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**Rice Sufficiency Officers' Role Perception and Job Satisfaction as Agricultural Research and Extension Workers**

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**Abstract**

*The study determined how the Rice Sufficiency Officers (RSOs) perceived their role and their level of job satisfaction when working as agents of PhilRice to promote and deliver rice technologies as a strategy to attain rice self-sufficiency for the country. Data for the study were collected using online survey to which 77 RSOs responded. Results of the study showed the RSOs perceived their role as very important, particularly the extension tasks they fulfilled. Their level of job satisfaction was very high, especially with their working relationships with supervisors and the farmers. However, their status of employment caused some degree of dissatisfaction. Results shed light on issues concerning development programs of the institute.*

**Keywords:** Job Satisfaction, Role Perception, Rice, RSO, Likert Scale

### Introduction

The Philippine Rice Masterplan for 2009-2013 was crafted to tackle the challenge of attaining rice self-sufficiency for the country by 2013 (Miranda, 2010). To beat the challenge, the government needed to increase the national yield level by 14 cavans per hectare. One of the strategies of the Rice Masterplan to achieve better yield is to improve the country's technology promotion and delivery system so that more farmers will use improved rice technologies. Thus, the Philippine Rice Research Institute (PhilRice), of the government devised a novel system – the deployment of Rice Sufficiency Officers (RSOs) in strategic production areas.

The RSOs were young, agriculture graduates who completed the 4-month Rice Specialists' Training Course to master the package of proven rice technologies and practices. The deployed RSOs were to perform three major roles based on their Terms of Reference (TOR): research, technology promotion, and forging partnerships. The development of location-specific technologies based on major technology platforms was their research role that constituted 50% of their total workload. This research role distinguished RSOs from the Agricultural Extension Workers (AEWs) that the Philippine government had long employed. The AEWs are purely providers of general agricultural extension services to farm individuals who live and work in villages (Tenorio & Aganon, 2006). The technology promotion role (20% of workload) of the RSOs consisted of conducting farmer field schools, providing technical assistance to extension workers in response to rice farmers' problems, promoting the Open Academy for Philippine Agriculture (OpAPA) services, and pushing the use of yield-enhancing and cost-effective technologies. In forging partnerships (15% of workload), they helped develop

provincial or municipal agricultural plans by recommending appropriate programs and strategies, and represented PhilRice in meetings and workshops related to its major rice programs within their area of responsibility. The rest of their workload was minor activities (15%). To enable them to work better, most of the RSOs were provided with laptops, cellular phones, and motorcycles.

From 2008 to 2011, more than 200 RSOs had been deployed in various areas of the country. They were like soldiers sent to the battlefield to win the fight for rice self-sufficiency right in the farmers' fields (Frediles, 2010). PhilRice estimates the cost of training per RSO from USD 4,761.90 (PhP 200,000) to as high as USD 23,809.52 (PhP 1,000,000) (Tanchuling, 2011).

Considering the critical role the RSOs played in achieving the rice self-sufficiency goal, it is important to determine how they perceived their role and their level of job satisfaction as these most likely affected their work performance. After several years and now that the deployment has ended, how did the RSOs see their role as new agents of change in the rice communities? How important did they view the role they played in achieving rice self-sufficiency? How satisfied were they with the support, training, and work that were given to them? The answers to these questions will enhance ways on how to manage and address issues concerning similar research and extension programs.

### Purpose and Objectives

The objectives of the study were to determine: (a) the RSOs' perception of their role, and (b) their level of job satisfaction as agricultural research and extension workers.

### Methods

Of the 229 RSOs who were emailed and contacted through text messages several

times, 77 (34%) responded and they served as the samples of the study. A pre-tested e-questionnaire was used for data gathering, which had four major parts: socio-economic characteristics of the RSOs, scope of assignment of the RSOs, role perception, and job satisfaction. Using Likert scales, the respondents rated the items of two major topics, namely the importance of their various roles as an RSO in achieving rice self-sufficiency (Role Perception Index or RPI) and their level of job satisfaction (Job Satisfaction Index or JSI). The RPI items were based on the RSOs' TOR and adapted from the index developed by Ibrahim et al. (2008). The RPI used a 3-point Likert scale where 3 was considered *very important* (VI), 2 as *slightly important* (SI), and 1 for *not important* (NI). The JSI was composed of 27 items and were measured based on a 5-point Likert scale. A score of 5 indicated *very satisfied* (VS), 4 for *satisfied* (S), 3 for *neutral* (N), 2 for *dissatisfied* (D) and 1 for *very dissatisfied* (VD). The JSI was divided into five categories, namely: general working conditions, pay and promotional potential, work activities, work relationships, and use of skills and abilities. The categories were based on the job satisfaction questionnaire developed by Salisbury University (2012). Reliability analysis was performed for the two indexes to check for internal consistency of the items. The RPI had a Cronbach's Alpha of 0.951; and the JSI had 0.905.

For both indexes, a total score for each role/item was derived by summing the Likert-scores given by the respondents. The mean scores for each RSO role and for each job satisfaction item were calculated by dividing the total scores by the number of respondents. The total mean score for job satisfaction was determined by dividing the sum of the mean scores of all job satisfaction items by the number of items.

Three focus group discussions (FGD) were done with randomly selected RSOs after processing the survey results. Each FGD had 5 to 12 participants who were chosen based on draw lots. The FGD clarified and gave more details on the responses of the respondents.

The data were processed and analyzed using ranking, frequency, mean scores, graphs, and comparison of similarities and differences. The FGD data were analyzed by grouping them in themes.

## Results

### Socio-economic Characteristics of the RSOs

As shown in Table 1, more than half (58%) of the RSOs were female (58%) and were less than 27 years old (56%). They were young and fresh out of college, hence were expected to be very active and highly motivated. This was an element of the extension strategy to neutralize the apprehension that most government extension personnel were almost in their retirement age. All of the RSO-respondents were college graduates, mostly in agriculture. The majority of them were single (82%).

The majority of respondents (86%) confided they received a traveling allowance (86%) and Internet/prepaid cellphone load (79%) as part of their RSO benefits. A few of them availed themselves of the offered laptop (22%) and motorcycle (10%) loans. These benefits were deducted from the USD119 (PhP 5000) monthly allowance they received (on top of their regular salary). Though the RSOs were not required to have their own laptop, most of them needed it for report-writing and Internet purposes, especially those who were assigned in very rural places. They received their salary (73%) and benefits (49%) regularly. Less than a quarter (22%) of respondents were provided free lodging in their area of

assignment, hence the majority of them either rented a place or their family house was nearby. Most of the free

accommodations were provided by the local government unit (LGU) or by a farmer-beneficiary.

Table 1

*Socio-economic Characteristics of the RSOs (N = 77)*

Characteristic	Category	f	%
Sex	Male	32	42
	Female	45	58
Age (year) <sup>1,2</sup>	Less than 27 years old	43	56
	27 years old and above	34	44
Civil Status	Single	63	82
	Married	14	18
Educational Attainment <sup>3</sup>	College Graduate	77	100
Benefits received/availed of by the RSOs*	Traveling allowance	66	86
	Internet/prepaid load allowance	61	79
	Laptop loan	17	22
	Motorcycle loan	8	10
	Other benefits	2	3
Received salary regularly		56	73
Received benefits regularly		38	49
Received free accommodation		17	22

Note. <sup>1</sup>SD = 3.46. \*Multiple responses. <sup>2</sup>M = 27. <sup>3</sup>M = 14.

**Scope of Work of the RSOs**

Table 2 shows the RSOs were assigned an average of three sites per season, except during the 2010 dry season

(DS). An RSO handled 25 farmers per site during the DS; 24 to 26 farmers per site during wet season (WS).

Table 2

*Scope of work of the RSOs per season, WS and DS, 2009-2011*

Scope of Work	2009		2010		2011	
	DS	WS	DS	WS	DS	WS
Average number of sites handled	3	3	4	3	3	3
Average number of farmers per site	25	26	25	26	25	24

**Role perception of RSOs**

Table 3 enumerates the 15 major roles of the RSOs as stipulated in their TOR. Based on survey results, nine roles had been

rated very important by at least 90% of the RSO-respondents, of which two major extension roles had the highest mean scores. These roles were: “teaching and

demonstrating rice technologies to farmers” ( $M = 3.00$ ) and “guiding farmers to adopt farm practices” ( $M = 2.97$ ). Ranked third and fourth were research roles, namely: “setting up and developing location-specific technology” ( $M = 2.96$ ) and “studying village situation as part of problem identification and site selection” ( $M = 2.95$ ). Fifth and sixth in ranking were extension roles: “providing technical and problem-solving assistance” ( $M = 2.95$ ) and “organizing farmers/trainings” ( $M = 2.93$ ). Forging partnerships was ranked eighth with a mean score of 2.92. During the FGD, some respondents underscored that forging partnerships should be the most important as it will ensure the sustainability of the RSO system.

Other very important research as seen by the majority got lower mean scores:

“gathering of data and keeping records” ( $M = 2.89$ ); and “conducting FGDs and baseline survey” ( $M = 2.82$ ).

The rest of the roles were characterized by majority of the respondents as very important too although many respondents cited these roles as only somewhat important: “submitting written reports to PhilRice” (13%); “organizing cross visits and farmers field day” (17%); “helping farmers to prepare a farm plan” (27%); “promoting OpAPA services” (34%); and “teaching or demonstrating rice technologies to other stakeholders” (40%). RSOs asserted preference should be accorded to farmers rather than other stakeholders.

Table 3

*Role Perception of RSOs (N=77)*

RSO Role	Response (%)				M
	VI (3)	SI (2)	NI (1)	NR	
Teaching or demonstrating rice technologies to farmers	99	*	*	1	3.00
Guiding farmers to adopt improved farm practices	96	3	*	1	2.97
Setting up and developing location-specific technology	95	4	*	1	2.96
Studying village situation	94	5	*	1	2.95
Providing technical and problem-solving assistance	94	5	*	1	2.95
Organizing farmers/trainings	94	4	1	1	2.93
Feedbacking farm/farmer problems to researchers	91	8	*	1	2.92
Forging partnerships with institutions and linking farmers with them	90	8	*	3	2.92
Gathering of data and keeping records (Ex. KeyCheck monitoring form, farm records)	90	8	1	1	2.89
Conducting FGD and baseline survey	81	18	*	1	2.82
Submitting written reports to PhilRice	83	13	3	1	2.82
Organizing cross visits and farmers' field days	77	17	1	5	2.79

Helping farmers to prepare farm plan	70	27	1	1	2.70
Promoting OpAPA services	62	34	1	3	2.63
Teaching or demonstrating rice technologies to other stakeholders	57	40	1	1	2.57

Note. VI = very important as an RSO role, SI = somewhat important, NI = not important, NR = no response. \*Value is less than one.

**Job Satisfaction of the RSOs**  
**General working conditions of the RSOs.**

Among the items under working conditions, RSOs were most satisfied with their “working hours”, having a mean score of 4.25 (see Table 5). This might be so as they had flexible working hours, not using a

daily time record. However, majority of the RSOs chose not to rate this as “very satisfactory” because, based on the FGDs, time of work adjusted to the farmers’ availability. Thus, there were times they needed to be in the field before sunrise or even during weekends.

Table 5

*Job Satisfaction on the General Working Conditions of the RSOs (N = 77)*

General Working Conditions	Response (%)					M
	VS	S	N	D	VD	
	(5)	(4)	(3)	(2)	(1)	
Working hours	38	51	10	1	-	4.25
Availability of local accommodation	21	45	25	8	1	3.77
Environmental condition in the area	18	48	26	6	1	3.75
Availability of technical help/assistance	18	47	17	12	5	3.62
Access to research findings	13	49	27	5	5	3.60
Availability of extension facilities	14	44	22	19	*	3.53
Continuity of the project-system	19	38	23	10	9	3.48
Availability of office supplies	16	43	19	14	6	3.47
Availability of operations' fund	8	34	36	14	8	3.19
Total Mean Score						3.62

Note. VS=Very Satisfied, S=Satisfied, N=Neutral, DS=Dissatisfied, VD=Very Dissatisfied. \*Value is less than one.

With regard availability of local accommodation, almost half (45%) of the RSOs were satisfied and 21% were very satisfied. Again, this reflected the fact that most of them were not given free lodging in

their area. Others mentioned during the FGD that it was not easy to find a place to live at because there were no rooms or houses to rent in the first place.

Availability of other resources (office supplies, technical help/assistance and administrative support from the branch stations/project, extension facilities, research findings, and operations' funds) was also considered "satisfactory" only by most of the RSOs. Some 17% to 36% of them rated these items as "neutral" and 5% to 19% maintained that they were dissatisfied. This result reflected the reality that once the RSOs were already in the field, they had to make do with what resources they had. During the FGD, some of them explained that in most cases they bought materials needed using their own money and reimbursement took some time. Some of these resources could have been provided by the local partners but they did not. "Environmental condition in the area" was only rated "satisfactory" (48%) by the respondents, and 26% even said they were "neutral." Though all the sites were considered safe by the system, the RSOs lamented during the FGD that some areas were very rural.

Not surprisingly, most of the respondents were only "satisfied" (38%) with the continuity of the system-project; 23% were "neutral" and 19% were "dissatisfied." This result attested to the fact that the system did not signal a stable future for the RSOs. By and large, results revealed the respondents were barely satisfied in terms of their general working conditions as the total mean score was only 3.62.

#### **Pay and promotional potential of the RSOs.**

Among the five categories under the JSI, the "pay and promotional potentials" category received the lowest mean score at 3.27 (see Table 6). This result is parallel with the study conducted by Agung, Djomo and Na (1997), which indicated the job as a district extension officer may not be economically satisfying but generally

attractive. Two items under this category also got the lowest mean scores: "opportunity to advance education/scholarship" ( $M = 2.78$ ), and "status of employment" ( $M = 2.76$ ).

In terms of salary, the survey showed that the RSOs were generally "satisfied" (57%), followed by "very satisfied" (31%). The basic monthly salary of an RSO ranged from USD 333.33 (PhP 14,000) to USD 404.76 (PhP 17,000). The amount varied as it was affected by the salary increases given by the government from 2009-2011. During the FGD, an RSO commented that the salary was okay for those who were not yet married. The majority (82%) of the respondents were single.

The rest of the items under the pay and promotional potentials category had a mean score of 3.47 or below. This result indicated the RSOs were basically "neutral" on the other items, specifically: "benefits," "upgrading," "opportunity to advance education/scholarship," and "status of employment."

In terms of "opportunity to advance education/scholarship", almost half (42%) of the respondents chose to be "neutral" and 32% were "dissatisfied." This may be due to the fact that the RSOs were service contractors and as such, their benefits did not include an educational scholarship. A few exemptions were allowed by the management. Two RSOs were sent for further studies, but it was not clear why this was done. This situation may have aggravated the perception of the RSOs.

Status of employment had the lowest mean score ( $M = 2.76$ ) and almost one-third (29%) of the respondents were "neutral" about it. This was probably due to the sudden termination of the work contracts of the RSOs in January 2012. Those who rated the item as "satisfactory" (23%) were mostly those absorbed by PhilRice in its various projects.

Table 6

*Job Satisfaction on the Pay and Promotional Potentials of the RSOs (N = 77)*

Pay and Promotional Potentials	Response (%)					M
	VS (5)	S (4)	N (3)	D (2)	VD (1)	
Salary	31	57	8	4	-	4.16
Benefits (motorcycle/laptop allowance)	27	26	21	18	8	3.47
Upgrading (salary grade)	18	32	29	13	5	3.47
Status of employment	5	23	29	26	16	2.76
Opportunity to advance education/scholarship	4	17	42	19	13	2.78
Total Mean Score						3.27

Note. VS = *Very Satisfied*, S = *Satisfied*, N = *Neutral*, DS = *Dissatisfied*, VD = *Very Dissatisfied*.

**Work activities of the RSOs.**

Based on the mean score ( $M = 4.04$ ), the respondents were satisfied with their work activities as an RSO (see Table 7). They were satisfied with “work independence” having the highest mean score of 4.32. This was probably because the

RSOs had the autonomy to make decisions when they set up and conducted their FFS. The majority of the RSOs were also satisfied with their “research and development loads,” “number of farmers and sites handled,” and “involvement in other projects.”

Table 7

*Job Satisfaction on the Work Activities of the RSOs (N = 77)*

Work Activities	Response (%)					M
	VS (5)	S (4)	N (3)	D (2)	VD (1)	
Work independence (i.e. decision making)	42	51	6	1	-	4.32
Number of farmers & sites handled	21	66	9	3	1	4.03
Research & development loads	23	58	16	1	1	4.01
Involvement in other projects	14	58	23	3	-	3.86
Total Mean Score						4.04

Note. VS = *Very Satisfied*, S = *Satisfied*, N = *Neutral*, DS = *Dissatisfied*, VD = *Very Dissatisfied*.

**Work relationships of the RSOs.**

All told, results revealed the RSOs were satisfied with their work relationships, with a mean score of 4.25 (see Table 8).

Working relationship with farmers got the highest mean score (4.51) under this category where 56% of the RSOs rated it as “very satisfied.” The FGD revealed the

RSOs enjoyed working with rice farmers who listened to them, attended and participated in the FFS, and even considered the RSOs as “the answer” to their farm problems. The RSOs added that with the rice farmers, simple things were well-appreciated.

More than half (53%) of the respondents were “very satisfied” and 38% were “satisfied” with their working relationship with other RSOs. This positive assessment may be attributed to the good camaraderie that was established when the RSOs had their four to six months in-house training. A testament to this good relationship is even if their contracts had

been terminated already, most of the RSOs kept in touch with each other.

The working relationship of the RSOs with other stakeholders (LGU, Agricultural Training Institute, Regional Field Unit, and others) (52%) and with their PhilRice supervisors (48%) were both rated as “satisfactory” by most of the respondents. Some 13% of the respondents rated these items as “neutral,” and 4% to 9% even gave them “dissatisfactory” ratings. When probed into during the FGD, some RSOs reported their local partners left them alone during project implementation or did not provide any form of assistance.

Table 8

*Job Satisfaction on the Work Relationships of the RSOs (N = 77)*

Work Relationships	Response (%)					M
	VS (5)	S (4)	N (3)	D (2)	VD (1)	
Working relationship with farmers	56	40	3	1	-	4.51
Working relationship with co-RSOs	53	38	9	-	-	4.44
Working relationship with other stakeholders	31	52	13	3	1	4.09
Working relationship with supervisors at PhilRice	30	48	13	8	1	3.97
Total Mean Score						4.25

Note. VS = *Very Satisfied*, S = *Satisfied*, N = *Neutral*, DS = *Dissatisfied*, VD = *Very Dissatisfied*.

**Use of skills and abilities of the RSOs**

Table 9 presents five items on the use of various skills and abilities of the RSOs. In general, the respondents gave this category a satisfied rating with a mean score of 4.22. Two items were considered by more than half of them as “satisfactory,” namely “opportunity to utilize skills and talents” (53%) and “in-service training, technical briefing, technology demonstration” (55%). Two other items had almost equal ratings of

“very satisfactory” and “satisfactory,” namely “involvement in decision-making/solving field problems,” and “opportunity to learn new skills.” “Mentoring (of supervisors)” was generally perceived as satisfactory (43%) but almost a quarter (21%) considered it “neutral,” and a handful (8%) rated it “dissatisfactory,” which may be explained by the minimum supervision given to the RSOs when they were setting up projects in farmers’ fields.

Table 9

*Job Satisfaction on the Use of Skills and Abilities of the RSOs (N = 77)*

Use of Skills and Abilities	Response (%)					M
	VS (5)	S (4)	N (3)	D (2)	VD (1)	
Involvement in decision-making/solving field problems	43	48	6	-	-	4.37
Opportunity to utilize skills and talents	40	53	6	-	-	4.34
Opportunity to learn new skills	44	47	6	1	1	4.31
In-service training, technical briefing, technology demonstration	38	55	6	1	-	4.29
Mentoring (of supervisor/s)	29	43	21	8	-	3.92
Total Mean Score						4.22

Note. VS = Very Satisfied, S = Satisfied, N = Neutral, DS = Dissatisfied, VD = Very Dissatisfied.

In summary, Tables 5-9 illustrate that only one of the 27 items was rated “very satisfactory,” and 19 items were seen as “satisfactory.” For all 27 items, there was no mean score lower than 2.76. Based on the total mean score, Figure 1 shows the RSOs

were satisfied with their work relationships ( $M = 4.25$ ), use of skills and abilities ( $M = 4.22$ ) and work activities ( $M = 4.04$ ). On the other hand, respondents were neutral on their pay and promotional potentials ( $M = 3.27$ ).

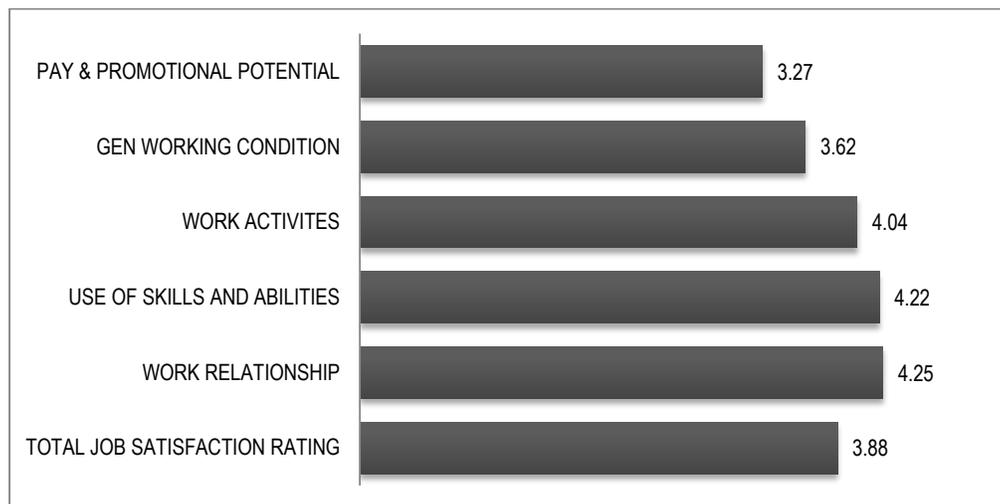


Figure 1. RSOs’ total job satisfaction mean score, by category.

### Conclusion and Recommendations

The RSOs were collectively young, single, and fresh out of college, with slightly more females than males. These basic demographic characteristics, except for the sex, made the RSOs almost the exact opposite of the current AEWs in the Philippine government. These characteristics of the RSOs were advantageous to the system as they were highly motivated and active regardless of the scope of their work (area and number of farmers handled).

The RSOs by and large perceived their work as very important in achieving rice self-sufficiency. Extension roles were given more importance than their research and forging partnerships roles. This is despite the fact that the RSOs' TOR clearly showed their research role had more weight. This suggests the RSOs considered themselves more as extension agents rather than researchers. It is recommended then that in similar research and development programs, a thorough discussion of the roles of personnel be done to avoid role confusion. It is also suggested capacity enhancement be more focused on the major role of the trainees to hone their needed skills for the expected work.

The major sources of job satisfaction for the RSOs were their working relationships, particularly with the farmers and their co-RSOs. This suggests the RSOs were relatively satisfied with the engagement they had established with their farmers – even if they were handling as many as 50 farmers per site. This also somehow reflected that the farmers appreciated the accessibility of the RSOs, and their youthfulness did not erode their credibility. The months of in-house training proved to be crucial in the development of camaraderie and team spirit among the RSOs. Though this was not deliberately part of the strategy, that such good relationships with their co-RSOs led to high job

satisfaction is consistent with the literature (Scott, Swortzel, & Taylor, 2005). On the other hand, pay and promotional potentials were given the lowest marks, specifically status of employment and opportunity to advance education/scholarship. This tells us that it was not clear to the RSOs that their being under a contractual basis of employment limited their benefits. Regrettably, the scholarship opportunities granted to two RSOs could have added to the confusion of the possible benefits of the RSO job. It is recommended then that these two factors be assimilated in similar programs to achieve high job satisfaction, and possibly mitigate personnel turn-over and inspire loyalty.

With regards to forging partnerships, the survey and FGD results showed not all local partners lived up to the tasks expected of them. The partners, even PhilRice, failed at times to give the necessary support needed by the RSOs. This created disappointment and frustration among the RSOs. It is recommended then that a memorandum of agreement is made, clearly stating the roles of each stakeholder, when partnerships are expected to contribute to the success of similar projects.

### References

- Agunga, R., Djomo, C., & Na, S. II, (1997). Burnout, job satisfaction and work situations as perceived by district extension officers, Ondo State, Nigeria. *Journal of International Agricultural and Extension Education*, 4(1), 47-56.  
doi: 10.5191/jiaee.1997.04106
- Akinbode, I. A. (1971). Roles of the divisional extension workers in the Western State of Nigeria. *Quarterly Journal of Administration*, 6(1), 21-22.
- Banmeke, T. O. A., & Ayaji, M. T. (2005). Job satisfaction of extension workers

- in Edo State Agricultural Programme in Nigeria. *International Journal of Agricultural and Rural Development*, 6, 202-207.
- Child, J. (1972). Organizational structure, environment and performances: The role of strategic choice. *Sociology*, 6(1), 1-22.
- Ekong, E. E. (1988). *An introduction to rural psychology*. Ibadan, Nigeria: Jumak Publishers Limited.
- Frediles, C. A. (2010, January-March). PhilRice “soldiers” combat rice sufficiency gap. *PhilRice News Magazine*, 12-13.
- Gibson, J. L., Ivancevich, J. M., & Donnelly, H. J. (1982). *Organization: Behavior, Structure and process* (4th ed.). Plano: Texas Businesses Publication Inc.
- Hornby, A. S. & Cowie, A. P. (1995). *Oxford advanced dictionary of current English* (5th ed.). Oxford University Press.
- Ibrahim, H., Muhammad, D. M., Yahaya, H. & Luka, E. G. (2008). Role perception and job satisfaction among extension workers in Nasarawa Agricultural Devt Programme (NADP) of Nasarawa State, Nigeria. *Production Agriculture and Technology Journal*, 4(1), 62-70.
- Salisbury University (2012). *Job satisfaction*. Retrieved from [www.salisbury.edu/.../Class/.../Job%20Satisfaction%20Questionnaire.doc](http://www.salisbury.edu/.../Class/.../Job%20Satisfaction%20Questionnaire.doc)
- Miranda, R. B. (2010). Location-specific technology development (LSTD) program. In A. B. Mataia, A. C. Castañeda, C. M. A. Tolentino, S. J. C. Paran, & C. G. Yusongco (Eds.), *Research Methodologies for Rice Specialists*, (pp. 3-7). Philippine Rice Research Institute: Maligaya, Science City of Muñoz, Nueva Ecija, Philippines.
- Norman, G., Harlow, H. F., Jones, L. V., & Stevenson, H. W. (1982). Occupational stress: Coping and health problems of teachers. *The Journal of School Health*, 51(3), 175-181.
- Patel, A. U. (1983). *Evaluation of extension education programme*. Nigeria: Department of Agricultural Extension and Rural Development. University of Ibadan.
- Scott, M., Swartzel, K. A., & Taylor, W. N. (2005). Extension agents’ perceptions of fundamental job characteristics and their level of job satisfaction. *Journal of Southern Agricultural Education Research*, 55 (1), 88-101.
- Sharma, J. P., & Bajpai, N. (2011). Role clarity: A phenomenon based on organizational origin is a catalyst for job satisfaction. A comparative study launched in India revealing some new facts. *European Journal of Scientific Research*, 49(1), 61-72.
- Tanchuling, H. (2011, July-September). Rice self-sufficiency in 2013: Attainable, just a matter of putting in the right ingredients. *Rice Self-Sufficiency Bulletin*, 1-3.
- Tenorio, M. A. & Aganon, T. M. (2006). Country report: Philippines. In V. P. Sharma (Ed.), *Enhancement of extension systems in agriculture*, (pp. 151-159). Tokyo, Japan: Asian Productivity Organization.