“Strengthening rural livelihoods and food security through improving village poultry production in Mozambique, Malawi, Tanzania and Zambia”

Village poultry plays a crucial role in rural households in Africa particularly in times of crisis. Poultry is one of the few natural capital assets owned by many households especially those who live on or below the poverty line and they are generally owned and managed by women and the rural poor. Besides being a natural source of high quality food (animal protein and micronutrients), village poultry are often one of the most important sources of cash income for the poor.

In the Malawi, Mozambique, Tanzania and Zambia, Newcastle disease (ND) is the major constraint to the development of village poultry production. ND can be prevented by vaccinating poultry with the thermotolerant I-2 vaccine in conjunction with community-based training and education activities.

With the support from the Australia Agency for International Development (AusAID), the Central Veterinary Laboratories (CVLs) in Malawi and Tanzania, and the Directorate of Animal Sciences (DCA) in Mozambique are producing the I-2 ND thermotolerant vaccine for the prevention of ND. The vaccine is easier to administer and it is effective in preventing ND outbreaks.

One of the main objectives is providing Ministry staff with the required training, information and knowledge on the use of the vaccine and establishment of a sustainable system for its production and distribution.

Equally important, the control of the ND in village chickens will only be effective if the vaccination campaigns are well organised.
In preparation for the 1st Newcastle disease (ND) vaccination campaign, Tanzania undertakes a TOT of government extension officers in ND control activities.

Tanzania completed a TOT for government extension officers in December, 2009, so that they could train community vaccinators and prepare for the 1st vaccination campaign in January 2010. The objective of the trainings was to provide the Ministry livestock, animal health and extension technicians with improved knowledge of how to train villages and community vaccinators in ND control activities and improved poultry husbandry, the preparation and coordination of vaccination campaigns and planning and monitoring systems, which are a key element of the program.

The training focussed on government technicians who had planned on implementing training workshops for community vaccinators in the project area.

In total, 23 community vaccinators (12 women and 11 men), 5 community leaders and 5 District Officials were trained from 5 villages of Singida District. The community vaccinators’ training was carried out as a basic sensitisation and training on important aspects related to the control of ND and poultry husbandry. This training was mainly aimed to provide the poultry production staff with knowledge related to:

- The benefits of vaccinating poultry;
- The clinical signs of and ND control activities to prevent ND outbreaks;
- Factors involved in the spread and transmission of ND;
- Improving low-cost poultry husbandry practices, which can have an impact on production of eggs, and basic knowledge on maintaining flocks; and
- Knowledge on the prevention of Highly Pathogenic Avian Influenza.

Implementing research on locally available alternative poultry feed to improve poultry husbandry in Tanzania

Plant seeds, maize, fish sweepings, maize bran, and sunflower bagasse were collected and analysed to investigate whether their chemical composition can improve chickens’ feed. The outcomes of these analyses are outlined in the table that follows.
Following up on the 1st ND vaccination campaign

The first ND vaccination campaign took place in late November, 2009, and the first week of December, 2009. The 8 community vaccinators from Chigubo (6 women and 2 men), 17 in Chibuto (13 women and 4 men), and 3 in Massingir (1 woman and 2 men), vaccinated 6,058 out of 8,278 chickens, 73%. 657 families benefited from this campaign as the following table illustrates.

<table>
<thead>
<tr>
<th>District</th>
<th>Enrolled Chickens</th>
<th>Vaccinated Chickens</th>
<th>Benefited Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chigubo</td>
<td>2197</td>
<td>605</td>
<td>96 (Total Men and Women)</td>
</tr>
<tr>
<td>Massingir</td>
<td>2851</td>
<td>2851</td>
<td>241 (Total Men and Women)</td>
</tr>
<tr>
<td>Chibuto</td>
<td>3230</td>
<td>2062</td>
<td>111</td>
</tr>
</tbody>
</table>

Pre- and post vaccination blood samples were collected by a team before and 3 weeks after the vaccination campaign. The samples were taken to test and monitor the antibodies in the chickens from the vaccine. A total of 120 blood samples were taken each trip, and the samples were sent to the Directorate of Animal Sciences (DCA) for testing.

The Director for the development of Arid and Semi-arid areas in the National Institute for Disaster Management (INGC) takes part in the first regional stakeholders meeting

Partnerships with local institutions and NGOs are an important aspect of the project to work on synergies, share resources and to have a long-term sustainable input to activities. INGC is a Government institution working towards the disaster risk reduction in Gaza district through two main fields: disaster preparedness and mitigation, as well as providing support in the development of arid and semi-arid areas.

KYEEMA and INGC have been working together in the Chigubo district to implement the regional project and increase the income and food security of the rural population, since an MoU was signed. The Director of INGO, Dr. Pedro Tomo, also presented and participated in the first Project Coordination Committee meeting held in Maputo last December.

INGC has a Resources and Multiple Use Centre (CERUM) in Chigubo. The centre is equipped with audio-visual equipment which can be used for training activities for community vaccinators as well as in the awareness raising of poultry production staff.
Zambia starts the rehabilitation of the vaccine production laboratory at the National Institute of Veterinary Research (CRVI)

In Zambia, the main project objective is to establish local production of the thermostolerant I-2 ND vaccine. Currently, Zambia has been importing small quantities of V4 thermostolerant vaccine to implement ND vaccination campaigns. The importation of vaccine can be a lengthy and costly process and there has been insufficient quantities of vaccine to carry out a campaign. Establishing local production of the I-2 ND vaccine will enable the establishment of more inclusive vaccination campaigns and will have a long-term and profound impact on the control of ND in Zambia. One of the most important requirements for the production of a quality vaccine is a laboratory with minimum bio-safety conditions. Zambia has committed funds to the CVRI to rehabilitate the Animal Vaccine Production Unit and is currently in the process of rehabilitating the laboratory. The rehabilitation began in January this year and is expected to take 6 months to conclude.

MALAWI undertakes a participatory rural appraisal (PRA) in January, 2010

The Participatory Rural Appraisal (PRA) in Malawi was conducted from 23 – 31 January, 2010. In Malawi, the project is being implemented in five villages of Thyolo District.

The PRA results indicated that the livestock activity in the district is scarce due to limited access to land. With improved village poultry production and poultry husbandry, the project aims to have a positive impact in the lives of the populations, especially in the lives of women, through an increase in chicken flocks, which can be used for selling or consumption. The project will train the selected community vaccinators before the March 2010 vaccination campaign.

KYEEMA Foundation

The KYEEMA Foundation is a non-profit organisation formed in 2003, which supports prevention and control programs for diseases affecting plants and animals in developing countries, as well as helping with the development of technology to assist in improving the living standards of individuals. Capacity building is a core component of KYEEMA’s projects which are usually implemented in collaboration with national government agencies and local NGOs.

KYEEMA Foundation and its subsidiary entity the International Rural Poultry Centre (IRPC) have been working towards capacity building, community development and poverty alleviation through developing and implementing a sustainable model for ND control.

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