

CROP-LIVESTOCK INTEGRATION: THE ENSUING CONFLICTS AND RESOLUTION STRATEGIES AMONG RURAL DWELLERS IN OGUN STATE, NIGERIA

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ABSTRACT

Crop and livestock production constitute main economies of the rural households with most of them cultivating arable crops and rearing small farm animals for both consumption and marketing. It is however chagrin to observe that the small farm animals are conflict-laden owing to their behavioural instincts and free range management system in the rural areas. Interaction with the rural dwellers in the study area through the use of interview guide and field observation showed that the small farm animals infringe on social and economic rights of the rural dwellers in terms of grazing the cultivated farms, feeding on or soiling of agro-produce undergoing processing, littering of the environment with faeces by sheep and goats; scattering of cultivated heaps or mounds in search of food, feeding on emerging seedlings, overturning and soiling of processed foods by local chickens. The ensuing conflicts in this regard often take the form of inter-personal, inter-family and community-to-person conflict. For resolution of the conflicts, statistical test of the study hypotheses showed that restraint of the farm animals from roaming about and siting of farms away from the villages had mutual acceptability among the rural dwellers. It was concluded that the rearing of small farm animals on free range constitute a conflict potential at the micro level of the rural areas; and was recommended that the small farm animal should be kept under intensive or semi-intensive management system.

Keywords : Crop Cultivation, Small Farm Animals, Conflict Ensuing Behaviours, Conflict Action, Communal Resolution Strategies.

Introduction

The rural economy is largely dominated by agriculture, with the farm families engaging in crop cultivation and farm animal rearing for satisfaction of their livelihood needs. Crop enterprise production, which range across arable or food crops such as maize, cassava, yam, rice,

spices and vegetables however dominate the farm enterprise production among the rural farmers. Common production of these crops by farmers of Ogun State cannot be unconnected with the fact that these crops constitute the staple food for most households in the State and generally in southern part of the country Nigeria

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(Lawal-Adebawale & Oyegbami, 2004). On this account, arable crops have a ready market acceptability thereby forming the thrust of the rural farmers' income generation among all other farm enterprises. World Bank, 2000; Roessler, Drucker, Scarpa, Markemann Lemke, Thuy & Valle-Zárate, 2007). Alongside crop production by farmers in Ogun State is livestock rearing, with some of them keeping farm animals such as sheep, goats and chicken, either alongside crop production or other off-farm and non-farm economic endeavours (Oluwatayo & Oluwatayo, 2012). The farm animals, which are usually kept in small numbers by the farmers, often serve as meat or animal protein source for the farm households and occasionally as sources of income generation to the farmers (Coppock et al, 2006). This livelihood sustenance potential of both crop and animal production thus underscores the importance of integration of both farm enterprises by rural farmers, not only in Ogun State, but across the developing countries of the world.

Emphasising the value of crop and livestock integration to the rural farmers, Lungu (n.d.) indicated that small scale farmers often integrate crop and livestock production purposively such that the farm animals provide manure for the cultivated crops and the crops provide residue for consumption of the farm animals, especially during the dry season. The animal manure, as indicated by de Haan, Steinfeld and Blackburn (1997), improves soil fertility, increases soil nutrients and soil water holding capacity, and improves soil structure. In addition, the crop-livestock integration allows for

diversification of risks, using labour more efficiently, recycling wastes thus preventing nutrient losses, adding value to crops and crop products while providing cash for purchasing farm inputs. Despite the attendant values of crop and livestock production, it is chagrin to note that these two farm enterprises are becoming a source of conflict among the rural families, particularly due to incursion and encroachment of the farming environment and household surroundings. In view of this, it becomes essential to assess the small farm animal behaviours underlying the emerging conflicts among the rural farmers in Ogun State. To achieve this, the following objectives serve as guide.

- Describe the socio-economic characteristics of the rural farmers
- Identify the conflict-laden small farm animals among the rural dwellers
- Examine the conflict ensuing behaviour of the small farm animals
- Ascertain the form of emerging conflicts in the rural social system
- Identify the employed resolution strategy for sustained peaceful coexistence in the study area

Methodology

Study Hypotheses

- H₀₁: There is no significant association between the ensued farm animal conflict behaviours and the form of taken conflict by the rural dwellers

H₀₂: There is no association between the forms of the emerging conflicts and the instituted resolution strategies among the rural dwellers

H₀₃: There are no equal attributions to the instituted conflict resolution strategies by the rural dwellers

Theoretical Framework of the Study: Conflict though has become an ingrained social behaviour in human relations with one another, postulated theories of conflict has taken different dimensions depending on the perspective from which individual conflict theorist took the concept. According to the New World Encyclopedia (2008), conflict theory from sociology perspective was originally conceived as a functional approach to achieving organisational goals. In this regard, the theory states that society or an organisation functions based on individual participation and struggles to maximise their benefits and in turn inevitably contributes to social change such as political changes and revolutions. Most other perspectives however reflected the conflict theory from cynical angle of human relations, thereby refuting the functional approach. As indicated by the Ekong (2003); New World Encyclopedia (2008), conflict theory is mostly applied to explain conflict between social classes, proletariat versus bourgeoisie; and in ideologies, such as capitalism versus socialism. These conceptions thus portray conflict as human struggle against one another either for survival or control of the existing situation or protection of one's or groups' interest. In this respect was Jeong (2000) indication that

conflict entails a struggle between two or more interacting people over values and claims to status, power and resources which may result in injury and/or elimination of their rivals. Consequently, conflict had widely expressed in terms of full blown wars on global scale, violence demonstration and physical combat between individuals and groups.

Notwithstanding the conception of conflict as hostility and violent clashes, conflict is not necessarily and of course not limited to physical confrontation. As indicated by Barash and Webel (2002), conflict also connotes differences in perception and ideologies in relation to certain issue of concern or situation particularly between individuals. In essence, conflict technically means an existing state of disconnect between two or more parties on a prevailing issue. Rossel and Collins (2001) reflected such disconnect or misunderstanding between individuals as micro conflict theory. Such micro-level conflict, as indicated by Collins (1990), is grounded in the interactions of everyday life. In the light of this was Nicholson (1992) reflection of conflict as an existing state of disagreement between two or more people which often arose as result of misunderstanding, perceived maltreatment or oppression by one of two of the interacting parties. In other words, it is a form of social relation whereby two or more interacting parties could not strike a discord on certain issue of concern or interest. Emphasising the context of micro-level, Ragle (2007) expresses that conflict could arise whenever people, be it close friends, family members, co-workers, or romantic partners, disagree about their perceptions, desires, ideas,

or values. Such difference may range from the trivial, such as who last took out the garbage, to a more significant disagreement on fundamental issues of beliefs and concerns thereby erupting strong feelings between the concerned parties.

Against the backdrop of micro level conflict is concentration of most literature on emerging or full blown struggle and hostility form of conflict in human society, particularly the conflicts that are politically, ethnically and religiously underlain (Shinar, 2003; Bassey, 2007; Oladoyin, 2001; Asiyanbola 2010; Blench, 2010; Oyeniyi, 2011). Such focus cannot be unconnected with the intense degree of bloodshed, destruction of lives and properties. This condition equally accounted for extensive report or research work on pastoralists-farmer conflicts in the agricultural sector (Breusers & Nederlof, 1998; Oksen, 2000). This is however not the case with the micro level conflicts, particularly among the rural system whereby people contend with each other as a result of infringements against a person or the other by the small farms left on free range. Although, the micro level conflict had not really resulted in wanton destruction of lives and properties, as it were in the context of pastoralist-farmer conflict, it rather ensues a state of prolonged individual or communal disputes usually arising from infringements caused by roaming small farm animals. In this way, the study sets out to investigate the emerging conflicts as a result of small farm animal behaviours among the rural farm families. This study technically differs from the farmer-pastoralist conflict in the sense that

the pastoralists often lead their animals to graze all over the place, particularly outside their place of resident, while the small farm animals and the owners are based within the same community. Although, hardly do the small farm animal behaviours result in violent clashes, it certainly brings about infringement, discomfort and inconvenience in the rural social system. Based on this, the outcome of the study will create the platform for up-built of the existing conflict theories, particularly at the micro level, in a new dimension of animal induced conflicts in human relations.

Study Area: The study was conducted in Ogun State. The State, located in southwest part of Nigeria, has a land area of about 16409.26 square kilometre. The State is bounded in the north by Kwara and Oyo States, in the east by Osun and Edo States, bounded in the south by Lagos State and the Atlantic Ocean, and in the west by Republic of Benin. The State is structured into 20 Local Government Areas (LGAs) for political administration and four ethnic divisions, namely Remo, Ijebu, Yewa and Egba, for socio-cultural cognition and representation in all spheres of the State administration. Ecologically, the State largely falls in the rainforest zone and partly in the savannah zone. The State is generally characterised by average rainfall of 1300mm, temperature of about 28C and humidity of about 78 per cent.

Economic activities in the State ranged across farm, off-farm and non-farm occupations. While the non-farm occupations such as merchandising, civil service, banking and

educational services, is largely concentrated in the urban areas of the State, particularly the State Capital – Abeokuta – farm and off-farm occupations are largely concentrated in the rural areas. Commonly cultivated food crops in the State include cassava, maize, yam, cocoyam, rice, spices and vegetables. Others are tree crops such as kolanut, cocoa, citrus, mango and oil palm; and pomological crops like pineapple and pawpaw. Farm animals readily found in the State among the livestock farmers include cattle, sheep, goats, chicken and pig.

Coordination and administration of agricultural activities in the State is carried out by the State Ministry of Agriculture and extension activities by Ogun State Agricultural Development Programme (OGADEV). In order to reach out to the rural farmers across the State, the entire State is structured into four agricultural zones, namely Abeokuta, Ilaro, Ijebu and Ikenne. Officially adopted extension practice is the Training and Visit (T & V) system. This is however practised with modifications such that it takes the form of Farmer Field School (FFS), On-farm trials and field/result demonstration. The rural areas in the State are generally characterised by development of social amenities with farming as the dominant occupation of the rural dwellers.

Study Domain: Based on regular visit to certain villages in Abeokuta zone of OGADEV for extension outreach, rural communities such as Ilugun, Kila, Alabata, Itoko-Ajegunle, Araromi and Bampopa were selected as the study domain. The communities were typically characterised by little or no social amenities and basic

infrastructure such as good roads, schools, hospitals, pipe borne water. While certain facilities such as electricity, schools and health centres may be available to the villages that were closer to highways– inter-State roads; the interior villages lacked these provision and as such had to visit the nearby communities with such provisions to access to the amenities. Houses in the surveyed areas were largely constructed with mud, but some of the rural dwellers had the buildings plastered with cement/mortar as way to modernise the houses.

Sampling Procedure: Although all individuals who reside in rural areas constitute the study population, the study lacks sampling frame on the ground that no official documentation of the total number of individuals residing in the surveyed rural communities was available for use. In view of this, saturated point selection method, which is a non-probability sampling technique proposed by Glassier and Straus (1968) and adapted by Idowu (1988), was used for selection of as many individuals that readily gave out the time to respond and interact with the researcher. The sampled rural dwellers by this method across the selected rural communities thus amounted to 173. This approach, which is similar to trickle-down sampling technique by Bailey (1987), technically differs from convenient or accidental sampling technique in the sense that the sampling technique was not based just on available individuals or those that a researcher may come by, but by careful search of rural dwellers who had actually experienced one form of livestock ensued-conflict or the other. Identification of such individuals was ascertained

by preliminary and informal interactions with the rural dwellers over a period of three months.

Data Collection: Primary data for the study were collected by means of interview guide, field observation and iterative discussion. Collected data were on the socio-economic characteristics of the rural farmers, the commonly reared small farm animals, the conflict-ensuing behaviour of the reared small farm animals, forms of emerging conflicts in the rural social system and the employed resolution strategy for sustained peaceful coexistence in the study area.

Data Analysis: Collected data were subjected to both descriptive and inferential statistics. The descriptive statistics took the form of frequency count and percentages; while the inferential statistics took the form of categorical regression (for H_{01}), Kruskal-Wallis (for H_{02}), Cochran Q and Kendall's W tests (for H_{03}). These inferential statistical tools were found appropriate given that the study variables were measured at nominal level. Under the categorical regression test, which allows for cross tabulation of a dependent variable against one or more independent variables measured by categorisation or nominal level, was cross tabulations of the forms of conflicts against the varying conflict-laden behaviours of the small farm animals kept on free range in the study area. The Kruskal-Wallis test, which allows for correlation test of multiple independent variables with an independent variable, was done by cross tabulating the forms of conflicts with the instituted resolution strategies with a view to establishing whether a particular form of manifest conflict is directly related to a taken resolution

strategy or not among the rural dwellers. The Cochran Q and Kendall's W tests, which allow for ascertaining the test of variation in the mean rank of variables measured by categorisation (nominal level), was applied with a view to ascertaining the degree to which a particular resolution strategies, among all the instituted ones, is well acceptable to a larger proportion of the rural dwellers.

Result and Discussion

Socio-economic Characteristics of the Surveyed Rural Dwellers: Table 1 shows that 54.9 per cent of the respondents were female; 41.0 per cent of them fall within the age range of 41 and 50 years with mean age of 47.2 years. As much as 42.2 per cent of the surveyed rural dwellers practised Islam as religion; more than half (59.5 per cent) of them had between primary and secondary school education; 56.7 per cent of them practised farming as major occupation; 73.4 per cent were married with 50.8 per cent having between 6 and 7 persons as household members. The observed result suggests that demography of the surveyed rural communities comprises the male and female, adolescents, youth and older ones. The mean age of the surveyed rural dwellers however suggests that they are relatively younger with vigour for farming activities. Although they are all engaged in crop cultivation and animal rearing, field observation shows that crop production outweighs animal farming. This cannot be unconnected with the fact that related crop produce constitutes the staple food of most households and had a high market value in the study area.

Table 1: Socio-economic Characteristics of the Surveyed Rural Dwellers (N = 173)

Variable	Freq	%
Sex		
Male	78	45.1
Female	95	54.9
Age		
< 30	37	21.4
31 – 40	42	24.3
41 – 50	71	41.0
> 51	23	13.3
Religion		
Christianity	62	35.8
Islam	73	42.2
Traditionalist	38	22.0
Education		
No formal schooling	70	40.5
Primary school education	78	45.1
Secondary school education	25	14.4
Major occupation		
Farming	98	56.7
On-farm	16	9.2
Non-farm	59	34.1
Marital status		
Married	127	73.4
Single	46	26.6
Household size		
< 5	49	28.3
6 – 7	88	50.8
8 – 9	25	14.5
> 10	11	6.4

Socially, the surveyed rural dwellers are engaged in one form of religion or the other arising from the need to have their spiritual quests satisfied. In addition to this was acquisition of basic education – primary and secondary education; which made the surveyed rural dwellers

enlightened with a measure of reading and writing skills. Observation of a relatively large family size among the rural dwellers was though a function of the cultural trait of the area, the practice was underscored by the need for each of the households to have more hands on any

task to be executed both at farm and household levels.

Conflict-Laden Small Farm Animals and Their Conflict Ensuing Behaviours Among the Rural Dwellers: Table 2 shows the types of farm animals that are characterised by conflict-laden behaviours among the surveyed rural dwellers. Of all the listed farm animals, chicken were largely indicated by 98.3 per cent of the rural dwellers as conflict-laden animal with 56.1 per cent and 34.1 per cent of the respondents indicating goats and sheep as inclusive. Pig was the least indicated by 10.4 per cent of the respondents. A common denominator that makes these farm animals as conflict-laden is because they are reared on free range management system whereby the animals roam about the communities to fend for themselves. In this way, the animals readily encroach on the rights of residents in the neighbourhood thereby resulting in conflicts with owners of the animals. The conflict-ensuing behaviours of the animals, as indicated by the rural dwellers include grazing of cultivated crops (38.7 per cent), feeding on processed farm produce (68.8 per cent), contamination or soiling of farm produce undergoing processing by sun drying (69.9 per cent) and turning over of foods or farm produce (41.6 per cent). Other conflict-ensuing issues include littering of refuse bin and dumps (65.3 per cent), defecating in and around the compounds and night blaring (41.6 per cent) by the animals.

Field interactions with the rural dwellers on the conflict-ensuing behaviours of the farm animals revealed that animals such as sheep and goats sometimes strayed into the farms and grazed the cultivated crops. In addition to this, the small ruminants feed on processed crops or crops undergoing processing and as such, had the farm produce contaminated. In addition to these was indication of chicken's disruption of the growth of the freshly sprouting and germinating seedlings of maize and cowpea by feeding on them. On the same note was indication of the destructive feeding habits of pigs whereby they root out tuber crops with their snouts for feeding. The resultant effect of these farm animal behaviours was reduction of crop yield from the farms and consequently loss of revenue. These behavioural actions of the small farm animals constitute an infringement on the social and economic status of the concerned rural dwellers and as such form the basis for conflict within the rural social system. In line with Ragle (2007) submission that conflict arouses strong feelings irrespective of the substance of disagreement between two or more parties, it suggests that infringement on a substance of value - farm and farm produce, to the concerned members of the rural communities could make the affected person(s) feel hurt and angry which in turn may lead to aggression.

Table 2: Conflict-laden Small Farm Animals and Their Conflict Ensuing Behaviours Among the Rural Dwellers (N = 173)

Variable	Freq	%
Conflict laden small farm animals*		
Sheep	59	34.1
Goats	97	56.1
Chicken	170	98.3
Pigs	18	10.4
Conflict ensuing behaviours*		
Grazing of cultivated crops	67	38.7
Feeding on processed farm produce	119	68.8
Soiling/contamination of spread products	121	69.9
Littering of refuse dumps	113	65.3
Defecating in and around the communities	169	97.7
Turning over of food products	41	23.7
Night blaring	72	41.6

*Multiple responses

On another note were environmental related conflict-ensuing behaviours of chicken and pigs whereby both animals regularly spread refuse bins and dumps arising from their lifestyle or way of searching for food. In this way, the birds naturally spread the soil or any other materials with their legs in search of food while the pigs used their snouts to root out the dumps in search of what to feed on. The resultant effect of these behavioural actions, as expressed by the surveyed rural dwellers, was that the environment becomes unkempt. A similar environmental issue brought about by all the indicated farm animals as a result of roaming freely was defecation in and around houses in the communities. As opined by the rural dwellers, such defecations not only dirty the environment, but contaminate food, farm produce undergoing processing by sun

drying, and sometimes the stored water for drinking. Another observation in relation to the small ruminants is blaring at night thereby disturbing and/or disrupting someone's sleep in the night. The blaring, as expressed by the surveyed respondents, is often brought about by the animals' search for another or in attempt to mate one another. This observation is similar to Meadows (1995); Gish (2005) indication that livestock, though dependent on management of the animals, affects the quality of societal living as they could readily contaminate and degrade the environmental resources.

Emerging Forms of Conflicts and Resolution Strategies Among the Rural Dwellers: Arising from the instinct of the farm animals and the employed free range system for their management is the emergence of conflicts

between the owners of the farm animals and those whose rights have been infringed upon by the kept animals. As indicated in Table 3, the emerging conflicts took the form of inter-personal, inter-family and personal-communal conflicts among the surveyed rural dwellers. Inter-personal conflict, as described by Folarin (n.d.), is a man against man scenario whereby one intends to express his hurtful feelings against the other person for infringing his right. It could as well imply a contest or struggle between two persons in an attempt to express one's annoyance by the offended against the offender on an issue(s) that cannot be readily foregone by the offended person possibly due to consideration of such issue as painful or annoying infringement. In this way, 83.8 per cent of the surveyed rural dwellers indicated personal expression of anger against owners of the farm animals that might destroy, damage or contaminate their farm or farm

produce; or litter their environments. Such expression of anger however hardly takes the form of physical fight but often takes the form of verbal utterances and yelling. Sometimes, the conflict takes the form of inter-family struggle (12.1 per cent) whereby other family members of each of the two contending individuals joined issues by taking sides with their relations. In addition to these two forms of conflict is personal-communal conflict (56.1 per cent) which Morell (2009) referred to as a type of conflict in which a person stands against man-made institution or practices. In the light of this, an offended individual in the study area involved the local leadership in taking action against the other person whose animal(s) might have infringed on the social and economic rights of the other person. In this way, the owner of the conflict-causing animal(s) is perceived to have gone against the community regulations guiding the management of farm animals.

Table 3: Emerging Forms of Conflicts and Resolution Strategies Among the Rural Dwellers (N = 173)

Variable	Freq	%
Form of emerging conflicts		
Inter-personal conflict	145	83.8
Inter-family conflict	21	12.1
Personal-communal conflict	97	56.1
Undertaken conflict resolution strategies		
Compensation for damages	23	13.3
Restraining the animal movement	173	100.0
Killing/maiming of the animals	62	35.8
Prohibition of animal rearing	44	25.4
Farming away from the village	131	75.7
Finding alternative spreading outlets	21	12.1

In view of the emerging conflict is the need for resolution for the purpose of ensuring peaceful coexistence of the farmers and those rearing farm animals among them in the rural communities (Rothchild, 1997; Blench, 2010). Consequently, a number of conflict resolution strategies were observed among the rural surveyed rural dwellers. Table 3 shows that all the respondents called for restraint of the animals by owners as the major strategy that could readily stop or prevent any form of conflict among members of the communities. This is premised on the fact that the restraint animals, either by tethering or housing, certainly prevents the animals from moving about and as such would in no way strayed into the farms for grazing, contaminates foods and farm produce undergoing processing, litters the environment with faeces or refuse. Alternative to restraint of the farm animals was locating cultivated farms far away from the residential areas (75.7 per cent) where most of the farm animals were equally kept. This action is meant to prevent the farms from being destroyed or grazed by farm animals such as sheep and goats. About a quarter of the respondents (25.4 per cent) however called for prohibitions of animal rearing in the area. Most of the rural dwellers were however skeptical about this strategy as they considered rearing of farm animals as very essential to their livelihood.

Other observed resolution strategies among the surveyed rural dwellers included seeking alternative locations for spreading or sun drying of farm produce undergoing processing (12.1 per cent) as a way to prevent the animals from contaminating the farm produce

undergoing sun drying. In this context, some of the rural dwellers indicated spreading of the farm produce to be sun dried on rocky mountains or raised platforms. Compensation for the damage or destruction caused by the freely moving farm animals were indicated by 23.1 per cent of the respondents. Quite a number of the farmers however do not find this strategy acceptable on the ground that the given compensation is often far below the incurred losses from the destruction made by the animals. Consequently, some of the rural dwellers (35.8 per cent) rather took the option of either killing or maiming of the farm animals that might infringe on their social and economic endeavours. This action is however believed to fern the ember of fire as the owners of the killed or maimed animals become furious and may want to retaliate in any other way.

Test of Study Hypotheses

Categorical Regression Test of Relationship Between the Animal Ensuing Conflict Behaviours and Personal Conflict by The Rural Dwellers: Tables 4 – 6 show the outcome of the categorical regression test of the relationship between the animal conflict ensuing behaviours and the form of taken conflicts by the rural dwellers. Table 4 shows that conflict ensuing behaviours such as soiling/contamination of spread out farm produce for sun drying ($\beta = 0.20$; $F = 7.03$) and defecating in and around the houses in the communities ($\beta = 0.26$; $F = 11.55$) significantly influenced inter-personal conflict among the rural dwellers at $p < 0.05$. In essence, it implies that an individual readily goes into conflict or contentions with the owner of any

farm animals that might have soiled/contaminated farm produce that were spread out for sun drying or when the animals defecate around the houses. This could be due to cost implication of the contaminated farm produce as this loses market value and as such puts the

owner of the farm produce at a loss. The same holds for defecating around the neighbourhood as not only it results in filthy environment but poses the danger of contaminating foods and farm produce that mistakenly drops into the animal faeces.

Table 4: Categorical Regression Test of Relationship Between the Animal Ensuing Conflict Behaviours and Inter-personal Conflict by the Rural Dwellers

Variables	Standardised Coefficients		df	F	Sig.
	Beta	Std. Error			
Grazing of cultivated crops	0.103	.075	1	1.882	.172
Feeding on processed farm produce	-0.027	.074	1	0.133	.716
Soiling/contamination of spread products	0.196	.074	1	7.029	.009
Littering of refuse dumps	-0.069	.074	1	0.873	.352
Defecating in and around the communities	0.255	.075	1	11.550	.001
Turning over of food products	-0.038	.074	1	0.267	.606
Night blaring	0.004	.073	1	0.003	.957

Dependent Variable: Inter-personal conflict

On another note is a significant relationship between the farm animals turning over of food and farm produce ($\beta = -0.17$; $F = 5.09$) and the resultant inter-family conflict at $p < 0.05$ (Table 5). In this, the affected individual's family members go into contention with the owner or family members of the owners of the conflict laden animals for expression of displeasure and annoyance as a result of damage

done by such one's roaming animal(s). In this aspect, the roaming animals overturned unguarded processed farm produce, prepared foods or stored food stuff in an attempt to feed on the produce. Consequently, the family as a whole affected, especially when it is the prepared food or raw food for meal preparation that is overturned by the animals.

Table 5: Categorical Regression Test of Relationship Between the Animal Ensuing Conflict Behaviours and Inter-family Conflict by the Rural Dwellers

Variables	Standardised Coefficients		df	F	Sig.
	Beta	Std. Error			
Grazing of cultivated crops	0.021	.078	1	0.071	0.791
Feeding on processed farm produce	-0.087	.076	1	1.292	0.257
Soiling/contamination of spread products	-0.125	.077	1	2.651	0.105
Littering of refuse dumps	-0.020	.077	1	0.070	0.791
Defecating in and around the communities	0.068	.078	1	0.753	0.387
Turning over of food products	-0.172	.076	1	5.086	0.025
Night blaring	0.008	.076	1	0.012	0.914

Dependent Variable: Inter-family conflict

Table 6 on the other hand though shows no significant relationship between the farm animals' conflict ensuing behaviours and inter-person-community conflict at $P < 0.05$ level but shows a significant relationship between turning over of food products ($\beta = 0.13$; $F = 2.99$); night blaring of the animals ($\beta = -0.13$; $F = 2.97$) and inter-person-community conflict at $P < 0.1$ level. This suggests the overturning of kept farm produced, particularly processed produce and night blaring of the animals collectively affect members of the community thereby resulting in collective action or contentions with the owners of the roaming animals. This observation

becomes an issue because most of the rural dwellers generally process farm produce at home and have such spread out for sun drying in the open space. Consequently the roaming animals readily reached the spread produce for consumption and eventually contaminated the produce. In the same vein, the blaring of the animals in the night was a communal issue given that everyone's night sleep is greatly disturbed. The resultant effect of this is contention with owners of the roaming animals by members of the communities, though usually through the community leadership or institutions.

Table 6: Categorical Regression Test of Relationship Between the Animal Ensuing Conflict Behaviours and Personal-communal Conflict by the Rural Dwellers

Variables	Standardised Coefficients		df	F	Sig.
	Beta	Std. Error			
Grazing of cultivated crops	-0.027	0.078	1	0.123	0.726
Feeding on processed farm produce	-0.046	0.076	1	0.370	0.544
Soiling/contamination of spread products	0.002	0.076	1	0.001	0.981
Littering of refuse dumps	-0.106	0.076	1	1.934	0.166
Defecating in and around the communities	0.103	0.078	1	1.751	0.188
Turning over of food products	0.132	0.076	1	2.998	0.085
Night blaring	-0.130	0.076	1	2.948	0.088

Dependent Variable: Personal-communal conflict

Kruskal-Wallis Test of Association between the Forms of the Emerging Conflicts and the Instituted Resolution Strategies Among The Rural Dwellers: In Table 7 is the result of the Kruskal-Wallis test of association between the taken form of conflicts by the rural dwellers and the instituted resolution strategies. It observed that no significant association exists between the three forms of manifested conflicts by the rural dwellers and any of the entrenched resolution strategies among them. In essence, all the three forms of manifested conflicts by the rural

dwellers have the same measure of need for resolution of the conflicts. Consequently, none of the six modes of instituted resolution strategies has special link with any of the dimensions of conflict manifested conflicts in the study area. Just as any form of conflict manifestation suggests a level of disaffection among the rural dwellers so is resolution, in whatever form it may take, considered as way to douse tension and soothe grievances of any of the affected members of the surveyed rural communities.

Table 7: Kruskal-Wallis Test of Association Between the Forms of the Emerging Conflicts and the Instituted Resolution Strategies Among the Rural Dwellers

Grouping variables	Compensation	Restrain movt	Killing	Prohibit	Farming away	Finding alternative
Inter-personal conflict						
Chi-Square	.028	.000	.000	.788	.333	.063
Df	1	1	1	1	1	1
Asymp. Sig.	.866	1.000	.988	.375	.564	.802
Inter-family conflict						
Chi-Square	.293	.000	2.913	1.557	1.060	.152
Df	1	1	1	1	1	1
Asymp. Sig.	.588	1.000	.088	.212	.303	.696
Person-communal conflict						
Chi-Square	.728	.000	3.370	.217	.762	1.684
Df	1	1	1	1	1	1
Asymp. Sig.	.394	1.000	.066	.641	.383	.194

Cochran Q Test of Equal Attributions to the Instituted Conflict Resolution Strategies by the Rural Dwellers: Cochran Q test of equal attributions to the instituted conflict resolution strategies by the rural dwellers, as indicated in Table 7, shows that a significant variation exists in the rural dwellers' attributions or acceptability of the instituted conflict resolution strategies ($Q = 0.04$; $df = 5$) at $p < 0.05$ level. In other words, not all the resolution strategies have equal ratings or weights among the rural dwellers. Comparison of the rural dwellers' attributions to each of the resolution strategies by Cochran Q tests shows that only two of the six strategies were highly valuable or successful (1) while the remaining

five were less valuable or not successful (2). In view of this, the specific two most valuable strategies was established by the Kendall's W mean rank test to be restraining of farm animals from roaming about ($W = 1.81$) and farming far away from the communities ($W = 2.54$). In essence, this result suggests that all members of the surveyed rural communities mutually accepted and value the need for all to have their farm animals restrained from roaming about the communities and have their farms located farther away from locality of the inhabited communities as way to prevent the farm animals from infringing on the social and economic rights of anyone in the communities.

Table 8: Cochran Q and Kendall's W Test of Equal Attributions to the Instituted Conflict Resolution Strategies by the Rural Dwellers

Variables	Cochran Q comparison Value		Kendall's W Mean Rank
	1	2	
Compensation for damages	23	150	4.41
Restraining the animal movement	173	0	1.81
Killing/maiming of the animals	62	111	3.74
Prohibition of animal rearing	44	129	4.05
Farming away from the village	131	42	2.54
Finding alternative spreading outlets	21	152	4.45
Cochran's Q		4.200E2 ^a	
df		5	
Asymp. Sig.		.000	

a. 2 is treated as a success.

Conclusion and Recommendations

Empirical examination of the rural dwellers' crop and livestock practices shows that the mode of livestock management in the selected communities is an underlying cause of conflict in the study area. Nearly all the commonly reared small farm animals in the rural communities were laden with conflict ensuing behaviours which include straying into nearby farms grazing of cultivated crops, feeding on and soiling of farm produce spread out on the floor for sun drying, and defecating around in the environment. The resultant conflict takes the forms of inter-personal, inter-family or community to person conflicts. Irrespective of the manner of conflict manifestations by the rural dwellers, the conflict never resulted in violent or wanton destruction of lives and properties but largely in verbal expression of displeasure and animosity

among members of the communities. In an attempt to correct or guard against any form of conflict manifestation was the institution of different resolution strategies which include compensation for destruction of farm produce, restraining the animal roaming about, killing or maiming of the animals, prohibition of animal rearing in the communities and taking the option of farming away from the village and finding alternative place for spreading farm produce for sun drying. Out of these strategies, restraining the animal roaming about and the option of farming away from the village had a mutual acceptability among the rural dwellers.

In view of the outcome of the study, it is recommended that all members of the rural communities with interest in rearing of farm animals should endeavour to ensure that such animals are kept on intensive system whereby

the animals are not allowed to roam about the communities. On another note, those who are into crop farming should locate their farms far away from the village centres thereby preventing any roaming animals from destroying the cultivated crops. Where it becomes necessary to have cultivated farms located within the vicinity

of the inhabited villages, the owner would have to barricade the farm with any affordable preventive materials as a way to guard off the straying or roaming farm animals. Where the farm animals defecate around, the owner of the animal, if identified, should be made to clean up the environment.

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