

Terms of reference (ToR) for the procurement of services

CONFIDENTIAL

DEVELOPMENT OF A BIODIVERSITY FINANCE PLATFORM (BFP) FOR NATIONAL AND SUB-NATIONAL LEVELS	WBS number G-012460-005
	Tender number 10045268

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0. List of abbreviations

BFP	Biodiversity Budget Tagging
GBF	Global Biodiversity Framework
CBD	Convention on Biological Diversity
EbA	Ecosystem-based Adaptation
NBSAP	National Biodiversity Strategy and Action Plan
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
IBSAP	Indonesia Biodiversity Strategy and Action Plan
RENJA/RKA KL	<i>Rencana Kerja/ Rencana Kerja dan Anggaran Kementerian/Lembaga</i> (Work Plan/ Work Plan and Budget of Ministry/Agency)
NbS	Nature-based Solutions
RKP	<i>Rencana Kerja Pemerintah</i> (Government Work Plan)
RPJMN	<i>Rencana Pembangunan Jangka Menengah Nasional</i> (National Mid-term Development Planning)
RPJPN	<i>Rencana Pembangunan Jangka Panjang Nasional</i> (Long term Development Planning)
SDGs	Sustainable Development Goals
ToR	Terms of Reference

1. Context

Global Context: Biodiversity Crisis and the Role of Finance

Biodiversity loss has become one of the most pressing global challenges of the 21st century, with far-reaching implications for ecological stability, economic resilience, and human well-being. Ecosystems across the world are under increasing pressure due to land-use change, deforestation, pollution, overexploitation of natural resources, and climate change.

In response to this crisis, the global community has adopted the Kunming-Montreal Global Biodiversity Framework (GBF), which sets ambitious targets to halt and reverse biodiversity loss by 2030. A critical element of the GBF is the recognition that biodiversity outcomes are strongly shaped by financial flows.

GBF Target 18 emphasizes the need to:

- Identify and track biodiversity-related financial flows
- Align public and private investments with biodiversity objectives
- Eliminate or reform incentives harmful to biodiversity
- Scale up financial resources for biodiversity conservation and sustainable use

This reflects a fundamental shift in perspective, positioning biodiversity not only as an environmental issue, but as a core issue of financial governance and public resource allocation.

National Context: Indonesia's Biodiversity Commitments

Indonesia, as one of the world's megadiverse countries, holds a strategic position in global biodiversity conservation. Its ecosystems—including tropical forests, peatlands, mangroves, and coral reefs—are among the richest in the world and provide essential ecosystem services that support national development and community livelihoods.

However, Indonesia is also experiencing significant biodiversity pressures, including:

- Land conversion and habitat fragmentation
- Coastal and marine degradation
- Declining ecosystem quality
- Increasing climate-related risks

To address these challenges, Indonesia has demonstrated strong commitments through:

- Ratification of the Convention on Biological Diversity (CBD)
- Adoption of the Global Biodiversity Framework (GBF)
- Integration of biodiversity into the Sustainable Development Goals (SDGs)

At the national level, biodiversity governance is guided by the National Biodiversity Strategy and Action Plan (NBSAP), which is currently being updated to align with the GBF. The updated NBSAP emphasizes:

- Mainstreaming biodiversity into development planning
- Strengthening biodiversity financing mechanisms
- Enhancing monitoring and reporting systems
- Improving institutional coordination across sectors

These priorities highlight the growing importance of tracking and accountability in biodiversity finance as a foundation for effective policy implementation.

Challenges in Biodiversity Budgeting and Expenditure Tracking

Despite strong policy commitments, significant gaps remain in the management and tracking of biodiversity-related expenditures:

1. **Fragmentation of Biodiversity Expenditure**
Biodiversity-related activities span multiple sectors and institutions, including the environment, forestry, marine affairs, agriculture, water resources, and infrastructure. This fragmentation makes it difficult to consolidate and analyze total biodiversity-related spending.
2. **Lack of Standardized Identification Framework**
There is currently no unified methodology to identify whether a budget activity contributes to biodiversity conservation, restoration, or sustainable use.
3. **Limited Transparency and Traceability**
The absence of a tagging mechanism limits the ability to trace financial flows and assess how public budgets contribute to biodiversity outcomes.
4. **Weak Linkage to Biodiversity Targets**
Budget allocations are not systematically linked to targets under NBSAP or GBF, reducing the effectiveness of planning and monitoring.
5. **Inefficiency of Manual Processes**
Existing identification processes rely heavily on manual interpretation, which is resource-intensive, inconsistent, and difficult to scale across large datasets.

Biodiversity Finance Platform (BFP) as a Strategic Solution

To address these challenges, a Biodiversity Finance Platform (BFP) system is proposed.

BFP is designed as:

- A technical tool to systematically identify and classify biodiversity-related expenditures
- A governance instrument to improve transparency, accountability, and coordination
- A policy mechanism to support evidence-based decision-making
- A forum to coordinate among stakeholders

The implementation of BFP will enable:

- Comprehensive mapping of biodiversity-related financial flows
- Improved visibility of expenditure distribution across sectors and regions
- Stronger alignment between public spending and biodiversity targets
- Provide impact analysis on biodiversity public finance
- Enhanced monitoring and evaluation of biodiversity investments

Multi-Dimensional Tagging and Co-Benefits Approach

Biodiversity outcomes are often generated through cross-sectoral interventions. Therefore, the BAA system will adopt a multi-dimensional tagging approach, allowing for:

- Identification of direct biodiversity expenditures
- Recognition of indirect contributions from other sectors
- Capture of co-benefits between biodiversity and other development objectives

This includes activities such as:

- Nature-based solutions (NbS)

- Ecosystem-based adaptation (EbA)
- Sustainable agriculture and fisheries
- Integrated landscape and coastal management

Such an approach ensures that biodiversity is not treated as an isolated sector, but as an integral component of broader development processes.

Role of Digital Systems and Machine Learning

Given the complexity and scale of public financial data, the BFP system will be supported by digital technologies, including:

1. Web-based Platform
 - Enables centralized data management
 - Supports multi-user access
 - Facilitates transparency and reporting
2. Machine Learning-Based Tagging
 - Automates classification of budget data
 - Reduces subjectivity and human error
 - Enhances efficiency and scalability
 - Continuously improves accuracy through learning from data
3. Data Integration and Interoperability
 - Supports integration across data sources
 - Facilitates future system expansion
4. Data Analysis
 - Supports data analysis through selected analysis methods
 - Enables comprehensive impact analysis
 - Facilitates future system expansion

Rationale for the Assignment

In line with:

- GBF Target 18 (biodiversity finance tracking and alignment)
- Updated NBSAP Indonesia
- National development priorities on sustainability and resilience

There is a strong need to establish a robust, scalable, and standardized Biodiversity Budget Analysis system.

This assignment aims to:

- Strengthen biodiversity finance governance
- Improve transparency and accountability of public expenditures
- Enable evidence-based planning and policy formulation
- Support implementation of biodiversity targets at national and sub-national levels

The development of this system will serve as a critical foundation for advancing Indonesia's transition toward a nature-positive and sustainable development pathway.

2. Tasks to be performed by the contractor

The contractor is responsible for providing the following works:

The overall objective of this assignment is to develop and operationalize a Biodiversity Finance Platform (BFP) system that enables systematic identification, classification, validation, and analysis of biodiversity-related expenditures at national and sub-national levels; involve the relevant stakeholders (national, sub-national, government, and non-government) to enhance resource mobilization from public and private budgets and provide good policy for Biodiversity.

The platform is expected to:

- Strengthen biodiversity finance tracking in line with GBF Target 18
- Support the implementation of the updated NBSAP Indonesia
- Improve transparency, accountability, and effectiveness of public expenditures
- Enable data-driven policy-making and planning

The contractor shall provide a comprehensive set of services covering methodological development, system development, data processing, capacity building, and technical support.

Tasks

1	Development of Biodiversity Finance Platform Framework
1.1	Development of BFP Methodology: - Develop a standardized Biodiversity Finance Platform Framework aligned with: ○ Global Biodiversity Framework (GBF) ○ Updated NBSAP Indonesia ○ Relevant national development policies - Define a classification system for biodiversity-related expenditures, including: ○ Level of biodiversity relevance: ▪ Type of intervention: ▪ Conservation ▪ Restoration ▪ Sustainable use ▪ Governance and enabling environment ○ Ecosystem classification: ▪ Terrestrial ▪ Marine and coastal ▪ Freshwater ▪ Peatland/wetland ○ Sector and sub-sector classification - Develop criteria and decision rules for tagging, including: ○ Inclusion and exclusion criteria ○ Thresholds for relevance ○ Handling of multi-purpose activities
1.2	Development of Co-benefit Identification Framework: - Develop a methodology to identify co-benefits between biodiversity and other development objectives, including: ○ Climate mitigation and adaptation ○ Gender - Develop tagging logic to: ○ Distinguish between direct biodiversity actions and indirect contributions ○ Capture cross-sectoral impacts
1.3	Validation Framework:

	- Develop a validation protocol for tagging results, including: - o Institutional roles and responsibilities - o Validation workflow - o Quality assurance procedures - Define procedures for: - o Initial tagging - o Review and validation - o Re-tagging and correction
2	Development of Machine Learning-Based Tagging System
2.1	Data Preparation and Processing: - Identify and collect relevant datasets, including: - o National budget data (RKA-KL) - o Sub-national budget data (SIKD) - o Supporting metadata and program descriptions - Conduct: - o Data cleaning - o Data structuring - o Text preprocessing for NLP
2.2	Machine Learning Model Development: - Develop a supervised machine learning model for automatic tagging, including: - o Natural Language Processing (NLP) techniques - o Text classification models - Train the model using: - o Historical budget data - o Expert-labeled datasets - Ensure the model can generate outputs including: - o Biodiversity relevance classification - o Ecosystem categorization - o Intervention type - o Confidence score
2.3	Model Testing and Optimization: - Test the model using validation datasets - Evaluate performance using appropriate metrics (e.g., accuracy, precision, recall) - Improve model performance through iterative refinement
3	Development of Web-based BFP System
3.1	System Design and Architecture: - Design system architecture, including: - o Database structure - o Backend and frontend components - o User access management - Ensure the system is: - o Scalable - o Secure - o Compatible with government IT standards
3.2	System Development: - Data Management Module - o Data upload and storage - o Data management interface

	- Automatic Tagging Module - o Integration with machine learning model - o Tagging recommendation display - Validation Module - o User validation workflow - o Retagging functionality - User Management Module - o Role-based access (admin, validator, viewer) - Reporting and Analytics Module - o Data analysis - o Data aggregation - o Export functionality
3.3	Dashboard Development: - Total biodiversity-related budget allocation - Distribution by: - o Sector - o Ecosystem type - o Region - Trends over time - Co-benefits and cross-sectoral contributions
3.4	System Testing and Deployment: - Conduct User Acceptance Testing (UAT) - Revise system based on feedback - Deploy system in agreed server environment - Ensure system functionality and stability
3.5	System Maintenance and Support: - Provide maintenance support for a minimum of 6 months, including: - o Bug fixing - o System troubleshooting - o Minor enhancements - Maintain a log sheet documenting: - o Issues reported - o Actions taken - o Resolution time
4	Capacity Building and Knowledge Transfer
4.1	Development of Guidelines and Manuals: - Biodiversity Budget Analysis guideline - System user manual - Technical documentation
4.2	Training and Capacity Building: - Conduct training programs for: - o National-level stakeholders - o Sub-national stakeholders - Develop training materials, including: - o Presentations - o Handbooks - o Case studies
4.3	Knowledge Sharing and Stakeholder Engagement: - Facilitate workshops and consultations - Support knowledge exchange among stakeholders - Promote understanding and adoption of BFP

5	Reporting - Coordination meetings, QA, reporting, administrative support, and contingency
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In addition to the reports required by GIZ in accordance with the General Terms and Conditions of Contract, the contractor submits the following reports:

- Inception report
- Contributions to reports to GIZ's commissioning party
- Brief quarterly or half-yearly reports on the implementation status of the project

Certain milestones, as laid out in the table below, are to be achieved during the contract term. This assignment will be output-based, with monitoring and payment tied to the deliverables produced. The contractor will be paid based on the completion of the following output:

Milestones/partial works	Deadline	Criteria for acceptance	Payment term
Output 1: Inception Report	10 October 2026	Methodology, classification system, tagging criteria, co-benefit framework, validation protocol	
Output 2: BFP framework + ML prototype	30 November 2026	Clean dataset, expert-labeled training data, NLP model, classification output, confidence score, model testing	1 st payment
Output 3: Fully developed and deployed system of BFP	15 May 2027	System architecture, web modules, dashboard, UAT, deployment, 6-month maintenance	2 nd payment
Output 4: Capacity Building and Knowledge Transfer	15 June- 15 October 2027	Guidelines, user manual, technical documentation, trainings, workshops, stakeholder engagements	
Output 5: Final report and maintenance summary	15 November 2027	Final Report (Including all codes, formulas, and planning for maintenance and transfer to the related Directorate, in the Ministry of Finance)	3 rd payment (final payment)

To support the delivery of the expected outputs, the contractor will conduct further consultations with GIZ and the relevant biodiversity-related teams within the Ministry of Finance. The contractor's work progress will be monitored primarily through periodic review meetings; GIZ and the Ministry of Finance will determine the schedule and frequency of these meetings. The contractor will also be required to consult with and/or seek ad hoc technical and policy guidance from GIZ and the relevant units within the Ministry of Finance responsible for biodiversity-related policies, planning, and financing. The contractor shall submit all reports to GIZ, with content and findings developed based on consultations and coordination with both GIZ and the Ministry of Finance.

Period of assignment: from **01.10.2026 until 30.11.2027**.

3. Concept

In the tender, the tenderer is required to show *how* the objectives defined in Chapter 2 (Tasks to be performed) are to be achieved, if applicable under consideration of further method-related requirements (technical-methodological concept). In addition, the tenderer must describe the project management system for service provision.

Note: The numbers in parentheses correspond to the lines of the technical assessment grid.

Technical-methodological concept

Strategy (1.1): The tenderer is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1 Context) (1.1.1). Following this, the tenderer presents and justifies the explicit strategy with which it intends to provide the services for which it is responsible (see Chapter 2 Tasks to be performed) (1.1.2).

The tenderer is required to describe the key **processes** for the services for which it is responsible and create an **operational plan** or schedule (1.4.1) that describes how the services according to Chapter 2 (Tasks to be performed by the contractor) are to be provided. In particular, the tenderer is required to describe the necessary work steps and, if applicable, take account of the milestones and **contributions** of other actors (partner contributions) in accordance with Chapter 2 (Tasks to be performed) (1.4.2).

Project management of the contractor (1.6)

The tenderer is required to explain its approach for coordination with the GIZ project. In particular, the project management requirements specified in Chapter 2 (Tasks to be performed by the contractor) must be explained in detail.

The tenderer is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the tender; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

4. Personnel concept

The tenderer is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 7), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points in the technical assessment.

Team leader (Biodiversity and Environmental Expert)

Tasks of the team leader

- Overall responsibility for advisory services and for managing the Expert Team to achieve the objectives defined in Chapter 2.
- Lead the coordination, quality control, and reporting of all activities to GIZ and the Ministry of Finance.
- Ensure consistency between methodological development, system development, stakeholder consultations, and deliverables.
- Work closely with the relevant experts, as needed, to ensure timely and high-quality implementation of the assignment.
- Oversee communication and coordination with relevant stakeholders involved in biodiversity-related planning, budgeting, and expenditure analysis.
- Ensure that technical outputs are aligned with the agreed Biodiversity Budget Tagging (BFP) framework and project objectives.

Qualifications of the team leader

- Education/training (2.1.1): a master's degree (MSc or equivalent) in Environmental Sciences, Natural Resource and Environmental Management, Biodiversity/Conservation Management, Development Studies, Climate Change, Sustainable Development, or other related disciplines.
- Language (2.1.2): B1-level language proficiency in English
- General professional experience (2.1.3): Five years of professional experience in environmental governance, climate change mitigation and adaptation, natural resource management, sustainable development planning, climate or biodiversity budget tagging, biodiversity finance, and environmental expenditure analysis.
- Specific professional experience (2.1.4): Five years of experience in the design, development, management, or implementation of computer-based tools, digital systems, web-based platforms, monitoring and evaluation systems, and data-driven decision-support tools. A proven portfolio of digital platform projects with interactive features, dashboards, workflow systems, data management, system integration, and analytical modules is required. Experience in government platforms related to climate planning, budget tagging, biodiversity, sustainable finance, or access to finance is an advantage.
- Leadership/management experience (2.1.5): Five years of experience in coordinating and leading multidisciplinary teams, managing work plans and deliverables, and ensuring effective collaboration among technical experts, government counterparts, and other relevant stakeholders is required.
- Regional experience (2.1.6): Five years of experience in projects at the national and provincial levels in Indonesia, including experience working with ministries, government agencies, and subnational governments.
- Development cooperation (DC) experience (2.1.7): Five years of experience working with multiple stakeholders and development partners, including government institutions, international development organisations, consultants, academic institutions, and civil society organisations.

Key expert 1: Biodiversity and Budget Tagging Expert

Tasks of key expert 1

- Analyze and refine methodologies for biodiversity budget tagging and biodiversity-related expenditure classification.
- Support the development of a standardized Biodiversity Budget Tagging framework aligned with relevant national and international biodiversity policy frameworks.
- Ensure that the methodology is aligned with the Global Biodiversity Framework, NBSAP priorities, and relevant public finance and planning practices.
- Oversee the review and interpretation of biodiversity-related budget and expenditure data from national and sub-national sources.
- Ensure the quality, consistency, and policy relevance of biodiversity tagging criteria and decision rules.
- Develop and refine classification dimensions for biodiversity relevance, ecosystem domains, intervention types, and co-benefits.
- Support the preparation of technical guidelines, decision trees, and validation procedures for biodiversity budget tagging.
- Conduct assessments to support alignment between tagged expenditures and biodiversity policy priorities.
- Prepare analytical reports and technical inputs related to biodiversity finance and budget tagging.
- Present findings and recommendations to stakeholders, including government institutions and development partners.
- Develop training materials and support capacity building for stakeholders on biodiversity budget tagging methodology and implementation.
- Facilitate knowledge exchange and support institutional understanding of biodiversity finance tracking.

Qualifications of key expert 1

- Education/training (2.2.1): a bachelor's degree (BSc or higher) in Natural Resource Management, Biodiversity/Conservation Management, Environmental Sciences, Development Studies, Public Policy, Environmental Economics, or related disciplines.
- General professional experience (2.2.3): Two years' experience of the Global Biodiversity Framework, climate or biodiversity budget tagging, NBSAP, biodiversity finance, and natural resource/biodiversity conservation and management is an advantage.
- Specific professional experience (2.2.4): Ten years of professional experience in biodiversity management, biodiversity policy, biodiversity finance, or related fields.

Key expert 2: System Analyst and Lead Developer

Tasks of key expert 2

- Design and develop the overall system architecture for the Biodiversity Budget Tagging platform.
- Ensure scalability, security, and support for all required system functionalities.
- Create detailed technical specifications, design documents, and workflow diagrams.
- Oversee the development and implementation of the web-based BFP system.
- Lead the development team and ensure cohesive integration of backend and frontend components.
- Develop and supervise APIs and data exchange functions for interoperability with

- relevant systems, where required.
- Collaborate with biodiversity and data experts to ensure the system reflects the agreed tagging framework and workflow.
- Monitor technical progress, identify risks, and ensure timely completion of milestones.
- Maintain comprehensive technical documentation, including system design, user guidance, and API documentation.
- Prepare technical updates and reports for GIZ and the Ministry of Finance.

Qualifications of key expert 2

- Education/training (2.3.1): a bachelor's degree (BSc or higher) in Computer Science, Information Technology, Software Engineering, or related disciplines.
- General professional experience (2.3.3): Two years of experience in UI principles, cross-browser compatibility, general web functions, and digital system standards.
- Specific professional experience (2.3.4): Eight years of professional experience and hands-on expertise in developing high-quality computer-based tools or digital platforms. Strong knowledge of programming languages such as Python, Java, R, and HTML, as well as related technologies, is required. Experience with collaborative design tools such as Figma or InVision and source control tools such as Git is required.
- Leadership/management experience (2.3.5): Five years of experience leading teams of experts, programmers, and system developers is required

Key expert 3: Backend Developer

Tasks of key expert 3

- Develop and maintain server-side logic, databases, and APIs for the BFP system.
- Ensure high performance and responsiveness of backend services.
- Design, implement, and maintain database structures that support biodiversity budget tagging, validation, and reporting.
- Ensure data integrity, security, and optimal system performance.
- Implement data validation and quality control processes in the backend system.
- Develop and maintain RESTful APIs for data exchange and system interoperability, where required.
- Integrate backend services with frontend applications.
- Conduct unit and integration testing to ensure system functionality and reliability.
- Debug and resolve issues in backend components.
- Implement security measures to protect data and backend services.
- Document backend processes, codes, and APIs clearly for internal and stakeholder use.

Qualifications of key expert 3

- Education/training (2.4.1): a bachelor's degree (BSc or higher) in Computer Science, Information Technology, Software Engineering, or related disciplines
- General professional experience (2.4.3): Two years of experience and strong understanding of general web application standards, data structures, and API development
- Specific professional experience (2.4.4): Seven years of hands-on experience with web applications and programming languages such as HTML, CSS, JavaScript, and API development. Experience using design collaboration tools and development tools including Git is required

Key expert 4: Frontend Developer

Tasks of key expert 4

- Develop and maintain the user interface of the BFP platform.
- Ensure responsive, user-friendly, and accessible design implementation.
- Work with the UI Designer to implement and refine UI/UX designs.
- Conduct usability testing and incorporate feedback to improve interface quality.
- Integrate frontend components with backend services and APIs.
- Ensure seamless data flow and functionality between frontend and backend.
- Optimize frontend performance for speed and efficiency.
- Ensure compatibility across browsers and devices.
- Perform unit and integration testing of frontend components.
- Identify and fix bugs and performance issues.
- Provide support related to frontend issues and features.
- Maintain documentation for frontend code and user interface guidance.

Qualifications of key expert 4

- Education/training (2.5.1): a bachelor's degree (BSc or higher) in Computer Science, Information Technology, Software Engineering, or related disciplines.
- General professional experience (2.5.3): Two years of experience and a strong understanding of UI implementation, cross-browser compatibility, and web interface standards
- Specific professional experience (2.5.4): Five years of hands-on experience in frontend development using relevant programming frameworks and tools. Strong knowledge of HTML, CSS, JavaScript/jQuery, version control/Git, and experience with modern frontend environments is required

Key expert 5: UI Designer

Tasks of Key Expert 5

- Create visually appealing and user-friendly interface designs for the BFP platform.
- Develop design mockups, wireframes, prototypes, and style guidance.
- Conduct user research to understand user needs and behaviors.
- Design intuitive user flows and interactions to improve usability.
- Work closely with frontend developers to ensure accurate implementation of design specifications.
- Provide design assets, specifications, and guidelines to developers.
- Conduct usability testing and refine designs based on user feedback.
- Ensure design consistency across the entire system.
- Develop and maintain a design system or style guide.
- Continuously improve interface quality by incorporating feedback and best practices.

Qualifications of key expert 5

- Education/training (2.6.1): a bachelor's degree (BSc or higher) in Design, Computer Science, Information Technology, Human-Computer Interaction, or related disciplines.
- General professional experience (2.6.3): Two years of experience in developing clean, professional, and user-friendly design themes for web-based platforms is required
- Specific professional experience (2.6.4): Five years of professional experience as a UI/UX Designer or similar role. A proven portfolio of web-based dashboard and system

design projects, including chart presentations, maps, and interactive features, is required; if available, links to live demos or operational websites should be provided. Experience using collaborative design tools such as Figma or InVision is required

Key expert 6: Data Scientist / Machine Learning Specialist

Tasks of key expert 6

- Develop the machine learning model for automatic biodiversity budget tagging.
- Prepare and preprocess textual and structured budget datasets for model development.
- Apply appropriate Natural Language Processing (NLP) and text classification techniques.
- Train, test, and refine machine learning models for biodiversity-related expenditure classification.
- Develop confidence scoring and recommendation logic for tagging outputs.
- Work closely with the Biodiversity and Budget Tagging Expert to ensure model outputs align with the tagging framework.
- Support model validation, optimization, and documentation.
- Prepare technical documentation on data handling, model design, testing, and limitations.
- Support demonstration of model results and explanation of analytical outputs to non-technical stakeholders.

Qualifications of key expert 6

- Education/training (2.7.1): a bachelor's degree (BSc or higher) in Data Science, Computer Science, Statistics, Information Systems, Applied Mathematics, or related disciplines.
- General professional experience (2.7.3): Two years of experience and a strong understanding of statistical analysis, machine learning, and data processing are required.
- Specific professional experience (2.7.4): Five years of professional experience in data science, machine learning, or related fields. Experience in Natural Language Processing, text classification, and programming languages such as Python, R, or SQL is required.

Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Socio-cultural skills
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

5. Costing requirements

The following basic calculations for the contract for works are reference values based on the acceptance criteria for each partial work/milestone specified in Chapter 2 (Tasks to be performed by the contractor).

Since the contract to be concluded is a contract for works (**based on outputs**), we would ask you to offer your services at a lump sum price to be divided per output described below. The price per Output must contain all relevant costs (experts' fees, travel expenses, etc.). The estimated expert days serve as guidance in this respect.

Milestones/partial works	Estimated expert days for orientation	Deadline/place/person responsible
Output 1: Inception Report (Methodology, classification system, tagging criteria, co-benefit framework, validation protocol)	Team leader: 20 Key expert 1: 20 Key expert 2: 20 Key Expert 3: 20 Key Expert 4: 20 Key Expert 5: 20 Key Expert 6: 20	10 October 2026
Output 2: BFP framework + ML prototype (Clean dataset, expert-labeled training data, NLP model, classification output, confidence score, model testing)	Team leader: 20 Key expert 1: 20 Key expert 2: 20 Key Expert 3: 20 Key Expert 4: 20 Key Expert 5: 20 Key Expert 6: 20	30 November 2026
Output 3: Fully developed and deployed system of BFP (System architecture, web modules, dashboard, UAT, deployment, 6-month maintenance)	Team leader: 30 Key expert 1: 30 Key expert 2: 30 Key Expert 3: 30 Key Expert 4: 30 Key Expert 5: 30 Key Expert 6: 30	15 May 2027
Output 4: Capacity Building and Knowledge Transfer (Guidelines, user manual, technical documentation, trainings, workshops, stakeholder engagements)	Team leader: 30 Key expert 1: 30 Key expert 2: 30 Key Expert 3: 30 Key Expert 4: 30 Key Expert 5: 30	15 June-15 October 2027

	Key Expert 6: 30	
Output 5: Final report and maintenance summary (Final Report (Including all codes, formulas, and planning for maintenance and transfer to the related))	Team leader: 14 Key expert 1: 14 Key expert 2: 14 Key Expert 3: 14 Key Expert 4: 14 Key Expert 5: 14 Key Expert 6: 14	15 November 2027

Assignment of personnel and travel expenses

Sustainability aspects for travel

GIZ has undertaken an obligation to reduce greenhouse gas emissions (CO₂ emissions) caused by travel. When preparing your tender, please incorporate options for reducing emissions, such as selecting the lowest-emission booking class (economy) and using means of transport, airlines and flight routes with a higher CO₂ efficiency. For short distances, travel by train (second class) or e-mobility should be the preferred option.

CO₂ emissions caused by air travel must be offset. GIZ specifies a budget for this, through which the carbon offsets can be settled against evidence.

Travel expenses	Quantity	Number of experts	Total	Comments
Per diem allowance in place of assignment	3	3	9	
Accommodation allowance in place of assignment	3	3	9	
Transport	Quantity	Number of experts	Total	Comments
Domestic flights	3	3	9	Travel to the place of assignment (destination will be determined later)
CO ₂ emissions compensation for air travel			18	A fixed budget of IDR 5.400.000 is earmarked for settling carbon offsets against evidence.
Airport transport at home base and place of assignment			18	Transfer to/from airport
Other cost	Quantity	Price	Total	Comments

Technical Meeting	40	IDR 600.000	IDR 24.000.000	Two meetings. Meeting package for up to 20 participants. Place of meeting will be determined later
Workshop	40	IDR 600.000	IDR 24.000.000	Meeting package for up to 40 participants. Place of meeting will be determined later
Flexible remuneration			IDR 150.000.000	Use of the flexible remuneration item requires prior written approval from GIZ

6. Requirements on the format of the tender

The structure of the tender must correspond to the structure of the ToR. In particular, the detailed structure of the concept (Chapter 3) should be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). The tender must be legible (font size 11 or larger) and clearly formulated. It must be drawn up in English.

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the standard application format. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs must be submitted in **English**.

As the contract to be concluded is a contract for works (based on outputs), please offer a fixed lump sum price that covers all relevant costs (fees, travel expenses, etc.). The price bid will be evaluated on the basis of the specified lump sum price. In addition, please also provide the underlying daily rate. The specifications for pricing are defined in the price schedule.
