

Niger - Regional Sahel Pastoralism Support (PRAPS)

Report generated on: October 27, 2020

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Overview

Identification

COUNTRY

Niger

EVALUATION TITLE

Regional Sahel Pastoralism Support (PRAPS)

TRANSLATED TITLE

Services d'évaluation indépendants à l'appui de l'activité PRAPS du Niger (Projet régional d'appui au pastoralisme au Sahel)

EVALUATION TYPE

Independent Performance Evaluation

ID NUMBER

DDI-MCC-NER-PRAPS-A2F-2020-v1

Version

VERSION DESCRIPTION

- v01: Edited, anonymous dataset for public distribution.

Overview

ABSTRACT

A. Summary of Evaluation Design Approach and Methodology

The Niger PRAPS Activity evaluation is a performance evaluation, entailing an assessment of the Activity implementation and the realized outputs, short-, medium- and long-term outcomes, and goal of the Activity. The evaluation will be based on five OECD DAC criteria - relevance, effectiveness, efficiency, output/outcome/ impact and sustainability. It will be informed by the findings of performance evaluations for each of the three PRAPS sub-activities Animal Health (AH), Market Access Facilitation (MAF) and Natural Resource Management Enhancement (NRME). In addition, cross cutting issues such as those pertaining to gender will be studied. The performance evaluation will also be used to answer ten overarching evaluation questions categorized under (i) implementation, (ii) outcomes, and (iii) sustainability and lessons learned. The assessment of implementation and results of the Activity will inform the drafting of the key lessons learned, which will be helpful for future MCC program design.

Each sub-activity will be evaluated independently and will include an assessment of implementation, outputs, outcomes, impact and key lessons learned. The assessment of implementation will include a comparison of how the interventions were planned versus how they were carried out, and if the implementation was adequate to lead to the envisaged results. Moreover, the team will assess if the implementation took into consideration existing conditions, and will carefully document risks, challenges, rewards and surprises during

the implementation.

To evaluate outputs, outcomes, impact and lessons learned, the evaluation team will assess progress against each output and short-term outcome, and thereafter the medium- and long-term outcomes and impact, following the PRAPS logic. Sustainability of results will also be a key aspect of the analysis of the Activity results. Once the assessment of the implementation and results of the Activity are completed, the evaluators will revert to examine the program design to assess whether lessons can be drawn for the design of future MCC initiatives.

The performance evaluation will have a quantitative and qualitative component. The quantitative component will include pre-post analysis of Animal Health Survey data and econometric analysis of Sim Bétail's time-series data on livestock market outcomes. The Animal Health Survey of livestock animals will be undertaken to understand the effect of the enhanced veterinary services and vaccination on animal health, mortality and morbidity related to Contagious Bovine Pleuropneumonia (CBPP) and Peste des Petits Ruminants (PPR) and in general, production and productivity, and income from

livestock production and sales. The econometric analysis of Sim Bétail's livestock market outcome data will involve time series analysis of the prices, volume of animals presented and sales, for different livestock categories.

The qualitative component will include collection and analysis of data collected via in-depth semi-structured key informant interviews (KIIs) with key stakeholders and project participants and end-beneficiaries of each sub-activity. If deemed feasible, the evaluation will explore the option of Focus Group Discussions (FGDs), as an alternative to the proposed KIIs for obtaining qualitative information from the end-beneficiaries of the NRME and MAF sub-activities. The qualitative data analysis would involve thematic framing and data triangulation.

There will be three rounds of data collection - the baseline, interim and endline phases. The Animal Health survey will be undertaken during the baseline and endline phases for the estimation of the AH sub-activity on animal health. Besides that, all quantitative and qualitative components will be undertaken in all three phases. The baseline phase will begin in Q1 of 2021 and will be used to record the pre-intervention (or, in the case of the AH sub-activity which has already begun implementation, the first round of data collection) values of the output, outcome and impact indicators. The interim data collection phase (expected in Q4 2022) will be used for assessing the progress on the outputs, and short-term outcomes before the Compact closure in January 2023, and the likelihood of achieving the medium-, long-term outcomes and impact. The endline data collection will be undertaken in Q4 of 2025, to collect the post-intervention data for the assessment of the performance of the PRAPS Activity.

B. Evaluation Questions

The ten overarching questions that the evaluation aims to address are categorized under three broad dimensions: (i) Implementation, (ii) Outcomes, and (iii) Sustainability and Lessons Learned

(i) Implementation

- Was the Activity implemented as designed? If not, what changes occurred to the original design during implementation and why?
- How has the PRAPS Activity planning and implementation integrated gender?

(ii) Outcomes

- Were the expected short, medium, and long-term results in the program logic realized?
- What facilitated achievement of the results if they were achieved? If results were not achieved, why not?
- If possible, through the analysis, what is the differentiated impact between different components (for instance: the impact of vaccination vs. the impact of transhumance corridors vs. the impact of market construction)? Which components had the greatest impact on the outcomes? And why?
- What are the benefits experienced (if any) by the users of the livestock markets in the modernized markets?
- Has the modernized management of a market improved collection and reporting of tax revenue?
- Based on the findings from the evaluation, what is the estimated ERR for MCC's investments in the PRAPS Activity in Niger?

(iii) Sustainability and Lessons Learned

- How sustainable are the results achieved through PRAPS?
- What lessons can be drawn from the PRAPS Activity to inform future projects and activities?

EVALUATION METHODOLOGY

Other (Performance Evaluation)

UNITS OF ANALYSIS

Livestock animals, households and individuals

TOPICS

Topic	Vocabulary	URI
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Topic	Vocabulary	URI
Agriculture and Irrigation	MCC Sector	

KEYWORDS

Livestock Health, Natural Resource Management, Market Access, Livestock Sector Development, Livestock Vaccination, Livestock Corridor Rehabilitation, Livestock Market Rehabilitation, Veterinary Services, Niger, PRAPS

Coverage

GEOGRAPHIC COVERAGE

The four regions where the PRAPS Activity will be implemented under the Niger Compact - Dosso, Maradi, Tahoua and Tillabéri.

UNIVERSE

The intended target group of beneficiaries for the AH sub-activity are pastoral livestock producers who receive vaccination services for their livestock through this activity and their households. According to the PRAPS M&E Plan, the group of AH end-beneficiaries will comprise an estimated 426,804 households, or 3,414,436 individuals in Niger. These figures are based on the proportion of animals in the endemic areas and the vaccination coverage in those areas. NRME sub-activity will benefit the pastoralists who will use the designated livestock corridors to bring their animals to market areas. According to the M&E Plan, the total number of beneficiaries will range between 238 herders (and 1,904 herder household members) to 14,286 herders (and 114,288 herder household members), depending on the amount of time (two months versus a day) animals spend feeding on forage, given the assumed carrying capacity of the pastureland and herd sizes. There will be an overlap between the above-mentioned end-beneficiaries of the AH sub-activity and the beneficiaries of the market infrastructure and natural resource improvements under the MAF and NRME sub-activities.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
A2F Consulting LLC	

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
A2F Consulting	A2F		Independent Evaluator

DATE OF METADATA PRODUCTION

2020-08-11

DDI DOCUMENT VERSION

Version 1.0 (August 2020)

DDI DOCUMENT ID

DDI-MCC-NER-PRAPS-A2F-2020-v1

MCC Compact and Program

COMPACT OR THRESHOLD

Niger Compact

PROGRAM

This assignment involves the independent evaluation of the PRAPS Activity under the Niger Compact. The Activity is under the Climate Resilient Communities (CRC) Project within the Compact, and aims to bring about improvement in animal health and veterinary services, natural resource management along livestock corridors and access to and management of livestock markets. PRAPS aims to support pastoralist groups and enhance regional integration by improving livestock health, upgrading water and rangeland resources along major transhumance livestock corridors, and modernizing local livestock market infrastructure. These targets will be achieved through three sub-activities - Animal Health (AH), Natural Resource Management Enhancement (NRME), and Market Access Facilitation (MAF). The AH sub-activity involves the implementation of a nationwide annual livestock vaccination campaign to reduce disease prevalence and provide emergency veterinary assistance. In addition, the aim is to create a Vaccination Fund, which will be used to exclusively invest earmarked volumes of revenue from livestock trade, towards livestock vaccination. The NRME sub-activity focuses on the rehabilitation of livestock corridors through enhanced access to natural resources (water points and pastureland), security, and improved natural resource management and oversight structure. The MAF sub-activity aims to tackle the issue of market access through the rehabilitation of livestock markets and improvement of the management of the said markets.

MCC SECTOR

Agriculture and Irrigation (Ag & Irr)

PROGRAM LOGIC

The PRAPS Activity aims to address the key issues affecting the growth of the livestock sector and the income of the pastoralists engaged in livestock production. The program logic separates the inputs and outputs according to each of the three sub-activities, which are tied to the short-, medium- and long-term outcomes, and, thereby, the program's impact. The PRAPS logic is based on several assumptions which are used to establish the links between the program inputs to outputs, outcomes and impact. The AH sub-activity is geared toward reducing the prevalence of CBPP and PPR through vaccination campaigns, and the expansion of efficient and sustainable private veterinary services. The sub-activity aims to raise the share of vaccinated animals against the contagious diseases CBPP and PPR to 80% in the short term, through nationwide annual vaccination campaigns. Moreover, the aim is to build up to 12 new veterinary clinics and reinforce the capacity of 16 of the existing clinics by training staff and providing veterinary equipment and materials, as well as the development of up to two veterinarian border posts. In addition, a Vaccination Fund is also being developed, which will invest exclusively in livestock vaccination. The idea is to expand vaccination coverage and veterinarian services to areas not served by the Ministry's veterinarians with basic prevention services such as deworming, vaccines, feeding/nutrition advice to improve the health of livestock and reduce their mortality and morbidity in the medium-term. The NRME sub-activity is expected to improve access to natural resources, sustainable resource management and mobility of livestock along livestock corridors. Rehabilitation of resources (water bodies and pastureland along the targeted livestock corridors), supporting access to the resources and the development of plans for organizing and managing rangeland users and natural resources, will be undertaken under the NRME. The rehabilitation interventions include, demarcation of livestock corridors and pasturelands, removal of invasive plant species and digging of half-moon ditches to preserve soil quality of pastureland and de-sanding of water bodies. The expected short-term outcome is the set up and implementation of communal management of natural resources and enhancement of land tenure security. This, in turn, is expected to increase access to public grazing areas and drinking water in the medium-term. The MAF sub-activity aims to ensure access to competitive and inclusive markets for livestock and related products from pastoralist households. For this, interventions are targeted towards livestock market infrastructure development and rehabilitation, improved management structures and strengthening of the capacity of producers and inter-professional organizations. These interventions are expected to improve market conditions for herders in the short-term. The medium-term outcome of the sub-activity includes increased competitiveness in the livestock sector, owing to better market amenities and management structure. The expected combined long-term outcome of all three sub-activities is the increase in livestock production and productivity. Moreover, the improvements in health, mortality and morbidity, improved access to natural resources and better market facilities is expected to lead to the other envisaged medium-term outcome of availability of greater volumes of livestock and livestock products in the regional and local markets. Ultimately, this is expected to contribute to the envisaged program impact of increased quantities of pastoral products being sold at higher prices and, in turn, to higher livestock income.

PROGRAM PARTICIPANTS

For broad-based investments, MCC considers project participants and beneficiaries to be the same. The Activity is likely to impact at least an estimated 426,804 households in Niger. The intended target group of beneficiaries for the AH sub-activity are pastoral livestock producers who receive vaccination services for their livestock through this activity and their households. According to the PRAPS M&E Plan, the group of AH end-beneficiaries will comprise an estimated 426,804 households, or 3,414,436 individuals. These figures are based on the proportion of animals in the endemic areas and the vaccination coverage in those areas. The NRME sub-activity will benefit the pastoralists using the designated livestock corridors to bring their animals to market areas. According to the M&E Plan, the total number of beneficiaries will range between 238 herders (and 1,904 herder household members) to 14,286 herders (and 114,288 herder household members), depending on the amount of time (two months versus a day) animals spend feeding on activity-providing forage, given the assumed carrying capacity of the pastureland and herd sizes. However, there will be an overlap between the end-beneficiaries of the AH and NRME sub-activities, and the factors that affect the number of animals using the developed

infrastructure under NRME. The MCA-Niger M&E Plan does not include specific estimates of the estimated number of beneficiaries under the MAF sub-activity, due to lack of reliable information on the universe of people attending targeted markets.

Sampling

Study Population

The intended target group of beneficiaries for the AH sub-activity are pastoral livestock producers who receive vaccination services for their livestock through this activity and their households. According to the PRAPS M&E Plan, the group of AH end-beneficiaries will comprise an estimated 426,804 households, or 3,414,436 individuals in Niger. These figures are based on the proportion of animals in the endemic areas and the vaccination coverage in those areas. NRME sub-activity will benefit the pastoralists who will use the designated livestock corridors to bring their animals to market areas. According to the M&E Plan, the total number of beneficiaries will range between 238 herders (and 1,904 herder household members) to 14,286 herders (and 114,288 herder household members), depending on the amount of time (two months versus a day) animals spend feeding on forage, given the assumed carrying capacity of the pastureland and herd sizes. There will be an overlap between the above-mentioned end-beneficiaries of the AH sub-activity and the beneficiaries of the market infrastructure and natural resource improvements under the MAF and NRME sub-activities.

Sampling Procedure

Animal Health Survey: Based on sample size calculations, the minimum sample size will consist of the herds of 660 herders. This is based on the assumption of 95% confidence interval, and that 50% of the sample will report 80% herd immunity. The final sample size consists of an additional 10% sample size to account for attrition. The calculation of the sample herd size for the survey is derived from the sample of herders. A stratified random sampling strategy will be followed for the analysis. The sample will be stratified by regions (Dosso, 17.7%; Maradi, 29.6%; Tahoua, 29%; and Tillabéri 22.1%, based on the 2012 Niger Population Census) so that the sample of herders (and, thereby, herds) is representative of the population of these regions. This will be in line with the selection of regions as the enumeration areas (EAs) following the methodology of the Recensement General de L'agriculture et du Cheptel (RGAC 2005 / 2007). Thereafter, a sample of vaccination parks will be randomly selected from each region as a second layer of stratification. From each stratum, pastoralists will be randomly selected by the enumerators for the survey of their herds.

Sim Bétail data analysis: Time series data on a monthly basis, on all 12 targeted markets for which data is available for pre-through post-Compact time periods (at least from 2013-14 to 2025).

KIIs with stakeholders: Following a snowball approach, the evaluators will identify an initial set of key respondents, and then other individuals through the initial discussions. Estimated sample size: 30-35 individuals.

KIIs with veterinarians and veterinarians' assistants: The sample will include 30% of the private veterinarians, as well as one Auxiliares d'élevage (AE) and one Animatrices villageoises en agriculture et en élevage de petits ruminants (AVA/PR) receiving the training from each region.

KIIs with value chain actors and market participants: Random selection of one to two of each category of livestock marketplace, such as collection markets, cluster markets, consumer markets and terminal markets could be undertaken. For the selection of the value chain actors, snowball sampling strategy will be employed. One to two representatives from each value chain actor and other market participant category will be interviewed, for a maximum of about 8 rehabilitated marketplaces (est. number of participants is 80).

(If feasible as an alternative to KIIs) **FGDs with value chain actors and market participants:** A convenience sampling method will be used for the selection of participants for FGDs. For this, the fieldwork team will coordinate with MCA-Niger to identify a sample of participants who are most likely to provide relevant, meaningful information. In each FGD, the aim will be to have between eight to ten participants from the identified group, selected randomly. Eight/nine FGDs will be carried out in total, with an estimated 10 participants in each. This will include one FGD per marketplace, for eight marketplaces selected randomly from the four regions. One/two additional focus groups will be undertaken with female livestock herders, livestock product sellers, and other female market participants. The total estimated sample size including all the FGDs is about 108.

KIIs with livestock herders, community members (agro-pastoralists, farmers, etc.): The sample selection will be based on a stratification by region. Communes within each target region will be randomly selected. Once this is done, the key community representatives will be selected based on discussions with MCC and MCA-Niger. As far as the community members are concerned, a snowball method of sampling will be followed wherein the team of enumerators will identify one community member and subsequently select others based on the initial round of discussions. Two livestock herders, two community members and two community leaders will be interviewed from four communes each from Dosso and Tahoua, and two communes each from Tillabéri and Maradi. Estimated sample size of KIIs will be 80.

(If feasible as an alternative to KIIs) **FGDs with livestock herders, community members (agro-pastoralists, farmers, etc.):** A

convenience sampling method will be used for the selection of participants for FGDs. In each FGD, the aim will be to have between eight to ten participants from the identified group, selected randomly. Nine/ten FGDs will be undertaken in total. This will include two FGDs per commune, for four communes selected from each of the four regions. In each commune, one FGD will be for the transhumance livestock herders, and another for community members and representatives, including agro-pastoralists, farmers, etc. One/two additional focus groups will be undertaken with women livestock herders, livestock product sellers, farmers, community members and representatives. The total estimated sample size including all the FGDs is about 120.

Deviations from Sample Design

Any deviations in the sample design will be reported here, post-completion of the survey.

Questionnaires

Overview

The questionnaire for the Animal Health Survey will be developed after the approval of the Evaluation Design Report (EDR). Questionnaires will be administered to livestock herders to obtain information on their herds. Some of these questions will include demographic characteristics, location, number and types of animals owned, age and weight of each, mortality and morbidity in the past year, vaccination status of each animal, incidence of diseases including CBPP and PPR in the past year, number of veterinary trips in the past year, proximity to veterinarian or assistants and/or veterinary clinic, satisfaction with veterinary services, unmet veterinary needs, satisfaction with vaccination of herd, unmet needs with vaccination campaign, change in livestock related income in the past year, etc.

For the KIIs with stakeholders, semi-structured questionnaires will be created to obtain information on the following: implementation of the sub-activities, related challenges and solutions, adherence to and deviations from the plan, observed results, sustainability measures put in place and related effectiveness, M&E functions.

For the KIIs with end-beneficiaries and program participants, semi-structured questionnaires will be developed to obtain information on the following: demographic information, occupation and income, size of operation, herd size and distribution of different types of animals and /or livestock products, perceived current status of animal health and veterinary infrastructure and related challenges (for the AH sub-activity), perceived current status of natural resources and their management along livestock corridors and related challenges (for NRME sub-activity), perceived current status of livestock markets and related challenges (for MAF sub-activity) and perceived improvements as a result of the implementation of each sub-activity.

In the case that FGDs with end beneficiaries are carried out instead of KIIs, the FGD questionnaires will be similar to that of the KIIs.

All questionnaires will be translated into French.

Data Collection

Data Collection Dates

Start	End	Cycle
2021-01-11	2021-03-31	N/A
2022-10-03	2020-12-17	N/A
2025-10-01	2025-12-18	N/A

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In the case that FGDs with end beneficiaries are carried out instead of KIIs, the FGD questionnaires will be similar to that of the KIIs.

All questionnaires will be translated into French.

Data Collectors

Name	Abbreviation	Affiliation
To be selected through procurement process		

Supervision

This will be available once the data collection partner is selected through the procurements process.

Data Processing

Data Editing

In the fieldwork phase, the A2F team will undertake daily review of all primary data collected, through consistency checks. In the case of the Animal Health Survey, those submitted surveys with inconsistent replies, outliers, etc. will be rejected and the fieldwork team will return to the field to clarify the information and/or collect the data again (as needed). In addition, the A2F team will conduct weekly assessments of the approved data by undertaking summary statistics and analysis of outliers. Data checks of the qualitative data collected via KIIs and FGDs will also be undertaken through expert reviews. Any clarifications on the information collected will be sought from respondents through follow-up calls (as needed).

Once the quantitative data is collected, the data set will be cleaned and coded. Each observation will be anonymized, to ensure that the respondents cannot be identified. Visual representation of key outcome indicators will be generated, to obtain deeper insight into the data. For the quantitative data analysis, STATA will be used primarily, along with Microsoft Excel. In case of qualitative data collection and analysis, the team will use qualitative data analysis software including Microsoft Excel and NVivo.

Other Processing

The survey data will be collected using Computer-Assisted Personal Interviewing (CAPI) technology. The A2F team will calibrate and personalize the CAPI system required to host the survey and create the database. The fieldwork team will be able to use smartphones or tablets for conducting the surveys. The CAPI system will have the capability to save data offline, such that the data can be synced to the online database when the team members have access to internet. Moreover, the system will have the capability to record the GPS coordinates of the individual surveyed, which can be helpful for follow-up surveys, in some cases (even though in this case, the respondents will be surveyed at the vaccination parks, so the system will record the coordinates for the park, which can be used for follow up surveys).

In the case of KIIs and FGDs, the information will either be collected electronically, or will be converted, for the ease of access and analysis. This will be done using Microsoft Excel and Microsoft Word.

Data Appraisal

No content available