

TRAINING NEED ASSESSMENT OF EXTENSION FUNCTIONARIES WORKING AT RYTHU SEVA KENDRAS (RSKS) IN SRIKAKULAM DISTRICT OF ANDHRA PRADESH

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Agriculture sector faces persistent structural challenges including low productivity, inadequate irrigation, limited land development and exposure to climate related risks (Shaba and Alam, 2024). Trained agricultural extension personnel especially Village Agricultural Assistants (VAAs) can meet at least certain challenges that are being faced by agriculture sector. Hence, several programmes on human resource development are being taken up including agricultural extension personnel by front line extension institutes of ICAR, different organizations of Government of India and other voluntary organisations. One of the factor for success of such human resource development programmes is training need assessment for successful intervention of schemes and programmes. Krishi Vigyan Kendras are the front line extension institutes primarily involved in training such extension functionaries like VAAs, farmers, women and rural youth for improving their quality of life. Capacity building of the farmers can be one of the means to address these challenges (Kumar *et al.*, 2024). Training is one of the important methods of capacity building. According to Sanjeev *et al.*, (2012), it is a process of acquiring new skills, attitudes, and knowledge that facilitates entry into a profession or enhances productivity within an organization or enterprise. Training needs assessment refers

to the process whereby such needs are indicated, prioritized and selected for specific action as part of the training programme. Roy *et al.*, (2021) found that there was significant improvement in the levels of knowledge, attitude and skill as a result of training. Rajat Kumar Nath *et al.*, (2025) found that 71.25 per cent of the farmers had medium to very high need of training in the area of value chain development. The most sought-after training needs were the use of herbicides, vermicomposting, prevention of rotting and contract negotiation skills.

Performance is enhanced and updated by improving Agricultural Extension Personnel technical and social competencies which can be brought by identifying their needs with respect to technological and managerial aspects. Keeping this in view, KVK Amadalavalasa conducted the study on training need assessment of Agricultural Extension personnel with an objective of assessment of training needs of Agriculture Extension Personnel (VAAs -Village Agricultural Assistants of RSK) in Srikakulam district.

An Ex-post facto Research design was used for the study. Srikakulam district was selected purposively as it is one of the most backward districts where strategies developmental activities are crucial for

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progress. Agriculture Extension Personnel selected were Village Agricultural Assistants (VAA) and Village Horticulture Assistants (VHA), purposively as they implement the technology at field level. Srikakulam District was selected purposively, out of 30 mandals in Srikakulam, 12 mandals were selected randomly. From each selected mandal five VAA/VHA were selected randomly for the study purpose. Thus, a total sample size became 60 VAAs and VHAs for the study purpose. The training needs were self-assessed by an individual VAAS by giving weightage from 1-3 on 3 point continuum in the given structured set of questionnaires. The statistical tools used are weighted mean score, frequency, percentage, mean and standard deviation.

$$\text{Calculation of weighted mean : } \frac{\text{WMS} = \frac{S_1 + S_2 + S_3 + \dots + S_N}{N}}{\text{Score (WMS)}}$$

WMS-Weighted mean score

S1- Score given by 1st respondent on the item

S2- Score given by 2nd respondent on the item

S3- Score given by 3rd respondent on the item

SN- Score given by Nth respondent on the item

RESULTS AND DISCUSSION

Majority (90%) of the Agricultural Extension Personnel (VAAs/VHAs) are young, indicating a relatively new or recently recruited workforce. Most personnel (about 95%) have either a diploma or undergraduate degree; only a small fraction (5%) have higher education. Almost half of the personnel have less than 2 years of experience, indicating a relatively inexperienced workforce. Over 95% have undergone fewer than 5 trainings, suggesting

a need for increased capacity-building efforts. While most personnel have conducted some trainings (especially in the 2–5 range), only a few have conducted more than 5. Overall Summary regarding profile of Agricultural Extension personnel was that majority of the VAAs were predominantly young and relatively inexperienced, with limited exposure to training (both received and delivered). Educational qualifications are mostly diploma or B.Sc. Ag, with very few having postgraduate qualifications. These findings suggest a need for ongoing training, mentorship, and skill enhancement programs to empower the young workforce for effective extension delivery.

Training needs of VAAs

General Training needs

New Market Avenues and Market Intelligence (WMS=2.91) is the most important training need among all general topics. It likely reflects a strong demand among extension personnel to understand market trends, find better prices, and help farmers access new markets.

Similar studies conducted by Kiran *et al.*, (2016), on the post-harvest training needs of farm women in the Junagadh district of Gujarat, it was found that farm women desired training in areas such as selecting selling locations, pest control, timing of spraying, rodent control, storage pest management, seed bin information, threshing, and winnowing. Similarly, the significance of marketing has also been emphasised in various studies (Kiran *et al.*, 2016). Rajnath *et al.*, (2025) revealed that Post-harvest management and farm business management got the highest weightage from the experts out of all four dimensions taken for the study. This may be because these components are very crucial for effective value chain development.

Table 1. Profile characteristics of Agricultural Extension Personnel (n=60)

S.No.	Variable	Frequency	Percentage
1.	Age		
	a.Young age (<30 years)	54	90.0
	b.Middle age (31-45 years)	6	10.0
	c.Old age (>45 years)	Nil	Nil
2.	Education		
	a. Diploma	26	43.33
	b. B.Sc., Ag.	31	51.66
	c. Post-graduation and above	3	05.0
3.	Job Experience:		
	Low (<2 years)	29	48.33
	Medium (2-5 years)	24	40.00
	High (>5 years)	7	11.67
4.	Trainings undergone		
	Low (<2)	31	51.67
	Medium (2-5)	26	43.33
	High (>5)	3	05.0
5.	No of training conducted to the farmers		
	Less (<2 no)	21	35.0
	Medium (2-5)	36	60.0
	High(>5)	3	05.0

Closely ranked group (Rank II), with very close scores (2.85–2.88) topics like Weather-based agro-advisory (2.88), Farming situation-based extension strategies (2.88), Use of ICT in TOT and farm video production (2.86), farm machinery (2.86) Cost reduction technologies (2.85), Good Agricultural Practices (GAP) (2.85), and Drudgery reducing technologies (2.85). These are high-priority training areas, just behind market intelligence. Field staff want practical tools to reduce costs, improve productivity, and use technology more effectively in training delivery.

The results were in line with that of Sengupta, 2023 and Martel *et al.*, 2021, who

reported that drones provide enhanced spatial and temporal resolutions compared to conventional techniques like manual scouting or satellite imaging, enabling farmers to monitor crop health, identify diseases, and evaluate soil conditions with remarkable precision.

Training need assessment in Paddy

For Paddy, 6 training topics, with mean scores between 2.86 and 2.89 which obtained very high weighted mean scores were preferred. Top-ranked topics (Rank I) were high yielding, situation and location-specific varieties in paddy (2.89) and Integrated Crop Management (ICM) in paddy (2.89). These are

Table 2. Training needs of VAAs under RSKs Srikakulam in General (n=60)

S.No.	General	Rank	Weighted mean Score
1.	Farm Machinery	II	2.86
2.	Organic farming	IV	2.82
3.	Weather-based agro advisory	II	2.88
4.	Compatibility of Agricultural chemicals	III	2.84
5.	Use of ICT in TOT and Farm video production	II	2.86
6.	Farming situation-based extension strategies	II	2.88
7.	Scope for Value addition in agriculture horticulture and allied sectors	III	2.84
8.	Cost reduction technologies	II	2.85
9.	Good Agricultural Practices	II	2.85
10.	Drudgery reducing technologies in Agriculture	II	2.85
11.	New Market Avenues and Market intelligence.	I	2.91

considered most essential for training. Field staff really want help in identifying the right paddy varieties for specific conditions and using holistic ICM practices. Varietal selection helps farmers choose crops that suit their local climate, soil, and disease pressures, which directly affects yield. Integrated Crop Management (ICM) combines practices like Fertilizer management, Pest & disease control, Water use and Planting techniques. This gives farmers a holistic approach to maximize yield and minimize cost. So, when extension personnel ask for more training in these areas, it shows they want to give better, more tailored advice to farmers, especially for improving productivity and profitability in paddy.

This was followed by Seed Production of paddy (2.88), Pest/disease diagnosis and Integrated management (2.88), Weed management in different sowing systems (2.88). Staff need technical skills in pest/weed control, Seed production and sowing-system-specific advice, which were regularly requested from farmers of the region.

Training need assessment in Mesta

Training needs on ICM in Mesta and retting techniques were given top priority. Agricultural Extension Personnel needed better understanding of the whole production processes including retting techniques which is a key step in fibre extraction. Training needs on high yielding varieties in Mesta. High Yielding Varieties (2.44) and Seed production (2.20) were given medium priority unlike paddy. Pest/disease management, weed control, and water management all scored low because pests and diseases are less problematic in Mesta.

Training need assessment in Pulses

Pertains to training needs on pulses, All scores are very close (2.86–2.88) indicating consistent, strong need of the topics. High yielding varieties and Diagnosis of pests/diseases (2.88) were given top priority. Seed production and Post-harvest operations (2.86) were next topics after varietal selection and field diagnosis in pulses

Table 2. Training needs of VAAs under RSKs Srikakulam in Paddy (n=60)

Paddy			
1.	Seed Production of paddy	II	2.88
2.	High yielding, situation and location specific varieties in paddy	I	2.89
3.	Diagnosis of pests, diseases disorders in paddy and their integrated management in Paddy	II	2.88
4.	Weed management in different sowing systems in Paddy	II	2.88
5.	Water management and Irrigation techniques in Paddy	III	2.86
6.	ICM in paddy	I	2.89

Table 3. Training needs of VAAs under RSKs Srikakulam in Mesta (n=60)

Mesta			
1.	Seed Production of mesta	II	2.2
2.	High yielding, situation and location specific varieties in mesta	II	2.44
3.	Diagnosis of pests, diseases disorders in paddy and their integrated management in mesta	IV	1.99
4.	Weed management in mesta	III	2.11
5.	Water management and Irrigation techniques in mesta		1.88
6.	ICM in mesta and mesta retting techniques	I	2.55

Table 4. Training needs of VAAs under RSKs Srikakulam in Pulses (n=60)

Pulses			
1.	Seed Production of Pulses	III	2.86
2.	High yielding, situation and location specific varieties in pulses	I	2.88
3.	Diagnosis of pests, diseases disorders in pulses and their integrated management in pulses	I	2.88
4.	Weed management in pulses	II	2.87
5.	ICM in pulses	II	2.87
6.	Post-harvest operations and storage of pulses	III	2.86

Training need assessment in Maize

Diagnosis of pests/diseases (2.88) weed management (2.76), High yielding, situation and location specific varieties in Maize (2.65), ICM in Maize (2.56), Water management and Irrigation techniques in Maize (2.34) and Seed production (1.94) were prioritised training needs by VAAs. This is because of severe infestation of fall army worm and incidence of

diseases like blight in Maize in North coastal zone of Andhra Pradesh.

Training need assessment in Ragi

ICM in Ragi (2.56), Selection HYV (2.56) and Seed production (2.56) were identified as top areas of training needs in Ragi. Diagnosis of Pests, diseases and disorders in ragi and their management followed.

Table 5. Training needs of VAAs under RSKs Srikakulam in Maize (n=60)

Maize			
1.	Seed Production of Maize		1.94
2.	High yielding, situation and location specific verities in maize		2.65
3.	Diagnosis of pests, diseases disorders in maize and their integrated management in maize	I	2.88
4.	Weed management in Maize		2.76
5.	Water management and Irrigation techniques in maize		2.34
6.	ICM in Maize		2.56

Table 6. Training needs of VAAs under RSKs Srikakulam in Ragi (n=60)

Ragi			
1.	Seed Production of ragi	I	2.56
2.	High yielding, situation and location specific verities in ragi	I	2.56
3.	Diagnosis of pests, diseases disorders in ragi and their management in ragi	II	2.45
4.	Weed management in different sowing systems in ragi	III	2.34
5.	ICM in Ragi	I	2.56
6.	Post-harvest operations and storage of ragi	III	2.34

Table 7. Training needs of VAAs under RSKs of Srikakulam in Sugarcane (n=60)

Sugarcane			
1.	Machinery used in Sugarcane	I	2.89
2.	High yielding, situation and location specific verities in Sugarcane	I	2.89
3.	Diagnosis of pests, diseases disorders in sugarcane and their integrated management in Sugarcane	II	2.88
4.	Weed management in different sowing systems in Sugarcane	II	2.88
5.	Water management and Irrigation techniques in Sugarcane	III	2.67
6.	ICM in Sugarcane	1	2.89

Table 8. Managerial Training needs of VAAs under RSKs Srikakulam (n=60)

Managerial needs			
1.	Time management	I	2.89
2.	Stress management	II	2.85
3.	Leadership skills	III	2.83
4.	Process documentation	III	2.65

Training need assessment in Sugarcane

High yielding, situation and location specific varieties (2.89), Farm machinery, ICM in Sugarcane (2.89) followed by weed management and plant protection Sugarcane(2.88) were the prioritized training needs by VAAs in sugarcane crop.

Training need assessment in Managerial needs

Among managerial needs given by VAAs was Time management (2.89), Stress management (2.85) and Leadership skills (2.83) followed by Process documentation (2.65). This is due to the reason that majority of the RSK staff were young age with less experience. Also, this shows an orientation towards building personality along with work capacities.

The study showed that more than fifty percent of the respondents had low level of training. The most preferred training areas were farm machinery(2.86), farming situation based extension(2.88), weather based extension(2.88) and ICTs(2.86). With respect to paddy, seed production(2.88) was closely followed by high yielding varieties(2.89). This calls for specific training interventions for effective discharge of duties.

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