

WORKSHOP ON “APPROACHES TO HARMONISE PROPHYLACTIC PLANS FOR PREVENTION AND CONTROL OF MAJOR POULTRY DISEASES (NEWCASTLE AND GUMBORO DISEASES) IN WEST AND CENTRAL AFRICA”

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Outline

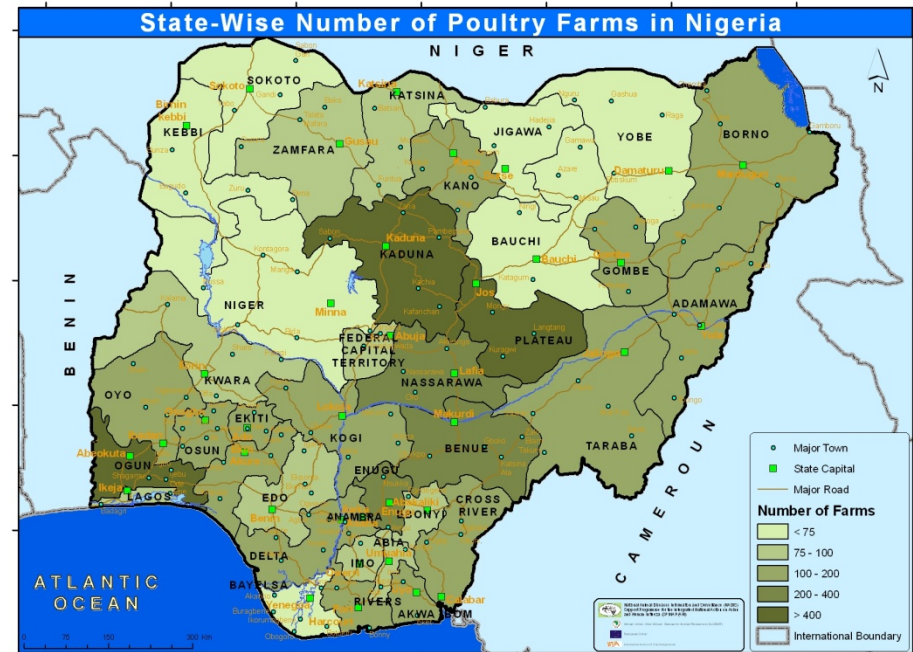
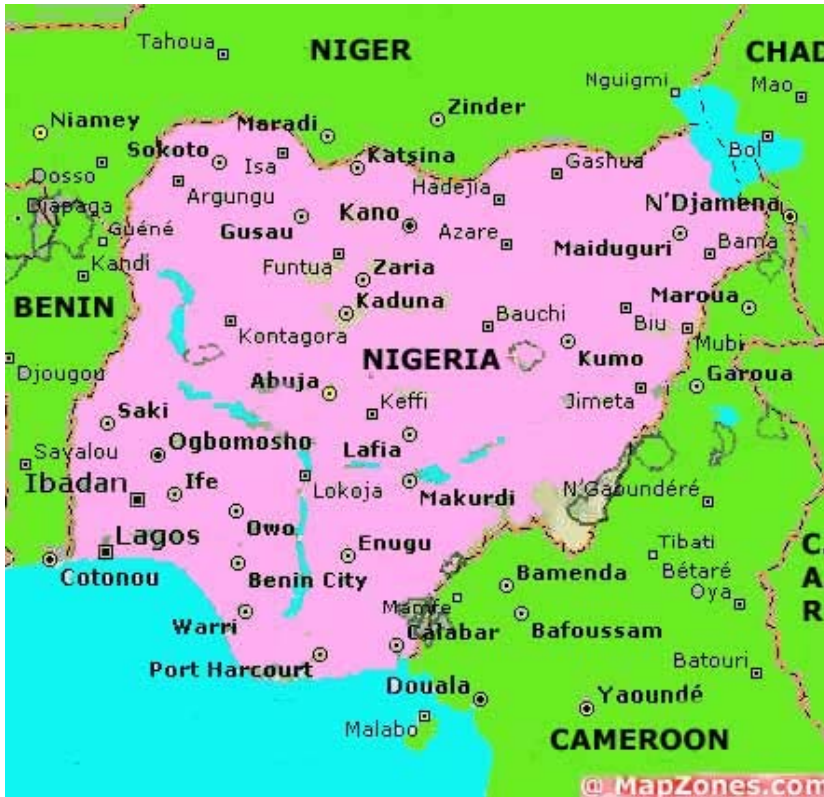
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Introduction

- 3 The poultry sub-sector in Nigeria consists of 60% backyard, 25% semi-commercial and 5% commercial
- Over 25M and 85M people respectively are employed directly or indirectly in the commercial and backyard/rural poultry industry.¹
- The entire poultry sub-sector contributes over 25% of the Agricultural GDP. ¹
- It is also an indirect machinery for the actualisation of the MDGs -1, 3, 4, 5, 6 & 7. ⁴

4-Cardinal Boundaries of Nigeria

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Introduction (Contd)

5 Nigerian Agricultural Transformation Agenda Targets (2012) ¹:

		2011(MT)	2015(MT)
(a)	Egg Production	553,000	1,000,000
(b)	Poultry Meat Production	384,000	480,000

- The present field status reveals that Newcastle (NCD) and Infectious Bursal Diseases (IBD) are a major setback to the growth of the poultry sector in Nigeria.

Epidemiology of NCD and IBD in Nigeria

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- The prevalence of IBD & NCD is enzootic (endemic), in Nigeria³.
- Exotic breeds of chickens, the layers housed with cockrels, and the broiler strains are more susceptible to IBD infection than locals³.
- Prevalence of IBD is more @ 3-6weeks², and less with age 14-20weeks⁵
- NCD occurrence is in all ages but the severity is higher in younger birds³
- Harsh weather conditions increase the prevalence^{12, 13}.

Epidemiology of NCD & IBD in Nigeria (Contd)

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- The local poultry serve as carriers and their antibody titre is a pointer to the prevalence of infection in an area.
- Improper adherence to IBD vaccination regime increases the prevalence of the disease.
- Mortality is more with males than females.
- Certain new uncharacterised pathotypes of IBDV are responsible for more mortalities in the field⁵

Epidemiology of NCD & IBD in Nigeria (Contd)

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- Newly characterised virulent strain of NCDV has been revealed by DNA testing (TADs challenge)¹⁴
- Concurrent viral, bacterial, and parasitic infections increase the severity.
- IBDV is resistant to temperature, PH and most phenolic disinfectants.
- The reported outbreak summary for 2012 was put at :IBD -23 and NCD – 47 (NADIS-2013)⁷.

Types of Prophylactic Plans Implemented to Control NCD & IBD

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- The choice of vaccines/schedule depends on the type of chicken and the prevailing field situation.
- Inactivated IBD vaccines are administered to boost the immunity of parent stock.
- Live vaccines are administered as the primary defence in young susceptible chicken.
- (At embryonic development through 10 weeks of age, immune system cells (lymphocytes) travel to the BF to become programmed as antibody-producing cells).

Types of Prophylactic Plans Implemented to Control NCD & IBD (Contd)

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- NCD
 - ▣ NDL – 14 days (in absence of i/o at the hatchery)
 - ▣ NDL – 28 days
 - ▣ NDK – 112 days (repeat NDL & NDK alternately every 3mths)
- Gumboro
 - ▣ 1st IBDV – 7-9 days
 - ▣ 2nd IBDV – 21 days
 - ▣ 3rd IBDV – 35 days (Areas with severe outbreaks)
- Revaccinate at 38 to 42 weeks of age with an inactivated IBD vaccine if breeder titers are low.

Types of Prophylactic Plans Implemented to Control NCD & IBD (Contd)

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- In sub-clinical IBD disease:
 - ▣ at 12 to 15 days of age -- IBD live;
 - ▣ 30 to 33 days of age -- IBD live;
 - ▣ 85 days of age -- IBD live or inactivated;
 - ▣ 120 days of age -- IBD inactivated.

Results & Constraints

Results:

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- Field experience reveals that there are pockets of outbreaks, despite the implementation of the prophylactic vaccination plans for IBD & NCD.
- Cost implication of vaccines used for this schedule is uneconomical for vaccinating the rural poultry.
- Thermo-stable pelleted NCDV is being tried in rural poultry.
- Multiple vaccination encouraged & avoidance of mixing flocks from different breeder flocks
- Search for sustainable solution for our felt-need.

Results and Constraints

Constraints:

- IBDV is resistant to temp, PH and most phenolic disinfectants.
- The free-range poultry are not receiving adequate attention in disease control issues.
- Vaccine failure due to maternal antibody
- Compromising Cold-chain maintenance issues
- Improper vaccine reconstitution / vaccination techniques
- Economics of vaccination is high
- Under reporting of diseases, which is inimical to planning.
- Poor adherence to stringent bio-security measures.
- Emerging multiple pathotypes/serotypes

Regulatory Aspects

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- State governments have the primary role in diseases control, while collaborating with other tiers of government, giving it a tripartite outlook-¹⁵
- Strengthening of quarantine services – NAQS¹⁵
- Restructuring the live bird markets
- Hatchery and feed-mill control
- Import restriction and the ban on the importation of poultry and poultry products¹⁵
- The Agricultural Transformation Agenda of government is aimed at strengthening the poultry industry (Poultry Value Chain)

CONCLUSION



- We identify with this well-thought-out, and timely unified solution in the subregion towards controlling NCD & IBD, which hitherto had been threats to the transboundary diseases control and international trade.
- The cross-fertilisation of practices across the subregion will further make this objective achievable at the long-run, and the possibility of developing a sustainable vaccination ensured.
- There is therefore the need for the government to recognise the important role the free range, indigenous chickens play, not only in the livelihood of low resource rural farmers but also in the epidemiology of poultry diseases, by providing essential veterinary and husbandry extension services (feed, & feeding, housing and general management).

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36 States of Nigeria + FCT

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THANK
YOU FOR
LISTENING
AND GOD
BLESS



36 States of Nigeria + FCT

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Local & Int'l Airports in Nigeria

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- Nigeria is located in West Africa on the Gulf of Guinea with a total area of 923,770 sq. km and total
- land area of 910,770 km. Sq. (FAO, 2005), falling within 14° East Longitude and 4° and 14° North Latitude (NBS, 2006a).

It shares borders with Benin in the west, Niger and Chad in the north, Cameroon in the east and the Gulf of Guinea in the south. It is about 4047 km in length -subject to change after the boundary demarcation between Nigeria and Cameroon.

- The country is a federal constitutional republic and is made up of 36 states (see Figure 2.1), 774 local
- government areas (LGAs) and the Federal Capital Territory (FCT), Abuja. The states are divided into
 - six geopolitical zones as shown in Table 2.1. Abuja is the country's administrative centre, or the
 - Federal Capital Territory (FCT), with a total area of 7,607 sq. km. The total human population in
 - Abuja increased from 371.7 thousand in 1991 to 1.41 million (52.7% Male and 47.3% female) in
 - 2006, forming 0.4% of the national population (NPC,

- According to the National Bureau of Statistics, Nigeria is made up of many ethnic groups ranging
- from 'Hausa, Fulani, Tiv, and Kanuri in the north; Igbo in the south-south and south-east; Yoruba in
- the south-west; Bini, and Ijaw and Ibibio in the south-south, in addition to other minority ethnic
- groups.

- Although English is the official language in the country, most of the states have more than
- one major ethnic group and several local languages. It is rare to find only one local language being
- spoken in any state in Nigeria due to strong ethno-cultural diversity; however surprisingly, the NBS
- data shows that only one local language is spoken in Osun and Kano States.