



**Farmer to Farmer
Volunteer Assignment Scope of Work**

Summary Information	
Assignment Code	ML203
Country	Mali
Country Project	Zoonotic diseases
Host Organization	National Directorate of Veterinary Services (NDVS)
Type of Volunteer Assistance	Organizational development/ Technology Transfer
Type of Value Chain Activity	Input Support Services
Assignment Title	Study Design: Cold Chain Assessment for Animal Health Specimen Collection Packaging Storage And Transport
Assignment preferred dates	From May 2019
Objectives of the assignment	<ol style="list-style-type: none"> 1. Support the NDVS and relevant decentralized veterinary services in designing the fields study assessment of veterinary services cold chain; 2. Consolidate the assessment protocol in consultation with the NDVS and fields staff involved in the process (RDVS), 3. Propose a study protocol study specifying the assessment methodology for proper fields implementation. 4. Adapt and develop inventory and survey materials (based on model questionnaires, develop questionnaires and collection tools in French); 5. In collaboration with the NDVS staff, provide guidance in developing the data analysis plan 6. In collaboration with NDVS staff, provide guidance on final report template
Desired volunteer skill/expertise	<ul style="list-style-type: none"> • The candidate must: • Hold a university degree in veterinary medicine or human, or have a master's degree in public health, epidemiology; • The person should have worked with a development organization before for at least 5 years and has a minimum

	<p>demonstrable experience of undertaking desk reviews, as well as rapid assessments & or evaluations;</p> <ul style="list-style-type: none"> • Have at least 5 years' experience in Cold Chain Management and Evaluation and / or Effective Vaccine Management Assessment (EVM); • The consultant should have a significant experience of collecting and analyzing quantitative data from small scale sample surveys; • Experience of working within a dispersed team, remaining self-motivated, using initiative and responding appropriately to constructive feedback; • Demonstrated experience in designing health surveys and the management and data analysis; • Working knowledge in French is required.
PERSUAP Qualification	Type III

A. BACKGROUND

Biological samples of animal origin should be stored at low temperatures under conditions that ensure their quality and integrity from collection to receipt in laboratories. The "cold chain" (CD) is a crucial part of logistics chains that allow temporary storage and transport of biological samples from their collection site to the laboratory. The safety, quality and delivery times of the samples are the essential characteristics of a high-performance cold chain to ensure the transport of samples under controlled temperature.

As part of the DNSV support process, the Kénéya Kelen project of CRS Mali aims to strengthen the cold chain capacity at decentralized veterinary services in the Kayes, Mopti and Sikasso regions. To this end, it is recommended to carry out a cold chain assessment, this evaluation report must be accompanied by a strengthening plan to address shortcomings in relation to the standards recommended for temporary storage and transport of veterinary biological samples from the peripheral level to the regional level (LVRK) or central level (LCV).

The cold chain assessment is an effective advocacy tool for resources mobilization (material, financial and technological) needed for an improved specimen-referral system and increased availability of quality specimen to laboratories in Mali.

B. ISSUE DESCRIPTION

Appropriate cold chain management is the foundation of safety and quality of animal specimen. The cold chain is the network of equipment, person and processes that ensures that animal specimen is transported and stored at appropriate temperatures up to the point of delivery. Three main components of cold chain include transport and storage equipment, personnel training, and efficient management procedures.

Improving cold chain capacity and logistics throughout

Yet, there is not enough information about the overall animal cold chain situation in the field, including at the central level in veterinary services in Mali, to ensure quality delivery of animal specimen storage and transport towards strengthening to laboratory facilities. Strengthening the capacity of veterinary services to detect quickly and accurately animal zoonotic disease and the proper implementation of a cold chain system is a key challenging facing veterinary services. An assessment of the cold chain and animal specimen management is needed to determine the actual field practice, equipment, resources, available manpower, and others.

The assessment study protocol will focus of the current situation analysis and in developing a set of recommendations for strengthening and implementing an efficient cold chain and sample transport/storage appropriate plan.

The volunteer will provide technical support to the DNSV to implement the study «Cold chain assessment for animal specimen collection storage and transport.» Further to this filed study recommendations will be made to assist the National Directorate of Veterinary Services (DNSV) to improve the quality of transport of samples of animal diseases, by building capacity and providing adequate equipment

C. OBJECTIVES OF THE ASSIGNMENT

The overall objective of this assignment is to provide technical assistance to the National Directorate of Veterinary Services to design a fields study for the assessment of cold chain needs for safe and secure animal specimen collection, packaging, storage and transport. Further to this fields study recommendations will be made to improve the quality of the animal specimen collection, packaging, storage and transport in project regions through the improvement of the animal health cold chain management. This fields study protocol shall focus on review of the animal health cold chain, for the specimen collection, storage and transport, management and practices at all levels of animal health service. The proposed assessment protocol shall also review the animal health cold chain program needs, training requirements and recommend improvements for the cold chain, specimen collection and transport management practices within the project area.

Under the supervision of the National Directorate of Veterinary Services, the volunteer will be in charge of the following activities:

1. Support the NDVS and relevant decentralized veterinary services in designing the study protocol;
2. Consolidate the agenda of the process, in consultation with the NDVS and fields staff involved in the process (RDVS),
3. Propose a study protocol study specifying the assessment methodology for proper fields implementation.
4. Adapt and develop inventory and survey materials (based on model questionnaires, develop questionnaires and collection tools in French);
5. In collaboration with the computer scientist, develop a data analysis plan

The DNSV will gather the necessary documentation for the volunteer for the documentary review. The Volunteer will carry out missions in the 3 regions covered by the Keneya Kelen project to meet key decentralized veterinary services and assess the state of play and cold chain management mechanisms for animal samples storage and transport. He will visit the Kayes Regional Laboratory and the Central Veterinary Laboratory of Bamako to evaluate the conditions of reception and storage and destruction of samples before and after their analytical treatment.

On the basis of the information collected, it will establish in collaboration with the various stakeholders the following elements:

- The cold chain assessment study protocol with a process agenda;
- Inventory and survey materials developed;
- A report plan for the data collection phase in the field;
- An analysis plan for the data collected;
- To elaborate a plan of final report and restitution of the results
- Make recommendations to implement the study protocol.

Expected results:

The assessment study design is expected to illustrate:

- (1) the capacity for the cold chain management for safe animal specimen storage and transport for animal health personnel at all levels;
- (2) the standard operating procedure (SOP) for the cold chain, animal specimen storage and transport, logistics management, and waste management for field implementers;

(3) the cold chain equipment and devices that are required to support the animal specimen transport system planning. These actions are expected to improve the cold chain and animal specimen management practice, build capacity, and meet the specimen quality requirements;

Special attention will be paid to the following key points

- The current capacity of cold chain veterinary stations and sectors for transporting samples is highlighted;
- The gap between the current cold chain capacity at the posts and veterinary sectors and international standards is established;
- Important elements to be improved to ensure the quality, safety and durability of the cold chain in the transport of samples are identified.

D. HOST CONTRIBUTION

- The host, NDVS, will ensure the commute from the volunteer's hotel to the work site. NDVS will also provide stationery and printing of documents relating to work.
- The host will facilitate volunteer introduction to fields sites and avail key personnel to work closely with the volunteer. CRS F2F Mali will organize the volunteer's lodging in the guesthouse in Bamako (if needed).
- CRS will provide per-diem advances for meals and incidental expenses and will serve as point-of-contact for any concerns the volunteer may have.

Volunteer Profile:

The candidate must:

- Hold a university degree in engineering, veterinary medicine or human, or have a master's degree in public health, epidemiology or monitoring and evaluation
- Have at least 5 years' experience in Cold Chain Management and Evaluation and / or Effective Vaccine Management Assessment (EVM)
- Have at least 5 years' experience in transporting infectious substances
- Have knowledge about zoonotic diseases

E. ANTICIPATED RESULTS FROM THE ASSIGNMENT

This volunteer assignment will provide technical support to the NDVS in the design of study protocol to implement a field study for the assessment of cold chain needs for safe and secure animal specimen collection, packaging, storage and transport.

The specific objective of this study design is:

- To establish the inventory of the cold chain in terms of availability, equipment functionality and the required performance to ensure the temporary storage and transport at an appropriate temperature of animal samples from the fields level up to the level of the regional or national laboratory;
- To evaluate the level of knowledge/training of personal in cold chain management at veterinary posts for animal specimen handling, storage, packaging and transport;
- To evaluate the availability of preventive maintenance plans for cold chain equipment, as well as the availability of procedures during the break in the cold chain;
- To review the current animal samples storage and transport needs for the cold chain and biosecurity and biosafety issues;
- To meet the cold chain needs of the animal specimen transport system, provide specific recommendations for improving the cold chain and management, as well as biosecurity and biosafety concerns/practices.

Through the assignment, it is expected that:

- A fully documented assessment study design is produced;
- The NDVS is provided technical guidance for the fields implementation of the study;
- The NDVS is provided specific guidance for the supervision and coordination of field survey;
- The NDVS is provided assistance to develop the Cold Chain strengthening plan , including identifying measures to improve procedures and practices for CDF equipment management and animal specimen quality

F. DELIVERABLES

The following documents should be sent to the Project Director, National Directorate of Veterinary Services, Laboratory Systems Strengthening Technical Advisor, and Volunteer Coordinator for validation at the end of the assignment or thereafter:

- Initial presentation on the assignment which outlines, activities, plans, approach, and results
- Guidelines for the design of the fields study
- Guidelines for the implementation of the fields study
- Guidelines for developing a data analysis plan

- Guidelines in the development of Cold Strengthening plan
- Guidelines for the development of Cold Chain training material
- Volunteer's final report with recommendations (due before departure)
- PowerPoint Presentation Briefing to CRS staff and/or USAID
- Evidence of outreach activities such as press releases, social media posts, etc following the assignment

G. SCHEDULE OF VOLUNTEER ACTIVITIES IN COUNTRY (20 days)

Day	Activity

H. DESIRED VOLUNTEER SKILLS

The candidate must:

- Hold a university degree in engineering, veterinary medicine or human, or have a master's degree in public health, epidemiology or monitoring and evaluation
- Have at least 5 years' experience in Cold Chain Management and Evaluation and / or Effective Vaccine Management Assessment (EVM)
- Have at least 5 years' experience in transporting infectious substances
- Have knowledge about zoonotic diseases

I. ACCOMMODATION AND ANOTHER IN-COUNTRY LOGISTICS

The NDSV is in Bamako, therefore the volunteer will be accommodated in a CRS secure Guesthouse with all commodities and high-speed internet.

J. RECOMMENDED ASSIGNMENT PREPARATIONS

1. Study design Material

Power Point presentations will be needed for designing the study protocol. Reference documents may be printed in advance, although sharing of electronic versions of documents with NDVS is encouraged. All logistical material will be available onsite or can be brought from the CRS Bamako office (flip chart paper, markers, etc.)

2. Working Environment

Almost all the volunteer's work will occur on the premises of the National Directorate of Veterinary Services. Office space and electricity and all necessary commodities are available.

The volunteer will collaborate directly with the NDVS personnel. All personnel have background knowledge and experience veterinary services management but will appreciate to be availed a reference document which provide specific recommendations for improving the cold chain management, as well as biosecurity and biosafety concerns/practices..

3. Recommended Reading

- ❖ *DNSV Annual Report*
- ❖ *LCV Annual Report*
- ❖ *FAO Evaluation Report*

4. Weather Appropriate Clothing

It is very hot in Kayes in March/April/May, averaging in the upper 30s Celsius (upper 90s Fahrenheit). Lightweight, loose cotton clothing will be most appropriate. Shorts are not typically worn in professional settings in Mali.

K. KEY CONTACTS

CRS Baltimore	
Priyanka Subba Farmer to Farmer Coordinator EA Farmer to Farmer Program 228 W. Lexington Street Baltimore, MD 21201 +1 443-955-7194 Email: priyanka.subba@crs.org	Mireille Ngokion Farmer to Farmer Coordinator EA Farmer to Farmer Program 228 W. Lexington Street Baltimore, MD 21201 +1 410-951-7315 Email: mireille.ngokion@crs.org
CRS Country Program	
Dr Ismaila Kane Farmer to Farmer Kénéya Kelen Director Hamdallaye ACI 2000 Immeuble Alou Diarra +223 75-61-13-92 Email: ismaila.kane@crs.org	Khadidjatou H. Koumaré Farmer to Farmer volunteer Coordinator Hamdallaye ACI 2000 Immeuble Alou Diarra +223 61-74-96-96 / +223 74-97-10-05 Email : khadidjatouhachim.koumare@crs.org
Host Organization: NDVS	