

Research and innovation  
improve nutrition, profit  
and social impact in  
West African backyards

Dr. Ayoola Oduntan  
Group Managing Director

Amo Farm Sieberer Hatchery, Ltd.

Amobyng Nig. Ltd.

Diversay Solutions, Ltd.



# SOME STATISTICS

## Africa overall

- 2<sup>nd</sup> most populous continent on earth
- accounts for 16% of the world population
- 2.5 bill. population by 2050, 4 bill. population by 2100
- by 2100 one out of every 3 people on earth will live in Africa

## Sub-saharan Africa

- current population -800 mill
- 2 bill. by 2050, 3.7 bill. by 2100
- growth by 18% between 2015-2020

# ABOUT NIGERIA

**200 mill people - Africa's largest and 7<sup>th</sup> most populated country in the world.**

- On course to be the world's 3<sup>rd</sup> most populous country by 2050, with 400 million people.



**Africa's largest economy, but poverty is still very high in Nigeria**

- Almost 110 million people living on <450 naira (<\$1) a day
- Stifling economic development

**Net food importer, with large-scale undernutrition**

- Per capita egg production is just 60 eggs/head/year.
- Poultry meat consumption is about 2.3 kg/head/year.
- Majority of poor households cannot afford chicken nor eggs

*“Oil has served our country, but --- I am convinced that our guarantee for inclusive growth is agriculture.”*

**H.E. President Buhari**



**2003**

**5,000 birds**



**2019**

**1,200,000 birds**





# OUR PROUD HISTORY

2002

- Incorporation of companies

2003

- 1<sup>st</sup> batch of parent stock birds
- 5000 breeders
- 7000 chicks/week
- 75 MT/week of feed
- 50 employees



2007



- Expansion of farms and hatchery begins
- Introduction of Artificial Insemination in poultry

2008

- Noiler genetic gain breeding program begins



# Noiler



2009

- Incorporation of Diversay Solutions LTD

2012



- 1<sup>st</sup> pack of frozen chicken from natnudO Foods Ltd

2012

- 400,000 Birds Capacity Farms (500% growth)
- Production of 12 million day old chicks/a (2900% Growth)
- 60,000 MT feed production/a (1400% Growth)
- 450 Staff (700% Growth)



2013

- Incorporation of DSL Pharma
- 1<sup>st</sup> sachet of animal health product.



2014

- 1<sup>st</sup> Noiler day old chick for commercial production



- natnuPreneur out grower farmers onboard

**natnuPreneur**



- 12 million Noiler day old chicks supplied (cumulative)
- 1200 mother units
- 282,000 smallholder farmers

**Eggs**



**Fish**



**Chicken**



**Beef**

**2015**

**2017**

**2018**

**2019**



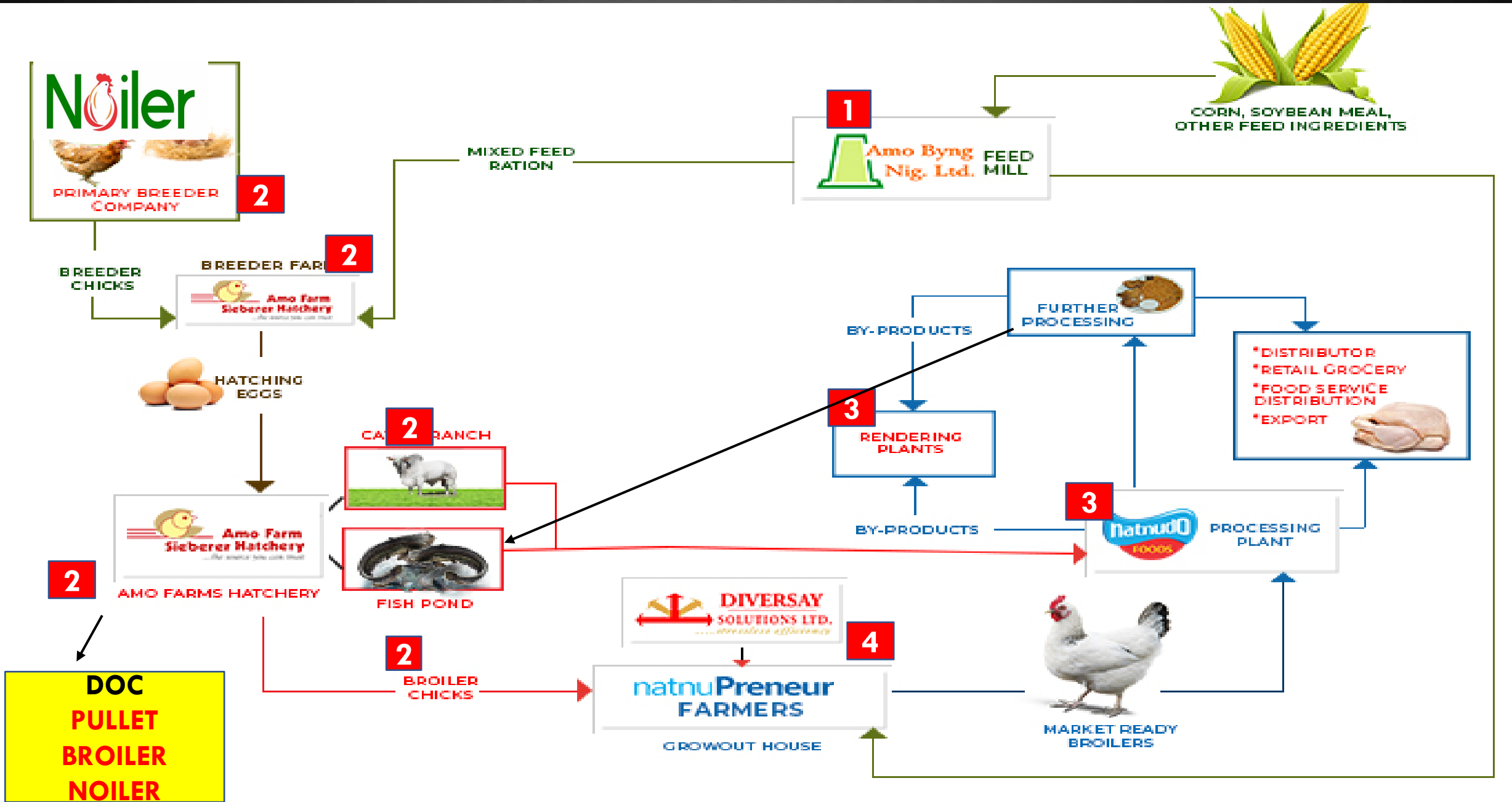
- natnuPreneur out sellers onboard



**Evolved as an Integrated Animal Protein Company.**

- 52 mill chicks/year
- 1.2 million birds Cap Farms
- 120,000 Mt feed production
- Over 2100 staff

# OUR INTEGRATION





## NATIVE POULTRY



## CHALLENGES

- Low-baseline yields (only 30-40 eggs a year; take 10 months to gain 1.5 kg)
- Very high disease burden (and the yearly built up flocks can be lost in a single disease outbreak)
- No systematic production
- Limited access to high quality supplementary feed
- Native birds have been undergoing natural selection. Numbers are dwindling
- Severe depletion of indigenous backyard poultry population

**In Sub-Saharan Africa 85% of all households keep poultry.**

**The typical rural African cannot afford the current poultry and eggs on offer.**

- **Huge market for eggs and wet poultry throughout Africa**
- **>70% of backyard chicken owners are women**
- **Poultry offers a huge opportunity for women to generate income**
- **Can graduate into organic chicken production**
- **Improve nutrition and health through affordable access to quality protein**



**Genetic gain**



- **29 million day-old chicks were supplied to small holder farmers in West Africa (2014-2020)**
- **3,648 mother units benefited**
  - **Target for 2021 is 4,000**
- **778,492 small holder farmer benefitted**
  - **Target for 2021 is 1.2 million**



## NOILER R&D

- Genetic work began in 2003
- Noiler pure-line breeding program started in 2008
- Proud to be the first pure line breeding company in Africa





## OBJECTIVES

Noiler is a dual-purpose breed  
(high performing for eggs and meat)

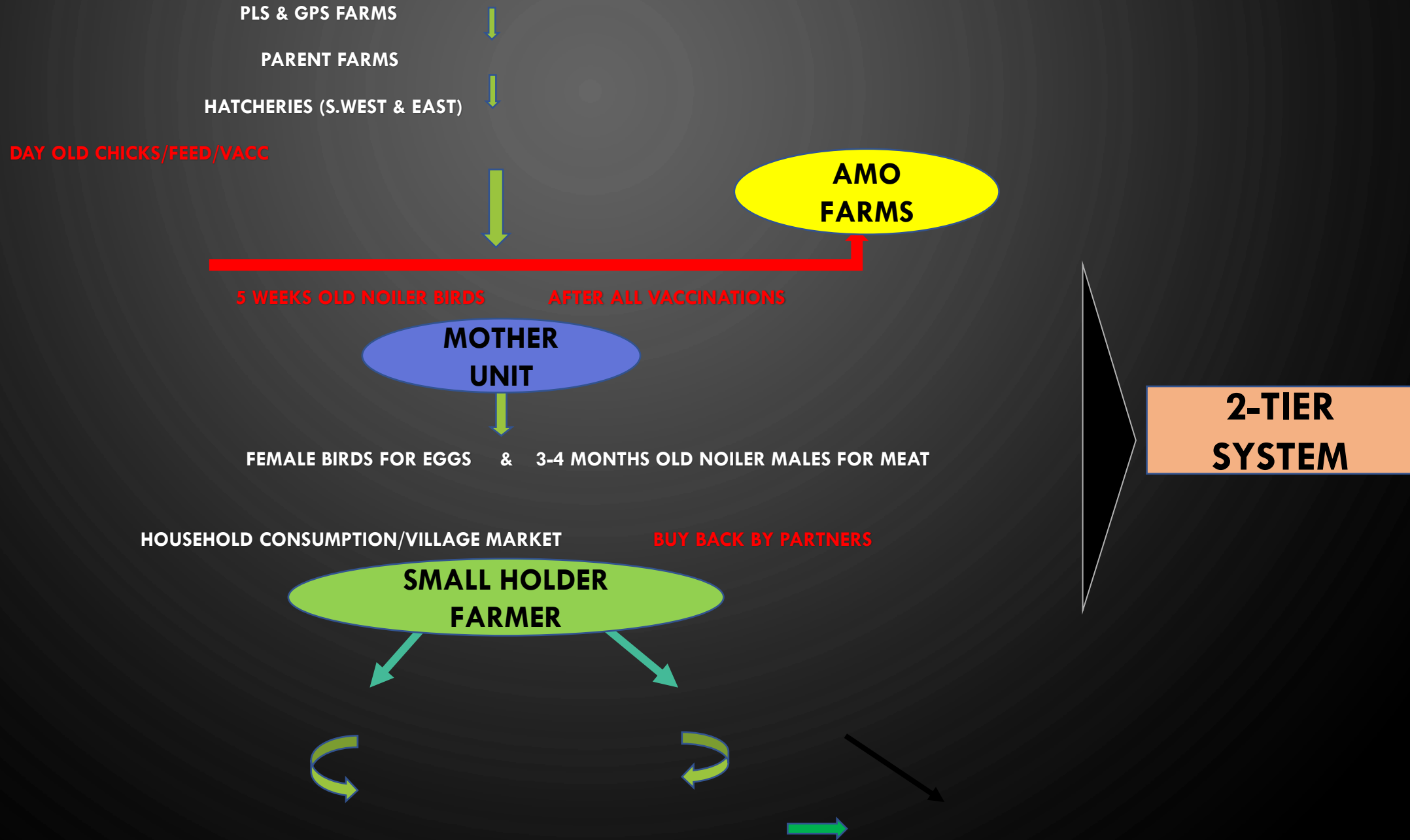
Noiler birds address 3 important development  
challenges in West Africa:

- **Rural development**
- **Gender inequality**
- **Protein deficiency & malnutrition**

And can help reduce

- **Infant and maternal mortality**
- **Food insecurity**
- **Hunger and stunted growth**





# ADULT NOILER BIRDS



**A poultry farmer broods & vaccinates Noiler chicks from day-old to 5 weeks**

**Thereafter sells to smallholder farmers**

- **in equal number of female and male birds**







- Receives 5 week old Noiler birds in equal numbers of males and females
- Raises the MALES to 14 weeks to a target weight of 2.0 - 2.5kg
  - Sells males for **income** (which could be used to get another batch of Noiler birds) **or** the **family consumes some as meat**
- Keeps FEMALE birds for **egg** production, which could also be **sold** or **consumed** to **improve family nutrition**
  - birds starts laying at 20-22 weeks; lay up to 140-160 **eggs/cycle**
  - sell spent hens at the end of the laying period and make **income**







# NIGHT SHELTER IS IMPORTANT





# SOCIAL IMPACT FOR MOTHER UNITS

- **income addition**
- **women empowerment**
- **improved nutrition**
- **profitability**
- **increased productivity**
- **financial independence**
- **business orientation**





# MOTHER UNIT BUSINESS MODEL ( USING ACTUAL DATA TO PROJECT-2019)

EXPENSES	QTY	PRICE	TOTAL(NAIRA)
Cost of NOILER DOC	675	160	108,000
DOC transport cost		9	6,075
Cost of vaccines			8,114
Cost of NOILER chick <u>feed @1.067kg/b</u> (for 5 weeks)	720	141	101,552
Cost of medicine			5,781
a) Petrol	56.7	145	8,222
b) Labour cost	1	16,800	16,800
c) Charcoal and transportation	1.3	2000	2,600
d) Wood Shavings and transportation	10.125	180	1,823
e) Solar Lamp			1,294
f) Finance cost (22%/annum)			8,552
<b>TOTAL COST</b>			<b>268,813</b>
<b>INCOME</b>	<b>667</b>	<b>495</b>	<b>330,165</b>
NET PROFIT PER BATCH			61,352
NET PROFIT PER BIRD			92.0
<b>PERCENTAGE NET PROFIT PER BATCH</b>			<b>18.6 %</b>



- **Improved nutrition**
- **Healthy family**
- **Income addition**
- **End hunger**
- **Child's healthy competition and equal participation among equals**



# REVENUE ANALYSIS FOR SMALL HOLDER (sell 50% & eat 50%, 2019)

EXPENSES	QTY	PRICE	TOTAL
Cost of 5 Weeks NOILER DOC	24	495	11,880
Birds Transport Cost	24	27	648
Cost of Multi-Vitamin pack	1	900	900
Cost of NOILER grower feed-Males + females- 14 week@25g/b	37.8	120	4,536
Cost of NOILER grower feed for Females- 15 weeks to 20 WKS	12.6	120	1,512
Cost of NOILER LAYER feed for Females- 21 weeks to 76 Weeks	105.8	125	13,225
<b>TOTAL COST</b>			<b>32,701</b>
<b>INCOME</b>			
Income From Sale of 6 Males ( Self consumption-6)	6	2100	12,600
Sale of Egg. (1,740 eggs-870 self consumption)	870	26	22,620
Sale of Cull birds at the end of the laying cycle (Self consumption-5)	5	2575	12,875
<b>TOTAL INCOME/BATCH</b>			<b>48,095</b>
<b>NET PROFIT PER BATCH after self consumption</b>			<b>15,514</b>
<b>RETURNS/ NET PROFIT %</b>			<b>47%</b>





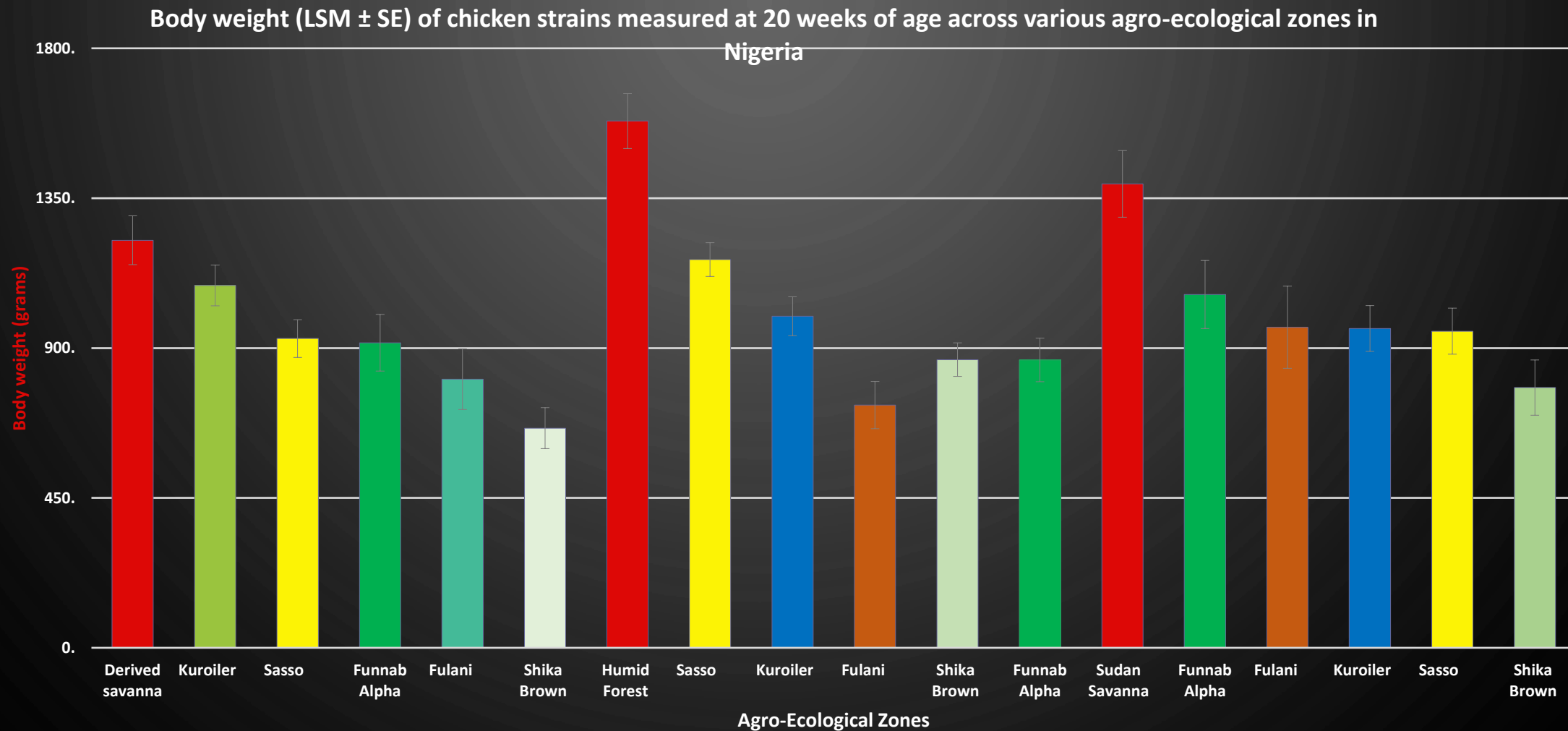
**IMPACT ON PROTEIN CONSUMPTION**  
**EAT 50% & SELL 50% (5 MEMBER FAMILY)**

<b>CONSUMPTION</b>	<b>PROTEIN/UNIT (G)-@8</b>	<b>TOTAL PROTEIN(G)</b>	<b>TOTAL PROTEIN/PERSON</b>
<b>6 MALES x 2.5 KG (live)</b>	<b>280/KILO</b>	<b>3,360</b>	
<b>5 SPENT LAYERS x 3.0 KG(live)</b>	<b>280/KILO</b>	<b>3,360</b>	
<b>870 EGGS</b>	<b>7GM/EGG</b>	<b>6,090</b>	
<b>TOTAL</b>		<b>12,810</b>	<b>49 g/Wk/Person</b>
			<b>7g/day/person</b>
<b>CURRENT PROTEIN CONS.AVER</b>			<b>13</b>
<b>TOTAL</b>			<b>20</b>
<b>RECOMMENDED PROTEIN</b>			<b>20g/day/head</b>

# NOILER IMPACT – EMPLOYMENT GENERATION

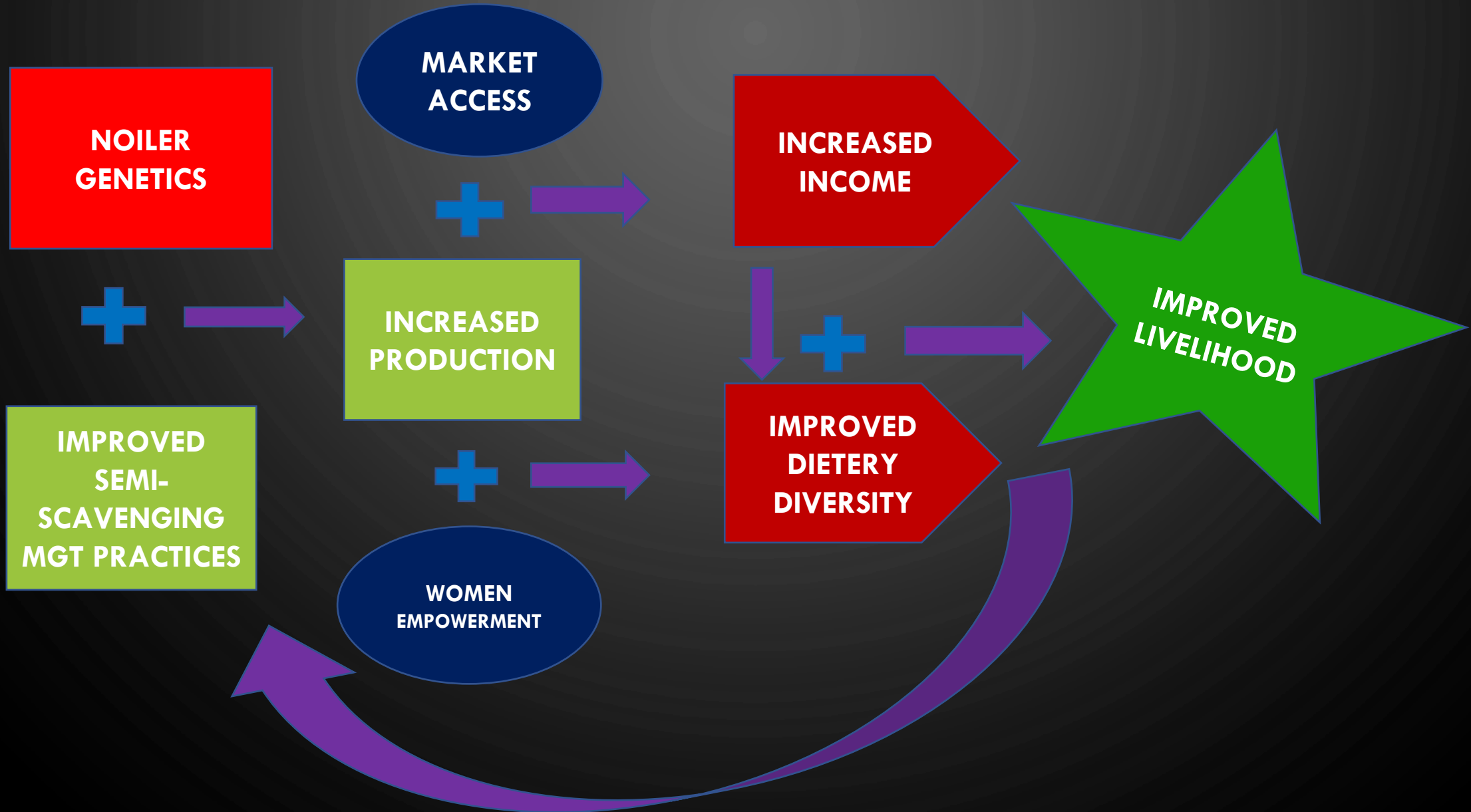


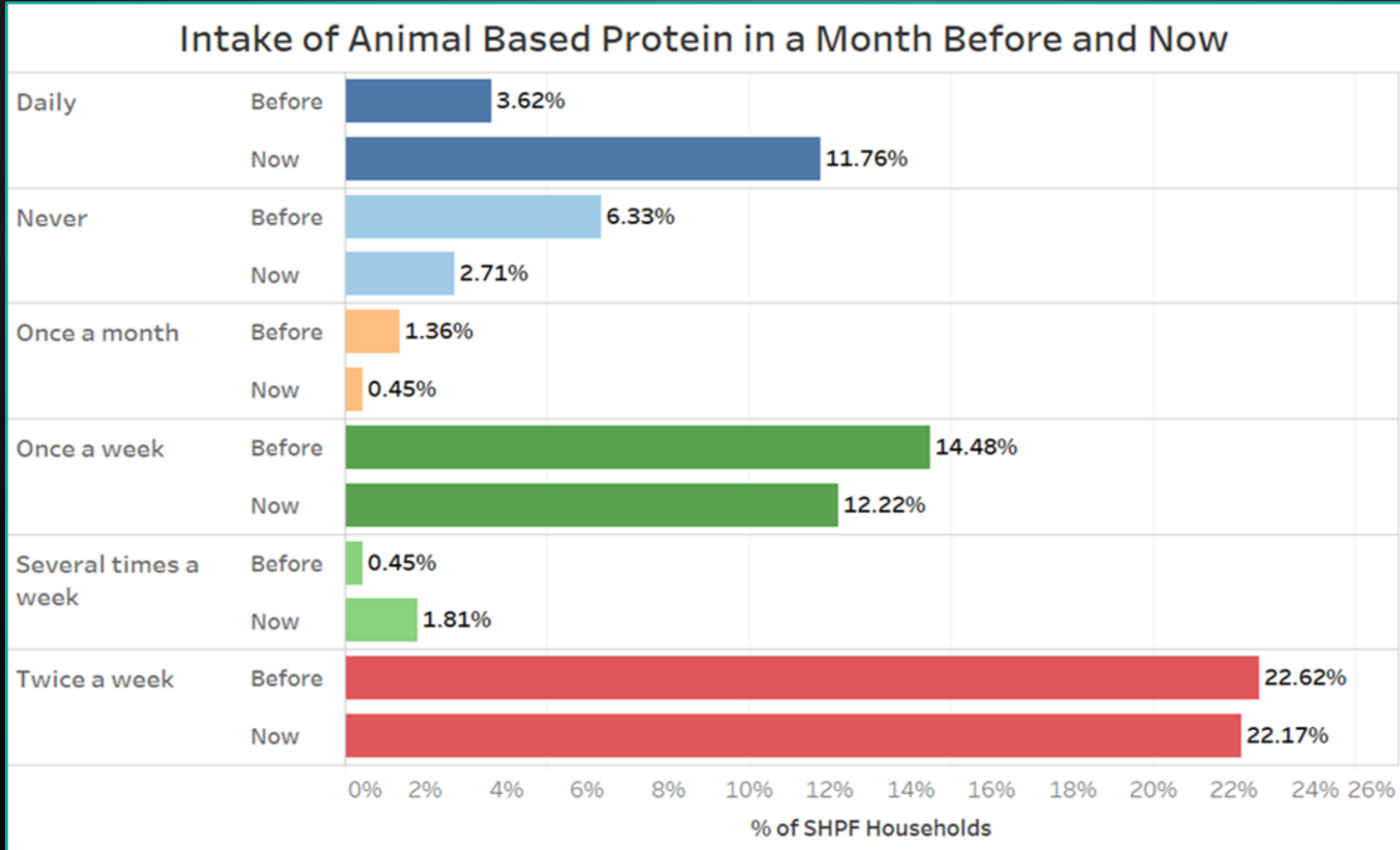
# BODY WEIGHT OF TEST STRAINS DIFFERENT AGROECOLOGICAL ZONE, NIGERIA (COURTESY : ILRI)



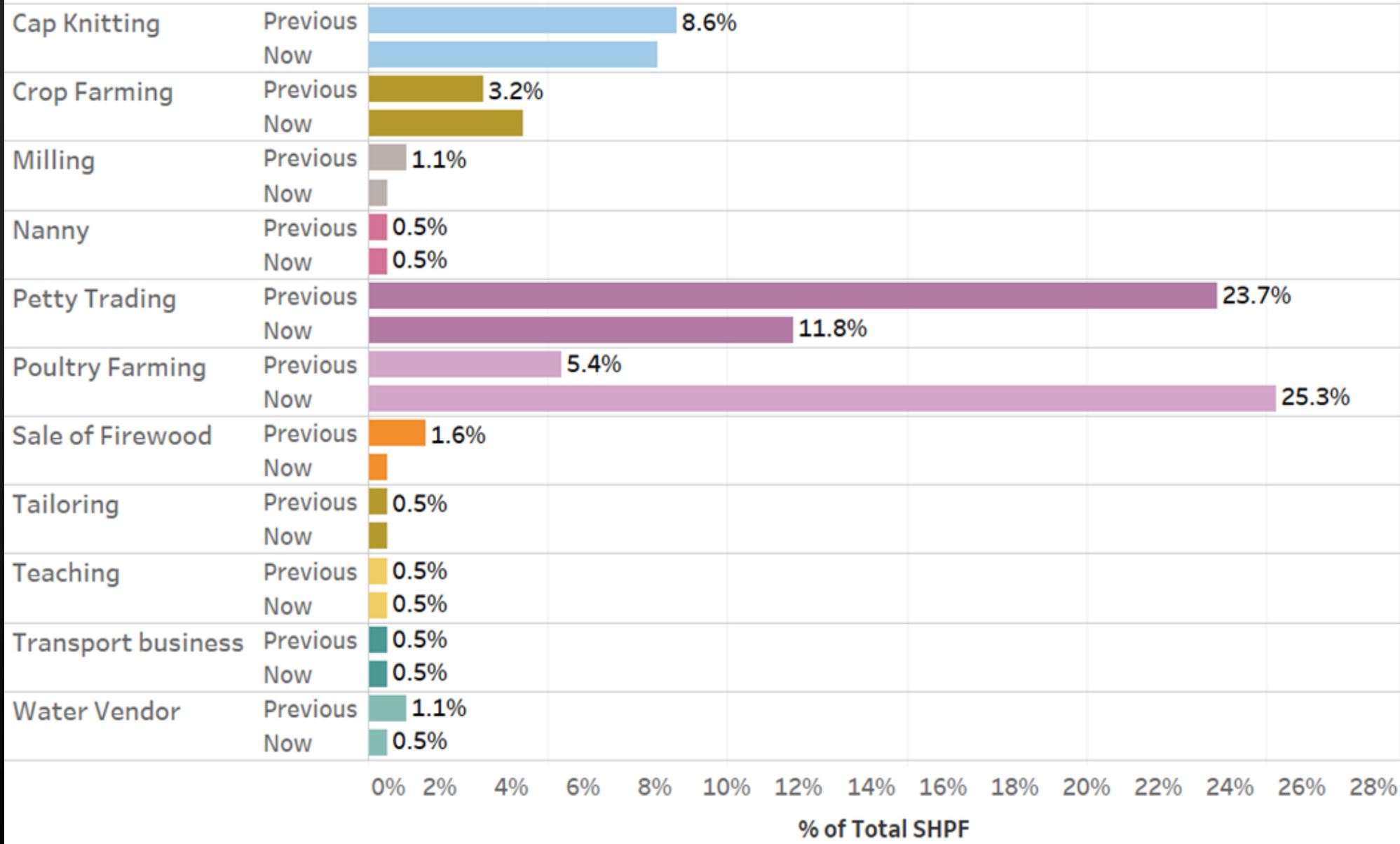


# THEORY OF CHANGE



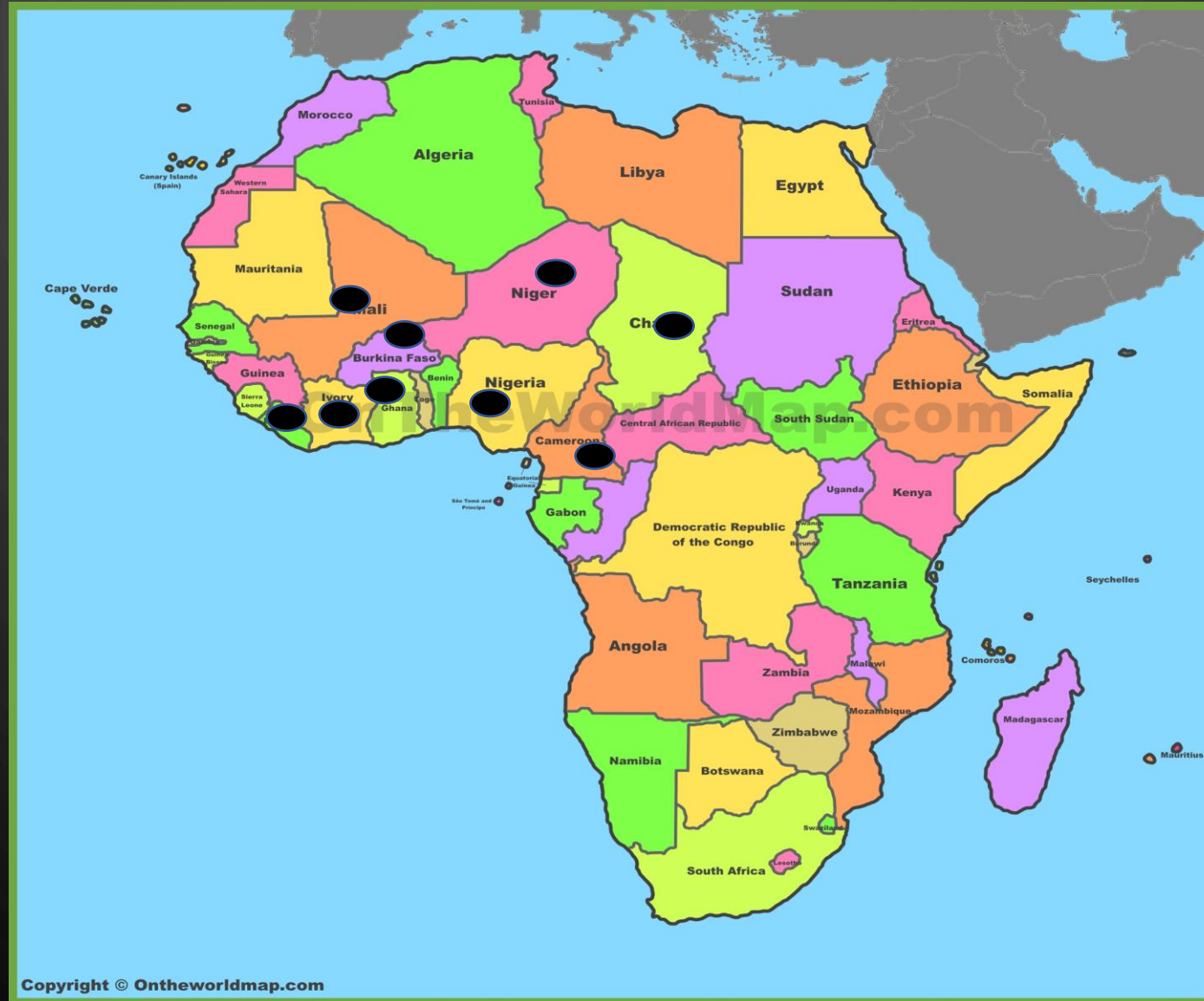


## Current and Previous IGAs (Income Generating Activity)



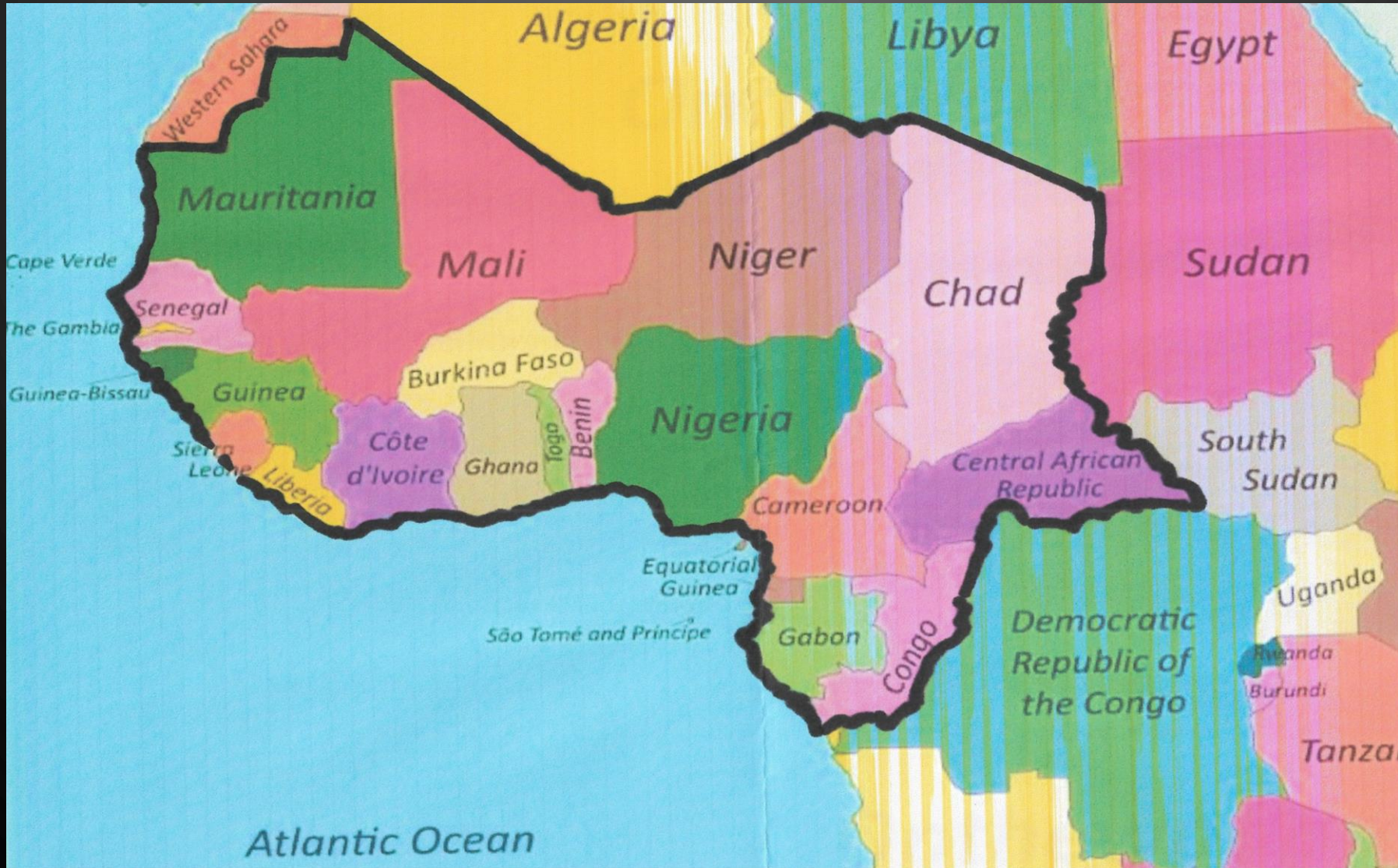


# NOILER'S CURRENT FOOTPRINT IN WEST AFRICA





# OUR DREAM



BusinessAgro

# How improved local poultry can tackle poverty, malnutrition

By Femi Ibiroga and Daniel Nnanna

18 April 2019 | 4:21 am



• Firm to empower households with 10 million Noiler birds

POLICY

# THE NOILER BIRDS INITIATIVE IS REDUCING RURAL POVERTY IN NIGERIA, ONE CHICKEN AT A TIME



In 2003, the National Demographic and Health Survey in Nigeria reported that 38 percent of children under 5 in the country had stunted growth, 29 percent

14 BUSINESS DAY AGRIBUSINESS

## Amo Farm alleviates rural poverty, tackles malnutrition with Noiler Bird Initiative

**Amo Farm** is alleviating rural poverty and tackling malnutrition in Nigeria's poorest states through its Noiler Bird Initiative. The initiative, which has been running since 2013, provides rural people with a high-yielding, disease-resistant, and easy-to-rear Noiler bird. The birds are known for their ability to produce up to 100 eggs per year, a significant improvement over the 20-30 eggs produced by traditional local breeds. This extra income allows rural families to improve their living standards and invest in their children's education and health.

The Noiler Bird Initiative is a social enterprise designed to ensure that the 50,000 Nigerian children who are malnourished have access to quality protein. The initiative is currently in its second phase, with a focus on expanding to more rural areas. The Noiler bird is a dual-purpose bird, providing both meat and eggs. It is easy to rear and has a high survival rate, making it an ideal choice for rural farmers. The initiative has already reached over 100,000 rural households across Nigeria, providing a sustainable source of income and nutrition for millions of people.

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### Popular Farms expands operation in Kano

Popular Farms, a leading agribusiness in Nigeria, has announced the expansion of its operations to Kano State. The company, which has been operating in Lagos and Oyo States, is investing in rice production and processing in Kano. The new facility will have a capacity of 50,000 metric tons per year and will create thousands of jobs for the local community. Popular Farms is committed to supporting the agricultural sector in Nigeria and improving the livelihoods of rural farmers. The company's expansion into Kano is a significant step towards achieving food security and economic growth in the region.

## Ayoola Oduntan: An innovative farmer solving Nigeria's malnutrition problem

MICHAEL ANI

**N**igeria has the second highest burden of stunted children in the world, with a national prevalence rate of 43.6 percent of children under the age of five, the United Nations Independent Children Education Fund (UNICEF), said in a 2018 Global Nutrition report.

In nominal terms, the report noted that an estimated 14.3 million children in Nigeria suffer from severe acute malnutrition (SAM), but only two out of every 10 children affected is currently reached with treatment while about seven percent of women of childbearing age also suffer from acute malnutrition.

This high rate of malnutrition according to the report, tends to pose significant public health and development challenges for the country. Stunting, in addition



compared Noiler birds with breeds from other initiatives across the world. The Noiler came tops, positioning as the number one dual-purpose bird in terms of performance.

Since the inception of the initiative in 2016 through the first quarter of 2019, the company has sold over 12 million of the Noiler birds. In 2018, it sold 6 million and this year it is targeting about 10 million of the birds, Oduntan said.

The firm has also partnered with various states governments in ensuring that more of the country's population benefit from the initiative. In 2017, the firm through the Noiler bird initiative partnered with the Edo state government to empower rural women in state.

Oduntan shares the school of thought that the success of a person is either limited or expanded by the success of those around them.

# NOILER STORY IN WEST AFRICAN SOCIAL & CELEBRITY MAGAZINE

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*...A Celebration of Africa*

**BREAKING NEWS**




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**GROUP MANAGING DIRECTOR**  
AMO BYNG NIGERIA LIMITED, AMO FARM SIEBERER HATCHERY LIMITED, DIVERSAY SOLUTIONS LIMITED, SEABLESS FISHING COMPANY, NATUUDO FOOD.

*Joins*

**DELE MOMODU ON INSTAGRAM LIVE**  
**THURSDAY MAY 14, 2020 2:00PM**

**AMO BYNG NIGERIA LIMITED:**  
 Produces livestock feed and concentrates with factories in the East (Aba, Abia State), North (Jos, Plateau State) and South (Awe, Oyo State) of Nigeria, with distributors and agents all over Nigeria.

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**BREAKING NEWS**

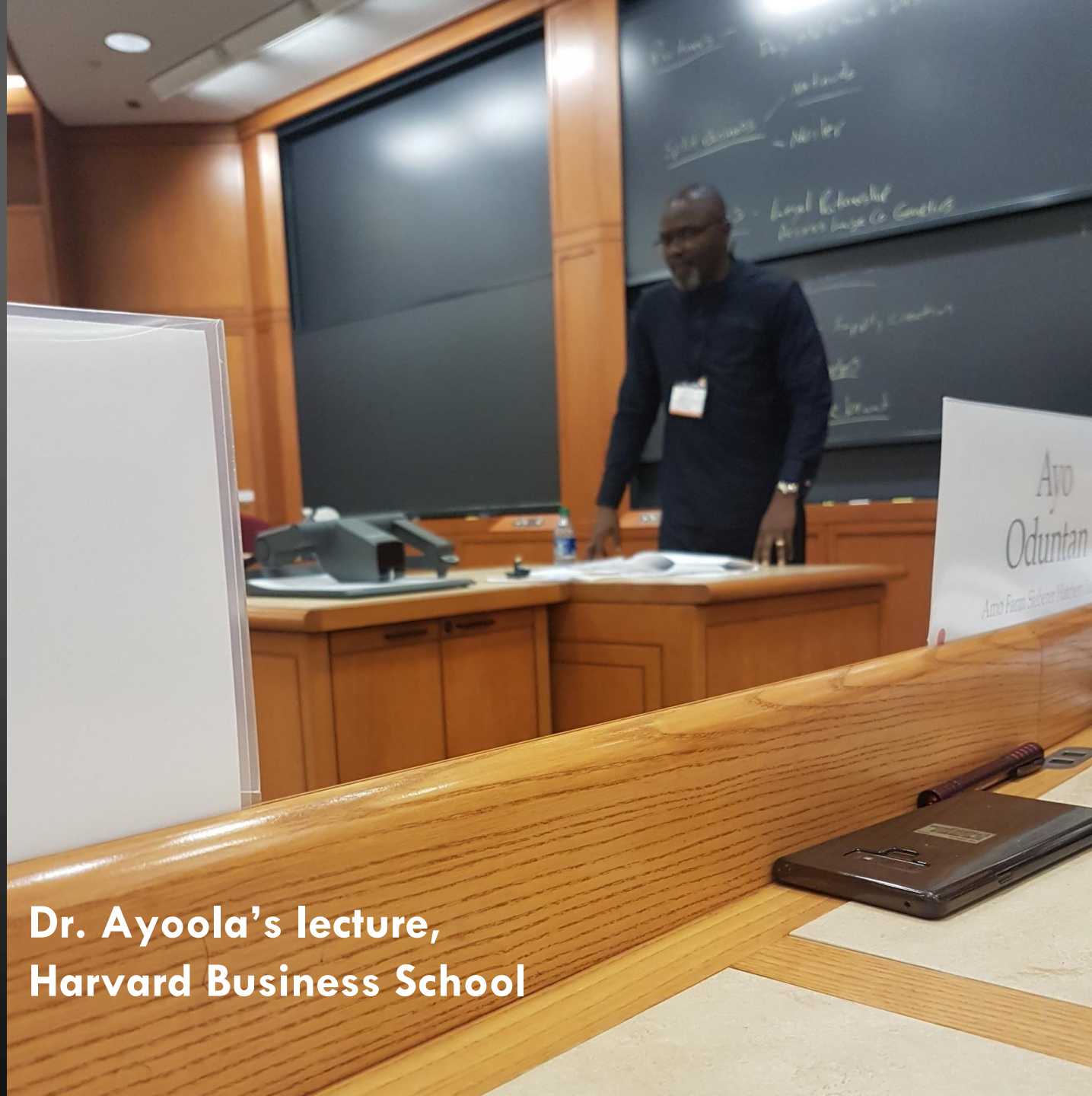



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**DIVERSAY SOLUTIONS LIMITED:**  
 Is a major supplier of animal health products, feed additives, equipment, disinfectants and provides laboratory services to the livestock industry. Diversay Consultancy design, build, operate, train and transfer poultry, cattle and fish turnkey projects all across Nigeria.



**Dr. Ayoola's lecture,  
Harvard Business School**



# Noiler



THANK YOU

