

**FEDERAL GOVERNMENT OF NIGERIA  
FEDERAL MINISTRY OF ENVIRONMENT, WATER RESOURCES AND  
AGRICULTURE AND RURAL DEVELOPMENT**



**AGRO-CLIMATIC RESILIENCE IN SEMI ARID LANDSCAPES -ACReSAL (P175237)**

**TERMS OF REFERENCE FOR THE DEVELOPMENT OF ACReSAL MIS/GIS**

**1 BACKGROUND**

The Agro-Climatic Resilience in Semi-Arid Landscapes (ACReSAL) Project seeks to address some of the critical challenges in Northern Nigeria. The region is characterized by high poverty rates, low literacy, an environment of fragility, conflict, and violence, degradation of natural resources, poor agricultural productivity, climate risks, desertification, poor penetration of modern technology, and weak institutional capacity. Addressing these issues will require effort in multiple sectors. The overall goal of the project is to increase the implementation of sustainable landscape management (SLM) practices in targeted watersheds in northern Nigeria and strengthen Nigeria's long-term enabling environment for integrated climate-resilient landscape management. The Project aligns with the Federal Government of Nigeria's objective to restore 4 million hectares of degraded land by 2030.

ACReSAL focuses on the long-term sustainability of land and water management in the drylands of northern Nigeria. The Project will support scaling-up SLM practices in northern Nigeria through: strategic investments addressing natural resource degradation through an integrated ecosystem approach, building the capacity of institutions towards risk reduction and respond to climate variability, and generating information and knowledge to improve sustainable land and water management practices in Nigeria as a whole, and northern Nigeria in particular. The project's emphasis focuses on natural regeneration of tree cover, soil and water conservation, watershed planning, water harvesting, water resources management, integrated nutrient management, low tillage, secure biodiversity, and agroforestry. This will form the foundation for achieving the goals of food security and inclusive green growth through innovative financing instruments, improved technical and capacity building mechanisms, and comprehensive policy frameworks for land use and watershed planning, payments for environmental services, and climate change adaptation techniques.

ACReSAL is a six-year project that will engage 19 northern states and the Federal Capital Territory. Each state and territory is managed by an independent management unit – State Project Management Units (SPMU). All SPMUs are coordinated through the Federal Management Unit (FPMU). The management units will additionally work

with a number of institutional stakeholders, community organizations and individual members, and third-party service providers.

ACReSAL is composed of three functional components. The first, Component A: Dryland Management, is composed of three sub-components: Strategic Watershed Planning, Landscape Investments, and Special Ecosystems. Component B: Community Climate Resilience is composed of two sub-components: Community Strengthening, and Community Investments. Component C: Institutional Strengthening and Project Management is composed of two sub-components: Institutional and Policy Strengthening and Project Management.

## **2 OBJECTIVE**

The goal of the assignment is to develop, deploy, and maintain a user-friendly, real-time, interactive, web-based, computerized Management Information System (MIS) with Geographical Information System (GIS) capability to manage all project activities. This system should provide suitable flexible interactive user-friendly tools to allow collection of inputs from various stakeholders, manage inputs in a database, perform necessary analyses and calculations, provide real-time information pertaining to all project activities selected, produce standard reports, and allow specialized queries to track all aspects of project progress at any time. The MIS will monitor all key inputs and activities of the project.<sup>1</sup> Specifically, the consultancy has 3 main objectives:

1. Design, develop, test, and launch a user-friendly MIS that accommodates all aspects of project implementation,
2. Build capacity required for effective utilization of the MIS/GIS for data management,
3. Ensure effective sustainability of the MIS including after the project has ended.

## **3 SCOPE OF WORK**

The MIS/GIS System is envisioned to increase the efficiency and effectiveness of the project through effective utilization of ICT tools. Implementation of the System is aimed at simplifying the current business processes and automating internal business processes and workflows of the Project.

Guiding Principles for the MIS: The following key principles will be adopted:

- Information needs and indicators to capture such information are identified in a participatory manner involving the key stakeholders of the Project;
- The System should be flexible enough to accommodate changes in future;
- Users should further understand the MIS and their role in collection, entry, analysis, transmission and use of information;
- The information flow should synchronize with processes of the Project.

It is expected that a fully operational MIS will become an invaluable tool to aid real-time decision-making in the management and development of ACRoSAL.

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<sup>1</sup> See Annex 1 for clauses for intellectual property, defect liability & intellectual property rights warranty.

The scope of this assignment will cover the following aspects.

**Design and Development:**

The Software Development Life Cycle (SDLC) mechanism is to be utilized for the design, deployment and sustainability of the System.

In order to adequately identify the needs of users/client, a robust Needs Assessment will be conducted to identify functional requirements of the system, leading to the interim System Design. The interim System Design will identify and catalog all project activities to be monitored over the life of the six-year project. The System Design will take as its foundation from the 24 project monitoring indicators located in the Results Framework (Annex 3), which encompasses a number of units of measure including numbers, percentages, cubic meters, hectares, text-based measures, and others. The needs assessment will be informed through both secondary source research of project documents as well as a number of interviews with project managers and specialist technical experts. Secondary source research will include, but is not limited to, the Project Appraisal Document, Project Implementation Manual, and Monitoring and Evaluation Manual. It is expected that a number of additional indicators will be developed with the client as a result of the secondary source research and interviews.

The MIS/GIS tool shall have centralized web-based architecture with a provision for localized (intranet) processing when internet connectivity is not available. All SPMUs should be able to access the System through the web; therefore, the Graphical User Interface (GUI) should consume minimum bandwidth.

Of paramount importance is the ability to track the implementation of activities under each component and sub-component in real time. Many activities will be tracked using geo-spatial technology, virtual reality, augmented reality and also using narrative mediums so as to provide adequate impact and successes derived from implementing such activities. Additionally, the System should track precision agriculture, adherence to safeguards measures by SPMUs, regarding compliance to Environmental Health and Safety measures, compliance to Operational Health and Safety; using the checklist provided by the World Bank. Further, the MIS/GIS will include tracking of Grievance Redress Mechanism (GRM).

The design of the system must take into account a number of factors:

- Multitude of users: a variety of users within a hierarchy of permissions and capacities. 20 states and territories will feed into a centralized MIS. Additionally, inputs will be made by third-party service providers, communities, and other parties, so the design will incorporate the easy addition of users with requisite permissions and options for inputs.
- Multitude of inputs: Users will employ a number of input devices such as PCs, tablets and phones. Such inputs will include SMS-based surveys, Kobo Collect surveys, information from commercial mobile phone applications, direct data

entry, and graphics-based information. Graphics-based information will take the form of geo-tagged photos, 360 degree cameras, video feed, and geo-spatial images from drones and satellites.

- On-line, off-line access: project activities will take place in remote locations without internet or mobile network capabilities. As such, the MIS must accommodate inputs over the internet, over mobile networks, and storage of data on devices until such data can be uploaded to the system.
- GPS: The System will have GIS capability for spatial tracking of ACRReSAL activities including relevant androids and or iOS Apps enabled on mobile devices linked to the MIS for Project reporting and monitoring. Geospatial Information Systems, comprising all relevant Measurement, Reporting (and Verification) related systems, and PostgreSQL geodatabase for managing and maintaining spatial datasets;
- Customizable, flexible graphical user interface. The MIS must accommodate user access by phone, tablet or PC. Such access should be customizable for each user, providing the user with a menu of choice activities they wish to monitor. Additionally, MIS managers must have the ability to define or program some dashboard elements across a spectrum of user, such that these users are required to see defined information for learning purposes.
- Cloud-computing: The MIS must be hosted on cloud-based servers providing a robust and redundant network system.
- Creation of data-collection Apps and interfaces as necessary.
- Provisions for financial reporting and other components as needed.
- Integration of interactive Google Earth/Maps-based webpages.
- Integration of process-oriented tracking and reminders (email, calendar, etc).
- For indicators in the Result Framework, the System should accommodate indicator statements, baselines, actuals and target monitoring.
- Provision for a publicly-accessible web-page demonstrating a customizable and rotating set of monitoring data.
- To embed security measures against the data hacking/ tempering, data access, and data in transit etc.
- Provide application development tools to support the continuous development/refinement of applications.
- Provide interactive validation of data entry by users
- The System shall allow timely, secure and transparent storage of data, easy handling of storage, processing and retrieval of large quantities of data, flow of information, searching and sorting of specific information uniformly, accurately & quickly and easy generation of reports.
- To be designed on evolutionary mode to accommodate the possible future expansion of the system or meet future requirements arising.
- To be able to generate reports and performance indicators in a text as well as graphic form (such as bar chart, pie charts, line graphs, etc.) to aid decision makers in definite manner.

- To capture data at source and there must be enough validation checks and crosscheck which will prevent spurious data to be entered.
  - To incorporate general utilities like email, search option, etc.
  - Provide monitoring information about the MIS itself such as number of users, user frequency, pages consulted, etc.
  - Databases recording beneficiaries, reporting actors, institutional actors, and all relevant data.
  - Work with Project MIS, GIS & M&E staff in the development and deployment of the System.
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- Digital Filing System:
    - ✓ must include both hardcopy and digital filing systems
    - ✓ ensure that digital filing system has a backup facility which is instituted and maintained by an officially delegated officer
    - ✓ digital backup must be done at least once a week
    - ✓ must be in a structured library with logical document-retrieval system.

### **Test: User Acceptance Test (UAT)**

The consultant is expected to give a detailed UAT plan for the institutional MIS evolved through at-least two rounds. Although the UAT shall be the responsibility of ACRReSAL, the consultant shall provide hand holding support in finalizing the test cases for the UAT and also undertaking these tests on behalf of ACRReSAL to show the complete functionality of the system.

### **Launch: Implementation of MIS Software and go-live**

After successful UAT and complete addressing of all gaps identified during the testing of the software, the consultant will deploy the accepted solution. The consultant is also required to perform the migration of data and documents to the production instance and needs to ensure that System is operational in all aspects. The consultant shall specify the nature of deployment and roll-out.

The System will be hosted under the **www.acresal.gov.ng** domain. The Project will fully own the System, with reference to operationalization, source code, System administration and server rights, security and all other aspects.

**Capacity building: User Training:** Training is a vital aspect of the consultancy where users will be trained on effective use of the System.

The objectives of the training program will be to orient the users regarding the hardware and software of the MIS and all the functionality of MIS System as per the type of Users. Data Entry, usage, entering data into the MIS at their level, and trouble-

shooting with the help of the user's manual be developed for the purpose and generation of outputs.

The consultant will develop a training kit and users' manual for training purposes and as a reference guide for the users of the MIS. The users' manual will include a complete description of the MIS System and operating instructions.

Technical training: Technical training shall be provided by the consultant and include in-person training as well as ongoing virtual knowledge-strengthening activities towards ensuring high-performance use of the System, as well as ensuring value for money.

### **Sustainability: Maintenance and Support**

The Consultant shall be required to provide warranty for a period of three years for the MIS/GIS Software application from the date of Go-Live. The Consultant shall also provide continuous Go-Live support and hand holding services for MIS/GIS System for the remaining project lifetime – post warranty. The Consultant will also be required to carry out enhancements and incorporate new requirement owing to legal, statutory, and policy changes, etc. during the support period. The consultant will be expected to create a help desk (telephone/ e-mail) to provide support during the implementation and maintenance phase. Such a help desk-based support is expected to provide the necessary operational support to all the users across ACRoSAL.

### **4 EXPECTED DURATION OF ASSIGNMENT**

The consultancy for this assignment is estimated to last for a period of 7 months (needs assessment, design, development, testing and deployment), tentatively commencing from January 2023 to July 2023. Within this period, all aspects not limited to the scope of this assignment should be addressed, leading to the achievement of the objectives and deliverables of this TOR. This timeline excludes the period of handholding, maintenance and sustainability.

### **5 REPORTING PROCESS**

The following is the procedure for review of progress reports, inception status, final draft and final reports:

- The consultant is expected to keep the client informed of all activities undertaken, progress made therein, and future plans.
- The consultant shall prepare a weekly report during the design phase and e-mail the same to the client on the commencement of each week.
- The consultant & client can decide the format(s) of report writing mutually. The consultant will be under obligation to change/ alter the format (s) as and when desired by the client.
- The consultant shall prepare a Monthly Report reporting on all the activities undertaken, progress made, and corrective action taken, if any, during the month.
- The Report Writing shall start from the first week itself of commencement of the contract with the consultant.

## 6 EXPECTED DELIVERABLES

- An inception report that explains the consultants' understanding of the client's data/information needs, including the framework for the system design and hardware requirements.
- A Work Plan detailing all steps outlined in the scope of work attached to time-bound milestones.
- A robust Needs Assessment.
- A project blueprint covering all the aspects including users, inputs, information flow, permissions, etc. and including complete hardware and software requirements on the basis of cloud/any other state of the art technology.
- A detailed User Acceptance Test (UAT) plan (in 2-3 rounds) for the project.
- Migration of project monitoring data to MIS.
- A fully functional web-based, customizable MIS that maximizes project efficiency and effectiveness.
- A plan for skill transfer including training for users of the System.
- Trained personnel that will use the System for data management and reporting.
- A transition/withdrawal strategy for migrating the System to the Federal Government of Nigeria.
- System hosted under the **www.acresal.gov.ng** domain.
- Manuals: The consultant is expected to provide training manuals and technical user manuals for use by the Project as part of the initial training and on-going operational support:
  - User Manual,
  - Administrator Manual.
- The consultant is expected to be responsible for maintenance of the system for the whole project life after the warranty period.
- Final Completion Report.

## 7 ELIGIBILITY CRITERIA

(Checklist of necessary supporting documents to be enclosed with EOI is given at Annex 4 Page 23)

1. The Consultant should be primarily an IT Company and Service provider dealing with application development & management services for environment/water/agricultural sectors and should have been in the business for a period exceeding five years. Memorandum and Articles of Associations should be enclosed.
2. The consultant must be providing support for all phases of the software development life cycle for at least five years in Nigeria and currently active in business of software production/development.
3. An undertaking (self-certificate) is to be submitted that there has been no outstanding bankruptcy, judgment, or pending legal action that could impair operating as a going concern.

4. An undertaking (self-certificate) is to be submitted that the consultant hasn't been blacklisted by any Central/ State Government Department/ Central Government funded organizations/ State Government funded organizations/ World Bank, or other World Bank organizations (including the UN Organizations) and is not under investigation by the Government of Nigeria or UN Member State Governments.
5. The Consultant should have developed software solutions for Government bodies.
6. The Consultant should be the owner/OEM of the software product.
7. The consultant should have completed at least three projects of similar nature (environment/water/agricultural) in the past five years. (The details of such jobs should be furnished as an annex with a copy of the Purchase Order).
8. The Consultant should have been certified ISO 9001:2008 and ISO 27001:2005 or higher Certification.
9. Consultants shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of Nigeria/State Governments/Regulatory agencies.
10. ACRReSAL reserves the right to carry out the capability assessment of the Consultant and its decision in this regard shall be final & binding to all.
11. Upon award of work order, the successful Consultant shall sign an agreement with ACRReSAL within 21 days.
12. The consultant should obtain all required licenses of the proprietary products (if any used) and transfer to ACRReSAL for lifetime of software (total ownership required).

## **8 RESPONSE REQUIREMENTS**

Interested consultants responding to the EOI must provide information (brochures, organization details, short description of similar/relevant assignments including associated quality statistics like size/effort/budget variances, and defect density, brief description of the competencies and financial statements) indicating that they are qualified to perform the above-mentioned services.

Based on the TOR, the vendor is expected to submit a detailed Technical and Financial Proposal. The proposal should clearly indicate processes and timelines required for the design, development, training, hosting, and other aspects. The proposal should also indicate detailed time-tied activity work plan/Gantt Chart including risk management, resources handling etc.

The Technical Proposal should comprise, but is not limited, to the following:

- A detailed description and outline for achieving each aspect of the scope and objectives stated above;
- Conceptual design for development, hosting and handholding of the MIS;
- Proposed timeline and schedule of activities for achieving each aspect of the scope mentioned above, taking into consideration the deliverables and milestones to be achieved (and including a support and capacity building plan);
- A Company/Organization profile including;

- A list of key professionals (along-with minimum qualification and experience) and their CVs;
- An overview of relevant experiences of the consultant.

## **9 COSTING**

## **Annex 1. Clauses for intellectual property, defect liability & intellectual property rights warranty (Other Conditions)**

### **–Copyright**

The Consultants must deliver the source code for only the customized part of application(s) developed under this assignment at the end of the implementation phase. However, the consultant is not requested to deliver the original off-the-shelf application source code.

### **Software License Agreements**

The consultant should provide all licenses required for the proposed solution.

## **INTELLECTUAL PROPERTY**

The Intellectual Property Rights in all standard software and materials shall remain vested in the owner of such rights. Standard Software refers to all off-the-shelf software being provided as part of the services offered by the Consultant.

The Client agrees to restrict use, copying, or duplication of the Standard Software and Standard Materials, except that additional copies of Standard Materials may be made by the Client for use within the scope of the project of which the System is a part, in the event that The Consultant does not deliver copies within thirty (30) days from receipt of a request for such Standard Materials.

The Client's rights to use the Standard Software or elements of the Standard Software may not be assigned, licensed, or otherwise transferred voluntarily except in accordance with the relevant license agreement.

With respect to custom software and material developed for the System, the following shall apply:

- a) The Consultant conveys to the Client a permanent, irrevocable license to the custom software and materials valid for use by the Client, its subordinate organizational units and any legal successors.
- b) This license shall entitle the Client to modify, extend, duplicate and prepare derivative software or materials for use by the Client, its subordinate organizational units and legal successors in the normal course of the Client's activities.
- c) This license shall entitle the Client to reveal and convey the concepts, writings, designs algorithms, programming documentation and other custom documentation to any third party contracted by the Client for the purposes of providing technical support or developing additional system functions, provided the Client obtains a legally-binding, written commitment from such a third party that the third party will neither commercialize the resultant works nor share or convey such concepts, writings, designs algorithms, programming documentation and other custom documentation to yet another party, other than The Consultant, without the written approval of The Consultant.
- d) The Consultant, before Acceptance of Completion Report conveys to the Client a copy of the Source Code of the all custom software and all relevant documents relating to the custom software. The Consultant represents and warrants to the Client that:
  - (i) the Source Code of the customized part and related documents supplied to the Client is complete, accurate, and up-to-date copy corresponding exactly to the

production release of the software in operation at the time of Completion Report Acceptance;

(ii) during the warranty period (duration and terms to be agreed upon between the Client and The Consultant) and any part of the post-warranty maintenance period, The Consultant will supply to the Client, within fifteen (15) days of any changes in the production release, the Source Code and related documents which are also complete, accurate and up to date corresponding to then current production release;

(iii) The Source Code shall contain all information in human readable form necessary to enable a reasonably skilled programmer or analyst to maintain and/or enhance the custom software, and without prejudice to the generality of the foregoing, that the Source Code and related documentation shall contain all listings of programmers' comments, data and process models, logic manuals, and flowcharts.

Except to the extent that the Intellectual Property Rights in the Software vest with the Client, The Consultant hereby grants to the Client license to access and use the Software, including all inventions, designs, and marks embodied in the Software.

Such license to access and use the Software shall:

a) be:

(i) nonexclusive;

(ii) fully paid up and irrevocable; and

b) permit the Software to be:

(i) used or copied for use on or with the computers) for which it was acquired, plus a backup computers) of the same or similar capacity, if the primary is (are) inoperative, and during a reasonable transitional period when use is being transferred between primary and backup;

(ii) used or copied for use on or transferred to a replacement computers), and use on the original and replacement computers) may be simultaneous during a reasonable transitional period;

(iii) if the nature of the System is such as to permit such access, accessed from other computers connected to the primary and/or backup computers) by means of a local or wide-area network or similar arrangement, and used on or copied for use on those other computers to the extent necessary to that access;

(iv) reproduced for safekeeping or backup purposes;

(v) customized, adapted, or combined with other computer software for use by the Client, provided that derivative software incorporating any substantial part of the delivered, restricted Software shall be subject to same restrictions as are set forth in this contract;

(vi) disclosed to, and reproduced for use by, support service suppliers and their subcontractors, (and the Client may sublicense such persons to use and copy for use the Software) to the extent reasonably necessary to the performance of their support service contracts, subject to the same restrictions as are set forth in this contract; and

#### **DEFECT LIABILITY**

The Consultant warrants that the System, including all Software supplied and Services provided, shall be free from defects in the design, engineering, and workmanship that prevent the System and/or any of its components from fulfilling the intended

requirements or that limit in a material fashion the performance, reliability, or extensibility of the System.

a) The Consultant also warrants that the technologies supplied under the System are new, unused, and incorporate all recent improvements in design that materially affect the system's ability to fulfill the requirements.

e) The warranty period shall commence from the date of Acceptance of the System/Completion Report Acceptance and shall extend for a period of 12 months.

f) If during the warranty period any defects should be found in the design, engineering, and workmanship of the System supplied or of the Services provided by The Consultant, The Consultant shall promptly, and during the same working day, in consultation and agreement with the Client regarding appropriate remedying of the defects, and at its sole cost, repair, replace, or otherwise make good such defect as well as any damage to the System caused by such defect.

b) The Consultant shall not be responsible for the repair, replacement, or making good of any defect or of any damage to the System arising out of or resulting from any of the following causes:

I. improper operation or maintenance of the System by the Client

II. normal wear and tear;

III. use of the System with items not supplied by The Consultant; or

IV. modifications made to the System by the Client, or a third party, not approved by The Consultant.

c) The Client shall give The Consultant a notice promptly following the discovery of such defect, stating the nature of any such defect together with all available evidence. The Client shall afford all reasonable opportunity for the Consultant to inspect any such defect. The Client shall also afford The Consultant all necessary access to the system and the site(s) to enable The Consultant to perform its obligations to provide a remedy to the defect(s).

d) If the System cannot be used by reason of such defect and/or making good of such defect, the warranty period for the system shall be extended by a period equal to the period during which the System could not be used by the Client because of such defect and/or making good of such defect.

At the request of the Client and without prejudice to any other rights and remedies that the Client may have against The Consultant under this Contract, The Consultant will offer all possible assistance to the Client to seek warranty services or remedial action from any subcontracted third-party producers or licensor of software included in the System, including without limitation assignment or transfer in favor of the Client of the benefit of any warranties given by such producers or licensors to The Consultant.

## **INTELLECTUAL PROPERTY RIGHTS WARRANTY**

The Consultant hereby represents and warrants that:

a) The System as supplied, installed, tested, and accepted;

b) Use of the System in accordance with this Contract; and

c) Copying of the Software and Materials provided to the Client in accordance with the Contract: do not and will not infringe any Intellectual Property Rights held by any third party and that it has all necessary rights or at its sole expense shall have secured

in writing all transfers of rights and other consents necessary to make the assignments, licenses, and other transfers of Intellectual Property Rights and the warranties set forth in the Contract, and for the Client to own or exercise all Intellectual Property Rights as provided in the Contract. Without limitation, The Consultant shall secure all necessary written agreements, consents, and transfers of rights from its employees and other persons or entities whose services are used for development of the system.

## Annex 2: SUMMARY OF COMPONENTS

Component	Interventions/ Activities
<b>Component A</b> <b>Dryland Management</b>	
<b>A1: Watershed Management</b>	<ul style="list-style-type: none"> <li>· Identification of strategic watershed boundaries</li> <li>· Establish knowledge base on watersheds</li> <li>· Stakeholder engagement/ Inter-ministerial coordination mechanism for enhanced planning</li> <li>· Performance analysis of institutional framework</li> <li>· Field Trip, knowledge exchange visit</li> <li>· Development of watershed management plans</li> <li>· Prioritization workshop of investments in the watersheds</li> <li>· Appraisal and validation of plans (20 watershed plans)</li> <li>· Capacity building and training of Catchment Management Structures</li> </ul>
<b>A2: Landscape Investments</b>	<ul style="list-style-type: none"> <li>· Sand dune stabilization interventions including the establishment and maintenance of plant nurseries of assorted species and post-planting operations</li> <li>· Watershed and catchment management interventions to better control sedimentation into existing dams</li> <li>· Construction and/or rehabilitation of integrated small storage/small dams multipurpose reservoirs and irrigation development</li> <li>· Flood control and erosion works to improve landscape functions, and sensitization, mobilization and organization of communities to manage erosion and prevent disasters</li> <li>· Identification and development of recharge areas to protect groundwater resources.</li> <li>· Large-scale agricultural investments such as rangeland management through also the improvement of fodder and fodder nurseries as well as integrated pest management programs</li> </ul>
<b>A3: Special Ecosystems</b>	<ul style="list-style-type: none"> <li>· Wetlands restoration and management</li> <li>· Desert Oases management</li> <li>· Protected Area management (Woodlands, Gazetted forests, National Parks)</li> <li>· Procurement, Construction and support establishment of infrastructures and equipment for special ecosystems</li> </ul>
<b>Component B</b> <b>Community Climate Resilience</b>	

Component	Interventions/ Activities
<p><b><i>B1: Community Strengthening</i></b></p>	<ul style="list-style-type: none"> <li>· Micro-watershed planning (200 micro-watersheds)</li> <li>· Formation or strengthening of inclusive community groups</li> <li>· Community sensitization</li> <li>· Peacebuilding initiatives to promote ownership, access and use of natural resources in a non-violent manner</li> <li>· Establishment of NRM committees in each community, which will include representatives from different livelihood groups and NRM user groups as well of vulnerable and marginalized groups</li> <li>· Social marketing campaigns to promote changes in behavior that encourage gender-based violence (GBV)</li> <li>· Agro-climatic resilience training and participatory information dissemination<sup>2</sup></li> <li>· Group management training</li> <li>· Conflict management training</li> <li>· Gender-based violence training</li> </ul>
<p><b><i>B2: Community Investments</i></b></p>	<ul style="list-style-type: none"> <li>· Community-led landscape restoration through engagement with FAO for technical assistance and the procurement of Delfino ploughs</li> <li>· Capacity building on landscape restoration and revegetation of degraded lands and rangelands</li> <li>· Establishment of revolving funds to finance the continuing operation of community investments</li> <li>· Establishment of community nurseries for selected agro-forestry projects and piloting hybrid agroforestry models on communal lands</li> <li>· Expanding agroforestry and agro-silvo-pastoral enterprise models</li> <li>· Promoting sustainable production of non-timber forest products (NTFPs) value chains</li> <li>· Climate smart rainfed agriculture through extension services technical assistance, financial management systems and business skills for farmer groups</li> <li>· Improving market access through shared transport logistics and provision of timely market information on crops</li> <li>· Constructing small-scale community storage and agro-processing facilities</li> <li>· Farmer-led irrigation development through awareness campaigns,, establishment of community revolving funds and improved access to markets and value chains</li> <li>· Water and soil conservation practices</li> <li>· Improved crop varieties</li> <li>· Use of technology to optimize farm management</li> </ul>

Component	Interventions/ Activities
<b>Component C</b> <b>· Institutional Strengthening and Project Management</b>	
<b>C1: Institutional and Policy Strengthening</b>	<ul style="list-style-type: none"> <li>· Investments in Monitoring Infrastructure</li> <li>· Investments in Institutional Infrastructure (IT, office, connectivity)</li> <li>· Information services for integrated watershed management planning, coordination, and monitoring (knowledge base, online data/analytic services, decision support systems, e-packaging)</li> <li>· Policy Improvement (for innovations and institutionalization of integrated landscape/watershed management) at federal and state levels</li> <li>· Capacity building and outreach (in-person and virtual training, internships)</li> </ul>
<b>C2: Project Management</b>	<ul style="list-style-type: none"> <li>· Providing support for key overall consultancies (e.g., to support project monitoring and management, watershed implementation support, and capacity-building), as well as incremental operating costs and systems for improving remote preparation and supervision of investment.</li> <li>· Providing support for the development of monitoring systems and dashboards and improving workflow processes to facilitate coordination across agencies at the central and state levels and public versions to improve transparency and outreach.</li> </ul>
<b>Component A</b> <b>Dryland Management</b>	
<b>D1: Contingency Emergency Responses</b>	<p>This is a component that could be used as necessary to provide immediate support to an eligible crisis of emergency</p>

### ANNEX 3: ACRoSAL RESULT FRAMEWORK

#### Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
<b>PDO Level Indicators</b>									
Land area under sustainable landscape management practices (CRI, Hectare(Ha))		0	0	58 000	329 000	476 000	623 000	830 000	830 000
Area under Improved Catchment Management (Hectare(Ha))		0	0	6 000	20 000	40 000	60 000	70 000	70 000
Area under community-led landscape restoration (Hectare(Ha))		0	0	40 000	120 000	220 000	320 000	350 000	350 000
Protected areas under improved management (Hectare(Ha))		0	0	0	150 000	150 000	150 000	300 000	300 000

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Area provided with new/improved irrigation and drainage services (Hectare(Ha))		0	0	2 000	4 000	6 000	8 000	10 000	10 000
Area under rainwater harvesting (Hectare(Ha))		0	0	10 000	35 000	60 000	85 000	100 000	100 000
Enabling environment for integrated landscape management strengthened (Text)		Enabling environment for integrated landscape management in need of strengthening		Knowledge and analytics platform for integrated dryland management in operation, publicly accessible, and supporting knowledge, learning, and decision		50% of targeted states with effective dryland management coordination mechanisms Policies submitted for approval: water sector environment	of National integrated dryland management strategy submitted for approval Multi-sector policy on dryland management submitted for approval	National integrated dryland management strategy submitted For approval Multi-sector policy on dryland management submitted for approval	Enabling environment for integrated landscape management strengthened

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
				making  Strategic landscape- scale watershed plans created and providing guidance for SLM practice		al sector policy; agriculture sector policy			
Increase in Normalized Difference Vegetation Index (NDVI) in targeted areas, correcting for natural variability. (Percentage)		0	0	0	0	2	3	4	5
Direct project beneficiaries (Number)		0	0	0	340 000	1 020 000	2 040 000	2 720 000	3 400 000
Number of direct		0	0	168 000	504 000	1 008 000	1 343 000	1 680 000	1 680 000

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
project beneficiaries - Female (Number)									

### Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
<b>Component A. Dryland Management</b>									
Multi-sectoral strategic watershed plans completed with appropriate analytical and stakeholder inputs (Number)		0	10	15	20	20	20	20	20
Total water storage capacity added or restored through project interventions		0	0	0	0	1 700 000	41 700 000	51 700 000	51 700 000

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
(Cubic Meter(m3))									
Targeted gully complexes treated with appropriate measures (Number)		0	0	5	11	16	16	16	16
Area benefitting from improved information and extension services contributing to improved climate-smart sustainable agriculture systems (Hectare(Ha))		0	0	10 000	40 000	90 000	240 000	400 000	400 000
Restoration of riparian areas in sensitive habitats (Hectare(Ha))		0	0	13 000	40 000	48 000	50 000	50 000	50 000

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
<b>Component B. Community Climate Resilience</b>									
Community-based organizations with increased capacity (Number)		0	0	200	600	1000	1000	1000	1000
Integrated micro-watershed management plans completed with community participants (Number)		0	0	40	120	200	200	200	200
Farmers reached with agricultural assets or services (CRI, Number)		0	0	50 000	160 000	310 000	560 000	750 000	750 000
Farmers reached with agricultural assets or services - Female (CRI, Number)		0	0	50 000	160 000	310 000	560 000	750 000	750 000

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Women-led/owned enterprises, cooperatives, and farmer groups receiving financial and technical support (Percentage)		0	0	20	20	20	20	20	20
<b>Component C. Institutional Strengthening and Project Management</b>									
Proposed integrated knowledge and analytics platform operational and supporting knowledge, learning, and decision making (Text)		No knowledge and analytics platform	Stocktaking of available data (from in-situ, earth observation) and services	Initial knowledge base and analytical tools for Northern Nigeria watershed planning	Draft online catalog of relevant services and decision support dashboards	Draft Nigeria-wide data and analytics platform for integrated landscape planning	Rollout of Nigeria-wide data and analytics platform	Sustainability plan for knowledge base and analytics	Knowledge and analytics platform operational and supporting knowledge, learning, and decision making
Targeted states with effective multi-sector landscape		10	10	20	30	50	70	100	100

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
management coordination mechanisms (Percentage)									
Project management units meeting agreed standards (Percentage)		0	60	70	80	80	90	90	90
Grievances responded to within the stipulated service standards for response times as outlined in the Project Implementation Manual (Percentage)		0	80	80	90	90	95	95	95

#### **ANNEX 4: Checklist of documents to be provided**

No. Items

Registration Certificate of the Firm

List of software products for which the Firm is owner/OEM

List of active software solutions for environment/water/agriculture sector institutions developed, implemented and maintained by the Firm

Certification

Competent authority's certificates on annual turnover in each of last three years

Purchase orders (at least three) on completed assignments/projects of similar nature (universities & educational/engineering institutions) in past 5 years

Details on completed assignments/projects of similar nature (universities & educational/engineering institutions) in past 5 years

List of Firm's technical software professionals in Nigeria

An undertaking (self-certificate) by the Consultant regarding no outstanding bankruptcy, judgment or pending legal action that could impair operations as a going concern

An undertaking (self-certificate) that the Firm has not been blacklisted by any central/state government department/organization, World Bank or IDA (including UN organizations) and is not under investigation by any government agency or UN member state government.