

CALL FOR EXPRESSIONS OF INTEREST

Recruitment of a firm or group of consultants to assess the potential for improving the available forage cultivated in the six (6) PRAPS countries (Burkina Faso, Mali, Mauritania, Niger, Senegal, and Chad)

Opening date: June 28, 2021

Closing date: July 19, 2021

CEI N° 22-2021

The West and Central African Council for Agricultural Research and Development (CORAF) has obtained funding from CILSS, through the Regional Sahel Pastoralism Support Project (PRAPS), for the assessment of the potential for improvement of the available forage cultivated in the six (6) PRAPS countries (Burkina Faso, Mali, Mauritania, Niger, Senegal, Chad).

The assessment has two objectives, namely:

1. assess the potential in cultivated forage, the risks / opportunities, the associated necessary conditions enabling sustainability and scaling of investments, the feasibility aspects and the related to access for pastoralists, helping to guide the choices of investment options in the production of cultivated forage, in order to overcome the constraints of availability / variability of natural pastures in the PRAPS target countries; and
2. analyze the financial and economic profitability of forage crops in developed areas and areas of rain-fed cereal crops associated with forage plants, in particular vegetables with "double purposes" but also exploitation of the genetic diversity of flood-recession sorghum with high food production and forage. This is an analysis of the comparative advantages of the financial and economic profitability of these two methods of cultivated forage production, taking into account aspects of food security, environmental impact, competition for the use of arable / irrigated land for human food vs livestock feed in order to provide information and data enabling informed decisions to be made for support and investment in cultivated forage production.

The Executive Director of CORAF invites firms or groups of consultants who meet the qualification criteria as indicated in the terms of reference, to express their interests in this recruitment.

Firms / groups of consultants interested in this call must submit an **expression of interest** indicating that they are qualified to perform such services (Understanding of the terms of

reference, Methodology, references for the execution of similar contracts over the past 10 years, CVs of proposed key experts, etc.).

The firm / group of consultants will be selected according to the selection method based on the qualification of the consultant in accordance with the CORAF Administrative, Financial and Accounting Procedures Manual.

The service provider will be responsible for mobilizing all the high-level technical expertise required to carry out the study. To do this, they will mobilize at least the following profiles:

- a Head of mission, an agro-pastoralist zoological technician with good experience in animal feed;
- an agronomist with experience in forage crops and irrigation techniques;

- an agro-economist familiar with economic and financial analyses.

Particular importance will be given to the relevance of the experience, particularly in the livestock sector in the Sahel and West Africa, in particular pastoral systems and the capacity to work in a multidisciplinary team.

The firm / group of consultants ranked first will be invited for negotiation after having drawn up a technical and financial proposal based on the terms of reference.

Interested firms / groups of consultants can obtain additional information from the CORAF Executive Secretariat by sending an e-mail to Sabdulai.jalloh@coraf.org copying n.lamien@coraf.org.

Applications should be submitted by email to the following address: procurement@coraf.org, **July 19, 2021 at 16:30 GMT at the latest.**

Dr Abdou TENKOUANO
Executive Director

TERMS OF REFERENCES

Evaluation of the potential for improving the available forage cultivated in the six (6) PRAPS target countries (Burkina Faso, Mali, Mauritania, Niger, Senegal, Chad)

I. BACKGROUND

A High Level forum on pastoralism was held on October 29, 2013 in Nouakchott. It brought together Heads of State, livestock ministers from the six invited countries from the Sahel region (Burkina Faso, Mali, Mauritania, Niger, Senegal and Chad), the main regional organizations (ECOWAS, UEMOA, CILSS, etc.), as well as multiple partners, including FAO. The Forum resulted in the “Nouakchott Declaration” adopted by the Heads of State and Government of the six countries gathered, which calls to « **secure the livelihood and means of production of pastoral populations and increase the gross product of livestock activities by at least 30% in the six target countries over the next five years, with a view to significantly increasing pastoralists' income over a 5-10 year horizon** ».

The World Bank Group has made a commitment with the six countries in technical partnership with CILSS, to translate the guidelines issued from this forum by developing a Program on pastoralism implemented since 2015. To date, the results obtained show significant progress which justifies the relevance of continuing the project through a second phase for the consolidation of achievements.

Forage resources from natural grazing are at the heart of livestock feeding systems in pastoral areas of the Sahel. The main adjustment made by pastoralists and agro-pastoralists from the Sahel region towards the strong seasonality of the quantity and quality of forage production from the rangelands is in internal or even cross-border transhumance. This strategy has unfortunately been strained during the last decade, which has gradually seen a division between countries in the Sahel and the coastal region. Coastal countries are increasingly hostile to pastoralism and create obstacles to cross-border movements of herds with the closure of the borders of some of these countries to cross-border transhumance. The situation, which was already critical with the amalgamations linked to the security situation in the Sahel, has worsened since 2020 with the health situation linked to COVID-19.

In order to take into account this new context, into account, the second component of the «**Sustainable management and governance of landscapes**» project integrated a third sub-component SC.2.3 “Forage production”, which aims to help build coherent strategies and policies to improve the availability of food resources for livestock to supplement the range offered, and improve livestock feeding practices, thereby increasing resilience to climate change during the dry season and periods of climate shocks. The long-term result is to improve the food security of livestock (mainly during lean periods / droughts) and animal production, diversify the income of pastoralists and reduce poverty by increasing the availability of good

quality resources through the promotion of fodder¹ crops while maintaining the competitiveness of animal production.

In anticipation and with a view to having relevant guidelines for the implementation of this sub-component in PRAPS-2, the Regional Project Coordination Unit (RCU/ PRAPS) initiates a study to assess the potential improvement of the availability of fodder cultivated in the six (6) beneficiary countries of the project.

II. OBJECTIVES OF THE ASSESSMENT

The assessment has two major objectives:

- (i) by capitalizing on existing studies/assessments, past experiences and reference summaries carried out in particular by CIRAD, ORSTOM, CTA ..., assess the potential for cultivated fodder (varieties, pure or cereal-related cropping / production systems, i.e. irrigated or rain-fed), risks / opportunities (particularly social and environmental, also taking into account feasibility aspects in terms of land), associated necessary conditions that enable sustainability and scaling of investments, feasibility aspects and access related issues for pastoralists, helping to guide the choice of investment options in the production of cultivated fodder, in order to overcome the constraints of availability / variability of natural pastures in the PRAPS countries ; and
- (ii) analyse the financial and economic profitability of fodder crops in developed areas (comparative analysis of fodder crops / irrigated rice), and areas of rain-fed cereal crops associated with fodder plants, in particular vegetables with "dual purposes" such as cowpeas, cowpeas, lablab, pigeon pea (*Cajanus cajan*) but also exploitation of the genetic diversity of recession sorghums with high food and fodder production. This is an analysis of the comparative advantages of the financial and economic profitability of these two methods of cultivated fodder production, taking into account aspects of food security, environmental impact, competition for the use of arable / irrigated land for human consumption vs. livestock feed in order to provide information and data that will enable informed decisions to be made for support and investment in cultivated fodder/forage production.

III. EXPECTED OUTCOMES

Three results are expected to meet the objectives of the study:

- Data on the potential for cultivated forage for livestock (including an estimate of the areas and possible production volumes under different scenarios) is consolidated and updated at the national and regional level for optimal political decisions with a view to attaining sustainable development of livestock;
- Information on strategies for strengthening forage autonomy at the national and regional level to improve food availability accessible to mobile farms is provided to the central and decentralized services of the departments in charge of livestock, to producers and actors in the sector in order to improve the planning of their interventions;

¹ The most common fodder crops in the countries covered by the project are: green cut grasses such as elephant grass, pasture grasses such as Rhodes grass or *Brachiaria*, *Panicum*, *Megathyrsus*, etc.), corn and fodder sorghum, Bourgou; Legumes (*Mucuna*, *Stylosanthes*, cowpeas (Lablab), cowpeas (*Vigna*), pigeon peas,) and alfalfa (*Medicago sativa*) and Fodder trees / shrubs (legumes: *Leucaena leucocephala*, *Gliricidia sepium*, ...).

- A comparative analysis on the profitability and feasibility (economic, land, social and environmental) of fodder crops is available, as well as a cost price analysis (to assess whether the fodder produced is affordable for agro-pastoralists), for information actions with decision-makers and other stakeholders, as well as for the teams who will be in charge of component 2 of PRAPS-2.

IV. GEOGRAPHICAL SCOPE OF THE STUDY

The study will be carried out at the regional level, and will specifically cover the various agro-ecological zones with potential for the development of fodder crops in the six (6) member countries of the Project. Given the transnational nature of the Project, the service provider will have to work on a large collection area in order to have reliable national statistics for the six countries. The objective is to have, at the end of the study, a mapping of the realistic potentials for the development of the production of cultivated fodder (irrigated or rain-fed) or associated with rain-fed crops, facilitating the launch of the activities necessary for the implementation of the SC2-3 of the PRAPS2.

V. METHODOLOGICAL APPROACH

The service provider responsible for the study will make a technical and methodological proposal (including a roadmap for conducting the study) together with a detailed financial offer to meet the objectives of the study. They will have to carry out a documentary review and bibliographic analysis, in particular on the challenges of the development of fodder crops to analyse the fodder potentials by emphasizing the production potential at each country level, both in qualitative and quantitative terms, responding to the principles of economic, environmental and sociological sustainability (food safety). They will also have to inventory and document the relevant fodder production experiences in each of the six countries and analyse their conditions for scaling up.

The baseline study should answer questions related to the expectations of the study, among which:

For the objective related to the potential for cultivated fodder or associated with rain-fed crops:

- What is the current and potential level of cultivated fodder production, fodder species, yields, and cultivated areas?
- What is the current and potential level of the production of cultivated fodder associated with rain-fed crops (dual-purpose vegetables in particular)?
- What are the potential areas in irrigated zones in each country for the promotion of cultivated fodder production?
- What are the current potentials of scaling up each of these fodder crop systems for the benefit of pastoral systems?
- What are the constraints affecting the development of the two forage crop systems?
- Are there sectors organized around this cultivated fodder, what are their limits (collection, storage and distribution)? And how can they be developed/strengthened?

- What is the best strategy to put in place for the development of these two fodder crop systems?

For the comparative analysis of the financial profitability of the different fodder production systems (irrigated or fodder crops associated with rain-fed cereal crop systems), the study should:

- Develop crop budgets (with analysis of gross products, operating costs, family labour, net margin calculation, etc.);
- Develop operating accounts and analyse the net margins generated;
- Analyse the cost / cost price to assess whether the price of artificial fodder is affordable for (agro) pastoralists? ;
- Analyse the IRR / NPV of the investment (eg. irrigation facilities / technologies, maintenance, fodder storage warehouse) and analyse cash flow and cost price scenario;
- Perform impact scenarios on the production costs of pastoral productions.

Finally, the study should produce a development plan for these two fodder sectors along with the actions to be taken and in particular the mechanisms to be put in place for, among others:

- seed production in quality and quantity responding to changing demand;
- integration of the production of good quality and quantity fodder crops into agro-pastoral production systems;
- improved methods of processing, conservation / storage and use of fodder resources; - etc.

VI. DELIVRABLES

- A methodological note and a work program following the organization of a scoping and idea-sharing meeting in VC with the countries and the regional level for the validation of the proposal;
- An interim report **30 days** after start-up, taking stock of the analysis of the bibliography identified, as mentioned above in point II, in connection with national research structures and current projects, in particular the CASSECS Project, possible projects and FAO (feed balance sheet) ;
- Briefing notes **45 days** after start-up taking stock of:
 - Relevant fodder production experiences in each of the six countries and analyse their conditions for scaling up ;
 - The sectors around cultivated fodder: their organization and their limits;
- A summary note on the comparative analysis of the financial profitability of the different fodder production systems (**75 days after the start of the study**).
- A provisional report of the preliminary results in French with an executive summary of the results, conclusions and recommendations, regarding data collected in the countries or other references used during the study (including illustrations, photos, diagrams, synthetic graphs and slides), ;

- Final report incorporating the observations and amendments made at the end of a restitution workshop; this report must be filed no later than 15 days after receipt of the latest observations from the RCU and PRAPS countries.

All documents must be submitted electronically in PDF format and in editable format (Word, Excel (with editable formulas), Power Point, etc.). All deliverables will be the property of the RCU / PRAPS.

VII. MANDATE AND QUALIFICATIONS OF THE SERVICE PROVIDER

The service provider will take all the necessary measures for the timely and proper execution of the services which will be under their full responsibility. They must undertake to carry out their mandate in accordance with these terms of reference, to work closely with the RCU / PRAPS and PRAPS countries and to draft the expected reports in accordance with the provisions of point VI above.

The service provider will be responsible for mobilizing all the high-level technical expertise required to complete the study. To do this, they will mobilize at least the following profiles:

- a Head of mission, an agro-pastoralist zoological technician with good experience in animal feed;
- an agronomist with experience in forage crops and irrigation techniques;
- an agro-economist familiar with economic and financial analyzes ;

Particular importance will be given to the relevance of the experience, particularly in the livestock sector in the Sahel and West Africa, in particular pastoral systems and ease of working in a multidisciplinary team.

At the country level, the service provider should plan to collect qualitative and quantitative data for a better understanding of the subject through the support of national consultants who will be recruited by the service provider.

The service provider must provide an organization chart showing all team members and subcontractors. The organization chart must define the roles and responsibilities of each member of their team. They will be responsible for the quality control of the report and the performance in achieving the objectives.

VIII. DURATION OF THE STUDY

The duration of the contract will be **90 days executable over a maximum period of five months** including the validation workshop from the date of signature of the service contract. The interim reports and summary notes, stated in point VI, must be shared with the RCU before moving to a next step.

IX. PROVISIONAL TIMETABLE

The service provider as part of their offer must send an indicative schedule/timetable of the mission with detailed steps.