





Good Practices and Innovations from the Regional Pastoral Livelihoods Resilience Project (RPLRP)

NAROK COUNTY

APPLICATION OF INTEGRATED PEST MANAGEMENT (IPM) PLANIN DISEASE CONTROL ACTIVITIES IN NAROK COUNTY



Vaccination of cattle against Foot and mouth disease. Credit: RPLRP Narok County, Kenya.

INTRODUCTION

Previously, the Narok County Department of Veterinary Services (DVS) would mobilise animal health workers to participate in vaccination campaigns. Each participant was required to bring his/her to own syringe and cooler box for use. Decisions on the dates and venues of vaccination exercises were made with little or no input of community members;concerns about community preferences were not taken into account during planning. Livestock keeperswere forced to comply with the schedule or miss out. This often led to low turn-outs, since publicity and consultations were not adequate. In some instances, vaccination days would coincide with market days and no livestock keeper would avail animals for the exercise because market days come only once a week and it is a valued opportunity to sell livestock, replenish household foodstuff and get news (*Lomon*) from other areas.

If the turn-out was good, veterinarians would carry out vaccination from morning to evening under scanty shelters that did not adequately protect from the scotching sun. This led to interference with the cold chain maintenance for the vaccines and other equipment.Because of poor handling, cases of vaccine failure were frequently reported. In some cases, there was resistance from community members because previous campaigns had not been effective. Their complaints had gone unaddressed, because there was no clear mechanism of handling grievances. Involvement of women was minimal.

There is a critical need of working with communities to ensure adequate participation and therefore improved outcomes. Maintenance of the cold chain as well as proper collection and disposal of generated waste will greatly improve successes of vaccination and enhance environmental resilience.

The IPM plan was developed as a guidance on the use of pesticides. It provides a requirement for preparation of sub-project specific IPM plans whenever pesticides are to be used in any of the sub-projects. The plan outlines steps/due process that should be followed and the people responsible for ensuring proper handling of vaccines, transportation, storage and delivery to the animals, including diligent waste disposal.

Ministry of Agriculture, Livestock and Fisheries State Department of Livestock During the current vaccination campaigns, joint planning was donewith the community. Adequate channels of communication were utilised, with the key ones being schools, churches, and the chief's *barazas* and local/vernacular radio stations. The venue/crush site, dates and time of vaccination was jointly agreed upon; and proper handling of vaccines was ensured right from collection from DVS stores until they were used on the animals.

Employment of temperature monitors was a new practice, which ensured that vaccines were kept at desirable temperature range. All vaccinators received project-branded overalls and other personal protective equipment. Adequate transportation was available, with a standby team ready to delivery additional ice to manage the cold chain effectively and efficiently. Airtime for regular communication, reporting and updates was also provided. Notebooks, pens and water proof folders were provided to each group for reporting and safe storage of the documents. Waste management bins and polythene were provided for the sharp, plastic, rubber and paper waste generated; these were later disposed properly under the supervision of the National Environment Management Authority and the and Public Health Department.

GEOGRAPHIC COVERAGE

Vaccination was implemented in Narok East, Narok South, Narok West and Transmara West. The vaccination in Narok West, Mara Ward, Lemek Sub-location, and Tipilikwani Villageparticularly showcased the importance of the IPM plan.

STAKEHOLDERS AND PARTNERS

Vaccination targeted Maasai livestock keepers residing in the target area. The exercise was implemented together with the County DVS. The RPLRP procured the vaccines; the Foot and Mouth lab carried out pre- and post-vaccination sero-surveillance; the National Veterinary Department provided oversight; the County DVS provided storage facilities and human resource; the County Department of Public Health supervised waste collection and disposal; National Environment Management Authority (NEMA) supervised waste management and disposal including environmental monitoring during



Vaccination of cattle against Foot and mouth disease. Credit: RPLRP Narok County, Kenya.

vaccinations; and the community brought their animals. During the vaccination exercise, women and men were responsible for taking animals to the crush site as well as ensuring that they were ready for vaccination in the crushes.

METHODOLOGICAL APPROACH

The initial step was to train the animal health staff (private and public) on the IPM plan at a three day in-house training. The output of the training was to prepare a pest management plan for Foot and Mouth Disease and Contagious Bovine Pleuropneumonia Disease control programmes. The plan outlines steps to be followed from collection of vaccines from Nairobi to vaccination and disposal of the generatedwaste.

Vaccines were procured from Kenya Veterinary Vaccines Production Institute (KEVEVAPI). They were kept at KEVEVAPI stores in Embakassi. First, the county team made a phone call to alert the animal health officer of their intention to collect the vaccines at KEVEVAPI. The officer in turn consulted and also informed the KEVEVAPI stores officers and then later gave a green light for collection to proceed.

A designated motor vehicle with a driver, veterinary officer and a veterinary stores officer were dispatched to collect vaccines as per the vaccination programme schedule.

On the first day, the team travelled to the Nairobi project office to regularise requisition forms and other documentation. On the second day, the team arrived at the KEVEVAPI D stores at 9am to start loading the vaccines. They confirmed the condition of the vaccines, using information such as packaging, labelling and date of expiry,before packaging into the transport facility. Vaccines were packaged with enough ice and a temperature monito was inserted in each consignment.

The team departed for Narok County at 11 am. It took four hours to reach the stores, where the vaccines were offloaded from the truck and packaged in the county cold facilities set at +2°c to +8°c until the vaccination day. Each cold chain facility was fitted with either a temperature scale or a temperature monitor inserted for daily monitoring of the temperature.

A participatory publicity exercise was carried out were community were consulted on vaccination plans. Later, the information on the agreed dates and venue was disseminated though the chiefs' *barazas*, schools, churches and local FM stations.

Community members were urged to construct livestock handling facilities (crushes) for use during the vaccination. This was their main contribution. They formed management committees that would work closely with the veterinarians. A Grievance Redress Committees (GRC)was formed to manage any conflicts arising from the exercise. This team was requested to report and/or transfer any cases beyond their management to the county GRC.

One day to the vaccination, teams converged for a briefing meeting, which also acted as a refresher for IPM plan. Later, in the evening, each team collected their vaccine consignment in cooler boxes with adequate ice and a temperature monitor inserted.

Main storage was maintained in the field while smaller cooler boxes were used during vaccination at respective crushes. A reserve cold chain team was tasked to replenish vaccines and ice for the team upon requests. Also, the team delivered additional fuel and waste collected by the vaccination teams, which they stored at the county stores awaiting proper disposal.



Vaccination of cattle against Foot and mouth disease. Credit: RPLRP Narok County, Kenya.



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After conclusion of vaccination exercise, the waste was disposed at the Narok County Referral Hospital under the supervision of the County NEMA and Public health offices.

RESULTS

- Enhanced disease control in the county. A total of 199,476 cattle were vaccinated during the exercise.
- There was increased demand for project vaccination services because animals vaccinated during the campaign showed resistance to disease outbreak in the area. This was not common as the livestock keepers had consistently experienced outbreaks from previously vaccinated herds. Their trust in the quality of vaccines and service delivery increased, which is evident by the large turn-outs in subsequent vaccination campaigns.
- Disease outbreaks were minimised, leading to improvement of livestock, which translated to more incomes from the livestock sold.
- Practice of environmentally friendly waste management applied during vaccinations at the vaccination sites has been picked by the community who are now able to properly dispose wastes generated from disease management and control activities in their homes.
- There is a change in attitudes and practices of veterinarians as far as proper cold chain management and waste disposal is concerned.

SUCCESS FACTORS

- Attitudes and practices
- Adequate resources for regular monitoring to ensure compliance

CONSTRAINTS

• Socio-cultural challenges influenced by beliefs and practices

LESSONS LEARNT

- Community consultation and joint planning worked to increase the number of animals vaccinated and the geographical coverage;
- Use of temperature monitors was a game changer;
- Use of personal protective equipment minimised risks of injury during vaccinations;
- The back-up vaccine and cold chain team ensured that teams progressed without stopping and therefore contributed to efficient delivery;
- Proper waste collection and disposal was key in reducing environmental contamination;
- Joint planning with the community helped to increase the participation of women in the vaccination exercise.

SUSTAINABILITY

- Preparation of IPMplan and adhering to it in disease control is key to sustained practice.
- Preparation of IPM plan requires very minimal resources.
- There is a need to carry out awareness campaigns for adoption of IPM plan among the stakeholders

REPLICABILITY AND UPSCALING

The approach has been implemented in 14 counties during RPLRP vaccination campaigns, and been applied during the National Drought Management Authority vaccination campaigns against sheep and goats pox in Narok. Replication and upscaling requires:

- Preparation of plans and adhering to the plans during the pest management practices.
- Integrating the practice into policies and laws to ensure compliance and sustained application.

RELATED RESOURCES THAT HAVE BEEN DEVELOPED

County Pest management plan for vaccination against FMP & CBPP

"Previously, veterinary staff from the government used to come and vaccinate animals without planning with us. They would force community to bring animals on the material day and before many people knew about it, the vaccination was done. Coverage was poor and disease outbreaks in the area was rampant. This vaccination has been well organised. From publicity to vaccination itself. *Community members are happy* because they were fully involved. We have looked at the vaccines and they are in good condition with a lot of ice. We are glad that the government vaccination has improved and it is free unlike in the past."-Lemek Area Chief

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