

TERMS OF REFERENCE

International open tender procedure.

SERIOUS GAME FOR PARTICIPATIVE LANDSCAPES PLANNING IN SÃO TOMÉ, WITH REPLICABILITY TO PRÍNCIPE
International Expert(s) in Land-Use Planning for Nature Conservation and/or Serious Game for Social Changes and/or Biodiversity Mainstreaming & Sustainable Development and/or equivalent.

Assignment title	SERIOUS GAME FOR PARTICIPATIVE LANDSCAPES PLANNING
Project	European Union-funded “Landscape management in São Tomé and Príncipe: an integrated approach that meets the challenges of climate change adaptation, biodiversity and ecosystems conservation for sustainable human and economic development”
Type of contract	Consultancy – open internationally to Consulting companies, academia, and Non-Governmental Organizations
Contract period	c. 140 days equivalent over a period of 1 year [this period is flexible depending on the approach proposed by the service provider]
Line Supervision	BirdLife International
Location	Flexible, home based with at least 2 multi-experts (3+) missions to São Tomé & Príncipe for serious game facilitation
Country	São Tomé and Príncipe

BACKGROUND

The foremost priority of São Tomé and Príncipe (STP) is to expand existing and develop new sources of economic growth. STP’s primary foreign currency earnings are based on plantation agriculture, with the related exports, mainly to Europe, amounting to USD16M in 2017. Agriculture accounts for a significant share of employment on STP, about 26% of the labour force and around 60% of the active population. At the same time, STP promotes itself as a paradise archipelago and has committed to preserve its unique natural heritage. In 2006 two national protected areas were officially designated: the São Tomé Obô Natural Park and the Príncipe Natural Park. These protected areas cover one third of the archipelago’s area (1 001 km²), and more than two thirds if considering the respective buffer zones of the protected areas. The overall development challenge is how to reconcile the different development objectives and investments, with ensuring biodiversity conservation and ecosystem services functions are conserved. BirdLife International, in consortium with other organisations, aims to support efforts toward integrated landscape management for biodiversity conservation and sustainable & inclusive development of STP.

In this regard, the project “Landscape management in São Tomé and Príncipe: an integrated approach that meets the challenges of climate change adaptation, biodiversity and ecosystems conservation for sustainable human and economic development” funded by the European Union, led by Oikos – Cooperação e Desenvolvimento, in consortium with BirdLife International and Zatona-ADIL, intends to improve the utilization and management of land and natural resources through an island-wide integrated landscape management approach, contributing to sustainable access to food, wealth and the preservation of key ecosystems, in particular the Obô Natural Park and São Tomé High Conservation Value areas. The project intends to achieve this objective through an integrated intervention focusing on improving sustainable management & governance of natural resources and ecosystems conservation. This is through: by reinforcing the means and capacities of relevant structures, stakeholders and communities; and by reducing the human pressure on the Protected Areas and biodiversity hotspots; by promoting sustainable agriculture practices that are more productive and adapted to climate change effects, and by improving the value chains of specific products; and, increasing economic benefits to the population.

The project intervention is built around three inter-connected outcomes, but this consultancy addresses particularly of one of these outcomes: Outcome 1 “The management of the Obô Natural Park and the conservation of biodiversity in the wider landscape is enhanced to improve the ecosystem-based function for the sustainable development of the Island, facilitating replicability and testing opportunities for the island of Príncipe”. The outcome focuses mainly on promoting climate-smart and sustainable mechanisms for the conservation of the natural ecosystems. Under this Outcome, the project will support participatory policy planning through Serious Game¹. Serious Game is an innovative methodology which will be for the first time applied in a Small Island Developing State. It helps in modelling strategic decisions and outcomes, both of individuals and collectives and helps in analysing conflicts, power structures, behaviours, systemic impacts, and create a space to explore ways forward collectively. Based on Natural Capital Assessment results, it is a meeting point for science and decision-making (land and natural resource use). To create a natural capital baseline, BirdLife is drawing on innovative methods and tools, such as the Toolkit for Ecosystem Service Site-based Assessment - technical report expected by June 2021, or High Conservation Value forests (HCVf) criteria’s - pre-assessment finalised for the island of Sao Tomé and on-going for the island of Principe, or technical studies – natural resources value chains analysis (charcoal & timber value chain analysis in partnership with UNDP, in 2020) or feasibility studies on biodiversity-based livelihood alternatives (butterfly farming, preliminary study available), and Fundamental and Applied Research. In particular, building on the existing literature, BirdLife has identified and will promote additional research topics over the next few years, in partnership with research centres and university students, to assess additional threats to the biodiversity hotspots (e.g., palm wine tapping - MSc thesis, 2021), understand STP's timber and forest stocks, study environmental impact of invasive mammal species and associated risks of Zoonosis, study on endemic insects for augmentative biological control, assessing the cultural value of protected areas (partnership with CIBIO-InBIO), among other priorities.

Literature of relevance to the service (non-exhaustive) – [download here](#):

- Project document “Landscape management in São Tomé and Príncipe: an integrated approach that meets the challenges of climate change adaptation, biodiversity and ecosystems conservation for sustainable human and economic development” funded by the European Union
- Spatial and Land-Use National Plan for São Tomé & Príncipe *Plano Nacional de Ordenamento de Território - São Tomé e Príncipe*
- Obô Natural Park Management Plan for the iteration 2021-2025 (1st **draft**), including reviewed zoning of the core area and buffer zone [High Conservation Value areas, Conservation Forest, Sustainable Palm Oil plantation]
- Environmental law in São Tomé and Príncipe, a short synthesis
- Natural capital baseline – selection of reports available to date

SCOPE OF WORK AND OUTPUTS/DELIVERABLES

***Purpose of the consultancy:** Development and local play-off of serious game(s), tailored to the Santomean landscape, engaging - enabling - empowering a broad range of actors, from local to national, for participatory spatial planning in Sao Tomé, to strategically mainstream biodiversity conservation and ecosystem functions into policies and strategies, while sustainably involving informed stakeholders, and promoting replicability to additional landscapes.*

¹ For more resources on serious games:

Garcia, C., Dray, A., and Waeber, P. (2016). Learning Begins When the Game Is Over: Using Games to Embrace Complexity in Natural Resources Management. *Gaia – Ecological Perspectives for Science and Society*, 25, 4: 289-291. Online:

<http://www.ingentaconnect.com/content/oeikom/gaia/2016/00000025/00000004/art00015>

Andreotti, F., Speelman, E.N., Van den Meersche, K. et al. Combining participatory games and backcasting to support collective scenario evaluation: an action research approach for sustainable agroforestry landscape management. *Sustain Sci* 15, 1383–1399 (2020).

<https://doi.org/10.1007/s11625-020-00829-3>



Partnership for
nature and people



oikos
cooperação e desenvolvimento

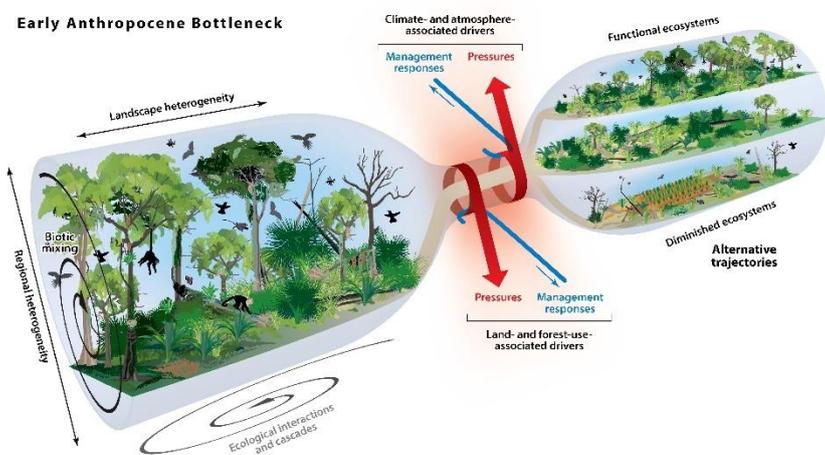


Building on the Natural Capital Assessment, the service provider will: (i) assess development scenarios and create a board Serious Game adapted to the São Tomé landscape, and (ii) support play-off of the Serious Game through local and national workshops, (iii) report, analyse and review of Serious Game workshops outputs for trans-sectorial integration of the recommendations, (iv) support effective integration of the Serious Game recommendations into policies and strategies in São Tomé and Príncipe and, (v) facilitate tools and know-how tools for Serious Game replication in São Tomé and Príncipe, by BirdLife's & partners' local teams, and beyond.

The focus of the action will be the island of São Tomé with roll-out to Príncipe [at least one workshop will be organised in the regional capital of Príncipe, Santo António (ii), and the training of BirdLife's & partners' local teams for further serious game facilitation will involve staff from Príncipe (v)]. It will guide, thinking land-use and spatial planning, to maintain the fragile balance between rapid development and biodiversity conservation. It will take into account the conserving of protected areas, and biodiversity hotspots and ecosystem services, within the broader landscape, and valuing ecosystem services.

(i) Serious Game Development

Building on the existing literature, technical studies available and BirdLife's and partners' own experience, the service provider will review the natural capital assessment and translate the information into development scenarios. The service provider will use a Serious Game approach to explore different development scenarios in an engaging way, therefore ensuring stakeholder buy-in at the national and local level. The scenario analysis will include at least 3 alternative trajectories, from diminished ecosystems to functional ecosystems, depending on (a) climate- and atmosphere-associated drivers and (b) land- and forest-use-associated drivers (balancing pressures and management responses). The approach will be custom-built to fit consequences and opportunities emerging from the natural capital assessment, following an iterative process to enhance learning of the participants. This experiential learning process is key for stakeholder involvement at different levels and at scale, working across different social circles, education levels, geographies, and landscape types.



Malhi Y, et al. 2014. Annu. Rev. Environ. Resour. 39:125–59

Illustrating the scenario analysis process.

(ii) Serious Game play-off

This is a series of exercises with national forums to explore the scenario(s) modelling with key stakeholders and decision-makers from public and private sectors. At least 5 local workshops will be organized to play-off the board game in locations representatively distributed in the landscape (for instance, Trindade, Neves, São João dos Angolares, Guadalupe, Porto Alegre), as well as 1 regional workshop in Santo Antonio, Príncipe (for roll-out) and 1 workshop in Sao Tomé capital city. The landscape stakeholders must be involved in the process, from politicians and decision-makers, to Government technicians and implementors, civil society organisations, private sector, community and



individual users. It is expected that each workshop shall welcome 20 to 40 participants (flexible – based on service provider expert advises), identified with the active support of BirdLife and partners project team.

(iii) Serious Game workshop outputs reporting, analysis, and review

This will inform the basis for the economic case of positive investment scenarios for biodiversity conservation in the landscapes; in particular, by identifying pilot solutions associated with the study findings, focused on scalable project for small and medium enterprises, in collaboration with the private sector in Sao Tomé (Public Private Partnership, Private-to-Private models, etc.).

(iv) Serious Game recommendations effective integrations into policies and strategies

Analysis and review of the workshops outputs will inform trans-sectorial integration of the recommendations, in particular to convey confidently the scientific findings and real-life policy implications garnered. This will lead to a technical report; which will be widely disseminated to a large audience, including decision-makers (through local, regional and central heads of institutions, politicians) and the private sector.

It is expected that the service provider will provide strategic inputs in regard to:

- improving and enforcing the legal, regulatory, and institutional framework for land use planning and management (Land Management and Urbanisation, Legal Regime on Land Planning Instruments, Environmental Impact Assessment framework, Strategic Environmental Assessments); to strengthen the hand of land planners in decisions on infrastructure and agricultural investments, and to ensure biodiversity matters are appropriately integrated.
- Improving and enforcing the legal, regulatory, and institutional framework on several inter-related issues to advance biodiversity conservation and sustainable forest management.

Legal services will be procured to translate the findings into national regulation & policy with the relevant authorities. At service provider convenience, this will either be included in the offer (recommended) or left behind for BirdLife to further proceed.

Additional strategic inputs could be made, complementing the work led by BirdLife in regard to:

- biodiversity-oriented livelihood opportunities; in particular, delineating Roadmaps for local livelihood and economic alternatives, assessing Economic Displacement Risk Assessment, as a result of the potential legal, regulatory, and institutional framework improvement and enforcement.
- sustainable finance for biodiversity conservation; in particular, support the definition of new management models for Protected Areas and High Conservation Value areas, including concessions, co-management and community-based management (*adding on the Sustainable Finance Plan for Protected Areas and Biodiversity in São Tomé and Príncipe, currently being developed by BirdLife with the support of the consultancy company Natural Strategies, which includes as a revenue option the concession mechanism, and associated feasibility studies – final plan expected by August 2021*).

At least one public restitution will be organised to discuss and/or present the Serious Games finding's, for communication and advocacy in São Tomé and Príncipe.

(v) Serious Game know-how tools for replicabilities

The islands, due to their isolation, small size, and simpler systems, have long been used as models to develop some of the most revolutionary biological theories. At a time when the need for sustainable development is pressing at a global scale, small islands, like São Tomé, could also be used as models to find solutions at wider scales. This aims therefore at communicating beyond the immediate target area, at national and international level, promoting lessons and experiences learning other landscapes to learn from the approaches piloted in this project. Dissemination of experience and lessons learned will be enhanced through engagement with the BirdLife Africa Partnership forest



Partnership for
nature and people



programme in Central & West Africa. Dissemination and replication tools will also target as a priority other islands landscape and Small Island Developing State. The deliverables will be widely disseminated online through the Obô Ôvyô website and social media, and BirdLife & project implementation partners websites. The service provider and BirdLife communication team in São Tomé and Príncipe must work in synergy along implementation of the work-package to document step-by-step and value the Serious Game methodology, tailored to local needs. The service provider is invited to facilitate press release and content to share the findings through these channels. BirdLife, with the service provider support and active participation, will also organize, at least, one webinar to further promote visibility of the action and foster replicability opportunities. Communications material and know-how tools must be facilitated; taking into consideration the outcomes will further be shared / presented at major events, including local and national environment and development events.

The service provider will also be responsible for supporting the training of BirdLife's & partners' team and/or government officials, who will then be able to facilitate Serious Game exercises afterwards, according to demands and needs.

A simplified version of the board game, specific to São Tomé landscape, will be developed to facilitate a 'family' board game, for long-lasting, direct, and indirect, awareness through gaming – a standing tool to sustainably inform by playing together. For this, the service provider will adapt the board game to a play-it-yourself model, develop a build-it instruction notice - including box, accessories (pieces, board, etc.), specify the rules - in a simple, understandable, and readable format for the targeted public, etc. The 'family' board game must be made of local and/or recycling materials. The service provider must accompany at least one local handicraft man/woman or association of handicraft men/women, identified in advance by BirdLife, for the manufacturing of the game. *Taking into consideration that the manufacturing cost is hardly predictable, the manufacturing cost must be considered as "additional expenses" that BirdLife will assume on pre-agreed basis, with the service provider and handicraft man/woman or association of handicraft men/women. This will promote replicability of the game by local entrepreneur that can then use the manufactured game as a sell-off product for local families, projects, associations, among other gaming public, or tourists for souvenir.*

Given the world transition to digital technology, a videogame inspired by the serious game, resulting to, for instance, to a gaming app, based on São Tomé landscape characteristic, could be proposed as an additional output to that work-package.

The deliverables shall be submitted, according to the agreed timetable, to BirdLife for review and clearance in collaboration with the relevant partners.

EXPERTISE AND QUALIFICATIONS REQUIRED

Academic qualifications (main expert(s)):

- Master's degree or higher in landscape planning, sustainable development, nature conservation and/or social science, protected areas and/or forest management, or any other relevant field; a relevant university degree in combination with qualifying experience in the areas related to the objectives will be accepted in lieu of the post-graduate degree.

Mandatory Language skills:

- Demonstrated proficiency in written and spoken Portuguese.
- Excellent English knowledge, including excellent report writing and presentation skills.

Experience (either from the structure or experts involved):

- Minimum 10 years of demonstrated experience relevant to Land-Use Planning for Nature Conservation and/or Serious Game for Social Changes and/or Sustainable Development and/or similar.



Partnership for
nature and people



- In-depth knowledge of natural capital assessment tools. Ability to distil complex information from various sources into concise and clear communications.
- Experience in stakeholder involvement at different levels and at scale, working across different social circles, education levels, geographies, and landscape types. The service provider should be able to demonstrate group animation skills, prior experience in facilitating workshops and consultation processes, and excellent synthesis and report writing skills. This includes community workshops organisation; as well as advocacy skills, influencing policies and facilitation long-lasting guidance for integrative landscape management.
- Demonstrated experience working in developing country contexts (experience in Small Island Developing States would be an asset).

The final report and associated deliverables must be written in Portuguese and English.

DUTY STATION AND DURATION OF ASSIGNMENT

The service will be carried out over a period of 12 months from August 2021 to July 2022 and it will include c. 140 working days equivalent.

Estimated Timeframe*

Activity	Timeline	Outputs
Contract signature	July 2021	<ul style="list-style-type: none"> • Service Provision Contract
Serious Game Development	August – December 2021	<ul style="list-style-type: none"> • Natural Capital Assessment (review of literature and BirdLife & partners knowledge) and scenario's development (report(s)) • Serious Game
Serious Game play-off	January – March 2022**	<ul style="list-style-type: none"> • 5 local workshops • 1 regional workshop • 1 national workshop
Serious Game workshop outputs reporting, analysis, and review	April – May 2022	<ul style="list-style-type: none"> • Workshops reports • Identification of landscape positive investment scenarios for biodiversity conservation pilot solutions
Serious Game recommendations effective integrations into policies and strategies	June 2022	<ul style="list-style-type: none"> • Technical report(s) • <i>Additional: legal review of national regulation & policy</i>
Public restitution	June 2022	<ul style="list-style-type: none"> • Atelier minute
Revisions of documents following comments and submission of final deliverables	Final deliverables no later than end of July 2022	<ul style="list-style-type: none"> • Dossier including (i) previous reports & minutes, (ii) overall synthesis, including lessons learnt, (iii) dissemination / replication / communication tools (flyer(s), poster(s), audio-visual material(s), press release(s)), and (iv) any other potential products • Manufacture of a play-it-yourself model
Serious Game know-how tools for replicabilities	July – December 22	<ul style="list-style-type: none"> • Webinar(s) • Any additional communication material (e.g., articles, etc.)

* This is barely provisional and must be reviewed according to the approach proposed by the service provider and availability of respective experts & teams.

** These dates will have to be adapted in regard to the COVID19 pandemic situation at the time.



Partnership for
nature and people



PAYMENT ARRANGEMENTS

Payments are based upon timely delivery of the services specified in the post-negotiation workplan to be specified in the last version of the offer, in agreement with BirdLife.

SUBMISSION OF PROPOSALS

The service provider must send the Technical & Financial (in EURO) proposals, including the following documents – in 3 different file, to: saotomeprincipe@birdlife.org.

- Detailed Curriculum Vitae of Expert(s) involved.
- Proposal for implementing the assignment including detailed costing by deliverable.
- Example(s) of other actions led relevant to that assignment, and relevant contacts may a reference check be required.

The above-mentioned documents, information and requirements are mandatory and as such are required to form a complete tender. A proposal will be rejected if it is not substantially responsive to the abovementioned requirements.

The final work plan will be determined through negotiation between the successful bidder and BirdLife International - São Tome Country Office; with support from the Forest Programme team based in Cambridge, BirdLife Global office.

Successful as well as unsuccessful bidders will be informed by e-mail as soon as possible after the submission date.

Queries about the consultancy can be directed to BirdLife International - São Tomé and Príncipe Head of Projects Office jean-baptiste.deffontaines@birdlife.org.

Publication of the Terms of Reference: 5/04/2021

Period for offer development for potential service providers: 6 full weeks

Deadline for submission of offer: 17/05/2021

EVALUATION CRITERIA

BirdLife procedures will apply in evaluating the offers, with consideration to the principles of competition and transparency. Competition and transparency principles are achieved when invitation to tender is made open and published to reach all qualified applicants. Beyond this, the procurement committee will review proposals received, documenting/justifying decisions taken at each stage and provide feedback to applicants accordingly.

The proposals will be evaluated using the cumulative analysis method with a split 60% technical and 40% financial scoring. The proposal with the highest cumulative scoring will be awarded the contract. Applications will be evaluated technically, and points are attributed based on how well the proposal meets the requirements of the Terms of Reference using the guidelines detailed in the table below.

The award of the contract shall be made to the service provider whose offer has been evaluated and determined as:

- a) Responsive/compliant with academic qualifications and language skills /acceptable, and
- b) Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation: Technical Criteria 60% and Financial Criteria 40%.

Only candidates obtaining a minimum of 49 points (70% of the total technical points) will be considered for the Financial Evaluation.



Partnership for
nature and people



oikos
cooperação e desenvolvimento

