





### Earth Observation for Decision Support in Water and Natural Resources Management in North Africa

### **GMES North Africa Consortium**

## RECRUITMENT OF A CONSULTING FIRM FOR THE CUSTOMIZATION OF LAND DEGRADATION MONITORING SERVICE AT THE COUNTRY LEVEL

TERMS OF REFERENCE

This call for tenders targets the African private sector

[CT/OSS/GMES&Africa\_LD/140624-15]

June 2024

### **Table of Contents**

1.	Intr	oduction4		
2.	. Presentation of MISLAND			
3.	3. Mission description:			
3	5.1.	MISLAND-country prototype6		
3	.2.	LDN kit packaging 8		
3	.3. 0	Customized MISLAND's ownership, versioning and capacity building		
3	.3.1.	Customized MISLAND's ownership		
3	.3.2.	Feedback collection mechanism		
3	.3.3.	Prototype's versioning		
3	.3.4.	Capacity building9		
4.	Dur	ation of the Mission10		
5.	Qua	lifications of the Consultant 10		
5	5.1.	Specialty:		
5	.2.	References of the Consultant 10		
5	.3.	Profile of Experts		
6.	Deli	verables and submission procedure:12		
6	5.1.	Deliverables and deadlines12		
6	5.2.	Remuneration and payment procedure14		
6	i.3.	Content of the offer		
6	5.4.	Deadline and Submission modalities15		
6	5.5.	Offer evaluation 15		
Anr	nex 1	: Strategic Objectives – UNCCD 17		
Anr	nex 2	: Referencing form 20		



## List of acronyms

Acronym	Full description		
AU	African Union		
AUC	African Union Commission		
CNCT	National Centre of Mapping and Remote Sensing		
CRASTE-LF	Centre Régional Africain des Sciences et Technologies de l 'Espace en Langue Français		
CRTEAN	Centre Régional de Télédétection pour les Etats de l'Afrique du Nord		
СИСТ	Centre Universitaire de Cartographie et de Télédétection		
DRC	Desert Research Centre		
EO	Earth Observation		
GIS	Geographic Information System		
GMES	Global Monitoring for Environment and Security		
LCRSSS	Libyan Centre for Remote Sensing and Space Sciences		
LULC	Land Use / Land Cover		
oss	Observatoire du Sahara et du Sahel / Sahara and Sahel Observatory		
RS	Remote Sensing		
SLM	Sustainable Land Management		
SLWM	Sustainable Land and Water Management		
UNA	Université de Nouakchott El Aasriya		



### **1. Introduction**

The second phase of the « Earth Observation for Sustainable Land and Water Management in North Africa » project is in line with the first phase and aims at addressing and solving global challenges in North-Africa as well as contributing to a more sustainable management of water and natural resources and tackling climate change based on Space science and technology applications.

The overall objective of this project is to support decisionmaking in the sustainable management of natural resources and water through products and services based on Earth Observation (EO) data and techniques. It is achieved through the following specific objectives:



Action zone of OSS-GMES North Africa consortium

- Developing and sustaining decision support services for natural resources and water managers;
- Boosting regional cooperation and promoting the exchange of know-how on natural resources and water management in North Africa; and
- Capacity building and awareness raising for all partners and end users on the potential and better consideration of technical data and Earth Observation applications.

The second phase activities [2022-2025] are based on the capitalization of the first phase achievements [2018-2021] with respect to the operational EO services in support of the sustainable management of natural resources and the socio-economic transformation for the North-Africa region. Two services will be operationalized during this phase which are:

- Seasonal agriculture and water abstractions Monitoring;
- Land Degradation Monitoring and Assessment.

The Monitoring Integrated System for Land Degradation Monitoring (MISLAND), accessible via <u>www.misland.oss-online.org</u>, was developed by a collaboration between the OSS and the private sector under the GMES&Africa programme in its first phase where it covered only the North-Africa region. MISLAND has been extended to cover the whole African continent in the second phase of the project (<u>http://misland-africa.oss-online.org/</u>), where some countries have expressed their interest in its customization at the country level.



These ToRs are elaborated for recruitment of a consulting firm (in this TORs called Consultant) for the development of a fully deployable and customizable prototype of MISLAND-Africa at the country level that encompasses the MISLAND-Africa's by-default kit of indicators and integrates all reporting objectives of the UNCCD, including additional sub-indicators deemed relevant by the country. This is in accordance with the 2018-2030 Strategic Framework of the UNCCD (described in **Annex 1**), as well as a packaging solution for the Kit of indicators for land degradation monitoring developed by OSS, which is under validation.

### 2. Presentation of MISLAND

MISLAND-Africa is a Decision Support System (DSS) utilizing earth observation data to deliver information, promote awareness and, aid in decision making toward realizing Land Degradation Neutrality (LDN) in Africa.

The core system provides information to monitor SDG indicator 15.3.1 (Proportion of land that is degraded over the total land area) through its three sub-indicators that, according to UNCCD, represent a minimum that should be complemented and enhanced by national (or sub-national) indicators for capturing a more accurate picture of land degradation. Furthermore, the Consortium has enhanced the monitoring and evaluation of indicators by developing an updated version using higher spatial resolution (30 m instead of 300 m), where it's foreseen to take its packaging and feedback collection mechanism as part of this consultation.

In order to improve the understanding and multi-faceted nature of the active processes behind land degradation, MISLAND-Africa service provides in addition to SDG 15.3.1 indicator a rich kit of harmonized indicators for land degradation monitoring well adapted to North-Africa, namely:

- Vegetation loss and gain hotspots at 30m;
- Forest changes, forest risk assessment and burnt fires quantification at 30m/10 m;
- Vulnerability to desertification using MEDALUS approach;
- Vulnerability to water, wind and coastal erosion;
- Forest Carbone assessment.

The national institution mandated for land degradation monitoring at the country level, which will be most-likely the institution mandated for national reporting to UNCCD, will be called from now and onwards Country.



### **3. Mission description**

The customization of MISLAND-Africa to the country level will be summarized in two major actions:

- The development of MISLAND-country prototype;
- The development of SDG15.3.1 kit packaging (at 30m);
- The management of MISLAND-country prototypes' ownership, versioning and capacity building.

#### 3.1. MISLAND-country prototype

The main objective of this MISLAND-country is to strengthen national policy-makers', environment and agriculture and water resources manager's, planners', scientists' and citizens' capacities to assess and monitor land degradation and the impact of restoration actions through time in their countries. It focuses on the provision of proofs on land degradation and its spatiotemporal distribution and therefore on the hotspots where priority action should be conducted or awareness-raising campaign should be planned, whilst taking into consideration the national specific context where it's foreseen to integrate the land degradation monitoring indicators judged relevant by the Country.

The customized prototypes (MISLAND-Egypt, MISLAND-Libya, MISLAND-Mauritania, MISLAND-Tunisia and blank prototype that can be adapted to any African country), will be the property of the North-Africa Consortium. MISLAND-Country will be transferred to the Country upon its deployment, where a full technology transfer will be conducted after the achievement of the development phase:

- For the prototype that can be adapted to any African country: the technology transfer will be conducted to the consortium IT experts. This includes the training materials on the use, the maintenance, the administration and the deployment of the solution, as well as sharing the source-code and the conducting live training sessions. This will ensure that IT staff are able to deploy it to any other country that have showed its interest in having MISLAND deployed locally, and strengthening its ownership (trainings on its use, administration and maintenance);
- For the four selected countries (Egypt, Tunisia, Mauritania and Libya): the technology transfer will be ensured to the country assuming that pre-requisites are respected during the contract lifetime, which may include but not only: a dedicated server with a predefined storage space and a set of libraries, a functional internet connection and sharing protocol to ensure the deployment of the solution and its configuration remotely. The full list of technical specifications for equipment/soft requirements will be provided by the selected consultant.



The customization of MISLAND-Africa will take into consideration the following actions:

- Fully meet the **country's needs**. This fully deployable and documented prototype includes MISLAND-Africa's various default dashboards and tools, tailored to the country level, including additional sub-indicators deemed relevant by the country;
- Integrate the reporting of UNCCD Strategic Objective indicators described in Annex 1;
- Develop **upload and processing capabilities** integrated in the prototype, to ensure that the national experts can use their own data for computing the sub-indicators (for example national land cover datasets), and upload/compute indicators judged relevant;
- Develop an **administration back-end** allowing the prototype management by the country. This includes accounts management, computations and resources monitoring, etc.;
- Develop **visualization dashboard** for the different indicators allowing visualization and sharing (download, export) functionalities;
- **Deploy the solution and transfer technology** to the Country. The Consultant will be asked to provide the technical specifications and requirement for deploying the solution, that the Country will be requested to provide.

The MISLAND-country is expected to be used by different audiences at the country level:

- It can be used operationally by **technical staffs in charge of environment monitoring** and environment managers for monitoring land degradation and restoration and assessing their hotspots through **interactive geo-services**.
- It can be used by **national decision makers and stakeholders** through **mapographics** with intuitive graphic chart and well-focused messages.
- It can be used by **public users** where the maps of different indicators will be produced regularly and visualized. The maps will be accessible through an **interactive web GIS** dashboard where public users can intuitively discover and visualize the different products and export them.
- It can be used through a **mobile app** where simplified information on land degradation extent and hotspots is accessible via intuitive dashboards.

In order to guarantee the operational service delivery, the consultant will guarantee the delivery of the MISLAND-Country, its deployment and maintenance, the development of technical guides and reports, the capacity building materials that will be used as supports for training the end-users on the service use. The full technology transfer and the warranty for the GMES lifetime will be ensured by the consultant.

The proposal will include also capacity building sessions for end-users. The OSS along with the Consortium partners and active end-users will support in terms of logistics preparation and organization at the national level. The training plan and session contents will be developed in a collaborative approach.



#### 3.2. LDN kit packaging

The packaging solution for the kit of indicators developed by OSS at 30 m spatial resolution will be taken in charge by the consultant, where it is expected to:

- Develop a geoportal allowing the interactive visualisation of the kit of indicators derived using Landsat data at 30 m spatial resolution;
- Develop a feedback collection mechanism allowing the viewers to report on the anomalies or incoherencies observed. For example, the following scenario could be envisaged:
  - Visualize the indicator (land cover for example)
  - Overlay with the predefined base layers and/or upload specific layers
  - Report on the anomalies (location and description).
- Ensure a **full technology transfer** and provide full documentation on its deployment, administration and maintenance.

This packaging solution could be used for sharing the national kit of indicators developed by OSS at 30m spatial resolution with the national UNCCD focal points as well as the kit covering the African continent with larger audiences.

More technical details will be discussed during the scoping and kick-off meeting.

# 3.3. Customized MISLAND's ownership, versioning and capacity building

By "Customized-MISLAND", we refer to both MISLAND-Country prototypes (MISLAND-Egypt, MISLAND-Libya, MISLAND-Mauritania, MISLAND-Tunisia, MISLAND-Blank that can be adapted to any African country) as well as LDN kit packaging, as described in Sections 3.1 and 3.2.

#### 3.3.1. Customized MISLAND's ownership

The Customized-MISLAND is the property of the OSS and its partners and meant to be used at a larger scale by the partners and end-users in the framework of GMES&Africa and beyond. The system and its components will be fully used, maintained and upgraded by the GMES consortium, without requiring any additional rights requests or payment of any extra rights.

The OSS and its partners have the right to copy or distribute the system components to third parties, to upgrade it and to implement new algorithms and functionalities, without any prior permission or request.



#### 3.3.2. Feedback collection mechanism

The Customized-MISLAND is meant to evolve according to the growing end-users needs at the country level and to be interactive in a user-friendly way. If the interface or a module is malfunctioning or the products do not correspond to the end-user's expectations, the end-users should have the possibility to contact the admin team to provide their feedback.

The Customized-MISLAND must include a feedback collection mechanism and the technical offer must include a section describing how the consultant will handle the feedback collection and management. The Frequently Asked Questions (FAQs) section should be taken into consideration. The moderation service should be also described in the technical offer.

#### 3.3.3. Prototype's versioning

Based on the first Customized-MISLAND prototype and the growing end-users needs, the need for new functionalities, the processing customization and the country specificities are expected to be raised. Therefore, the prototype is called to evolve. The versioning must be taken into consideration in the service development cycle.

In other words, the first prototype of the Customized-MISLAND will be tested by the Country and presented to the national end-users. Hence, the feedback collection will be carried out in order to reflect the needs in terms of functionalities, dashboards, options and customization that will be handled to release the new version of the Customized-MISLAND.

The versioning in this consultation will concern only the MISLAND-Egypt, MISLAND-Libya, MISLAND-Mauritania and MISLAND-Tunisia (countries where a deployment of the prototype is foreseen).

#### 3.3.4. Capacity building

Two types of capacity building will be provided in the framework of this call:

- Capacity building on the Customized-MISLAND use for national end-users;
- Capacity building on the Customized-MISLAND administration and maintenance.

The technical teams (Country, Consortium) should be able to ensure its administration and maintenance. Therefore, the consultant should secure the full technological transfer of the DSS and its components to the them.

The capacity building materials that will be used as supports for training the end-users on the prototype's use will be developed in the framework of this consultancy, which includes also the organization of capacity building sessions for national end-users in virtual format.



Based on the past experiences, all the trainings will be conducted on the prototype version deployed at OSS/Country level, in virtual format.

The OSS will support the trainings in terms of logistics preparation and organization at the national level. The training plan and session contents will be developed in a participatory approach.

### 4. Duration of the Mission

The Consultant shall undertake the performance of the assigned services in accordance with the schedules and deadlines set forth in the section 6.

The duration of the mission is estimated at **150 calendar days**.

### 5. Qualifications of the Consultant

The Consultant will be selected on the basis of the following qualifications:

#### 5.1. Specialty

Preferably having as a recognized field of specialization of geomatics and GIS apps development.

#### 5.2. References of the Consultant

The mission covered by this contract is preferably aimed at specialized firms with a number of references greater than or equal to three (3).

#### 5.3. Profile of Experts

the Key staff to be mobilized by the consulting firm are a project manager and at least three experts (Land degradation expert, Geospatial developer, IT specialist) and must have the following qualifications. Below are detailed the competence and qualification of each of the experts:

#### • Project manager

- Degree in computer science, geomatics, environment, agriculture, remote sensing, natural resource management and other related and relevant fields;
- Skills in management of regional Geoportal development;
- Experience in Land degradation monitoring using geospatial tools and applications.
- Experience in developing guidelines and training manuals/guides.



#### • Land degradation expert

- Degree in environment, agriculture, remote sensing, natural resource management and other related and relevant fields
- Experience in degradation monitoring data and indicators production using EO-based data;
- Experience in Land degradation monitoring Neutrality concept and SDG15.3.1indicators production.
- Geospatial developer
  - Degree in Geomatics, Environmental Science, Rural Engineering and Natural Resource Management;
  - Skills in satellite image processing chains for the production of thematic knowledge, in particular land use, vegetation cover, Land degradation mapping.
  - Experience in development and management of GIS applications and projects, including interactive WebMapping and WebGIS applications.
  - Skills in utilization of remote sensing, statistical tools for geospatial data/indicators production and analysis.

#### • IT specialist

- Degree in software engineering or similar specialization;
- Web applications development skills;
- Use of CMS;
- Skill in geospatial services and application development.

They shall also possess the following skills:

- Ability to work closely with a group of national and international experts, meet strict deadlines and plan work according to priorities;
- Excellent initiative, good analytical and synthesis skills, ethics and honesty;
- Good communication skills and the ability to interact productively in a teamwork environment;
- Fluency in French and/or English, knowledge of Arabic is a plus.

The Consultant can propose additional supporting experts deemed relevant of the mission (backend developer, graphic designer, etc)



### 6. Deliverables and submission procedure

It's worth noting that a regular meeting (face-to-face or through remote calls) should be undertaken during the development process of the service.

#### 6.1- Deliverables and deadlines

The deliverables can be summarized in the following points:

- Customized-MISLAND along with the source-codes: up and running, with different components and interfaces described in the section 3 (including the MISLAND-Egypt, MISLAND-Libya, MISLAND-Mauritania, MISLAND-Tunisia, MISLAND-Blank that can be adapted to any African country, and the LDN packaging kit). It will integrate the available dashboards, models and indicators available in MISLAND-Africa and adapted to the extent and the context of the country, as well as the feedback collection mechanism. Furthermore, for each country among the four selected (Egypt, Mauritania, Tunisia and Libya), the prototype will also integrate the models and indicators that will be discussed and agreed with the Country.
- Feedback collection mechanism
- Technical documents detailed and summary format:
  - Architecture and components
  - Technical description of the different indicators and the scientific background behind
  - Guides and tutorials for hands-on
  - Technical reports and the prototype's related documentation
- Capacity building:
  - Trainings kit, training sessions and training reports related to the training conducted on Customized MISLAND's use, its administration and maintenance
  - Short demonstration videos summarizing the interfaces of its functionalities. It can also include promotional videos on the use of Customized-MISLAND, didactic videos per functionality / theme (teasers), short animations (Gifs, etc.) highlighting specific functionalities or outputs
  - Full technology transfer



# It's worth noting that the detailed development plan and deadlines will be discussed with the selected consultant.

The below table highlights the main deliverables and deadlines.

Deliverable	deadline		
First prototype of the Customized-MISLAND (MISLAND-Egypt, MISLAND-Libya, MISLAND-Mauritania, MISLAND-Tunisia, MISLAND-blank, LDN packaging toolkit)	60 days after the signature of the contract;		
Final release of the Customized-MISLAND up and running (MISLAND-Egypt, MISLAND-Libya, MISLAND-Mauritania, MISLAND-Tunisia, MISLAND-blank, LDN packaging toolkit), integrating the end-user's feedbacks	120 days after the signature of the contract;		
Technical documents, including capacity building materials	90 days after the signature of the contract;		
Training of the IT team in charge of the DSS administration and maintenance	120 days after the signature of the contract;		
End-user's capacity building training sessions are expected to be undertaken as soon as the first public prototype released and end no later than	150 days after the signature of the contract;		
Final release, integrating the first round of user's feedback, and the full delivery of all the requested mobile apps, must be up and running no later than	150 days after the signature of the contract.		

The development will be made with the full involvement of a restricted committee including the OSS team and the national partners. Regular virtual meetings are planned to monitor the overall progress, to provide feedback and recommendations based on the past experiences and similar initiatives.

The time required to validate deliverables will not be considered.



#### 6.2- Remuneration and payment procedure

The payment will be made by the OSS to the bank account specified by the consultant, upon validation by the OSS of the tasks requested. It will be carried out in two instalments, which will be defined, by mutual agreement with the consultant, in the contract. A first proposal can be presented as follow:

- **50%** of the overall amount will be paid once the first prototype of the Customized-MISLAND delivered, up and running and the capacity building materials, including the technical documents and source code, delivered. By MISLAND-Country we refer to the definition provided in Section 3;
- **50**% of the overall amount of the cost will be provided once the final release of the MISLAND-Country received and validated, the reviews reflecting the national end-users' feedback integrated and the capacity building sessions achieved, and the final version of the source code delivered.

#### 6.3- Content of the offer

The Tenderer is invited to submit his file containing the administrative file, the technical offer and the financial offer, which must be provided separately.

- a) The administrative file:
- A recent extract from the trade register or any other equivalent document required by the law of the country of origin;
- The Consultant's reference form (according to the model attached in **Annex 2**).
- b) Technical offer:
- A detailed technical offer detailing the approach proposed by the Tenderer for the realization of the mission, as well as a schedule of realization through a detailed chronogram (prototype development, versioning ...), including the different stages of the realization of the consultation;
- The references of the Consultant in the field of **land degradation monitoring** and related platforms and mobile apps development justified by copies of certificates of good execution, indicating the date of realization of the services.
- The detailed and signed curriculum vitae of the Consultant (according to the standard OSS CV template downloadable at the following link: [OSS CV Template];
- The list of the members of the team proposed by the Consultant and their curriculum vitae's (according to the standard OSS CV template downloadable at the following link: [OSS CV Template]
- Other references deemed useful



#### c) Financial offer:

In order to better compare the tenderer' offers, it is highly recommended that tenderer provide a breakdown of their financial offer. The financial offer must be expressed in Euros, detailing fees and all other charges.

The offer should be valid for three months, starting from the day following the deadline submission.

In order to avoid disqualification, we invite bidders to scrupulously consider all the elements mentioned in point "6.3. Content of the offer".

#### 6.4- Deadline and Submission modalities

Tenderer are invited to apply by sending their offers by e-mail to: procurement@oss.org.tn

Mentioned in the subject line: "GMES&Africa - Notice of call for tenders for the development of GMES-EO services – Land degradation monitoring service [CT/OSS/GMES&Africa\_LD/140624-15].

The deadline for receiving offers is July 02, 2024 at 3 p.m. (Tunis time).

#### 6.5- Offer evaluation

Bids will be ranked according to their combined technical (Nt) and financial (Nf) scores, with the application of weightings (70% for the technical bid; 30% for the financial bid) to arrive at an overall score (NG = Nt+Nf).

The tender will be awarded to the candidate with the highest total weighted score. Only tenderer with a minimum of 70 points for the technical offer will be considered for the financial evaluation.



The Tenderer is rated according to the following grid:

Table 1: Evaluation grid of the technical offers

	Land Degradation monitoring service				
Q	و Diploma and proposed experts' experiences: (40pts):				
uali	Project manager				
ifica	Land degradation expert				
atic	Geospatial developer				
ns	IT specialist				
ζο Ε	The evaluation will take into consideration the proposed expert's diploma, their experiences in				
∃xp	relation with proposed tasks: land degradation monitoring, development of platforms and geo-				
erie	services, development of mobile apps, etc, their language skills, and the proven experience with				
enc	similar projects				
es (	References in the field of study: (10pts):				
(50	<ul> <li>Land degradation monitoring through remote sensing;</li> </ul>				
pt	<ul> <li>Modelling of vulnerability to degradation (desertification, erosion,);</li> </ul>				
s)	<ul> <li>Mapping of degradation hotspots</li> </ul>				
	<ul> <li>Remote Sensing / Geo-spatial Science and Technology;</li> </ul>				
	<ul> <li>Development of web services, geoportal and map viewing interfaces;</li> </ul>				
	<ul> <li>Development of geospatial processing chains;</li> </ul>				
	<ul> <li>Design / Development of platforms for monitoring natural resources through remote sensing;</li> </ul>				
	<ul> <li>Integration of big-data analytics and cloud computing infrastructures and services.</li> </ul>				
S <sup>8</sup> ≥	ToRs compliance (20 pts)				
etho (50	Organization, planning and comments (20 pts)				
dolo pts)	Proposals (10 pts)				



### **Annex 1 - Strategic Objectives - UNCCD**

At its thirteenth session in 2017, the Conference of the Parties (COP) adopted the UNCCD 2018–2030 Strategic Framework and encouraged Parties to apply it in their national policies, programmes, plans and processes relating to desertification/land degradation and drought.

The Strategic Framework has three main components: a vision, strategic objectives and an implementation framework.

The vision is a broad statement of Parties' commitment: "A future that avoids, minimizes, and reverses desertification/land degradation and mitigates the effects of drought in affected areas at all levels and strive to achieve a land degradation neutral world consistent with the 2030 Agenda for Sustainable Development, within the scope of the Convention".

The Framework contains five strategic objectives that are meant to guide the actions of all UNCCD stakeholders and partners in the period 2018-2030:

- **SO 1**: To improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality;
- SO 2: To improve the living conditions of affected populations;
- **SO 3**: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems;
- **SO 4**: To generate global environmental benefits through effective implementation of the UNCCD;
- **SO 5**: To mobilize substantial and additional financial and non-financial resources to support the implementation of the Convention by building effective partnerships at global and national level.

Meeting these long-term objectives will contribute to achieving the vision within the scope of the Convention. UNCCD uses national reporting as a tool to monitor progress toward the strategic objectives. The reporting is based on indicators that have been defined over several years through collaboration between the Committee on Science and Technology (CST) and the Committee for the Review of the Implementation of the Convention (CRIC), with strong support from the Science-Policy Interface (SPI). The national reports are submitted to the UNCCD roughly every four years. The data collected through the reports is synthesized, compiled and analyzed by the secretariat for a review at the CRIC, resulting eventually in a COP decision on the next steps to enhance implementation.



The third main component of the strategic framework, the implementation framework defines the roles and responsibilities of Parties, UNCCD institutions, partners and stakeholders in meeting the abovementioned strategic objectives.

Tableau	1:	Strategic	Oh	iective	indicators	
lasicau	<b>-</b> .	Juacence	<b>UN</b>	JCCUVC	maicators	, i

Strategic objective (SO) 1 indicators					
Indicator cod	eIndicator name	Metrics / proxies			
SO 1-1	Trends in land cover	Land cover change			
SO 1-2	Trends in land productivity or functioning of the land	Land productivity dynamics			
SO 1-3	Trends in carbon stocks above and below ground	Soil organic carbon stock			
SO 1-4	Proportion of land that is degraded over total land are	ea —			
Strategic obje	ective (SO) 2 indicators				
SO 2-1	Trends in population living below the relative poverty line and/or income inequality in affected areas	Proportion of the population below the international poverty line OR Income inequality			
SO 2-2	Trends in access to safe drinking water in affected areas	Proportion of population using safely managed drinking water services			
SO 2-3	Trends in the proportion of the population exposed to land degradation, disaggregated by sex	Proportion of the population exposed to land degradation, disaggregated by sex			
Strategic objective (SO) 3 indicators					
SO 3-1	Trends in the proportion of land under drought over the total land area	Proportion of land in each drought intensity class as defined by the Standardized Precipitation Index			
SO 3-2	Trends in the proportion of the total population exposed to drought	Proportion of the population exposed to drought, disaggregated by sex			
SO 3-3	Trends in the degree of drought vulnerability	Drought Vulnerability Index			



#### Strategic objective (SO) 1 indicators

#### Indicator code Indicator name

#### Metrics / proxies

Strategic objective (SO) 4 indicators						
SO 4-1	Trends in carbon stocks above and below ground					
SO 4-2	Trends in abundance and distribution of selected species	Red List Index				
SO 4-3	Trends in protected area coverage of important biodiversity areas	Average proportion of Terrestrial Key Biodiversity Areas covered by protected areas				
Strategic objective (SO) 5 indicators						
SO 5-1	Bilateral and multilateral public resources	<u> </u>				
SO 5-2	Domestic public resources	-				
SO 5-3	International and domestic private resources	—				
SO 5-4	Technology transfer	—				
SO 5-5	Future support for activities related to the implementation of the Convention	_				



### **Annex 2 - Referencing form**

CONSULTANT'S CONTACT INFORMATION				
Company name:				
Legal form:	Tax number:			
Tax ID number:	Date of registration in the commercial register:			
Date of registration:				
Place of registration:				
Capital:	Website:			
Name, first name, nationality and position of the legal representative:	Position:	E-mail:		
Name, first name and nationality of the Contact Person:	Position:	E-mail:		

Legal address in the country of activity:

Zip code:	City:		Country:
Telephone:		Fax:	

# PLEASE RETURN THIS DOCUMENT DULY COMPLETED AND SIGNED BY THE LEGAL REPRESENTATIVE.

Done at ....., on .....

Signature and stamp

