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## **Capability of Poultry Association of Nigeria for Extension Services Delivery to Poultry Farmers in Kwara State, Nigeria**

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### **Abstract**

*The findings revealed that 63.7% of the respondents were males within the age bracket of 40-50 years and were literate. Extension services delivery to poultry farmers by Kwara State Agricultural Development Project, government extension agency, was grossly inadequate to meet knowledge and skills required for cost-effective poultry production on account of high extension agent/farmers ratio. PAN in Kwara State has a meeting hall that is suitable for training and a chapter in 9 out of the existing 16 local government areas (LGAs.) of the State. About 20% of the respondents possessed university degree in livestock husbandry/veterinary sciences. Majority (72%) preferred keeping of layers to any other class of poultry. Similarly, 87.1% and 69.2% of the respondents accessed information on Poultry management techniques and marketing during in-house trainings and farm visits sponsored by PAN. The association financed the trainings through the annual dues and levies paid by members which showed the level of preparedness of members to pay for extension services. It was concluded that PAN has optimum human and material resources for extension services delivery to its members. The number of trainings and farm visits organized by the association could be improved upon if PAN accesses other sources of funding.*

**Key Words:** Human Resources, extension services, infrastructure, organization's structure, training and farm visits.

### **Introduction**

Poultry farming in Nigeria has become one of the most important aspects of farming for many reasons. It creates business opportunity for entrepreneurs and provides employment. The population of Nigeria's poultry is about 150.682 million, out of which 25% are commercially farmed, 15% semi-commercially and 60% in backyards or small scale (Onwualu, 2011). This shows that small scale poultry producers are responsible for the bulk of poultry production in Nigeria. Idachaba (2004) advocated a focus on small-scale farmers on the premises that policies targeting these farmers are likely to have a far-reaching impact on increased food production and income.

Farmers' organization provides a forum where small scale holders discuss common problems, pool efforts to promote peasants' welfare (International Federation of Agricultural Producers (IFAP), 1992). The activities also include: increase diversity of production with attendant economic returns, enhance greater loan recovery rates, and engender a sense of community development, encouraging problem sharing and friendship (Gubbels, 1993). Farmers' organizations also push feed-back up through the system and make it more client oriented. These have necessitated the producers' organizations in many parts of the world, especially in the last fifteen years, to begin to organize themselves to respond to the

challenges and risks resulting from the opening of the economies to international competition.

Poultry Association of Nigeria (PAN) was formed as one of agricultural commodity associations in Nigeria. The objectives were to establish an association for persons and organizations concerned with an interest in poultry farming; foster, expand production and improve the efficiency of poultry farming and industry; provide information to its members and public in general on matters pertaining to poultry by such means as publications, conferences, seminars, workshops and exhibitions; provide facilities for and engage in the study of any enquiry and research into poultry farming and publish the outcome through the appropriate media; monitor all legislative, administrative and fiscal measures; give members or employees all such assistance as is possible and desirable; establish and promote training courses, scholarship, grants, awards and prizes to encourage education in Poultry Sciences, farming and management etc.

Seasonal and poor shortage of feed, low breed quality, bad management practices and poor health, constitute limiting factors to rapid growth and development of poultry sub-sector. These problems are surmountable if the prevailing poor extension services to poultry farmers are adequately improved.

In Kwara State, there are three livestock officers both in the Ministry of Agriculture and Kwara Agricultural Development Project to formulate policies and implement livestock extension services (Ayanda et al., 2011). Thus, the dream of achieving self-sufficiency and security in livestock products in the nearest future will become a mirage. It is desirable to improve on the tempo of extension services as one of the strategies to increase poultry production. Sinkaiye (2005) equates help in extension to empowering all members of the farm households to ensure holistic development. Addressing the poor state of poultry extension services in Nigeria will be apt at this material time in order to improve skills and knowledge of poultry producers, increase their access to farm inputs and credit. These in turn can translate to sustainable growth of the industry, provide quality and affordable animal protein for the citizens, increase producers' income and thus help to alleviate poverty in Kwara State and the country at large. These necessitate this study.

### **Objectives of the study**

The objectives of the study were to: examine human and infrastructural resources of PAN suitable for extension services delivery to members in the study area, investigate sources of information on management techniques and marketing by members of PAN in Kwara State, examine assistance such as input, credit rendered by PAN to members in the study area, identify sources of funding extension services organized by PAN for members in Kwara State, investigate constraints affecting extension services of PAN in Kwara state.

### **Methodology**

#### **The Study Area**

The study was carried out in Kwara state, Nigeria. The state is located within the North Latitude  $11^{\circ} 2'$  and  $11^{\circ} 45'$ . It is sandwiched between longitudes  $2^{\circ} 45'$  and  $6^{\circ} 40'$  East of Greenwich Meridian. The state has a land area of 32,500 square kilometers (3,250,000 hectares) with a temperature range of between  $30^{\circ}\text{C}$  and  $35^{\circ}\text{C}$ . The population of Kwara State is 2.3 million people (NPC, 2006).

The target population for the study was the 220 members of Poultry Association of Nigeria (PAN) in the nine local government areas (LGAs) of Kwara State where PAN has its local branches. The LGAs included Asa, Ilorin East, Ilorin West, Ilorin South (Kwara Central);

Moro (Kwara North) ; Irepodun, Ifelodun, Oyun and Offa (Kwara South Senatorial District). The study used a two-stage random sampling technique. Stage one involved a random selection of six LGAs (that is 67% of the LGAs in which members of PAN were located in Kwara State). The six LGAs include Ilorin East, Ilorin South, Ilorin West, Irepodun, Oyun and Offa LGAs. The second stage involved a random selection of 2, 15, 30, 12, 14 and 15 members of PAN from the register of PAN in Ilorin East, Ilorin South, Ilorin West, Irepodun, Oyun and Offa LGA respectively based on the number of PAN members each LGA. Thus a total of 120 members of PAN were selected as respondents. Data were collected by means of structured interview schedule and analyzed with percentages, frequencies and tables. The personal characteristics of members of PAN such age was measured in years. Marital status was measured in terms of single, divorced/ separated, widowed, and married. Respondents were asked to tick as relevant to them. In the same vein, respondents were asked to state their gender by ticking the appropriate box for male or female. Similarly, respondents were asked to state the highest educational level attained by ticking one out of the alternative levels of education provided in the interview schedule. Available human resources were measured in number terms of respondents with tertiary educational qualification with livestock bias. While material resources were measured in terms of number of available training, chairs, chalk board, vehicle, power point device that are available to PAN for training and farm visits. Respondents were provided with various alternative sources of information such as radio, television, extension agents, poultry association, feed millers and to tick the channel(s) through which information on production and marketing were accessed. Likewise, respondents were asked to indicate quantity of farm inputs such as maize (bags/kilograms), fertilizer (bags/kilograms), vaccines (vials) et cetera accessed through the efforts of PAN

## ***Results and Discussion***

### **Socio-economic characteristics of members PAN**

The results (Table 1) revealed that majority (72.5%) of the respondents were in the age bracket of 41years and above with an average age of 45.45 years. Similarly, 63.7% were male while 67.5 % were married. This may have positive effects on the availability of family labour. Except 1.7% of the respondents, all other members of Poultry Association of Nigeria (PAN) were literate. This can have a positive effect on the adoption of new poultry production recommended practices. This agreed with Ekoja (2004) that significant difference exists among farmers in the adoption of innovations on account of educational qualifications. Furthermore 39.1% of the respondents started poultry keeping with less than 100 birds while 30% started with 101-200 birds. The average flock size was 176 birds. The finding shows that majority of the respondents started as small scale poultry producers. Initial poor understanding of management and health techniques and calculated risk management might be plausible reasons for the initial small flock size. It was also shown that at the time of the study 48.3% and 30.8% of the respondents kept 100-200 and 201-300 birds respectively. The average flock size was 368 birds (an increase of over 100% over the starting flock population), an indication that poultry keeping is profitable and that producers' skill and knowledge in poultry keeping is increasing. About half (52.5%) and 23.3% of the respondents are keeping layers and broilers respectively. Therefore, it was inferred that keeping layer is more profitable. The biological value of egg is higher and less costly (N600-800 per crate) than animal protein sourced from other livestock species such as goat, cattle and sheep which costs between N800-1,000 per kilogram.

**Table 1: Socio-economic characteristics of the members of PAN**

<b>Age (Years)</b>	<b>Percentage (n=120)</b>
≤30	10.0
31-40	17.5
41-50	40.8
51-60	22.5
61 and above	9.2
Average	
<b>Gender</b>	
Male	63.7
Female	36.3
<b>Marital Status</b>	
Single	12.5
Married	67.5
Divorced	4.2
Widowed	15.8
<b>Educational attainment:</b>	
No formal education	-
Adult education	1.4
Primary school education	17.9
Secondary school education	43.6
Tertiary education:	37.1
<b>Number of birds at the start of the business</b>	
≤100	39.1
101-200	30.0
201-300	17.5
301-400	9.2
401 and above	4.2
Average	
<b>Number of birds kept at present</b>	
100-300	48.3
301-500	30.8
501-700	11.7
701-900	5.8
901 and above	3.4
Average	
<b>Types/class of poultry being kept:</b>	
Layers	52.5
Broilers	23.3
Cockerels	9.2
Feed production	2.5
Marketing of feeds	5.0
Marketing of feed ingredients	3.3
Marketing of poultry products only	4.2

Source: Field survey, 2012

**Materials, human resources available to PAN and suitable for extension activities**

The result (Table 2) showed that 9.2% and 10.8% of the respondents were trained animal husbandry and veterinary scientists respectively. While 4.2%, 1.4%, 5%, 2.5%, 1.4% and 2.5% were specialists in general agriculture, business administration, public administration, nursing, home economics and accounting respectively. It was overt that Poultry Association of Nigeria (PAN) was endowed with abundant human resources capable of performing training functions such as in-house training and conduct of field trips. These are the conventional functions of the subject matter specialists under the states' Agricultural Development Project (ADPs). PAN has branches in more than half (56.25%) of the state. Thus PAN can have a fair coverage of members and other poultry producers for extension activities.

PAN in Kwara State also possessed 150 armed chairs, one (1) power point projector, 100 armed chairs, 5 training halls located in different LGAs, one (1) Toyota bus and 3 chalk boards among others. These are essentials for conduct of successful in-house trainings and farm visits to members and other poultry farmers in Kwara State. Members of PAN can serve effectively as contact farmers to other non members of PAN. These facilities can be used to bridge the gap created by inadequate extension agents for technical message delivery to poultry producers.

**Table 2: Human resources available to PAN for extension services activities in Kwara State**

<b>Human resources</b>	<b>Percentage n=120</b>
<b>Human Resources:</b>	
Tertiary Education Acquired:	
General Agriculture	4.2
Nursing	2.5
Engineering	1.4
Public Administration	5.0
Animal Science	9.2
Veterinary Medicine	10.8
Business Administration	1.4
Accounting	2.5
Home Economics	1.4
<b>Infrastructure</b>	
Existing Branches (chapters) of PAN in 16 Local Government Areas of Kwara State	56.25
<b>Materials:</b>	
Training hall	5
Power point device	-
Chairs	100
Chalk board	3
Sprayers	1
Vehicle (Toyota Bus)	1

Source: Field survey, 2012

### Training and Input Supply Activities Performed by PAN

Poultry Association of Nigeria in Kwara State assisted members to access farm inputs. The result of the study (Table 3) revealed that each PAN member accessed 4 bags (200 kilograms) of maize from the government through the efforts of PAN. Therefore, the maize received from the government was only adequate to produce four (4) bags (200 kilograms) of layers mash. This was adequate to feed 800 layers per day. Similarly, 4 bags of fertilizer (200 kilogrammes) were received from government by each member of PAN. This was optimum for 1 hectare of most arable crops.

In the same vein, PAN linked majority (89.2%) of members to Bank of Agriculture to obtain credit. Research-Extension-Farmers-Inputs-Linkage-System (REFILS) emphasizes information flow and input supply to agricultural producers. PAN's effort to assist members to access inputs and extension services point to the fact that commodity association can take over effectively some of functions of public extension organizations such as ADP. This in turn has potential to reduce government overhead on public extension services. The findings agree with Collins et al. (1998) that producer organizations assist members to secure inputs, credits et cetera. It is also an indication that PAN is capable of delivering similar services to its members with minimal support from the government. It was also revealed that 60.8%, 59.1% and 13.3% of the respondents benefited from farm visit, in-house training and workshop, respectively organized by PAN. Rapidly advancing poultry production technology requires continuing education of producers.

**Table 3: Training and input supply activities performed by PAN**

Extension Activities	Percentage	Remarks
Input Supply		
Maize(grains)	42.5	2 bags/member from KWSG
Fertilizer	100.0	2 bags/member from KWSG 2 bags/member from FGN
Pesticides	54.2	5 litres/member through Avian Influenza
Vaccines	72.5	Purchased as a group from MANR
Linked with Credit	89.2	Loan obtained as a group from BOA
Farm Visit	60.8	
In-House training	59.1	
Workshop	13.3	

Source: Field survey, 2012

### Information sources on production techniques and marketing services

Majority (87.1%) and 69.2% of PAN members in Kwara State became aware of recommended poultry production practices and marketing outlets respectively through Poultry Association of Nigeria (Table 4). It was 24.1% and 20.8% of respondents that acquired information through feed millers and radio respectively. A small proportion (10.8%) of respondents received production recommendations from extension agents. It was also shown that 22.5% and 26.7% accessed information on production and marketing through feed millers and radio respectively. In the same vein 11.7% of PAN members accessed information on marketing outlets through extension agents. This confirms the finding of Agbamu (2005) that there are inadequate extension agents to cover large population of farmers in all the sub-sectors of agriculture in Nigeria.

Since PAN members relied on the association for production and marketing information, the association has the potential to bridge the gap of information dissemination to poultry producers created by inefficiency of public extension system such as the Agricultural Development Project. Therefore, if donors and government alike concentrate their material and financial supports on commodity association such as PAN, there is bound to be tremendous improvement in extension services in poultry subsector of agriculture with attendant increase in farm output, producers' income, gainful employment and poverty reduction.

**Table 4: Percentage use of information sources on production techniques and marketing services**

Information sources	Production Techniques	Marketing outlets
	Yes	Yes
Radio	20.8	26.7
Television	10	10.8
Extension agents	10.8	11.7
Family friends	19.2	42.5
Poultry association	24.1	69.2
Feed millers	22.5	22.5
Poultry marketers		55.8

Source: Field survey, 2012

**Sources of fund for in-house training, farm and home visits and result demonstration organized by PAN**

The result (Table 5) showed that more than half (65%) of respondents paid annual due used to implement extension activities of PAN. Other sources include levy (37.5%), Voluntary Donation (14.2%) and Poultry Production Companies (8.3%). The fund is used to sponsor extension activities of the association. The solace is that respondents are prepared to pay for extension services. This is a potential source of relief to government financial commitment to extension services to poultry producers in Kwara State and Nigeria at large. Low level of financial contribution by members limits the scope of extension services delivery by PAN to about half of its members.

**Table 5: Sources of fund for in-house training, farm and home visits and workshop organized by PAN**

Sources of Fund	Percentage n=120
Payment of annual dues	65
Levy	37.5
Donations from members	14.2
Donations from poultry production companies	8.3
Sponsored for workshop within the country	4.2
Sponsorship for workshop outside the country	1.7

Source: Field survey, 2012

### Constraints to extension services programmes of PAN

It was revealed that the major constraint was inadequate vehicular transport (4.75). (Table 6). This was followed by insufficient subject matter specialist (4.5) and inadequate training material (3.9). Inadequate funding explained inadequate coverage of members during farm visits by volunteered subject matter specialists within the rank of the association. Thus, critical areas of support by the government or other donors would be transport and funding. Therefore, if the commodity associations such as PAN are focused, extension services will improve with minimal contribution of overheads (vehicle, training facilities) from the governments.

**Table 6: Constraints to Extension Services programmes**

Constraint	Mean
Funding is a limiting factor	4.5
Subject Matter Specialists were insufficient	4.5
Training materials were inadequate	3.9
Poor vehicular Transport owned by Pan was insufficient	4.75

Source: Field survey, 2012

### Conclusion and Recommendation

Based on the empirical data from the study it was concluded that Poultry Association of Nigeria (PAN), Kwara State Chapter has the resources to provide extension services to its members. Similarly, PAN extension outfit has the potential to reduce government budgetary overhead for public extension organization more so that government resources and expenditure on public extension organization is dwindling.

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