement upload and verification, compliance history check if available, BRELA certificate (incorporation documents) upload required.<br>Dependencies:<br>FT-AUTH-LOGIN      |
| FT-AUTH-PROFILE | Manage my company profile and upload required documents         | Keep my information current and maintain compliance for auction eligibility | Must     | User Flow:<br>Profile management phase.<br>Document upload for audited financial statements, BRELA certificate (incorporation documents), Excel document with expected visitor names as booking evidence (re-uploadable).<br>Dependencies: |



| Feature Code           | I Want To   | So That I Can  | Priority | Notes  |
|------------------------|---|--|----------|--|
|                        |   |  |          | FT-AUTH-<br>VERIFY   |
| FT-AUTH-<br>COMPLIANCE | Be automatically<br>screened for<br>non-compliance<br>history | Ensure only<br>compliant<br>operators<br>participate in<br>auctions    | Must     | User Flow:<br>Compliance<br>verification<br>phase.<br>Applicants with<br>non-compliance<br>record in<br>previous lease<br>shall not be<br>eligible for<br>application.<br>Role:<br>Reviewers/<br>Compliance<br>Officers verify<br>compliance<br>status.<br>Dependencies:<br>FT-AUTH-<br>VERIFY |
| FT-AUTH-<br>SYSTEM     | Authenticate<br>module-to-<br>module<br>connections           | Enable secure<br>communications<br>with other Safari<br>Portal modules | Must     | User Flow:<br>Module<br>communication<br>phase. For<br>communication<br>with other<br>modules or<br>systems.<br>Dependencies:<br>None (parallel to<br>human<br>authentication)   |



## 3.2 Core Business Features

| Feature Code   | I Want To  | So That I Can  | Priority | Notes  |
|----------------|--|--|----------|--|
| FT-CAMP-MANAGE | Create, edit and manage campsite listings with GIS data and status control | Control which seasonal campsites are available for auction bidding | Must     | User Flow: Pre-auction setup phase. Role: System Administrators and Planning and Monitoring Users. Campsite actions include create/edit, zone assignment, status updates (vacation, left to heal, disabled, active). Only active campsites from a given zone are shown for bidding. Includes GIS data and images for map visualization from GIS module. Dependencies: Authentication user management |
| FT-AUCT-CREATE | Create new seasonal campsite auction with detailed specifications          | Offer available seasonal campsites for competitive bidding         | Must     | User Flow: Auction initialization phase. Role: System Administrators. Details to be specified include: The title of the auction, The seasonal  |

| Feature Code   | I Want To   | So That I Can   | Priority | Notes   |
|----------------|---|---|----------|---|
|                |   |   |          | <p>period (3-6 month e.g November-April), maximum number of tents per site e.g (15 tents per site) and an upload of the terms and conditions of the auction that will be displayed to the investor to accept.</p> <p>Dependencies: FT-CAMP-MANAGE</p>   |
| FT-AUCT-BROWSE | Browse available campsite auctions with comprehensive information and GIS visualization | Make informed decisions about which sites to select for bidding | Must     | <p>User Flow: Auction discovery phase. Role: All verified Investors/Camp Owners from FT-AUTH-VERIFY. Virtual site visit capabilities, GIS data with map and images display from GIS module, 7-day inspection period from advertisement date, detailed site specifications and location information. Free browsing for all verified users.</p> |

| Feature Code           | I Want To   | So That I Can  | Priority | Notes  |
|------------------------|---|--|----------|--|
|                        |   |  |          | Dependencies:<br>FT-AUTH-<br>VERIFY  |
| FT-SITE-VISIT          | Virtual site visits<br>or Book physical<br>site visit                   | Inspect<br>campsites before<br>making selection<br>and payment<br>decisions                          | Must     | User Flow: Pre-<br>selection<br>inspection<br>phase. Role:<br>Investors/Camp<br>Owners. Virtual<br>site visit<br>capabilities,<br>physical visit<br>booking option<br>using<br>scheduling<br>module, 7-day<br>inspection<br>period option<br>from<br>advertisement<br>date.<br>Dependencies:<br>FT-AUCT-<br>BROWSE |
| FT-PAY-<br>APPLICATION | Pay non-<br>refundable<br>application fees<br>for selected<br>campsites | Commit to<br>bidding on my<br>selected<br>campsites and<br>gain access to<br>the bidding<br>platform | Must     | User Flow: Site<br>selection and<br>payment phase.<br>Role: Investors/<br>Camp Owners.<br>TZS 1,000,000<br>per selected<br>campsite from<br>FT-AUCT-<br>BROWSE,<br>automated e-<br>invoice<br>generation using<br>payment<br>module,<br>payment enables<br>bidding access<br>for selected sites                    |

| Feature Code   | I Want To   | So That I Can   | Priority | Notes   |
|----------------|---|---|----------|---|
|                |   |   |          | only.<br>Dependencies:<br>FT-AUCT-BROWSE (site selection)   |
| FT-AUCT-BID    | Place competitive bids anonymously with real-time updates | Compete for my selected campsites while maintaining bidding privacy | Must     | User Flow:<br>Active bidding phase. Role: Investors/Camp Owners who paid via FT-PAY-APPLICATION.<br>Anonymous bidding showing bid amounts only (not bidder identity), real-time bidding capabilities, unlimited bid submissions during auction period, minimum reserve price based on TZS 48,841,380.00 which is equivalent to 70 dollars for 30 visitors for 30 days.<br>Dependencies:<br>FT-PAY-APPLICATION |
| FT-AUCT-NOTIFY | Receive real-time notifications about bid                 | Stay informed about auction developments                            | Must     | User Flow:<br>Throughout bidding phase. Role: All bidding   |

| Feature Code | I Want To                                      | So That I Can  | Priority | Notes   |
|--------------|--|--|----------|---|
|              | updates and auction progress                   | and respond to competing bids  |          | <p>participants. Real-time notifications via in-app, email and SMS using notification module for; outbid alerts, bid acceptance confirmations, auction closing warnings and automated notification during bidding. in-app and email should be prioritized as notification channels for cost reasons.</p> <p>Dependencies: FT-AUCT-BID</p> |
| FT-AUCT-EVAL | Have my bids evaluated using automated scoring | Ensure fair and transparent evaluation based on predetermined criteria | Must     | <p>User Flow: Post-bidding evaluation phase. Role: Automated evaluation with NCAA oversight. Automated scoring: 70% commitment deposit (minimum TZS 48,841,380.00), 30% bookings with evidence (minimum 270 visitors via Excel upload with visitor names).</p>  |

| Feature Code   | I Want To  | So That I Can   | Priority | Notes   |
|----------------|--|---|----------|---|
|                |  |   |          | No upper limits on deposit or visitor numbers. FIFO tie-breaking for identical scores. NCAA reserves right to award sites. Dependencies: FT-AUCT-BID  |
| FT-AUCT-AWARD  | Receive auction award notifications and payment instructions | Complete the process and secure my seasonal campsite allocation | Must     | User Flow: Post-evaluation award phase. Role: Winning Investors/Camp Owners and System Administrators. Winner must pay full deposit within 5 working days or forfeit to next highest bidder, 14-day deadline for lease agreement signing. This agreement is to signed and uploaded by the investor. Uses notification module for alerts. Dependencies: FT-AUCT-EVAL |
| FT-PAY-DEPOSIT | Pay camping fee deposits for won auctions                    | Secure my seasonal campsite                                     | Must     | User Flow: Post-award payment phase. Role: Winning  |

| Feature Code       | I Want To                                    | So That I Can   | Priority | Notes  |
|--------------------|--|---|----------|--|
|                    |  | allocation and begin operations   |          | Investors/Camp Owners.<br>Minimum TZS 48,841,380.00 per site, 5-working-day payment deadline using payment module, used as advance payment for visitor camping fees.<br>Dependencies: FT-AUCT-AWARD, payment module  |
| FT-CONTRACT-MANAGE | Generate and manage digital lease agreements | Formalize my seasonal campsite allocation with proper legal documentation | Must     | User Flow: Contract formalization phase. Role: System Administrators and winning Investors/Camp Owners. 3-seasons renewable contract but 3-6 month seasonal operation only depending on the season specified in the won auction, 14-day signing deadline from deposit payment. Renewal will involve repayment of |



| Feature Code  | I Want To   | So That I Can  | Priority | Notes   |
|---------------|---|--|----------|---|
|               |   |  |          | <p>the auction amount on the beginning of each season where the contract is valid or the campsite is returned to the market and contract is cancelled.</p> <p>Dependencies: FT-PAY-DEPOSIT</p>  |
| FT-SEASON-END | Manage season end procedures with specific penalties and cleanliness requirements | Comply with NCAA regulations for structure removal and environmental cleanup | Must     | <p>User Flow: Season conclusion phase. Role: Investors/Camp Owners and Planning and Monitoring Users.</p> <p>Mandatory site vacation, structure removal, proper waste disposal tracking, cleanliness standards enforcement.</p> <p>Penalties: 50% additional fee for overstaying, eviction after 3 months at owner's cost, cleanliness violation fines.</p> <p>Notification reminders via in-app, email</p> |

| Feature Code | I Want To | So That I Can | Priority | Notes   |
|--------------|-----------|---------------|----------|---|
|              |           |               |          | and SMS using notification module during season end period. Physical site handover (5% manual process).<br>Dependencies: FT-CONTRACT-MANAGE |

### 3.3 Additional Features

| Feature Code     | I Want To  | So That I Can  | Priority | Notes  |
|------------------|--|--|----------|--|
| FT-ADMIN-USER    | Manage user registrations, approvals, and access control | Ensure only eligible and compliant operators access the auction platform | Must     | User Flow: Administrative oversight phase. Role: System Administrators. Manual override capabilities for special cases (5% manual process), compliance screening, user role management using user management module.<br>Dependencies: FT-AUTH-COMPLIANCE, user management module |
| FT-ADMIN-AUCTION | Monitor and manage auction                               | Ensure fair competition and resolve any                                  | Must     | User Flow: Auction oversight phase.  |

| Feature Code        | I Want To   | So That I Can  | Priority | Notes   |
|---------------------|---|--|----------|---|
|                     | processes in real-time  | technical or procedural issues                                   |          | Role: System Administrators and Planning and Monitoring Users. Real-time auction oversight, emergency intervention capabilities (5% manual process), bid validation, automated system messages for bid rejections. Dependencies: FT-AUCT-BID, monitoring module                         |
| FT-ADMIN-COMPLIANCE | Track and monitor operator compliance throughout contract periods | Ensure adherence to NCAA regulations and environmental standards | Must     | User Flow: Ongoing compliance monitoring phase. Role: Reviewers/ Compliance Officers and Planning and Monitoring Users. Ongoing supervision, compliance reporting, penalty tracking, performance scoring for future applications. Manual spot-checks (5% manual process). Dependencies: |

| Feature Code    | I Want To  | So That I Can   | Priority | Notes  |
|-----------------|--|---|----------|--|
|                 |  |   |          | FT-CONTRACT-MANAGE, compliance module  |
| FT-ADMIN-REPORT | Generate comprehensive reports on auction performance and compliance | Make data-driven decisions about seasonal campsite management | Must     | <p>User Flow: Reporting and analysis phase.</p> <p>Role: Planning and Monitoring Users and System Administrators.</p> <p>Revenue reports, compliance metrics, performance analytics, audit trail reports using reporting module.</p> <p>Dependencies: All core features (reporting endpoint), reporting module</p> |



## 4 Detailed Feature Requirements

### 4.1 Ft Auth Reg

#### 4.1.1 Priority

Must Have

#### 4.1.2 User Story

As a System Administrator, I want to create internal users and assign roles to them so that created users can later login to the digital auction site

#### 4.1.3 Preconditions

System Administrator authenticated, Safari Portal user data available, role assignment capabilities enabled

#### 4.1.4 Postconditions

Internal user account created with assigned roles, user sourced from Safari Portal by default, role-based access permissions configured

#### 4.1.5 Test Cases

| Id          | Description   | Weight |
|-------------|---|--------|
| AUTH-TC-001 | Successful creation of System Administrator user with full access permissions | High   |
| AUTH-TC-002 | Creation of Reviewers/ Compliance Officers with compliance dashboard access   | High   |
| AUTH-TC-003 | Creation of Performance Recorders with monitoring and evaluation access       | High   |

| Id          | Description   | Weight |
|-------------|---|--------|
| AUTH-TC-004 | Creation of Planning and Monitoring Users with oversight capabilities | Medium |
| AUTH-TC-005 | User sourcing from Safari Portal with proper data synchronization     | High   |

## 4.2 Ft Auth Login

### 4.2.1 Priority

Must Have

### 4.2.2 User Story

As a registered user, I want to log in and out securely with role-based access so I can access my dashboard and perform role-specific functions based on my user type

### 4.2.3 Preconditions

User account exists and is verified, Safari Portal authentication module is available, user has valid credentials

### 4.2.4 Postconditions

User authenticated with appropriate role-based access level, session established, dashboard accessible with role-specific functions visible

### 4.2.5 Test Cases

| Id           | Description  | Weight |
|--------------|--|--------|
| LOGIN-TC-001 | Successful login for Investor/ Camp Owner with access to bidding dashboard | High   |
| LOGIN-TC-002 | Successful login for Reviewers/Compliance                                  | High   |

| Id           | Description   | Weight |
|--------------|---|--------|
|              | Officers with access to compliance dashboard                        |        |
| LOGIN-TC-003 | Successful login for System Administrators with full module access  | High   |
| LOGIN-TC-004 | Failed login with invalid credentials and appropriate error message | Medium |
| LOGIN-TC-005 | Secure logout with session termination and redirect to login page   | Medium |

## 4.3 Ft Auth Verify

### 4.3.1 Priority

Must Have

### 4.3.2 User Story

As a registered company from Safari Portal, I want automatic eligibility verification during login so I can ensure only qualified companies participate in bidding

### 4.3.3 Preconditions

User logged in via FT-AUTH-LOGIN from Safari Portal authentication module, investor profile exists in Safari Portal

### 4.3.4 Postconditions

Financial statement verification completed, compliance history checked, BRELA certificate (incorporation documents) validated, eligibility status determined for auction participation



### 4.3.5 Test Cases

| Id            | Description  | Weight |
|---------------|--|--------|
| VERIFY-TC-001 | Successful verification of investor profile from Safari Portal with complete documentation | High   |
| VERIFY-TC-002 | Verification failure for incomplete financial statement documentation                      | High   |
| VERIFY-TC-003 | Financial capacity verification for Tanzanian companies (TZS 200M minimum)                 | High   |
| VERIFY-TC-004 | Financial capacity verification for foreign companies (TZS 500M minimum)                   | High   |
| VERIFY-TC-005 | Compliance history check blocking applicants with previous non-compliance records          | High   |

## 4.4 Ft Auth Profile

### 4.4.1 Priority

Must Have

### 4.4.2 User Story

As a registered company, I want to manage my company profile and upload required documents so I can keep my information current and maintain compliance for auction eligibility

### 4.4.3 Preconditions

User account created and verified via FT-AUTH-VERIFY, document management module available

#### 4.4.4 Postconditions

Company profile updated, required documents uploaded (audited financial statements, BRELA certificate, Excel booking evidence), maximum 2 sites per season limit enforced, profile compliance status current

#### 4.4.5 Booking Evidence Requirements

##### 4.4.5.1 Format

Excel document (.xlsx, .xls)

##### 4.4.5.2 Content

Names of expected visitors (minimum 270 visitors)

##### 4.4.5.3 Upload Policy

Re-uploadable - companies can upload new versions to update visitor lists

##### 4.4.5.4 Validation

System validates minimum 270 visitor entries and proper Excel format

#### 4.4.6 Test Cases

| Id             | Description   | Weight |
|----------------|---|--------|
| PROFILE-TC-001 | Successful upload of audited financial statements with validation                         | High   |
| PROFILE-TC-002 | Upload and validation of audited financial statements meeting capacity requirements       | High   |
| PROFILE-TC-003 | BRELA certificate (incorporation documents) upload and verification for foreign companies | High   |
| PROFILE-TC-004 | Excel booking evidence upload with minimum 270 visitor names and re-upload capability     | High   |

| Id             | Description  | Weight |
|----------------|--|--------|
| PROFILE-TC-005 | Maximum 2 sites per season application limit enforcement and validation            | High   |
| PROFILE-TC-006 | Excel format validation and rejection of invalid file formats for booking evidence | Medium |

## 4.5 Ft Auth Compliance

### 4.5.1 Priority

Must Have

### 4.5.2 User Story

As a compliance officer, I want to automatically screen applicants for non-compliance history so I can ensure only compliant operators participate in auctions

### 4.5.3 Preconditions

User profile completed via FT-AUTH-PROFILE, compliance data module available, historical compliance records accessible

### 4.5.4 Postconditions

Compliance history screened, non-compliant applicants flagged and blocked, compliance status verified by Reviewers/Compliance Officers, eligibility determination completed

### 4.5.5 Test Cases

| Id                | Description   | Weight |
|-------------------|---|--------|
| COMPLIANCE-TC-001 | Successful compliance screening for applicant with clean compliance history | High   |
| COMPLIANCE-TC-002 | Automatic blocking of applicant with previous lease non-compliance record   | High   |

| Id                | Description  | Weight |
|-------------------|--|--------|
| COMPLIANCE-TC-003 | Manual compliance review by Reviewers/ Compliance Officers for complex cases | Medium |
| COMPLIANCE-TC-004 | Compliance status verification and documentation for audit trail             | Medium |

## 4.6 Ft Auth System

### 4.6.1 Priority

Must Have

### 4.6.2 User Story

As a system module, I want to authenticate module-to-module connections so I can enable secure communications with other Safari Portal modules

### 4.6.3 Preconditions

Safari Portal infrastructure available, API authentication framework established, certificates and tokens configured

### 4.6.4 Postconditions

Secure module-to-module authentication established, inter-module communications secured within Safari Portal

### 4.6.5 Test Cases

| Id            | Description  | Weight |
|---------------|--|--------|
| SYSTEM-TC-001 | Successful API key authentication for inter-module communications within Safari Portal | High   |
| SYSTEM-TC-002 | Certificate-based authentication for secure  | High   |

| Id            | Description  | Weight |
|---------------|--|--------|
|               | module-to-module connections   |        |
| SYSTEM-TC-003 | Token-based authentication for Safari Portal module integration                | High   |
| SYSTEM-TC-004 | Authentication failure handling and retry mechanisms for module communications | Medium |

## 4.7 Ft Camp Manage

### 4.7.1 Priority

Must Have

### 4.7.2 User Story

As a System Administrator, I want to create, edit and manage campsite listings with GIS data and status control so I can control which seasonal campsites are available for auction bidding

### 4.7.3 Preconditions

User has System Administrator or Planning and Monitoring User role, GIS module available

### 4.7.4 Postconditions

Campsite status updated (vacation, left to heal, disabled, active), GIS data and images uploaded using GIS module, only active campsites visible for bidding in FT-AUCT-BROWSE

### 4.7.5 Test Cases

| Id          | Description  | Weight |
|-------------|--|--------|
| CAMP-TC-001 | Create new seasonal campsite with GIS data, images, and active status using GIS module | High   |

| Id          | Description   | Weight |
|-------------|---|--------|
| CAMP-TC-002 | Update campsite status from active to vacation/healing/disabled and verify removal from bidding | High   |
| CAMP-TC-003 | Upload and display GIS data with map visualization and campsite images from GIS module          | High   |
| CAMP-TC-004 | Only active campsites appear in auction listings for verified users in FT-AUCT-BROWSE           | High   |

## 4.8 Ft Auct Create

### 4.8.1 Priority

Must Have

### 4.8.2 User Story

As a System Administrator, I want to create new seasonal campsite auction listings with detailed specifications so I can offer available seasonal campsites for competitive bidding

### 4.8.3 Preconditions

User has System Administrator role, campsites managed via FT-CAMP-MANAGE, GMP/MZP approved locations available

### 4.8.4 Postconditions

Auction listing created with 3-6 month seasonal periods (November-April), maximum 15 tents per site specified, auction parameters set, bidding platform ready

### 4.8.5 Test Cases

| Id            | Description | Weight |
|---------------|-------------|--------|
| CREATE-TC-001 |             | High   |



| Id            | Description   | Weight |
|---------------|---|--------|
|               | Successful creation of seasonal campsite auction for November-April period with 15 tent maximum |        |
| CREATE-TC-002 | Auction creation with minimum reserve price set at TZS 48,841,380.00 per site                   | High   |
| CREATE-TC-003 | Multiple campsite auction creation from GMP/MZP approved locations                              | Medium |
| CREATE-TC-004 | Auction timeline setup with bidding periods and application deadlines                           | Medium |

## 4.9 Ft Auct Browse

### 4.9.1 Priority

Must Have

### 4.9.2 User Story

As a verified investor/camp owner, I want to browse available campsite auctions with comprehensive information and GIS visualization so I can make informed decisions about which sites to select for bidding

### 4.9.3 Preconditions

User verified via FT-AUTH-VERIFY, auctions created via FT-AUCT-CREATE, GIS module available for visualization

### 4.9.4 Postconditions

Available auctions displayed with GIS data, maps and images shown, 7-day inspection period information provided, detailed site specifications accessible, free browsing enabled



## 4.9.5 Test Cases

| Id            | Description  | Weight |
|---------------|--|--------|
| BROWSE-TC-001 | Successful browsing of available seasonal campsite auctions with GIS visualization from GIS module | High   |
| BROWSE-TC-002 | Display of detailed site specifications, location information, and capacity limits                 | High   |
| BROWSE-TC-003 | 7-day inspection period information and virtual site visit access integration                      | Medium |
| BROWSE-TC-004 | Only active campsites visible for browsing (vacation/healing/disabled sites hidden)                | High   |

## 4.10 Ft Site Visit

### 4.10.1 Priority

Must Have

### 4.10.2 User Story

As an investor/camp owner, I want virtual site visits or to book physical site visits so I can inspect campsites before making selection and payment decisions

### 4.10.3 Preconditions

User browsing auctions via FT-AUCT-BROWSE, scheduling module available for physical visits, virtual visit capabilities enabled

### 4.10.4 Postconditions

Virtual site visit completed or physical visit booked, 7-day inspection period utilized, campsite inspection completed before selection decision

### 4.10.5 Test Cases

| Id           | Description  | Weight |
|--------------|--|--------|
| VISIT-TC-001 | Successful virtual site visit with 360-degree imagery and detailed views | High   |
| VISIT-TC-002 | Physical site visit booking through scheduling module with confirmation  | High   |
| VISIT-TC-003 | 7-day inspection period tracking from advertisement date                 | Medium |
| VISIT-TC-004 | Multiple site visits for applicants considering up to 2 sites maximum    | Medium |

## 4.11 Ft Pay Application

### 4.11.1 Priority

Must Have

### 4.11.2 User Story

As a registered applicant, I want to pay application fees for selected campsites so I can access the bidding platform for those specific sites

### 4.11.3 Preconditions

User browsed available campsites via FT-AUCT-BROWSE, selected specific campsites, eligibility verified via MNRT data, G-EPG payment module available

### 4.11.4 Postconditions

Payment of TZS 1,000,000 per selected site processed using payment module, e-invoice generated, bidding platform access granted for selected sites only

### 4.11.5 Test Cases

| Id         | Description  | Weight |
|------------|--|--------|
| PAY-TC-001 | Successful payment of TZS 1,000,000 per selected campsite with automatic e-invoice generation and bidding access | High   |
| PAY-TC-002 | Multiple site selection and payment calculation (maximum 2 sites) from FT-AUCT-BROWSE                            | High   |
| PAY-TC-003 | Failed payment handling with retry mechanism using payment module and user notification                          | Medium |
| PAY-TC-004 | Bidding access granted only for paid campsites after successful payment confirmation                             | High   |

## 4.12 Ft Auct Bid

### 4.12.1 Priority

Must Have

### 4.12.2 User Story

As a registered camp owner, I want to place anonymous competitive bids with real-time updates so I can compete for seasonal campsites

### 4.12.3 Preconditions

User is registered, eligibility verified via FT-AUTH-VERIFY, campsite selected and paid for via FT-PAY-APPLICATION, auction is live, minimum reserve price set

#### 4.12.4 Postconditions

Bid recorded anonymously (amount shown only, no bidder identity), other bidders notified in real-time of new highest bid using notification module, bid validation completed, real-time auction status updated

#### 4.12.5 Test Cases

| Id         | Description  | Weight |
|------------|--|--------|
| BID-TC-001 | Successful anonymous bid placement with automatic real-time notification via email and SMS showing amount only | High   |
| BID-TC-002 | Bid rejection for amount below minimum reserve price (TZS 48,841,380.00)                                       | High   |
| BID-TC-003 | Real-time bid updates and notifications during active bidding period using real-time communication module      | High   |
| BID-TC-004 | Bid anonymity maintenance while showing bid progression to all participants                                    | High   |
| BID-TC-005 | Automatic highest bidder determination using evaluation criteria with Excel booking evidence                   | High   |

### 4.13 Ft Auct Notify

#### 4.13.1 Priority

Must Have

#### 4.13.2 User Story

As a bidding participant, I want to receive real-time notifications about bid updates and auction progress so I can stay informed about auction developments and respond to competing bids

### 4.13.3 Preconditions

User participating in bidding via FT-AUCT-BID, notification module available, email and SMS capabilities enabled

### 4.13.4 Postconditions

Real-time notifications sent via email and SMS, outbid alerts delivered, bid acceptance confirmations sent, auction closing warnings provided, season end reminders dispatched

### 4.13.5 Test Cases

| Id            | Description  | Weight |
|---------------|--|--------|
| NOTIFY-TC-001 | Real-time outbid alert notifications via email and SMS during active bidding | High   |
| NOTIFY-TC-002 | Bid acceptance confirmation notifications with bidding status updates        | High   |
| NOTIFY-TC-003 | Auction closing warning notifications sent before bidding deadline           | High   |
| NOTIFY-TC-004 | Season end reminder notifications via email and SMS approaching end period   | Medium |
| NOTIFY-TC-005 | Notification delivery within 1 second during peak bidding periods            | High   |

## 4.14 Ft Auct Eval

### 4.14.1 Priority

Must Have

### 4.14.2 User Story

As a bidding participant, I want my bids evaluated using automated scoring so I can ensure fair and transparent evaluation based on predetermined criteria

### 4.14.3 Preconditions

Bidding completed via FT-AUCT-BID, Excel booking evidence uploaded via FT-AUTH-PROFILE, automated evaluation module operational

### 4.14.4 Postconditions

- Automated scoring completed (70% commitment deposit, 30% bookings with evidence), evaluation results calculated, tie-breaking applied using FIFO, NCAA oversight maintained, winner determination completed
- Evaluation\_formula\_category\_score:  $\text{Score} = ((\text{Candidate Value}) \div (\text{Minimum Requirement})) \times \text{Weight}$
- Evaluation\_formula\_overall\_score: Add all weighted scores for final candidate score
- FIFO - First bid submission time determines winner when final scores are identical
- No upper limits on deposit amounts or visitor numbers for scoring calculations

### 4.14.5 Test Cases

| Id          | Description  | Weight |
|-------------|--|--------|
| EVAL-TC-001 | Automated scoring calculation with 70% weight for commitment deposit (minimum TZS 48,841,380.00, no upper limit) | High   |
| EVAL-TC-002 | Bookings evaluation with 30% weight using Excel upload with visitor names (minimum 270 visitors, no upper limit) | High   |
| EVAL-TC-003 | Proportional scoring calculation using maximum excess formula for all candidates                                 | High   |
| EVAL-TC-004 |  | High   |



| Id          | Description   | Weight |
|-------------|---|--------|
|             | FIFO tie-breaking mechanism for candidates with identical final evaluation scores                 |        |
| EVAL-TC-005 | NCAA oversight capability to award sites with manual intervention when necessary                  | Medium |
| EVAL-TC-006 | Transparent evaluation results with audit trail for all scoring criteria and formula calculations | Medium |
| EVAL-TC-007 | Excel booking evidence validation with proper visitor name format and count verification          | High   |

## 4.15 Ft Auct Award

### 4.15.1 Priority

Must Have

### 4.15.2 User Story

As a winning bidder, I want to receive auction award notifications and payment instructions so I can complete the process and secure my seasonal campsite allocation

### 4.15.3 Preconditions

Evaluation completed via FT-AUCT-EVAL, winner determined, notification module available

### 4.15.4 Postconditions

Award notifications sent to winners, payment instructions provided, 5-working-day payment deadline established, 14-day lease agreement deadline set, forfeit procedures defined for non-payment



### 4.15.5 Test Cases

| Id           | Description  | Weight |
|--------------|--|--------|
| AWARD-TC-001 | Successful award notification delivery to winning bidders with payment instructions      | High   |
| AWARD-TC-002 | 5-working-day payment deadline enforcement with automatic forfeit to next highest bidder | High   |
| AWARD-TC-003 | 14-day lease agreement signing deadline notification and tracking                        | High   |
| AWARD-TC-004 | Automatic award transfer to next highest bidder upon payment default                     | Medium |

## 4.16 Ft Pay Deposit

### 4.16.1 Priority

Must Have

### 4.16.2 User Story

As a winning auction participant, I want to pay camping fee deposits for won auctions so I can secure my seasonal campsite allocation and begin operations

### 4.16.3 Preconditions

Auction won via FT-AUCT-AWARD, payment module available, G-EPG gateway accessible

### 4.16.4 Postconditions

Minimum TZS 48,841,380.00 per site payment processed, 5-working-day deadline met, advance payment credited for visitor camping fees, campsite allocation secured

### 4.16.5 Test Cases

| Id             | Description   | Weight |
|----------------|---|--------|
| DEPOSIT-TC-001 | Successful deposit payment of minimum TZS 48,841,380.00 per site via payment module | High   |
| DEPOSIT-TC-002 | 5-working-day payment deadline compliance with automatic status updates             | High   |
| DEPOSIT-TC-003 | Payment failure handling with forfeit procedures and next bidder notification       | High   |
| DEPOSIT-TC-004 | Advance payment credit application for future visitor camping fees                  | Medium |

## 4.17 Ft Contract Manage

### 4.17.1 Priority

Must Have

### 4.17.2 User Story

As a winning operator, I want to generate and manage digital lease agreements so I can formalize my seasonal campsite allocation with proper legal documentation

### 4.17.3 Preconditions

Deposit paid via FT-PAY-DEPOSIT, contract management module available, legal templates prepared

### 4.17.4 Postconditions

3-year renewable contract generated for 3-6 month seasonal operation, 14-day signing deadline enforced, contract violation penalties defined, manual ceremonial signing completed (5% manual process)

### 4.17.5 Test Cases

| Id              | Description  | Weight |
|-----------------|--|--------|
| CONTRACT-TC-001 | Automatic generation of 3-year renewable contract for 3-6 month seasonal operation | High   |
| CONTRACT-TC-002 | 14-day signing deadline enforcement from deposit payment confirmation              | High   |
| CONTRACT-TC-003 | Contract violation penalties definition and documentation                          | Medium |
| CONTRACT-TC-004 | Manual ceremonial signing process coordination (5% manual process)                 | Medium |
| CONTRACT-TC-005 | Contract end procedures definition for season conclusion                           | Medium |

## 4.18 Ft Season End

### 4.18.1 Priority

Must Have

### 4.18.2 User Story

As a camp operator, I want to manage season end procedures with specific penalties and cleanliness requirements so I comply with NCAA regulations

### 4.18.3 Preconditions

Seasonal period ended (typically April), operator has active contract via FT-CONTRACT-MANAGE

### 4.18.4 Postconditions

Site vacated, structures removed, waste disposed properly, cleanliness standards met, compliance tracked, deposit forfeiture processed if applicable, penalties applied for violations, notifications sent via email and SMS

### 4.18.5 Test Cases

| Id            | Description   | Weight |
|---------------|---|--------|
| SEASON-TC-001 | Successful season end with timely site vacation, structure removal, and cleanliness compliance          | High   |
| SEASON-TC-002 | Overstaying penalty application (50% additional camping fees) with email and SMS notification reminders | High   |
| SEASON-TC-003 | Cleanliness violation penalties and enforcement of environmental standards                              | High   |
| SEASON-TC-004 | Eviction process after 3 months overstay at operator's cost   | Medium |
| SEASON-TC-005 | Season end notification reminders via email and SMS sent to operators approaching end period            | Medium |

## 4.19 Ft Admin User

### 4.19.1 Priority

Must Have

### 4.19.2 User Story

As a System Administrator, I want to manage user registrations, approvals, and access control so I can ensure only eligible and compliant operators access the auction platform

### 4.19.3 Preconditions

Administrator role authenticated, user management module available, compliance data accessible

#### 4.19.4 Postconditions

User registrations reviewed and approved/rejected, access control maintained, manual override capabilities available for special cases (5% manual process), compliance screening completed

#### 4.19.5 Test Cases

| Id                | Description   | Weight |
|-------------------|---|--------|
| ADMIN-USER-TC-001 | Manual review and approval of user registrations with documentation verification            | High   |
| ADMIN-USER-TC-002 | Access control management for different user roles with appropriate permissions             | High   |
| ADMIN-USER-TC-003 | Manual override capabilities for special cases requiring human judgment (5% manual process) | Medium |
| ADMIN-USER-TC-004 | Compliance screening management with rejection procedures for non-compliant applicants      | High   |

### 4.20 Ft Admin Auction

#### 4.20.1 Priority

Must Have

#### 4.20.2 User Story

As a System Administrator, I want to monitor and manage auction processes in real-time so I can ensure fair competition and resolve any technical or procedural issues

#### 4.20.3 Preconditions

Administrator role authenticated, auctions active via FT-AUCT-BID, monitoring module available

## 4.20.4 Postconditions

Real-time auction oversight maintained, emergency intervention capabilities available (5% manual process), bid validation completed, automated system messages sent for bid rejections

## 4.20.5 Test Cases

| Id                   | Description  | Weight |
|----------------------|--|--------|
| ADMIN-AUCTION-TC-001 | Real-time auction monitoring dashboard with bid tracking and status updates    | High   |
| ADMIN-AUCTION-TC-002 | Emergency intervention capabilities during auction periods (5% manual process) | Medium |
| ADMIN-AUCTION-TC-003 | Bid validation oversight with automatic rejection of invalid bids              | High   |
| ADMIN-AUCTION-TC-004 | Automated system messages for bid rejections with clear reasoning              | Medium |

## 4.21 Ft Admin Compliance

### 4.21.1 Priority

Must Have

### 4.21.2 User Story

As a compliance officer, I want to track and monitor operator compliance throughout contract periods so I can ensure adherence to NCAA regulations and environmental standards

### 4.21.3 Preconditions

Contracts active via FT-CONTRACT-MANAGE, compliance module available, Reviewers/Compliance Officers authenticated



#### 4.21.4 Postconditions

Ongoing compliance supervision maintained, compliance reporting completed, penalty tracking implemented, performance scoring updated for future applications, manual spot-checks conducted (5% manual process)

#### 4.21.5 Test Cases

| Id                      | Description   | Weight |
|-------------------------|---|--------|
| ADMIN-COMPLIANCE-TC-001 | Ongoing compliance supervision with regular monitoring and reporting      | High   |
| ADMIN-COMPLIANCE-TC-002 | Compliance reporting generation with violation tracking and documentation | High   |
| ADMIN-COMPLIANCE-TC-003 | Penalty tracking implementation with automatic fine calculations          | High   |
| ADMIN-COMPLIANCE-TC-004 | Performance scoring updates for future application evaluations            | Medium |
| ADMIN-COMPLIANCE-TC-005 | Manual spot-checks coordination and documentation (5% manual process)     | Medium |

### 4.22 Ft Admin Report

#### 4.22.1 Priority

Must Have

#### 4.22.2 User Story

As a planning and monitoring user, I want to generate comprehensive reports on auction performance and compliance so I can make data-driven decisions about seasonal campsite management



### 4.22.3 Preconditions

All core features operational, reporting module available, Planning and Monitoring Users authenticated, audit trail data accessible

### 4.22.4 Postconditions

Revenue reports generated, compliance metrics compiled, performance analytics created, audit trail reports produced, data-driven insights available for decision making

### 4.22.5 Test Cases

| Id                  | Description  | Weight |
|---------------------|--|--------|
| ADMIN-REPORT-TC-001 | Revenue reports generation with auction performance metrics and financial analysis | High   |
| ADMIN-REPORT-TC-002 | Compliance metrics compilation with violation tracking and trend analysis          | High   |
| ADMIN-REPORT-TC-003 | Performance analytics creation with operator scoring and evaluation insights       | High   |
| ADMIN-REPORT-TC-004 | Audit trail reports production with complete transaction and activity logs         | High   |
| ADMIN-REPORT-TC-005 | Customizable reporting dashboard with export capabilities for stakeholder sharing  | Medium |

## 5 Technical Requirements

### 5.1 Performance Standards

| Requirement   | Target   | How To Test   |
|---|--|---|
| Inter-module communication within Safari Portal       | $\leq 3s$ response time  | Load testing with concurrent auction participants accessing multiple modules  |
| Real-time bid notifications and updates               | $\leq 1s$ notification delivery                                    | Measure notification latency during peak bidding periods with multiple concurrent bidders using notification module |
| G-EPG payment processing via payment module           | $\leq 5s$ transaction completion                                   | Payment module response time testing with various amounts   |
| Document upload and MNRT data verification            | $\leq 10s$ for document processing                                 | Upload time testing for typical document sizes and MNRT TTLB verification via authentication module                 |
| GIS data and image loading for campsite visualization | $\leq 4s$ for complete map and image display                       | Load testing with high-resolution GIS data and multiple campsite images from GIS module                             |
| Excel booking evidence processing                     | $\leq 5s$ for Excel file validation and visitor count verification | Upload time testing with Excel files containing 270+ visitor names  |

### 5.2 Platform Requirements

| Platform    | Minimum Version | Target Version         | Notes                                  |
|-------------|-----------------|------------------------|--|
| Web Browser |                 | Latest stable versions | Safari Portal module compatibility and |

| Platform | Minimum Version                     | Target Version | Notes  |
|----------|-------------------------------------|----------------|--|
|          | Chrome 90+, Firefox 88+, Safari 14+ |                | real-time bidding<br>require modern<br>browser capabilities<br>with WebSocket<br>support |

## 5.3 Security Privacy

| Requirement                     | Must Have | Implementation   |
|---------------------------------|-----------|--|
| Anonymous bidding protection    | True      | Bidder identity encryption during auction process showing only bid amounts, no bidder identity revealed using privacy module                                   |
| G-EPG secure payment processing | True      | Government payment gateway compliance with financial regulations and audit requirements via payment module   |
| Document encryption and storage | True      | AES-256 encryption for TTLB licenses, financial statements, BRELA certificates, Excel booking evidence, and compliance documents in document management module |
| Audit trail immutability        | True      | Tamper-proof audit logs of all auction activities including FIFO tie-breaking decisions using audit module   |
| MNRT data access security       | True      | Secure API connections with MNRT data for TIN number verification and TTLB license validation via authentication module  |
|                                 | True      | API key management, certificate-based  |

| Requirement                     | Must Have | Implementation  |
|---------------------------------|-----------|---|
| Module-to-module authentication |           | authentication for inter-module communications within Safari Portal |



## 6 External Dependencies

### 6.1 Third Party Services

| Service  | What It Does  | Criticality | Backup Plan  |
|--|---|-------------|--|
| G-EPG (Government E-Payment Gateway)             | Process application fees and deposit payments through official government payment gateway accessed via Safari Portal payment module     | Critical    | Manual payment processing with delayed module updates if G-EPG unavailable |
| MNRT (Ministry of Natural Resources and Tourism) | Provide TIN number verification and TTLB license validation data (TTLB is inside MNRT) accessed via Safari Portal authentication module | Critical    | Manual TIN and license verification through NCAA administrative processes  |
| SMS Gateway for Notifications                    | Send real-time bid alerts, auction notifications, and season end reminders via Safari Portal notification module                        | Medium      | Email notifications only via notification module                           |
| GIS Data Provider                                | Provide mapping data, coordinates, and imagery for campsite visualization via Safari Portal GIS module                                  | Medium      | Static maps and manually uploaded campsite images                          |

## 6.2 Device Requirements

| Feature                     | Required | Optional | Notes  |
|-----------------------------|----------|----------|--|
| Internet Connectivity       | True     | False    | Essential for real-time bidding, Safari Portal module communications, and live auction updates   |
| Document Scanner/<br>Camera | True     | False    | Required for uploading TTLB license, financial statements, BRELA certificate, Excel booking evidence, and compliance documents to document management module |



## 7 Release Planning

### 7.1 Development Phases

| Phase   | Features Included   | Timeline  | Success Criteria   |
|---|---|-----------|--|
| Phase 1 (Core Seasonal Campsite Auction Module - MVP) | ['FT-AUTH-REG', 'FT-AUTH-LOGIN', 'FT-AUTH-VERIFY', 'FT-AUTH-SYSTEM', 'FT-CAMP-MANAGE', 'FT-AUCT-CREATE', 'FT-AUCT-BROWSE', 'FT-SITE-VISIT', 'FT-PAY-APPLICATION', 'FT-AUCT-BID', 'FT-AUCT-NOTIFY', 'FT-AUCT-EVAL', 'FT-AUCT-AWARD', 'FT-PAY-DEPOSIT', 'FT-CONTRACT-MANAGE', 'FT-ADMIN-USER', 'FT-ADMIN-AUCTION', 'FT-SEASON-END', 'FT-ADMIN-COMPLIANCE', 'FT-ADMIN-REPORT'] | 1.5 weeks | Electronic seasonal campsite auction module operational for 2025/26 season, successful integration with G-EPG and MNRT data via Safari Portal modules, real-time anonymous bidding functionality, automated evaluation with integration with other Safari Portal modules, Excel booking evidence upload and validation working |

### 7.2 Release Checklist

- All Must-Have features complete and tested for seasonal campsite allocation
- G-EPG payment gateway accessible via Safari Portal payment module certified and tested
- MNRT data access working for TIN verification and TTLB license validation via authentication module
- Virtual site visits and visitor data acquisition from other Safari Portal modules working



- Real-time anonymous bidding module tested with multiple concurrent users
- Evaluation criteria automation (70% deposit, 30% bookings with evidence via Excel upload) verified
- Excel booking evidence upload, validation, and re-upload functionality tested
- FIFO tie-breaking mechanism implemented and tested for identical evaluation scores
- No upper limits policy verified for deposit amounts and visitor numbers in scoring
- Contract management module generating 3-year renewable agreements for 3-6 month seasonal operation
- Season end management procedures with penalties and cleanliness requirements automated and tested
- GIS data and campsite visualization via GIS module working
- Campsite status management (active/vacation/healing/disabled) functional
- Notification reminders via email and SMS for bidding and season end operational using notification module
- Module-to-module authentication within Safari Portal implemented
- Security audit passed for Safari Portal module integrations
- NCAA stakeholder acceptance testing completed
- Documentation and training materials for all user roles completed
- Disaster recovery and backup procedures tested
- Performance testing completed for concurrent auction scenarios with real-time updates

## 8 Risks Assumptions

### 8.1 Risks

| Risk   | Probability | Impact | Mitigation  |
|--|-------------|--------|---|
| G-EPG payment gateway accessibility via Safari Portal payment module delays or technical issues              | Medium      | High   | Early module integration testing, backup manual payment processing procedures, close coordination with Safari Portal payment module team              |
| MNRT data access challenges for TIN verification and TTLB license validation via authentication module       | Medium      | High   | Manual verification fallback procedures, phased module integration approach, stakeholder coordination with MNRT and authentication module team        |
| Safari Portal module compatibility issues affecting visitor data acquisition and other module communications | Medium      | Medium | Standalone capabilities development, API documentation review, technical coordination with other Safari Portal module teams, manual data entry backup |
| Real-time bidding performance issues during peak auction periods within Safari Portal                        | Medium      | High   | Load testing, scalable architecture design, WebSocket optimization, Safari  |

| Risk  | Probability | Impact | Mitigation   |
|---|-------------|--------|--|
|   |             |        | Portal infrastructure capacity planning  |
| Low adoption rate from tourism companies due to module complexity                         | Low         | High   | Comprehensive training programs, parallel manual process for transition period, stakeholder engagement, user-friendly interface design consistent with Safari Portal |
| GIS data availability and quality issues affecting campsite visualization via GIS module  | Low         | Medium | Static maps backup, manual image uploads, phased GIS module integration  |
| Excel file format validation issues or incompatibility with booking evidence requirements | Low         | Medium | Comprehensive Excel format testing, clear file format guidelines for users, manual verification backup for complex cases   |

## 8.2 Assumptions

- NCAA will provide necessary support for Safari Portal module development and integration
- G-EPG payment gateway will support required transaction volumes during auction periods via payment module
- MNRT data will be accessible for automated TIN verification and TTLB license validation via authentication module
- Tourism companies have sufficient internet connectivity for real-time bidding within Safari Portal
- Current seasonal campsite allocation procedures will remain legally valid during transition
- Minimum visitor thresholds (270 per season) remain enforceable and realistic via Excel evidence
- GIS data and imagery will be available for all active campsites via GIS module
- Other Safari Portal modules can provide APIs for authentication and registration
- Safari Portal infrastructure can support real-time bidding and notification requirements
- Tourism companies can prepare Excel documents with visitor names as required booking evidence

- FIFO tie-breaking based on bid submission time is legally acceptable and fair



## 9 Market Specific Considerations

### 9.1 Primary Market

- Tanzania
- Ngorongoro Conservation Area

### 9.2 Target Demographics

- Licensed tourism companies with TTLB accommodation permits
- Companies with required financial capacity (TZS 200M+ Tanzanian, TZS 500M+ foreign)
- Seasonal camping operators (3-6 month operations)
- Companies capable of providing Excel documentation with minimum 270 visitor names as booking evidence

### 9.3 Local Considerations

- Seasonal camping operations aligned with migration patterns (November-April)
- Maximum 15 tents per site to maintain ecological balance
- Integration with existing NCAA conservation management policies
- Compliance with environmental standards and waste disposal requirements
- Site vacation and structure removal requirements at season end with specific penalties
- Cleanliness standards enforcement and violation penalties
- Excel document preparation requirements for booking evidence with visitor names

### 9.4 Payment Preferences

| Preference         | Value |
|--------------------|-------|
| Government Gateway | 100%  |

## 9.5 Competition

- Manual allocation process (current)
- Other conservation area camping concessions





## 10 Sign Off

### 10.1 Approval

| Role | Name | Signature | Date |
|------|------|-----------|------|
|      |      |           |      |

### 10.2 Document History

| Version | Date       | Changes Made  | Changed By     |
|---------|------------|---|----------------|
| 1.0     | 2025-09-08 | Initial SRS for Seasonal Campsites Auctioning Module within Safari Portal based on NCAA Operational Procedures 2025/26. Updated to focus on seasonal campsite allocation, expanded user roles, corrected MNRT/TTLB relationship, removed digital token and credit note management, added real-time bidding and GIS integration, defined feature dependencies and user flow context, reframed as Safari Portal module rather than standalone system. | System Analyst |
| 1.1     | 2025-09-10 | Updated evaluation criteria from 60/30/10 to 70/30 split removing experience component. Added mathematical formula for proportional scoring. Specified Excel document upload for booking evidence with visitor names. Implemented FIFO tie-   | System Analyst |



| Version | Date | Changes Made  | Changed By |
|---------|------|---|------------|
|         |      | breaking rule. Established no upper limits policy for deposits and visitor numbers. Ensured consistency between user_requirements and detailed_feature_requirements sections. |            |



## 11 Additional Context

### 11.1 Success Metrics

#### 11.1.1 Auction Completion

100% electronic auction completion rate for all seasonal campsite allocations

#### 11.1.2 Evaluation Transparency

70% deposit weighting (no upper limit) and 30% booking evidence weighting (Excel upload with visitor names, no upper limit) with mathematical formula ensuring fair proportional scoring and FIFO tie-breaking

#### 11.1.3 Payment Processing

95% successful G-EPG payment processing via Safari Portal payment module without manual intervention

#### 11.1.4 Compliance Verification

95% automated eligibility verification accuracy with MNRT data access for TIN verification and TTLB license validation via authentication module (5% requires manual review for complex cases requiring human judgment)

#### 11.1.5 Revenue Optimization

Meet or exceed minimum deposit thresholds (TZS 48,841,380.00 per site) through competitive bidding

#### 11.1.6 Transparency Improvement

Anonymous bidding with full audit trail and bid progression visibility (amounts only, no bidder identity)

#### 11.1.7 Operational Efficiency

Reduce manual seasonal campsite allocation processing time by 80% compared to current procedures

### 11.1.8 Real Time Performance

Real-time bid updates and notifications delivered within 1 second during peak auction periods using notification module

### 11.1.9 Booking Evidence Compliance

100% compliance with Excel booking evidence requirements (minimum 270 visitor names) for auction participation

