



**Forest and Environment Department  
Government of Sikkim**

Forest Secretariat, Deorali, Gangtok, Sikkim – 737102  
Phone: 03592-28177, Email: pccf-fewd@sikkim.gov.in

**RFP No: 109 /F&ED/GOS**

**Date: 01 /08 /2024**

**Inviting Request for Proposal (RFP) for:** Selection of agency(s) for creation of hyper-realistic high-end gamified 3D virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim to be delivered through extended reality, virtual reality, augmented reality and/or mixed reality.

**I. Background**

The Forest and Environment Department (hereinafter referred to as FED) is accepting proposals from experienced companies/consortium for the development of hyper-realistic high-end gamified 3D virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim to be delivered through extended reality, virtual reality, augmented reality and/or mixed reality (Hereinafter referred to as XR).

The purpose of the project is to create an interactive experience for the user. The project aims to offer users an opportunity to experience the exhilaration through XR.

**II. RFP Schedule and General Conditions**

<b>A. General</b>	
<b>1</b>	<b>Name of the Issuing Agency: Forest and Environment Department, Government of Sikkim (FED)</b> <b>Method of selection: Quality and Cost Based Selection (QCBS)</b>
<b>2</b>	<b>Financial Proposal to be submitted together with Technical Proposal: Yes</b> <b>The name of the assignment is:</b> Selection of agency(s) for creation of hyper-realistic high-end gamified 3D virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim to be delivered through extended reality, virtual reality, augmented reality and/or mixed reality.
<b>3</b>	<b>A pre-bid meeting would be held: Yes</b> <b>Date of pre-bid meeting:</b> 16 <sup>th</sup> August 2024 at 11:30 hrs <b>Address:</b> The meeting would be held online through video-conferencing <b>Link:</b> <a href="https://meet.google.com/pui-xqpy-cid">https://meet.google.com/pui-xqpy-cid</a> <b>Contact person:</b> Mrs. Dichen Namdul, Forest and Environment Department, Forest Secretariat, Deorali, Gangtok, Sikkim-737102 <b>Telephone:</b> +91-9475130351 <b>E-mail:</b> dichensfs@gmail.com

4	<p><b>Earnest Money Deposit (EMD) is applicable: Yes</b></p> <p>The Earnest Money Deposit of INR 50,000 (Rupees Fifty Thousand only) in shape of Demand Draft in favour of “<b>Secretary, Forest and Environment Department</b>” drawn in any Scheduled or Nationalized Commercial Bank payable at Gangtok, shall be furnished. FED shall not be liable to pay any interest on the Earnest Money Deposit. Any bid not accompanied by an acceptable Earnest Money Deposit in the prescribed manner shall be summarily rejected.</p> <p>The Earnest Money Deposit of all unsuccessful bidders shall be returned without interest normally within 90 days after finalization of the tender process i.e. signing of the Contract Agreement with the successful bidder.</p>
5	<p><b>Qualifying criteria for bidders</b></p> <p>Only those bidders who satisfy the below mentioned criteria shall be eligible for bidding, namely;</p> <ol style="list-style-type: none"> <li>a) The bidder shall be a business firm or registered entity that has been in business for at least the last three years. Such a business firm or registered entity should have maintained its records and has had them properly audited. An annual statement of accounts of the last three years should have been prepared. (Proof of Registration Certificate, Articles and Memorandum of Association, Permanent Account Number (PAN) and Tax Deduction and Collection Account Number (TAN) card copy should be enclosed);</li> <li>b) The bidder company or its parent company should have a market capitalisation of not less than Indian Rupees 7 million in the last three (03) completed financial years from business activities / investments related to XR. (The bidder company should provide copies of the Audited Financial Reports of the last three completed fiscal years: 2021-22, 2022-23 and 2023-24 with its turnover, clearly highlighted).</li> <li>c) The bidder shall have at least one or more successful implementations in extended reality.</li> </ol>
6	<p><b>Performance Bank Guarantee: (PBG)</b></p> <p>Within 30 days of notifying the acceptance of proposal for the award of Contract, the qualified bidder shall furnish an unconditional Performance Bank Guarantee amounting to INR 10,00,000.00 (Indian Rupees One Million) from a Scheduled Commercial Bank in India in favour of “<b>Secretary, Forest and Environment Department</b>”, as per the format at <b>Annexure-4</b>, for a period of 6 months beyond the entire contract period (i.e. PBG must be valid from the date of effectiveness of the contract to a period of 6 months beyond the contract period) as its commitment to perform services under the contract. Failure to comply with the requirements shall result in forfeiture of the PBG.</p>
7	<p>Corrigendum(s) to this RFP shall be published only on</p> <p><b>Website : <a href="http://www.sikkimforest.gov.in">http://www.sikkimforest.gov.in</a>, <a href="http://sikenvis.nic.in">http://sikenvis.nic.in</a></b></p>
<p><b>B. Preparation of Proposals</b></p>	
8	<p>All proposals shall be submitted in <b>the English language</b>.</p> <p>All correspondence exchanges and documents shall be in the <b>English language</b>.</p>

<p>9</p>	<p><b>The Proposal shall comprise the following:</b></p> <p><b><u>1st Inner Envelope with the Technical Proposal:</u></b></p> <ul style="list-style-type: none"> <li>• Power of Attorney to sign the Proposal</li> <li>• TECH-1</li> <li>• TECH-2</li> <li>• TECH-3</li> <li>• TECH-4</li> </ul> <p><b><u>2nd Inner Envelope with the Financial Proposal:</u></b></p> <ul style="list-style-type: none"> <li>• FIN-1</li> </ul> <p><b><u>The outer Envelope must contain the following information:</u></b></p> <p><b>Subject:</b> Creation of hyper-realistic high-end gamified 3D virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim to be delivered through extended reality, virtual reality, augmented reality and/or mixed reality.</p> <p><b>Postal Address:</b> Secretary, Forest and Environment Department, Forest Secretariat, Deorali, Gangtok, Sikkim – 737102</p> <p><b>Bidders Address:</b> &lt;span style="float: right;"&gt;&gt;</p> <p>The proposals shall be submitted as stated below, namely;</p> <ol style="list-style-type: none"> <li>a. Hard copy of Technical Proposal: one (1) original;</li> <li>b. Hard copy of Financial Proposal: one (1) original.</li> </ol> <p>An acknowledgement email shall be sent to the bidders after the receipt of hard copy, however, if the hardcopy does not reach two days prior to the last date of submission, the bidders shall send soft copies in the email id provided. The soft copies shall be password protected pdf, which will be shared by the bidder to FED only during the bid opening time. The confirmation for the bid receipt shall be done through phone number provided.</p> <p>Phone no: +91 9475130351 Email id: dichensfs@gmail.com</p> <p>NOTE: Bidders shall ensure to submit their proposals in a legible, organized and concise manner with unique page numbers on each page, an index at the starting. Page number of all proof attached in the proposal shall be referenced at the appropriate places wherever mentioned. Relevant points in the proof shall be highlighted. Proposals found to have inadequate information or not organized properly shall be summarily disqualified.</p>
<p>10</p>	<p><b>Bid validity period</b></p> <p>Proposals must remain valid for 90 calendar days after the proposal submission deadline. The FED may request one or more extensions of the Bid Validity Period. To make such requests, FED shall give notice through email to the Bidder(s) at least three (3) days prior to expiration of the Bid Validity Period. If any Bidder does not agree to the extension, they may withdraw their Bid by giving notice in writing to FED of its decision prior to the expiration of the Bid Validity Period. In case, FED does not receive any written notice of withdrawal prior to expiration of the Bid Validity Period, the requested extension shall be deemed to have been accepted by</p>

the Bidder(s). When an extension of the Bid Validity Period is made, Bidders shall not be permitted to change the terms and conditions of their Bids. The Bid Validity Period of the Successful Bidder shall be automatically extended till the date on which the Agreement is signed and is in force.

**C. Submission and Evaluation**

**11** The Proposals shall be submitted by the respondents of this RFP through postal services and electronic media. However, submission through electronic media shall be done only if there is delay in the receipt of documents by FED due to transportation difficulties. The bidders may be asked to make a presentation of their technical proposal.

**12** Criteria and Point system for the evaluation of the Technical Proposals:

<b>Criteria</b>	<b>Points</b>
<p><b>I. General</b></p> <p>Proposal by the bidder shall involve the following aspects:</p> <p>a. Storyline and content (20 points)</p> <p>b. Overall impression (20 points)</p>	40
<p><b>II. Domain expertise</b></p> <p>a. The bidder shall have a minimum of 3 years of experience in the field of similar nature of work. (3-5 years: 5 points, 5-7 years: 7 points, more than 7 years: 10 points)</p>	10
<p>b. Number of completed projects in fields such as XR and relevant technology. (1-2 projects: 5 points, 3-4 projects: 7 points, 5 or more projects: 10 points)</p>	10
<p><b>III. Technical competency in hardware based motion simulation</b></p> <p>a. Past projects on integration of XR platforms with haptic feedback devices and motion platforms where the biomechanical hardware-based locomotion simulation was showcased. (25 points)</p> <p>b. Innovations related to hardware-based motion simulations in the proposal. (15 points)</p>	40
<b>TOTAL</b>	<b>100</b>
<p>*Experience highlighted in II. a. should be unique and not repeated.</p> <p>* Upon selection, the bidder shall be required to enter into an agreement with the FED.</p>	

**13** The minimum technical score (St) required to qualify is 40 points, and those who do not qualify shall not be considered for further evaluation.

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"The lowest price of an evaluated Financial Proposal (Fm) is given the maximum financial score (Sf) of 100.

The formula for determining the financial scores (Sf) of all other Proposals is calculated as follows:

$Sf = 100 \times Fm / F$ , in which "Sf" is the financial score, "Fm" is the lowest price, and "F" is the price of the proposal under consideration.

The weightage given to the Technical (T) and Financial (P) Proposals are: T = 60, and P = 40

Proposals are ranked according to their combined technical (St) and financial (Sf) scores using the weightage (T = the weightage given to the Technical Proposal; P = the weightage given to Financial Proposal; T + P = 1) as follows:  $S = St \times T\% + Sf \times P\%$ .

#### D. Project tenure

The agency will be engaged for work after signing the agreement. All work shall be completed within one year from the signing of an agreement with FED.

E.

#### RFP Schedule

Sl. No	Items	Description
i	RFP document download start or close date and time	Start Date: 2 <sup>nd</sup> August 2024 at 10:00 hrs IST Closing Date: 3 <sup>rd</sup> September 2024 at 16:30 hrs IST
ii	Last date for submission of pre-bid queries	12 <sup>th</sup> August 2024 by 16:30 hrs email ID: dichensfs@gmail.com
iii	Date and venue for pre-bid conference to be held online	Dt.16 <sup>th</sup> August 2024 at 11:30 hrs. at Forest Secretariat, Forest and Environment Department, Government of Sikkim, Forest Secretariat, Deorali, Gangtok, Sikkim -737102
iv	Last date and time for submission of bids (technical and financial both)	Dt. 3 <sup>rd</sup> September 2024 at 16:30 hrs. at Forest Secretariat, Forest and Environment Department, Government of Sikkim, Forest Secretariat, Deorali, Gangtok, Sikkim -737102
v	Date and time for opening of bids by committee	Dt. 4 <sup>th</sup> September 2024 at 11:00 hrs. at Forest Secretariat, Forest and Environment Department, Government of Sikkim, Forest Secretariat, Deorali, Gangtok, Sikkim -737102

**F. Award of work**

After selection, a Letter of Award (LOA) shall be issued, in duplicate, by the FED to the selected bidder and the selected bidder shall, within 15 (fifteen) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the selected bidder is not received by the stipulated date, the FED may, unless it consents to extension of time for submission thereof, appropriate the Earnest Money Deposit of such bidder as mutually agreed genuine pre-estimated loss and damage suffered on account of failure of the selected bidder to acknowledge the LOA, and the next highest-ranking bidder may be considered.

After acknowledgement of the LOA as aforesaid by the selected bidder, it shall execute the Agreement within the period specified in the LOA. The selected bidder shall not be entitled to seek any deviation in the Agreement.

**G. Project coordination and communication**

All clarifications and communication regarding this project must be addressed to:  
Mrs Dichen Namdul, Joint Director, Forest and Environment Department, Forest Secretariat, Deorali, Gangtok, Sikkim-737102

Telephone: +91-9475130351 E-mail: dichensfs@gmail.com

**III. Disclaimer:**

FED reserves the right to withdraw from the whole process or any part thereof, to accept or reject all efforts at any stage of the process and/or modify the process at any time without giving any reasons, thereof. No financial obligation shall accrue to FED in such an event. It shall not be responsible for non-receipt of correspondence.

In case of unsatisfactory performance of the agency as assessed by FED, the agreement shall be terminated by FED by giving 15 days advance notice. No financial obligation shall accrue to FED in such an event.

**IV. Proprietary data:**

All documents, maps, data and other information provided by the FED or submitted by the bidder to the FED shall remain or become the property of the FED. Bidders and the Agency, as the case may be, are to treat all information as strictly confidential. The FED shall not return any proposal, or any information related thereto. All information collected, analysed, processed or in whatever manner provided by the Agency to the State Govt. in relation to this project shall be the property of the FED.

**V. Due diligence by the bidders:**

Bidders may prior to submitting their Proposals, examine the requirements at their own expense and obtain and ascertain for themselves, at their own responsibility and other information necessary for preparing their Proposals. Bidders shall be deemed to have full knowledge of the requirements of the work. FED will not accept any responsibility or liability for any omissions or errors of judgment with respect to information or materials provided in this RFP Document or otherwise, with respect to this Project. Although such information and materials are to the best of

FED's knowledge, however, their verification is the sole responsibility of Bidder. Neither FED nor its employees make any representation or warranty as to the accuracy, reliability or completeness of the information provided nor will have any liability to any bidder which may arise from or be incurred or suffered in connection with anything contained in this RFP and the award of the work or otherwise arising in any way from the selection process.

**VI. The bidder, shall meet the following additional eligibility requirements, namely;**

- Be free from violations and have no record of violations in the past, according to credit registries, regulators, or governmental bodies.
- The bidder shall furnish an undertaking on the company letter head clarifying whether the firm is not blacklisted or debarred by any organisation, government body, any government undertaking, bilateral agencies and likewise (Annexure - 5).

**VII. Fraud and Corrupt Practices:**

FED requires all applicants to observe the highest standard of ethics. In pursuant to this policy, the following have been defined as below, namely;

- 'Corrupt Practice' means behavior on the part of officials in the public or private sector by which they improperly and unlawfully enrich themselves and or those close to them, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving or soliciting of anything of value;
- 'Fraudulent Practice' means a misrepresentation of facts in order to influence an evaluation process of execution to the detriment of the Government and includes collusive practice among applicants (prior to or after bid submission) designed to establish bid price at an artificial non-competitive level;
- In such an event, the FED shall blacklist or debar the applicant from participating in future bidding processes of the FED for a period of 5 years.

**VIII. Jurisdiction:**

In all cases of a legal dispute regarding Tender, the Courts of Sikkim shall have the jurisdiction.

**IX. Annexures:**

(a) Annexure 2: Technical Proposal - Standard Forms (b) Annexure 3: Financial Proposal - Standard Forms

**X. Terms of Reference (TOR)**

**A. Scope of Work**

1. Developing a hyper-realistic virtual trekking experience of Yuksom-Dzongri-Goechala trek in Sikkim by utilizing cutting-edge technology including but not limited to extended reality (XR), virtual reality (VR), augmented reality (AR), and/or mixed reality (MR), haptic feedback and multisensory integration.
2. Integrating state-of-the-art XR platforms, VR headsets, haptic feedback devices, treadmill and motion platforms wherein the objective inter-alia is to include biomechanical hardware based real uphill/ downhill locomotion simulation and feel of various aspects of physical exertion.
3. Creating or integrating the necessary content elements to enhance the AR/VR experience. This may include animations, audio, visual effects, and interactive elements. Ensuring that

the content aligns with the project goals and target audience. Integrating dynamic weather systems to simulate different weather conditions including, but not limited to rain, snow, wind, change of temperature and seasonal variation. Using spatial audio to create an immersive soundscape, including birdsong, rustling leaves, and flowing water, enhancing the sense of being in nature. The design should be modular in nature, capable adding newer modules.

4. Designing 3D modeling of terrain, landscape, flora, and fauna by capturing high resolution photographs through technologies such as photogrammetry, 3D LIDAR (Light Detection and Ranging), drones, 360° shoot. Ensuring that the capture and display resolution is 8K or higher.
5. Creating a storyboard for the virtual experience along with scenarios wherein the user must navigate challenging and undulating terrain. The integration with the various scenarios should be seamless and allow users to access them from within the same platform.
6. Inclusion of options for users to customize their avatars and creation of personalized group identities or themes. The feature shall also allow users to join or create virtual group treks with friends or other players. The multiplayer functionality shall enable communication tools such as voice chat or text messaging to facilitate real-time interaction and coordination among group members. The experience should also include interaction with a trekking or tourist guide.
7. The experience should be developed in a 30 - 45 minutes gamified format with a well-defined narrative. The experience should have well-defined start & end points with checkpoints in between as the user progresses within the experience.
8. The XR experience should be tied to a physical room-sized simulator to enable a deeper immersive experience for the user. The user should experience the varying physical challenges of trekking, such as uphill and downhill terrain, through the mechanics of the hardware. The experience should have cues for physical simulation of sound, smell, etc., to enable a truly immersive experience. The bidder can creatively come up with solutions and new ideas for enabling this.
9. Providing the requirements for housing the total XR facility as per the above specifications and design of the civil structures. The facility should be able to accommodate at least 5 persons simultaneously. The costs of housing facilities shall be excluded from the bid amount.
10. Creating gamified challenges and quests to enhance user engagement and motivation (the suggestive quests and themes are given in Annexure 6).
11. Developing online multiplatform AR/VR application (AR/VR app) with interactive modules and gamification to enhance the user engagement through various features built using game development techniques such as narrative design, input interactions, spatial and audio engineering, and others. This app is intended to be used by the user in their personal devices on subscription basis.
12. The platform should be scalable and flexible for future modules.
13. Ensuring compatibility across multiple devices and operating systems.
14. Implementing smooth navigation controls and intuitive user interfaces.
15. The proposal shall detail the pricing structure for item-wise hardware and software, structured as one-time costs. The project shall be delivered on turnkey basis in the experience center in Sikkim and the costs shall be inclusive of all charges, taxes, levies, transportation etc. The project cost shall include comprehensive AMC and end-to-end solutions, encompassing all necessary components, integration, setup, maintenance, and support required for the AR/VR project for a period of three years.



These graphics/visuals created must be approved by the Forest and Environment Department of Sikkim after translating them into 3D reconstructions. The 3D renderings are to be done by incorporating the shapes, textures and the colours exactly resembling the location of the capture. The approval of officials from the Forest Department regarding the reconstructions made and authenticity of content created is mandatory.

## **B. Roles of selected agency:**

The successful agency shall be responsible for the following:

1. Developing and integrating a fully immersive XR/AR/ VR content, animations and audio.
2. Creation of hyper-realistic virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim by utilising cutting-edge technology including XR, VR, AR, and/or MR, haptic feedback and multisensory integration.
3. Designing a realistic simulation of wildlife rescue and biodiversity restoration. The gamified technology shall include the themes mentioned for the project.
4. Conducting rigorous testing to ensure the stability, performance, and compatibility of the virtual experience.
5. Identifying and addressing any technical glitches, bugs, or inconsistencies.
6. Gathering feedback from beta testers and stakeholders for continuous improvement.
7. Optimizing the virtual experience for performance and scalability, considering hardware limitations and bandwidth constraints.
8. Minimizing loading times and optimizing asset sizes for seamless gameplay.
9. Implementing adaptive graphics settings to accommodate a range of devices and specifications.
10. Deploying the virtual experience through appropriate channels or dedicated apps.
11. Developing marketing materials and promotional campaigns to generate awareness and attract users.
12. Providing ongoing support and updates to ensure the longevity and relevance of the virtual experience.
13. Preparing comprehensive documentation covering the development process, technical specifications, and usage guidelines.
14. Providing training sessions for stakeholders, content creators, and support staff on operating and maintaining the virtual experience.
15. Ensuring compliance with copyright laws and obtaining necessary permissions for using third-party assets or intellectual property.
16. Addressing privacy concerns and implementing appropriate data protection measures
17. Adhering to ethical guidelines for content creation, particularly regarding cultural sensitivity and environmental preservation.
18. Establishing mechanisms for collecting user feedback and analytics data to inform future iterations and improvements.
19. Designing the project success matrix.
20. Iterating on the virtual experience based on user input, technological advancements, and market trends.
21. Assigning roles and responsibilities to team members and external collaborators.
22. Monitoring progress against project milestones and budgetary constraints.
23. Developing a strategy for maintaining and updating the virtual experience over time, including content expansion and feature enhancements.

24. Designing the application to accommodate addition of modules for future growth and increased demand on mutually acceptable terms. The future proofing shall be done to integrate the easy updates and technological advancements.

**C. Roles of FED**

1. Providing support with infrastructure and housing facilities for the installation and implementation of the project requirements.
2. Providing the agency with available technical information or data, wherever available.

## Annexure 1

### *Sikkim Forests and trekking route related details*

Certain details of Forestry Sector in Sikkim are as follows:

<b>1. Forestry details</b>	
a) Total geographical area of the state of Sikkim	7096 sq. km
b) Total area under the administrative control of the forest department (in % terms) of total geographical area	82.31%
c) Total forest cover as per India State of Forestry Report (ISFR 2021) in square km	3341.03
d) Percentage of total forest cover as per India State of Forestry Report (ISFR 2021)	47.08%
e) Protected area coverage (in % terms) of total geographical area	30.77%
<b>2. Trekking route details</b>	
a) Length of trek	35 km approx
b) Start point (Yuksom)	Longitude - 88° 13' 12.70" E Latitude -27° 22' 50.72 N
c) End Point (Goechala)	Longitude - 88° 11' 9.35" E Latitude -27° 36' 29.66 N



Kml file of trekking route from Yuksom-Dzongri-Goechala:

Yuksam-Goeche La Trek (1).kml

[https://drive.google.com/file/d/10VD39HrtflvFJK\\_a1PTqIKiLzjh2TTg\\_/view?usp=sharing](https://drive.google.com/file/d/10VD39HrtflvFJK_a1PTqIKiLzjh2TTg_/view?usp=sharing)

(url may be copied on browser to download the kml file)

## Annexure 2

### Technical Proposal - Standard Forms

{Notes to Organisation shown in brackets { } throughout Section III provide guidance to the Organisation to prepare the Technical Proposal; they should not appear on the Proposals to be submitted.}

#### Checklist of Required Forms

FORM	DESCRIPTION	Page Limit
TECH-1	Technical Proposal Submission Form.	2 pages
Authorization Letter	No pre-set format.	As required
TECH-2	Organization's structure and Experience.	
TECH-2A	A. Organization's background and structure	3 pages
TECH-2B	B. Organisation's Experience	20 pages
TECH-3	Description of Story Board, Concept and Technology used in Response to the Request for Proposal and Terms of Reference	25 pages
TECH-4	Work Plan and Deliverables	5 pages

**All pages of the original Technical and Financial Proposal shall be initiated by the same authorized representative of the Consulting Organisation who signs the Proposal.**

**Form TECH-1**  
**Technical proposal submission form**

{Location, Date}

To,  
The Secretary,  
Forest and Environment Department,  
Forest Secretariat, Deorali,  
Gangtok, Sikkim – 737102

Dear Sir,

We, the undersigned, offer to provide the services for creation of hyper-realistic high-end gamified 3D virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim to be delivered through extended reality (XR) in accordance with your Request for Proposal (RFP) dated: \_\_\_\_\_. We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed in separate envelopes.

We hereby declare that;

- a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification
- b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the RFP
- c) In competing for (and, if the award is made to us, in executing) the Contract, we undertake to observe the laws against fraud and corruption, including bribery, in force in India
- d) Our Proposal is binding upon us and subject to any modifications resulting from the Contract negotiations

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the assignment within a month from the date of written notification issued to us by the Forest and Environment Department.

We understand that the Forest and Environment Department is not bound to accept any Proposal that it receives.

Yours sincerely,

Signature (of the authorized representative) {In full and initials}:

Full name: {insert full name of authorized representative}

Title: {insert title or position of authorized representative}

Address: {insert the authorized representative's address}

Phone: {insert the authorized representative's phone number}

Email: {insert the authorized representative's email address}

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## Form TECH-2

### Organisation's Structure and Experience

Form TECH-2: a brief description of the organization and an outline of the recent experience of the Organisation that is most relevant to the assignment.

#### A - Organization's background and structure

1. Provide here a brief description of the background of your organization.
2. Include organizational chart, a list of Board of Directors, and beneficial ownership disclosure, *the successful organization shall provide additional information to Forest and Environment Department if so desired.*
3. Proof of Registration Certificate, Articles and Memorandum of Association, Permanent Account Number and Tax Deduction and Collection Account Number.
4. The agency should provide copies of the Audited Financial Reports of the last five completed fiscal years: 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24 with its turnover, clearly highlighted.

#### B – Organisation Experience

1. The organisation shall list their experience as per the requirements given in point number III.C.12 (Criteria and Points system for the evaluation of the technical Proposals).
2. Only those assignments should be included, which have been carried out by the applicant. The assignments carried out by parent or sister companies should not be included.
3. The organisation shall include documents proving their recognition of work as per the requirements given in point number III.C.12 (Criteria and Points system for the evaluation of the technical Proposals).
4. The organisation shall provide detailed CVs of qualifying personnel that will be used within the project having skills.

<b>Duration (beginning and end year along with months served)</b>	<b>Assignment name and brief description of main deliverables or outputs</b>	<b>Name of client and location of assignment</b>	<b>Role in the assignment</b>
1	2	3	4

## Form TECH-3

### Description of Story Board, Concept and Technology used in Responding to the Terms of Reference

Form TECH-3: a description of the story board, concept, content and technology to be used for creating the assignment, including a detailed description of the immersive simulations and technology used.

- **Technical Approach and Methodology:** {Please explain your understanding of the objectives of the assignment as outlined in the Terms of Reference (TORs), the technical approach, and the methodology you would adopt for implementing the tasks to deliver the expected output(s), and the degree of detail of such output. Please do not repeat or copy the TORs in here.}

**Form TECH-4**

**Work Plan and deliverables**

**Work Plan:** {Please outline the plan for the implementation of the main activities or tasks of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Forest and Environment Department), and tentative delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing your understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents (including reports) to be delivered as final output(s) should be included here. }

No	Deliverables (D-..)	Months											
		1	2	3	4						....	TOTAL	
<b>D-1</b>	Deliverable #1: Report A												
	data collection												
	scanning												
	story board and concept												
	incorporating comments												
	delivery of final concept to FED}												
<b>D-2</b>	Deliverable #2 }												

- 1 List the deliverables with a breakdown of the activities required to produce them and other benchmarks such as the FED’s approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase.
- 2 Duration of activities shall be indicated in the form of a chart.
3. Include a legend, if necessary, to help read the chart.



**Annexure 3**  
**Form FIN-1**  
**Financial Proposal Submission Form**

{Location, Date}

To,  
The Secretary,  
Forest and Environment Department,  
Forest Secretariat, Deorali,  
Gangtok, Sikkim – 737102

Sir,  
We, the undersigned, offer to provide the services for creation of hyper-realistic high-end gamified 3D virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim to be delivered through extended reality (XR) in accordance with your Request for Proposal (RFP) dated: \_\_\_\_\_ . The bid details are as follows:

<b><u>FINANCIAL BID</u></b>		
<b>TOTAL BID AMOUNT (In Rupees):</b>		
<b>Total Bid Amount in Words:</b>		
<b><u>COMPONENT WISE COST</u></b>		
(Components are Indicative – May Add any Missed Component as per Concept of Your Proposal and may state “Nil” if no cost is involved – Description/Clarification be given in the Remarks column)		
<b><u>Component</u></b>	<b><u>Cost in Rupees</u></b>	<b><u>Remarks</u></b>
<b>I. Concept, Storyline and Content</b>		
<b>II. Software Development</b> (pl provide Item wise Cost)  In house Development, Outsourcing items and its Costs, License fee (tools, platform etc.)		
Capturing the raw imagery (Item wise e.g. through DSLR Camera, Drone, LIDAR etc. – cost shall be all inclusive of professional’s charges, travel, accommodation., etc.,)		

Processing the raw data (3D modelling, photogrammetry etc., - may provide item wise details and cost)		
Gamification of the software (also mention cost for updating it based on feedback on operations in the initial years if any)		
<b>III. Hardware Development</b>		
Procurement, Fabrication and Assembly Cost (Pl provide Item wise – XR head set, various Haptic, Olfactory equipment, Display Units, Computer systems, Storage Devices, Servers, Power Backup, Audio Visual Aids, etc., - (mention each item separately and its all-inclusive cost) – <i>This can be as item wise as possible and as elaborate as possible and shall have mention of all hardware items with their specifications</i> )		
On-site installation cost for the whole system (at the Experience Centre in Sikkim)		
<b>IV. Quality Assurance and Testing</b>		
Preparation of Standard Operating Procedures and Operation Manuals		
Calibration of software and hardware interface for various use cases In-building Feedback System for Improvement System’s Self Evaluation for Performance		
<b>V. Comprehensive Annual Maintenance Contract</b>		End to end comprehensive AMC solutions inclusive of hardware / software on-site support, periodic upgrades and all other deliverables in the financial bid
<b>VI. Miscellaneous cost</b>		
<p><b>Note:</b> The above table is indicative. Participants may like to add further components and break down the same in various sub-components as per the bids submitted by them.</p> <p>The above quoted price shall be valid for at least One year period. (Validity Beyond One year as per standard Government Norms for escalation or as per Inflation in the category of the items)</p>		

We have carefully reviewed the project requirements outlined in the RFP and believe our proposal offers competitive pricing along with the technical expertise needed to successfully deliver the project within the specified timeframe.

Our Financial Proposal shall be valid and shall remain binding upon us.

We understand that you are not bound to accept any Proposal you receive.

Yours sincerely,

Signature (of authorized representative) {In full and initials}:

Full name: {insert full name of authorized representative }

Title: {insert title or position of authorized representative }

Address: {insert the authorized representative's address }

Phone: {insert the authorized representative's phone number }

Email: {insert the authorized representative's email address }

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## Annexure 4: Performance Bank Guarantee

{Location, Date}

To

The Secretary,  
Forest and Environment Department,  
Forest Secretariat, Deorali,  
Gangtok, Sikkim – 737102

Sir,

WHEREAS, < \_\_\_\_\_ > registered under < \_\_\_\_\_ > with its principal place of business at (hereinafter called "the agency") has undertaken, in pursuance of RFP No. \_\_\_\_\_ to undertake the service to create a hyper-realistic high-end gamified 3D virtual experience of Yuksom-Dzongri-Goechala trek in Sikkim to be delivered through extended reality (herein after called "the contract").

AND WHEREAS, it has been stipulated by the **Forest and Environment Department, Government of Sikkim (FED)** in the said contract that the agency shall furnish a bank guarantee from a scheduled commercial bank in India for the sum specified therein as security for compliance with its obligations in accordance with the contract.

AND WHEREAS, we have agreed to give the agency such a bank guarantee. NOW THEREFORE, we hereby affirm that we are guarantors and responsible to you, on behalf of the agency, up to a total of **INR 10,00,000.00 (Indian Rupees One Million)**, and we undertake to pay you, upon your first written demand declaring the agency to be in default under the contract and without cavil or argument, any sum or sums within the limits of INR 10,00,000.00 (Indian Rupees One Million) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the agency before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the agency shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification. This performance bank guarantee shall be valid until the < \_\_\_\_\_ >.

Our branch <Name & Address of the Bank> is liable to pay the guaranteed amount depending on the filing of claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our branch a written claim or demand and received by us on or before date < \_\_\_\_\_ > otherwise bank shall be discharged of all liabilities under this guarantee thereafter.

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank & Branch

Any other assignment related Material may also be included

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**Annexure 5**

**FORMAT OF UNDERTAKING, TO BE FURNISHED ON COMPANY  
LETTERHEAD ABOUT BLACKLISTING OR NON-DEBARMENT, BY  
ORGANISATION**

**UNDERTAKING REGARDING BLACKLISTING OR NON-DEBARMENT**

To,

The Secretary,  
Forest and Environment Department,  
Forest Secretariat, Deorali,  
Gangtok, Sikkim – 737102

Sir,

We hereby confirm and declare that we, M/s \_\_\_\_\_, is not blacklisted or De-registered or debarred by any Government department or Public Sector Undertaking or Private Sector or any other agency for which we have Executed or Undertaken the works or Services during the last 3 years.

Yours sincerely,

(Authorised Signatory)

Date: \_\_\_\_\_

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## ANNEXURE 6

### Suggestive themes for gamified format

1. **Wildlife Rescue Mission "Guardians of the Himalayas"**: This theme shall concentrate on the rescue of animals such as Red panda, Musk deer and Snow leopard. The gameplay elements should be as follows:
  - Track and observe animals in their natural habitat.
  - Participate in rescue missions to save injured or trapped animals.
  - Follow the life of a Snow Leopard, from hunting to raising cubs.
  - Engage in stealth missions to avoid poachers and ensure animal's safety.
  - Collaborate with virtual park rangers to set up camera traps and monitor Snow Leopard activity.
  - Use virtual binoculars and cameras to spot and photograph rare birds like the Himalayan Monal, Blood Pheasant, and Black-necked Crane.
2. **Quest for Home "Wilderness in Peril"**: This theme will focus on encounter scenarios where animals like the Himalayan black bear, king cobra, and leopard have ventured into fringe villages in search of food or shelter. Players must navigate complex interactions with local communities, address conflicts, and devise strategies to safely relocate these animals back to protected habitats. This theme highlights the delicate balance between wildlife conservation and human livelihoods in Sikkim's rural landscapes. The gameplay elements should be as follows:
  - Navigate through immersive virtual landscapes, including village outskirts and surrounding wilderness, using VR tools to track and locate targeted animals.
  - Approach cautiously to avoid startling the animal. Use virtual binoculars or sensors to observe from a safe distance and gather information about the animal's condition and behavior.
  - Address encounters with virtual villagers or livestock that pose risks to the animal's safety or hinder the rescue operation. Employ negotiation or diversion tactics to mitigate conflicts.
  - Arrive at designated release sites within protected habitats or wildlife reserves. Ensure a safe and conducive environment for the animal's reintroduction into the wild.
3. **Biodiversity Detective "Secrets of the Ecosystem"**: This theme will involve investigating mysteries surrounding sudden habitat damage, species disappearance, and unusual animal behaviors. Players act as biodiversity detectives, gathering clues, analyzing data, and solving environmental puzzles to uncover underlying threats to Sikkim's diverse ecosystems. This quest educates users on the interconnectedness of species and the importance of ecological balance for sustaining biodiversity. The gameplay elements shall be as follows:
  - Solve ecological puzzles related to habitat conservation.
  - Receive virtual briefings outlining the specific incidents or anomalies that require investigation, such as reports of deforestation, declining populations of endemic species, or pollution incidents.
  - Navigate through diverse virtual landscapes, including forests, rivers, and mountains, using VR tools to explore affected areas and gather clues.

- Engage in virtual laboratories or analysis stations to examine collected data, analyze patterns, and identify potential causes of environmental disturbances or species declines.
- Collaborate with virtual scientists, local experts, and stakeholders to exchange insights, validate findings, and uncover interconnected factors contributing to ecological changes.
- Encounter interactive puzzles and simulations that replicate ecological scenarios, such as restoring habitats, mitigating human impacts, or implementing conservation strategies.

These gamified challenges not only entertain but also educate, fostering a profound understanding and appreciation for Sikkim's ecological treasures and the critical importance of conservation efforts.

By merging cutting-edge technology with immersive storytelling and educational gameplay, the virtual endeavor aims to inspire visitors to become advocates for sustainable tourism and environmental conservation. It offers a transformative way to experience Sikkim's natural beauty while promoting awareness and stewardship of its fragile ecosystems for future generations.

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