

Objectives of the project

LIDISKI aims at improving the livelihood of smallholder farmers in the North of Nigeria. LIDISKI will contribute to the reduction of small ruminants and poultry mortality by improving the surveillance and the control of “*Peste des petits ruminants (PPR)*” and Newcastle Disease (ND), the two main diseases affecting the livestock of smallholder farmers in Nigeria.



Background

Many Nigerian households are heavily reliant on livestock, which are a source of both animal protein and income. Supporting the smallholder sector thus serves to boost food security, improve quality of life, notably for the country's smallholders, and empower women, who are major players in the poultry and small ruminant value chains in particular.



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In this context, livestock diseases are a major issue. They are the biggest economic threat to the livelihoods of poor rural farmers and livestock owners. It is estimated that PPR causes between \$1.4 and \$2.1 billion in damage in Nigeria each year, while the highly virulent ND virus can wipe out entire flocks of chickens. Therefore, mitigating those two diseases will have a positive impact on smallholder farmers' livelihood. Mitigation requires efficient surveillance and control systems. Nevertheless, these systems are not currently fully operational in Nigeria. The identified existing gaps to improve the surveillance and control systems are in understanding of the local socio-economical and epidemiological context, in human and material capacities regarding vaccine production and delivery and in engaging field actors such as farmers, local veterinary services and animal health workers in vaccination and disease reporting.

The theory of change to achieve the objectives

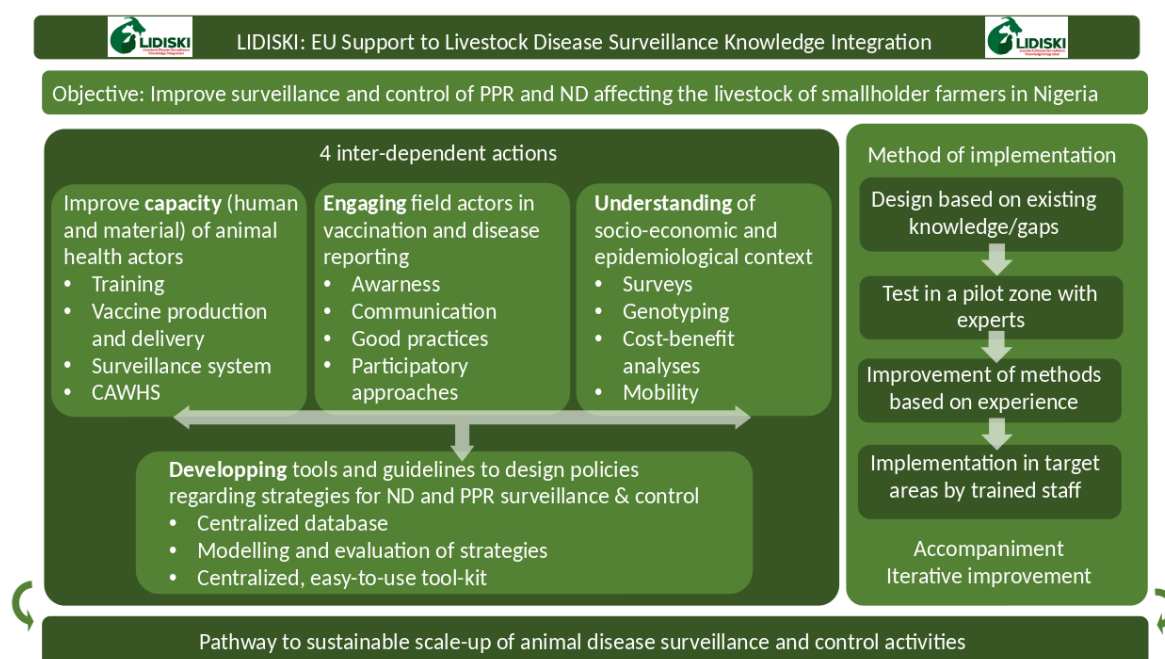
To reach its goals, LIDISKI will reinforce PPR and ND surveillance and control systems in Nigeria by better understanding the socio-economic and epidemiological context, strengthening the human and material capacities of national partners, and improving the engagement of local stakeholders in vaccination and disease reporting.

First, the project will build a knowledge base line by collecting socio-economical and epidemiological data from the national bureau of statistics and relevant ministries to have an overview of the local context and identify the knowledge gaps. To fill the gaps, the research team will design and conduct additional socio-economic and epidemiological surveys in the field. Modelling activities will be undertaken to establish an optimal vaccination strategy including a risk and cost-benefit analysis.

Second, to strengthen the capacities of national partners to manage a surveillance and control system trainings will be carried out in laboratories to increase the production of quality vaccines, to carry out quantitative epidemiological analysis and to use participatory methods to work with local actors. Furthermore, because of electricity shortage, solar panels will be installed in veterinary outpost to ensure an effective cold chain and efficient vaccines delivery. In parallel, participatory and

communication meetings will be organized to engage the different stakeholders, from the farmers to the decision makers, in the design, implementation and monitoring of optimal surveillance and control strategies.

Nigeria is a federal state composed with 36 states. The LIDISKI strategy is therefore iterative with parallel actions both at national and local level. First, the project will focus its activities in a pilot zone in one State and then, building on the experience, will out-scale the same activities in 2 or 3 different States depending on time available and costs of operations. The activities will continuously feed a centralized database and information system to capitalize the knowledge and to adapt the actions. The objective is to produce a toolkit composed with the relevant tools and guidelines so that the federal government of Nigeria will be able to scale-up the activities at the national level.



Main activities

The project is structured in four main activities:

- ✓ Conducting socio-economic and epidemiological surveys and modelling to increase scientific knowledge and adapt actions to the local contexts. These surveys will focus on the distribution and impact of PPR and Newcastle disease in term of incomes, food security, gender based workload allocation. The impact of climatic events on small holders breeding activities will be analysed.
- ✓ Training local actors to strengthen their capacities to recognize the symptoms of PPR and Newcastle disease and to collect and store the necessary samples and data.
- ✓ Training national veterinary staff to increase the production of quality vaccines and to improve their distribution.
- ✓ Involving stakeholders in the field in vaccination and disease notification, through communication and awareness campaigns Workshops will be held using participatory epidemiology and role playing games. Radio broadcasts will disseminate surveillance and control good practices in local languages.

- ✓ Designing and providing a toolkit to intensify surveillance and monitoring efforts across the country. The toolkit will encompass a data base continuously feed by the project activities, modelling and analysing tools to monitor the epidemiological situation and design surveillance and control strategies, and guidelines to support decision making at the national and federal level.

Organization

The project is led by a coordination team composed of members from CIRAD and NVRI. The scientific committee, composed of the coordination team plus representatives of IZSve, IKORE, NAERLS, OIE and ILRI, give advices to the coordination team regarding the scientific activities and the results. The steering committee, composed of CIRAD, NVRI, IZSve, and IKORE, analyse the state of progress of activities in view of provisional programme, the management of finance and solve potential conflicts. A high-level committee, composed of CIRAD direction, EU delegation in Nigeria and the Federal Ministry of Agriculture and Rural Development (FMARD) of Nigeria, will oversee the progress of the project, and revise and validate any proposed major changed in project activities or budget allocation. The project is organized in 10 work-packages structuring the 4 interdependent actions described in the previous figure.

Implementing organization

Centre de coopération Internationale en Recherche Agronomique pour le Développement (CIRAD, France)

Partners of the project

National Veterinary Research Institute (NVRI, Nigeria), IKORE International Development (Nigeria), Istituto Zooprofilattico Sperimentale delle Venezie (IZSve, Italy)

Other main stakeholders

- ✓ World Organization for Animal Health (*Office International des Epizooties*, OIE)
- ✓ International Livestock Research Institute (ILRI)
- ✓ Federal Ministry of Agriculture and Rural Development (FMARD) of Nigeria
- ✓ National Agricultural Extension and Research Liaison Services (NAERLS) of Nigeria

Region

Nigeria

Funding and co-funding

EU	€ 2,500,000
co-financing from the 4 partners institutions	€ 175,514
Total budget	€ 2,675,514

Duration

Four (4) years; January 2020 - December 2023

Website

www.lidiski.org

