




Improvement of village poultry production by communities in the Limpopo National Park support zone, Gaza Province

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- Animal Science Directorate (DCA)
- Community vaccinators
- Farmers
- Sarah Raabis and Samantha Swisher (Tufts University)
- IRPC/Kyeema staff
- Wildlife Conservation Society and USAID.



Project

Project goal...

- **The main aim of the project was to contribute to food security and poverty alleviation through the improvement of poultry husbandry practices and disease control related to village chickens.**

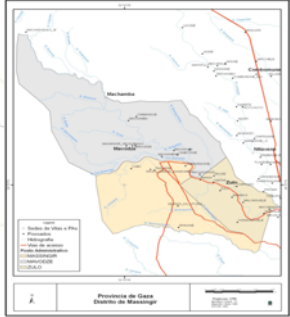


Main components/objectives

- 1) Contribute toward the control of Newcastle disease (ND) in village poultry;
- 2) Improve village poultry husbandry and management;
- 3) Development of poultry products suitable for sale to tourist centers; and
- 4) Improve household welfare, including improved nutrition and food security.

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Target area



Villages in LNP

- Chibotane
- Macarringue
- Macavene
- Machaule
- Madingane
- Massingir Velho
- Mavoze

LNP support zone

- Chinhangane
- Chitare
- Cubo
- Manhiça
- Mavoze
- Mucatine
- Tihovene
- Zulo

Map of Gaza Province, Massingir

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Introduction

- Village poultry are a very important part of women's livelihoods in rural Mozambique. Small-scale farmers own over 90% of the national chicken flock, which is estimated to be around 25 million birds.

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Benefits of chickens

- Access to cash/Income generation;
- Contribute to food security;
- Provide scarce animal protein (meat and eggs);
- Contribute to child nutrition and HIV affected people who have a higher dietary requirement;
- Bartered and exchanged;
- Active in pest control; and
- Provide manure as fertiliser.

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Introduction

- One of the major constraints to the production of village chickens in Mozambique is Newcastle disease (ND), which devastates flocks killing up to 90 percent.
- ND can be prevented through an effective community-based ND control program, implementing vaccination campaigns using the thermotolerant I-2 vaccine in conjunction with training and education activities.



Summary of activities implemented

- PRA and cold-chain analysis;
- Community outreach and project awareness in communities and community leaders, community mapping;
- Selection of 21 community vaccinators (10 women and 11 men);
- Training on ND control, poultry husbandry for 21 community vaccinators 2 government extension officers (10 women and 13 men);
- Refresher training and technical backstopping for 17 community vaccinators in June (8 women and 9 men) and October (9 women and 8 men);



Summary of activities - cont

- Coordination of 3 x vaccination campaigns;
- Collection of serum samples to monitor pre and post vaccination antibody levels to ND in poultry in April and June;
- Preparation, printing and distribution of extension materials;
- Monitoring of the project activities and vaccination campaigns throughout the project lifecycle; and
- Ongoing coordination of activities with MINAG.



Assessment of village poultry production and meat consumption in LNP and surrounding areas

- Supported the research projects of Samantha Swisher and Sarah Raabis, veterinary students from Tufts Cummings School of Veterinary Medicine, USA, from 9 June – 27 July.
- Research focused on village poultry production and meat consumption. *Assessment of village poultry production and meat consumption in Limpopo National Park and Surrounding Areas*, by Samantha Swisher.



Vaccination campaigns

- Trained 21 community vaccinators (10 women and 11 men), in March 2009.
- 3 x vaccination campaigns were carried out in April, July and December using the thermotolerant I-2 ND vaccine.
- Refresher trainings were conducted in June and October before the vaccination campaigns.

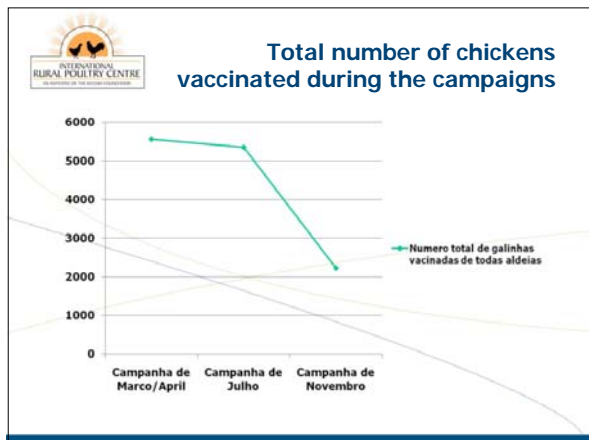
Photo by Kate Holt, April 2009



Vaccine campaign results

Number of chickens vaccinated during the campaigns

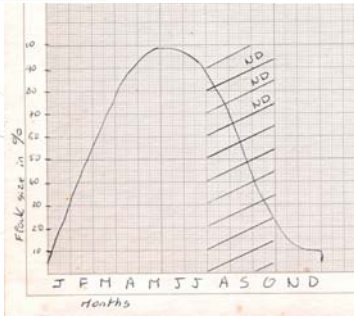
Village	No. HH	April campaign	July campaign	Dec campaign
Chibotane	156	386	514	314
Chinyangane	188	519	316	0
Chitar	115	240	363	0
Cubo	322	159	244	670
Macarringue	536	221	283	90
Macavene	92	599	661	211
Machuale	74	377	422	22
Madingane	97	269	438	0
Manhiça	90	421	130	48
Massingir	205			
Velho		588	673	407
Mavoze	345	1327	535	278
Mucatine	258	68	0	0
Tihovene	177	283	626	141
Zulo	108	102	148	44
Total	2,763	5,559	5,353	2,225



- Vaccine campaign results - cont**
- A total of 5,559 chickens were vaccinated during the March/April campaign, 5,353 during the July campaign, and 2,225 during the November/December campaign.
 - The decline in the number of chickens vaccinated during the November campaign was anticipated because of the i) reduction in the chicken flock size; and, ii) the calendar of agriculture and poultry activities in the project area.



Evolution of flock size during the year and period of incidence of ND LNP



Graph from the PRA Report by Brigitte Bagnol, 2009. Submitted to AHEAD in the Six-monthly report



Calendar of agriculture and poultry activities in LNP, 2009

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Newcastle disease								X	X	X		
Rainy season	X	X										X
Hunger	X	X					X	X	X	X	X	X
Harvest			X	X	X							
High n° of chickens/eggs				X	X							
Less chickens	X	X					X	X	X	X		

PRA Report by Brigitte Bagnol, 2009.

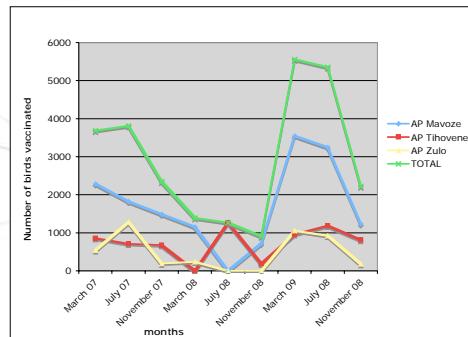


Results – November campaign

- The rainy season started during the November campaign and the majority of farmers were in the field planting crops and grazing cattle.
- The chicken flocks reach their lowest number between Christmas and New Year.
- Between November to January, chicken flock numbers are decreasing as it is a time where most rural families will consume chickens. This is also a hunger period, following the drought, and people will tend to sell their chickens for cash to buy staple food.



No. of birds vaccinated per campaign in 2007, 2008 and 2009





Strengths and achievements

- Establishment of a cold chain system at Massingir SDAE.
- The project has been gender sensitive and gender responsive. Approximately 50% of the trained community vaccinators are women.
- Preliminary steps have been made with MINAG to establish an animal health technician position to be based at the SDAE in Massingir.
- Most community vaccinators are being paid for their work by participating farmers.



Strengths and achievements - cont

- Farmers started to request more information on managing other poultry diseases and parasites, a sign that their interest in poultry husbandry is growing;
- The project has enabled real gains to be observed and assessed, providing valuable lessons for the extension or future project activities.
- Commitment from Massingir SDAE towards future project activities.



Challenges

- Lack staff resourcing at SDAE Massingir.
- Delays in the distribution of I-2 vaccine in advance of campaigns.
- Community vaccinators require more monitoring and support on how to fill in the registration books with the vaccination data.
- Objective 3 of the project was premature for the short length of the project. The project focused first on establishing effective an ND control program.



Challenges - cont

- Few farmers cage or restrain chickens prior to a vaccination campaign;
- Improving poultry husbandry practices in a cost-efficient manner (eg. lack of housing);
- Farmers wanted information on ducks and duck rearing, as there is also high duck mortality in the area. Adult ducks are resistant to ND, therefore, this mortality is likely due to Duck Viral Enteritis.



Conclusion

- The project has made significant progress in raising awareness of ND and coordinating ND control activities in the target communities;
- Participation in vaccination campaigns is increasing;
- The number of chickens vaccinated in 2009 has more than doubled from the number of chickens vaccinated in 2008; and 2007.
- The target communities now have broader knowledge on the clinical signs of ND and the benefits of vaccinating against ND as well as issues of related to the nutritional value of eggs and chicken meat.



Recommendations

- The continued implementation of project activities to build on the initial impact of the project, and to help the community vaccinators develop their ND control activities, and to enable communities to take control of their future direction.
- That future activities should now focus on increasing household participation in the vaccination campaigns in the project villages.



- **Thank you**
- **Kanimambo**
- **Obrigada**