

An Assessment of the Level of Occupational Safety Awareness for Agricultural Extension Agents in Cross River State

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Abstract

This study assessed the level of occupational safety awareness for agricultural extension agents in Cross River State. The objectives of the study were to determine the socio-economic characteristic of extension agents, identify unsafe activities in extension practices, assess unsafe conditions in extension profession, determine the common hazards in extension profession, assess safety challenges/problems in extension profession/practice, and to identify the sources of occupational safety Awareness for extension agents in the study area. Both primary and secondary data were used for the study. The simple random sampling technique was adopted and data presented using descriptive statistics. A structured questionnaire was used to generate data from 80 respondents. Results from the study indicated that respondents were adult between mid-age and old age (91.25%), most activities such as engaging in horse play such as distracting, teasing, throwing materials/tools, and practical jokes ($\bar{x}=1.77$) were low by frequency while unsafe clothing such as slippery foot wear, loose long hair, loose sleeves or tie and oversized dress ($\bar{x}=1.37$) had a high frequency. Delayed payments ($\bar{x}=1.11$) ranked high as unsafe condition. Injuries from animals such as bites, ramming, stings, piercing and sucking insects, was also high as common hazard in extension occupation (86.25%). safety problems in extension occupation included a high responds on Poor logistic support ($\bar{x}=1.03$). The Cross River Agricultural Development Programme (CRADP) (61.25%) was the major source of occupational safety awareness to extension agents. The study concluded that there is a high risk job performance and poor service delivery in the agricultural sector.

Keywords: occupational safety; awareness; extension agents

BACKGROUND OF THE STUDY

The Agricultural work place is surrounded with so many risks and hazards. Within this agricultural environment, there are; Farm land, farm assets, farm practices, farmers culture, religion, traditional festivities and rituals, beliefs, information systems and innovation dissemination with their associated risk factors and conditions (Anandajayasekaram, Puskur, Sindu, and Hoekstra 2008). The safe condition of the farm (Occupational Environment), it's operations (agricultural production activities) and the management of the inherent risks and hazards associated with agricultural production is crucial for enhancing the efficiency of the educational and communicational professionals that sustains it. An assessment of the level of occupational safety for extension service delivery in the agricultural system will depict the level of safety of extension workers, their knowledge and awareness, skills acquisition on safety, and practice of safety rules and regulations in relation to their occupation. This will in turn enhance safety, awareness, improvement of life standards, information and social development, among others in the agricultural system. This is because effective technology delivery occur best in a safe, healthy and secure working environment with adequate

motivation to work. Safety involves managing one's health and environment (including his physical, psychological, mental and social environment) as well as his assets to ensure their good condition. Vulnerability to illness, accidents, hazards, harm and disease result from a compromise of the work environment through disposition to conditions and activities that negatively affect extension workers and their service delivery. Ignorance and disregard for safety measures in the agricultural sector is popular among African farmers (Lunner-Kolstrup and Ssali, 2016). Disregard for personal safety that of co-workers and farm facilities, structure or establishment, may result to accident, injury or death, while the unavailability of safety protocol is a sign of underdevelopment and a lack of industrialization in the agricultural sector. Agriculture has been termed a very risky job, prone to accidents, death and disease spread, and an occupation of the poor in Nigeria due to its associated drudgery which comes with manual stress and very low mechanization (Culp, Kuye, Donham, Rautiainen, and Umbarger-Mackey, 2007).

In many ways extension agents carry out some activities classified as unsafe, hazardous and potentially risky to their personal safety, health and occupation. According to the International Labour Organization, ILO (2000), different countries have different levels of occupational safety for agricultural workers in their national safety policies and legislation. It is very important that the extension agent undertake a thorough study of the socio-cultural characteristics of the environment he or she intends to communicate an innovation in order to have a good acquaintance of the culture, security, diversity, rituals, festivity, mores and so on, of the farmers in the area or the farm community to ensure personal safety. Extension agents undertake a risk analysis of activities he or she intends to carry out in order to execute a programme or project within a farm community (Better Life Channel 2012). This is because Agricultural extension officers are saddled with the mandate of arousing the interest of agricultural stakeholders in identified problems within a community so as to arouse a problem solving attitude that will enhance rural development (Peterson, 1996).

Occupational safety awareness in agricultural extension is the capacity at which the components of knowledge and safe practices are keenly entwined with the innovation, extension worker and extension service delivery, where education and communication are securely integrated into the farm environment and its activities or operations in a way that improves efficiency, avoids loss of lives, skills, assets, human resources and in a manner which incorporates strict adherence to rules, practice, and principles of safety and health through a conscious interaction with the work environment, and risk communication through consistent awareness and workshop among agricultural stakeholders linked to extension profession. Safety is the correlation between awareness and use of Personal Protective Equipment (Shyam, Budhathoki, Reshu, Surya, and Paras, 2013). It is also a process or condition that seeks to improve extension service delivery and contact with farmers through communication and education and a consistent admonition that promotes risk communication, situational analysis, improvement on security, motivation, and safety of the agricultural extension worker from danger, harm or accidents within his occupational environment. This is because African rural communities are prone to conflicts (Peterson, 1996). In Nigeria, the level of downgrading or negligence of the agricultural system and extension professionals (Extension agents) by the government, has culminated to the sobriquet of agriculture as a "poor man's job /occupation", whereas in the 1970's this sector has sustained the Nigerian Economy tremendously. Today, developed countries are those that have sustained an increased growth in their agricultural sector such as the United States, Australia, among others. Also, developing countries like Indonesia, Malaysia, Brazil and Thailand have agriculture as the mainstay of their economy with a low farmers-extension agent ratio (Christoplos, Farrington and Kidd, 2001) as they also have a sound farm safety rules, regulations and operations for extension staff and farmers.

The extension agent is a knowledge base human resource, a subject matter specialist and a change agent that ensures rural development through community programmes and projects, bring about changes in the knowledge, skills and behaviour of farmers and their rural communities. Ensuring the safety of this agricultural professional among themselves is crucial in relation to the various agricultural institutions, agencies and organization through continuous awareness on safety and mitigating new or upcoming challenges that threatens their performance in order to ensure growth and development in the agricultural sector. Differences in; the perception by individual of a community about extension work and personnel, the receptivity of agents and the innovation for transfer or adoption, poor understanding of scientific knowledge by farmers in a particular community, source credibility of a particular technology for adoption and societal characteristics such as language barriers, cultural difference, agricultural practices or farming pattern, social discrimination, leadership and religion among others, culminate to form a constraint and/or barriers which can affect the safety of the extension agent and extension practices in a particular community.

PROBLEM STATEMENT

Farms are tagged the most dangerous workplace (Better Health Channel, 2018) as farmers and extension workers are exposed to different forms of risk with dwindling institutional support for extension activities. Agricultural hazards identified by ILO (2000) had affected extension agents as agricultural stakeholders or workers and were related to the use of farm machines, chemicals, toxic and allergenic agents, carcinogenic substances, transmissible animal disease, infectious and parasitic disease, confined space, ergonomic hazards, extreme temperature, contact with wild and poisonous animals, noise, and vibration. Glenn in 2017, had reviewed that most farm injuries and fatalities are preventable when farm workers adhere to safe operating practices (Glenn, 2017). The International Labour Organization (2000) also evaluated the wide diversity of approaches in national legislation in the world on occupational safety and health legislation, and discovered that only a small number of states have developed a comprehensive set of standards applicable to agriculture. Ngige (2016) also discovered that in Nigeria, general labour laws on occupational health and safety do not give any specific reference to the agricultural sector but all national legislation are grouped under Safety and health laws and regulations which do not exclude agriculture (Ngige, 2016); this implied that occupation safety, awareness and health regulations, standards and codes of practice which specify safety and health in agricultural extension occupation is lacking.

OBJECTIVES

The specific objectives of the study were to;

1. determine the socio-economic characteristic of extension agents in the study area
2. identify unsafe activities in extension practices/profession in the study area
3. assess unsafe conditions in extension profession in the study area
4. determine the common hazards in extension profession in the study area
5. assess safety challenges/problems in Extension profession/practice in the study area
6. identify the sources of occupational safety Awareness for extension agents in the study area

RESEARCH METHODOLOGY

The research was conducted in Cross River State. The state has three agricultural zones and eighteen blocks. The state lies between latitudes 5°32' and 4°27' North and longitudes 7°50' and 9°28' East of the Greenwich meridian. It has a tropical humid climate with wet and dry seasons and average temperature ranging between 15°C – 30°C and annual rainfall between

1300 – 3000mm. The population of the study included extension workers in the eighteen blocks that makes up Cross River State. The study adopted the proportionate sampling technique using 86.9% to select 80 respondents from the population. Primary data was collected by means of a structured questionnaire which was used to elicit information necessary for the study. Secondary data was obtained from the Cross River State Agricultural Development Programme (CRADP) on the number of extension staff in the eighteen blocks and their socio-economic characteristics. Data was analyzed using descriptive statistics such as; percentages, frequency, means score, standard deviation and ranking. Data collected were sorted, coded and analyzed.

Table 1. Sampling Procedure and Sample Size

S/NO	BLOCK	No. of Extension Staff	86.9% of the population
1.	Calabar Municipality	3	2.60
2.	Calabar South	3	2.60
3.	Akpabuyo	3	2.60
4.	Odukpani	5	4.35
5.	Biase	4	3.48
6.	Bakassi	4	3.48
7.	Akamkpa	3	2.60
8.	Yakurr	9	7.82
9.	Obubra	6	5.21
10.	Ikom	7	6.08
11.	Boki	7	6.08
12.	Etung	4	3.48
13.	Abi	9	7.82
14.	Itigidi	4	3.48
15.	Yala	5	4.35
16.	Ogoja	7	6.08
17.	Obudu	4	3.48
18.	Bekwarra	5	4.35
	Total	92	80

Source: Field Survey Data, 2021.

RESULTS AND DISCUSSION

Table 2. Distribution of respondents based on socio-economic characteristics

S/NO	VARIABLES	CATEGORIES	FREQUENCY	PERCENTAGE
1.	Gender	Male	51	63.75
		Female	29	36.25
			80	100
2.	Age	<20	-	-
		20 – 25	-	-
		26 – 30	-	-
		31 – 35	-	-
		36 – 40	7	8.75
		40 >	73	91.25
			80	100
3.	Marital Status	Single	-	-
		Married	70	87.5
		Divorced	-	-
		Widow	10	12.5
		Widower	-	-
			80	100
4.	Occupational Experience	1 – 5 years	-	-
		6 – 10 years	10	12.5
		11 – 15 years	-	-
		16 – 20 years	5	6.25
		21 and above	65	81.25
			80	100
5.	Educational Qualification	SSCE	-	-
		O.N.D	20	25
		H.N.D	47	58.75
		B. Sc	3	3.75
		PGD	10	12.5
		M.Sc	-	-
		Phd	-	-
			80	100
6.	Income Level per Month	<30, 000	-	-
		31, 000 – 50, 000	-	-
		51, 000 – 70, 000	12	15
		71, 000 – 90, 000	6	7.5
		91, 000 – 110, 000	53	66.25
		111, 000 – 130, 000	-	-
		131, 000 and above	9	11.25
			80	100

Source: The Cross River State Agricultural Development Programme (CR-ADP)

Table 2 showed the distribution of respondents based on their socioeconomic characteristics. The results indicated that extension agents in Cross River State is dominated by males (f=51; 63.75%), that extension agents are mostly between their mid age and old age (f=73; 91.25%). They are mostly married (f=70; 87.5%), with a higher occupational experience of 81.25% (f=65) for 21 years and above. This is followed by workers between 6 – 10 years of occupational experience (f=10; 12.5%). Majority of the extension workers in Cross River state have Higher National Diploma (H.N.D) as their highest educational qualification (f=47;

58.75%). This is followed by extension workers with Ordinary National Diploma (f=20; 25%). The highest level of educational qualification among extension workers in Cross River State was Post Graduate Diploma (PGD) (f=10, 12.5%). This implies that the level of educational attainment among extension officers in the study area is low.

Based on the income level, most extension workers fell in the range between ₦91, 000 – ₦110, 000 (f=53; 66.25%). This is followed by the range of ₦51, 000 – ₦70, 000 (f=12; 15%). About 11.25% (f=9) of extension workers had ₦131, 000 and above as their monthly income. This, however does not imply that extension officers in the study area are well paid, but that they are close to their retiring age after several promotions since majority had occupational experience of 21 years and above.

This findings supports the assertion by Okereke and Onu (2007) that the personality of the extension personnel goes a long way in shaping his performance on the job as they laid more importance on socioeconomic characteristics such as age, educational qualification, working experience, and household size which were the significant socio-economic characteristics that affected the level of job performance of respondents.

Table 3. Distribution of respondents based on unsafe activities in extension occupation

S/N	Unsafe Activities	High	%	Low	%	Mean	Standard Deviation	Ranking
1.	Unsafe clothing such as slippery foot wear, loose long hair, loose sleeves or tie and oversized dress	50	62.5	30	37.5	1.37	0.48	9 th
2.	Failure to wear Personal Protective Equipment (PPE) such as hand gloves, farm boots, farm hat or helmet, overall etc	52	65	28	35	1.35	0.47	11 th
3.	Failure to use the dip vat appropriately in the animal farm	23	28.75	57	71.25	1.71	0.45	3 rd
4.	Failure to apply caution in animal handling, contact with dropping and tools	21	26.25	59	73.75	1.73	0.43	2 nd
5.	Negligence of farm safety instructions, entry rules and farm instructor's guidance	25	31.25	55	68.75	1.68	0.46	4 th
6.	Engaging in horse play such as distracting, teasing, throwing materials/tools, practical jokes etc.	18	22.5	62	77.5	1.77	0.41	1 st
7.	Taking short cuts and by-passing safety devices in the farm and during field demonstrations.	51	63.75	29	36.25	1.36	0.48	10 th
8.	Improper use of hands, and other part soft the body (using hands instead of tools, kicking instead of carrying, taking unsafe posture, gripping object insecurely)	42	52.5	38	47.5	1.47	0.49	7 th
9.	Use of defective tools/equipment (worn, broken, cracked tools, faulty machines).	41	51.25	39	48.75	1.48	0.49	6 th
10.	Working in a noisy environment	49	61.25	31	38.75	1.38	0.48	8 th
11.	Use of tools without appropriate servicing, washing, cleaning, lubricating and storage.	31	38.75	49	61.25	1.61	0.48	5 th
12.	Inadequate findings and knowledge before community entry.	42	52.5	38	47.5	1.47	0.49	7 th
13.	Inadequate report writing of farm extension activities	59	73.75	21	26.25	1.26	0.43	12 th
14.	Inadequate collection of data from farmers about their farm, meetings and activities	59	73.75	21	26.25	1.26	0.43	12 th
15.	Poor maintenance habit of tools and machines	49	61.25	31	38.75	1.38	0.48	8 th
16.	Establishing a personal relationship with farmer/community based activities other than extension work such as economic, political marital or joining social organization	51	63.75	29	36.25	1.36	0.48	10 th
17.	Poor communication of safety problems encountered during demonstration among extension agents.	61	76.25	19	23.75	1.23	0.42	13 th
18.	Poor reporting and documentation of farm accidents, hazards and safety problems encountered during demonstration	42	52.5	38	47.5	1.47	0.49	7 th
19.	Attending to farmers or demonstration under severe health problem or health challenges	59	73.75	21	26.25	1.26	0.43	12 th

Field Survey, 2021.

Table 3 showed the distribution of respondent based on the unsafe activities in extension profession. Activities in the rank of 1st, 2nd, 3rd, 4th and 5th were hardly performed by respondents. they are: Engaging in horse play such as teasing, throwing materials/tools, practical joke etc 62 (77.5%, $\bar{x} = 1.77$), Failure to apply caution in animal handling, contact with droppings and tools 59 (73.75%, $\bar{x} = 1.73$), Failure to use the dip vat appropriately in an animal farm 57 (71.25%; $\bar{x} = 1.71$), Negligence of farm safety instructions, farm entry rules or farm instructor's guidance 55 (68.75%; $\bar{x} = 1.68$) and use of tools without appropriate servicing, washing, cleaning, lubricating and storage 49 (61.25%; $\bar{x} = 1.61$), respectively. The above result implies that there is a high level of professionalism and occupational discipline among extension agents in the study area.

Low ranking activities with a high responds occurred at 9th, 10th, 10th, 11th, 12th, and with respectively, they are: Unsafe clothing 50 (62.5%; $\bar{x} = 1.37$), Establishment of a personal relationship with farmers/community based on other activities other than extension work based on economic, political, marital or joining social organization, among others 51 (63.75%; $\bar{x} = 1.36$) which implied; poor job security, low salary, inconsistency in payment of salaries, among other. Taking short cuts and by-passing safety devices in the farm and during farm demonstrations 51 (63.75%; $\bar{x} = 1.36$) also implied a low level of infrastructural development, provision of working materials, devices or tools, among others. Failure to wear PPE 52 (65%; $\bar{x} = 1.35$) implied self born acquisition, low level of awareness on safety, and poor logistic support for extension agents. Inadequate report writing of extension farm activities 59 (73.75%; $\bar{x} = 1.26$), inadequate collection of data from farmers about their farms, meetings and activities 59 (73.75%, $\bar{x} = 1.26$), attending to farmers or demonstration under severe health problem and health challenges 59 (73.75%; $\bar{x} = 1.26$) and poor communication of problems and challenges encountered during demonstrations/workshops to the extension office 61 (76.25%; $\bar{x} = 1.23$), implied a lack of safety data collection or management technique due to the unavailability of such facilities and health insurance scheme for extension workers.

Glenn, (2017) had posited that an ounce of prevention is worth a pound of cure. That most farm injuries and fatalities are preventable when one adheres to safe operating practices.

Table 4 - Distribution of Respondents based on Unsafe Conditions in extension occupation

S/N	Unsafe Condition	High	%	Low	%	Mean	Standard Deviation	Ranking
1.	Delayed payment	71	88.75	9	11.25	1.11	0.31	12 th
2.	Denied benefits	69	86.25	11	13.75	1.13	0.34	10 th
3.	Use of the extension workers for other activities other than extension work	52	65	28	35	1.35	0.47	7 th
4.	Poor office outfit	72	90	8	10	1.1	0.3	13 th
5.	Poor maintenance and repair of Educational and communication equipment	50	62.5	30	37.5	1.37	0.48	5 th
6.	Un-serviced systems, devices and installations	47	58.75	33	41.25	1.41	0.49	4 th
7.	Struggle/fights or attacks due to poor allocations and distribution of limited resources/materials to farmers	52	65	28	35	1.35	0.47	7 th
8.	Loss of confidence on the extension system by farmers due to lack of commitment/continuity or completion of government's community interventions/Programmes	41	51.25	39	48.75	1.48	0.49	2 nd
9.	Delay/unprovided farm input or resources for extension demonstration which may cause a loss of confidence on extension agent and prove extension work to be unreliable	45	56.25	35	43.75	1.43	0.49	3 rd
10.	Loss of interest in extension in extension projects, programmes and intervention due to government propaganda on schemes, grants and farm projects leading to disregard of extension agents	31	38.75	49	61.25	1.61	0.48	1 st
11.	Self-born community entry	62	77.5	18	22.5	1.22	0.41	9 th
12.	Lack of respect, recognition and esteem from farmers to extension workers since they are often poorly equipped	51	63.75	29	36.25	1.36	0.48	6 th
13.	Inadequate provisions for pre-historical orientation to new areas of extension assignment/work	61	76.25	19	23.75	1.23	0.42	8 th

14.	Unavailable statistical data management on extension safety and health during field operation	70	87.5	10	12.5	1.12	0.33	11 th
15.	Under reporting of extension agent's safety and health constraints in the field.	72	90	8	10	1.1	0.3	13 th
16.	Favoritism and Poor administrative leadership in the way agents are transferred	47	58.75	33	41.25	1.41	0.49	4 th

Field Survey, 2021.

Table 4 indicated the distribution of respondents based on unsafe conditions in the extension occupation. Unsafe conditions are mostly dispositions that subject the extension agent to unsafe occupational risks and hazards which have an accident potential or health hazard. Extension agents have in the rank of 1st, 2nd and 3rd, identified that: There is no loss of interest in extension projects, programmes and interventions due to government propaganda on projects, schemes, grants etc which were never implemented and could have led to disregard for extension agents 49 (61.25%; $\bar{x} = 1.61$) which implied that government's insincerity and lack of will to enhance development is not common to every administration. However, the result showed that there is a lack of confidence on the extension system due to lack of commitment/continuity or completion of government's community interventions or programmes 41 (51.25%; $\bar{x} = 1.48$). This may also be due to inequitable distribution of farm materials, input, subsidy, grants to farmers, and political or economic influences. Delay/unprovided farm input or resources for extension demonstration may cause a loss of confidence on extension agent and prove extension work to be unreliable 45 (56.25%; $\bar{x} = 1.43$). This can also increase the propensity for a conflict situation and distrust between farmers and the extension system.

Unsafe conditions such as: Unavailable statistical data management on extension safety and health during field operation 70 (87.5%; $\bar{x} = 1.12$), Delayed payment 71 (88.75%; $\bar{x} = 1.11$), Poor office outfit 72 (90%; $\bar{x} = 1.1$) and under reporting of extension agent's safety and health constraints in the field 72 (90%; $\bar{x} = 1.1$) ranked 11th, 12th and 13th, 13th respectively, mostly affected extension agent's safety showing by the high number of responses.

The above findings draws support from National Institute for the Rural Health Information Hub (2019), which opined that agriculture is one of the most hazardous industries with about 417 farmers and agricultural workers deaths from a work-related injury in 2016, a rate of 21.4 deaths per 100,000 workers. Each day, agricultural workers experience 100 non-fatal lost-work-time injuries. This is because of the high level of potential risks and hazards in farming.

Table 5 - Distribution of respondents based on common hazard in extension occupation

S/N	Common Hazards	High	%	Low	%	Mean	Standard Deviation	Ranking
1.	Disease outbreak and transmission of infectious disease such as Giardia, Salmonella, Ringworm and Leptospirosis	49	61.25	31	38.75	1.38	0.48	7 th
2.	Injuries from animals such as bites, ramming, stings, piercing and sucking insects.	69	86.25	11	13.75	1.26	1.14	9 th
3.	Injuries from machines and moving objects	19	23.75	61	76.65	1.76	0.42	2 nd
4.	Fear and tension from attacks and aggressive behavior from farm community members	42	52.5	38	47.5	1.47	0.49	6 th
5.	Farm accidents	49	61.25	31	38.75	1.38	0.48	7 th
6.	Stained and torn clothes from plant's tugs, exudates, hooks, spines, gum and twigs	41	51.25	39	48.75	1.48	0.49	5 th
7.	Rashes, Scratches, itching and skin injury from plants exudates, leaves, stem etc in contact	42	52.5	38	47.5	1.47	0.49	6 th
8.	Light to deep injury from wild plants with hooks spines, thorns and sharply pointed edges	31	38.75	49	61.25	1.61	0.48	4 th
9.	Exposure to poisonous agro-chemicals from within or neighbouring farms	49	61.25	31	38.75	1.38	0.48	7 th
10.	Use of faulty systems and farm tools during field demonstration	49	61.25	31	38.75	1.38	0.48	7 th
11.	Incidence of psychological stress which causes health hazard	11	13.75	69	86.25	1.86	0.34	1 st
12.	Use of low quality electrical appliances in the farm stead, extension/ farm office	42	52.5	38	47.5	1.47	0.49	6 th
13.	Noise pollution from livestock, machines, guns, generator etc, that impedes hearing	68	85	12	15	1.15	0.35	11 th
14.	Harsh weather conditions and long hours under the sun which causes sunburn, heatstroke, dehydration and hypothermia	58	72.5	22	27.5	1.27	0.44	8 th
15.	Drudgery and use of crude implements during field demonstration which leads to fatigue and stress	23	28.75	57	71.25	1.71	0.45	3 rd
16.	Inadequate information on farm entry and community orientation	60	75	20	25	1.25	0.43	10 th
17.	Poor road network to demonstration farms which impedes mobility	42	52.5	38	47.5	1.47	0.49	6 th
18.	Unfamiliar/strange cultural, religious and ritualistic farming cultures of	42	52.5	38	47.5	1.47	0.49	6 th

19.	farm community Respiratory problem	49	61.25	31	38.75	1.38	0.48	7 th
20.	Cancer	41	51.25	39	48.75	1.48	0.49	5 th

Field Survey, 2021

Table 5 showed the distribution of respondents based on common hazard in extension occupation. The rank based on the highest mean, showed variables such as use of low quality electrical appliances in farm stead and farm office 69 (86.25%; \bar{x} = 1.86), Fear and tension from attacks and aggressive behaviour of farm community members 61 (76.65%; \bar{x} = 1.76) and Inadequate information on farm entry and orientation 57 (71.25%; \bar{x} = 1.71) which ranked 1st, 2nd and 3rd respectively, were low and less considered as common hazards by extension staffs in the study area. This implies that apart from using safe and quality electrical installations during demonstration, farmer-agent relationship is without fear and tension as extension agents are professionals in handling social relationships in the community, and collecting useful information about the farm/community to visit.

On the other hand, variables in the ranks of 9th, 10th and 11th, which are; Injuries from animals such as bites, stings, piercing and sucking 69 (86.25%; \bar{x} = 1.76), Poor road network to demonstration farms which impedes mobility 60 (75%; \bar{x} = 1.25) and long hours under the Sun which causes sunburn, heat stroke, dehydration and hypothermia 68 (85%; \bar{x} = 1.15) were high. This shows that extension agents risk high to ensure they do their job. These hazards are known to cause fatigue, injury, discomfort, allergic reactions due to scratching of itching skin after contact with plants, insects, among others.

This is in conjunction with the study done by the National Institute for the Rural Health Information Hub (2019), which identified chronic and acute Health risks that extension agents can be exposed to such as; Exposure to farm chemicals, such as pesticides and fertilizers, as well as toxic gases which may be produced from common farm practices like manure decomposition and silo crop storage, Exposure to high levels of dust, which can contain mold, bacteria, and animal droppings, Exposure to ultraviolet rays from the sun, which can result in skin cancer, Joint and ligament injuries, which can result in arthritic conditions affecting mobility, Exposure to loud noises and sounds from machinery and equipment which can result in hearing loss, Stress from environmental factors, such as droughts, floods, wildfires, pests, and diseases affecting crops and livestock, as well as from working long hours, Risk of heatstroke, frostbite, or hypothermia from working outside in extreme weather conditions, financial concerns, and feelings of isolation and frustration.

Table 6 - Distribution of respondents based on safety problems in extension occupation

S/N	Safety Problems	High	%	Low	%	Mean	Standard Deviation	Ranking
1.	Religious Barriers	5	6.25	75	93.75	1.93	0.2	1 st
2.	Fear mongering among farmer for an innovation which causes criticism, skepticism and outrage	53	66.25	27	33.75	1.33	0.47	4 th
3.	No security briefing/attachment before community entry	39	48.75	41	51.25	1.15	0.49	2 nd
4.	Lack of insurance cover for extension agents	73	91.25	7	8.75	1.08	0.28	11 th
5.	Poor level of support on safety awareness to extension agents by institutions and agencies.	71	88.75	9	11.25	1.11	0.31	9 th
6.	Poor logistic support from the government	77	96.25	3	3.75	1.03	0.18	12 th
7.	No mobility and transportation allowance	65	81.25	15	18.75	1.18	0.39	7 th
8.	Unavailability of field and demonstration allowances	72	90	8	10	1.1	0.3	10 th
9.	Inadequate communication gadgets, devices or network among agents and between agent and agencies	61	76.25	19	23.75	1.23	0.42	6 th
10.	Absence of training and provision of field materials	49	61.25	31	38.75	1.38	0.48	3 rd
11.	Inadequate provision of PPE such as raincoat, hat, boot, helmet, gloves etc.	66	82.5	14	17.5	1.17	0.37	8 th
12.	Self born provision of PPE	72	90	8	10	1.1	0.3	10 th
13.	Inadequate provision of input (feed, fertilizer etc) for demonstration	57	71.25	23	28.75	1.28	0.45	5 th
14.	Unavailability of hazard allowance during field visit in hazard prone areas	77	96.25	3	3.75	1.03	0.18	12 th
15.	Self born provision of logistics and personal safety in a new community of assignment	73	91.25	7	8.75	1.08	0.28	11 th

Field Survey, 2021

Table 6 showed the distribution of respondents based on safety problems in extension occupation. The mean of variables such as; Religious barriers 75 (93.75%; $\bar{x} = 1.93$), no security briefing/attachment before community entry 41 ($\bar{x} = 1.15$) and absence of training or field materials 49 (61.25%; $\bar{x} = 1.38$) ranked 1st, 2nd and 3rd respectively. Respondents indicated a low level of religious barriers and security briefing/attachment before community entry in the study area while admitting that there is a high level absence of training and provision of field materials. This implies that religious barriers and lack of security briefing before community entry do not have any significant effect on their operation, and do not constitute a safety problem for their activities in the study area.

Variables with ranks such as; 10th, 10th, 11th, 11th, 12th and 12th which are: Unavailability of field and demonstration allowances 72 (90%; $\bar{x} = 1.1$), Self born provision of personal protective equipment (PPE) 72 (90%; $\bar{x} = 1.1$), Lack of insurance cover for extension agents 73 (91.25%; $\bar{x} = 1.08$), Self born provision of logistics and personal safety in a new community of assignment 73 (91.25%; $\bar{x} = 1.08$), Poor logistic support from the government 77 (96.25%; $\bar{x} = 1.03$), Unavailability of hazard allowance for common hazards faced by extension agents 77 (96.25%; $\bar{x} = 1.03$), respectively, were high among extension agents. This finding decries the poor level of occupational safety funding and support for extension staff in the study area which can result to low staff motivation and performance in the extension system.

Okereke and Onu (2007), supported this findings that the living condition of field extension workers must be improved by providing adequate facilities for housing, transport, medical and educational allowance for their children. The reward system must also be internally equitable, the relative importance of field level extension functionaries has to be realized in terms of pay compensation and other amenities.

Table 7 - Distribution of respondents based on sources of occupational safety awareness

S/N	Safety Awareness Organization	Frequency	Percentage (%)	Mean	Standard Deviation	Ranking
1.	Cross River Agricultural Development Programme (CRADP)	49	61.25	1.65	0.86	1 st
2.	Farming World	10	12.5			3 rd
3.	Ministry of Agriculture	21	26.25			2 nd
4.	Total	80	100			

Field Survey, 2021

Table 7 showed the distribution of respondents based on the sources of occupational safety awareness. Different Agricultural Safety Organization may exist in Nigeria, but respondents had mentioned/identified the agencies that enhance their occupational safety by providing safety and Awareness information, training, among others. The result indicated that the Cross River State Agricultural Development Programme was the most reliable source of occupational safety awareness to extension agents in the study area 49 (61.25%; 1st). This means that, the Cross River State Agricultural Development Programme has effectively empowered extension agents with the knowledge, skill and training that improves their safety on the job. The result also showed that 26.25% of respondents identified the Cross River State Ministry of Agriculture as their source of occupational safety awareness. This implies a low level of support from the state ministry in enhancing occupational safety awareness. 12.5% of the respondents mentioned Farming World. Farming World is a Non-Governmental Organization providing skills/training, awareness, products and services to farmers mostly cocoa farmers in Cross River State. This organization also has a supportive attachment with the extension system in Cross River State.

The International Labour Organization had opined that poor enforcement of safety awareness and practices is due to insufficient labour inspection, lack of understanding and training on hazards and their prevention, and low levels of organization among agricultural workers (ILO, 2000). On the other hand, Etim, (2019) had decried the low level of utilization of institutional learning facilities in enhancing development among upcoming agricultural professionals in the university of Calabar, Cross River State due to poor level of awareness of existing knowledge and resources.

Conclusion and Recommendations

The study concluded that agricultural extension is a highly risky job in the study area, with a poor service delivery system due to a high level of occupation safety concerns and very limited awareness. Based on the objectives of the study, the following recommendations were made;

That the ministry of Agriculture should enhance improved services to meet the safety and awareness needs of extension staff in the study area by providing mobility, logistic support, better allowances, communication, and gadget to ease the stress these change agents undergo to perform their jobs, improve upon the level of safety and awareness to extension staff. That the federal and state ministry of Agriculture should reach out it tentacles to seek support and collaborations from international safety organization and agencies. The agricultural extension administration must ensure the provision of adequate safety and awareness, pre-orientation,

Personal Protective Equipment and logistic support to it officers before releasing them on any assignment or field operation, improvement in agent's allocations. That the Cross River State Ministry of Agriculture and the government must engage nonprofit organizations or NGOs, farmers associations, agricultural cooperatives, health and safety professionals, training and skill acquisition agencies, safety and awareness agencies, among other into an effective collaboration to improve the level of occupational safety and awareness in the Cross River State Agricultural system.

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