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**H Nagesh**  
Acharya NG Ranga Agricultural  
University, Hyderabad,  
Telangana, India

**B Mukunda Rao**  
Acharya NG Ranga Agricultural  
University, Hyderabad,  
Telangana, India

**T Gopi Krishna**  
Acharya NG Ranga Agricultural  
University, Hyderabad,  
Telangana, India

**Corresponding Author:**  
**H Nagesh**  
Acharya NG Ranga Agricultural  
University, Hyderabad,  
Telangana, India

## Knowledge assessment of beneficiaries about Pradhan Mantri knowledge assessment of beneficiaries about Pradhan Mantri

H Nagesh, B Mukunda Rao and T Gopi Krishna

### Abstract

Climate change is the major set-back to the farmers, to surmount that situation crop insurance is the yardstick for the farmers. To stabilize the farm income the farmer has to avail the crop insurance. The Pradhan Mantri Fasal Bima Yojana was help to guard the farmers from crop loss due to unpredictable movements and alleviate the heavy weight of financial risk on farmers and stabilize their farm income. Even though this crop insurance Program was found to be farmer friendly, rural people still struggle to understand and accept it. The identified findings of the study show the knowledge level of beneficiaries of the sample of 120 farmers in the Srikakulam district of Andhra Pradesh. In srikakulam ten farmers from each village were randomly selected namely Muddada, Ponnada, Ibrahimbad, Konagaram from Etcherla Mandal; Gara, Korlam, Korn, Kothurusyrigam from Gara Mandal; Telukunchi, Tulasigam, Paitharikerthipuram, Haripuram from Ichchpuram mandal were selected for the study. Thus a total of twelve (12) villages were chosen for the study. The ex-post facto Research design was used for this study. Pearson's Correlation Coefficient (r) and Multiple Linear Regression (MLR) are some statistical tools used in this study. Most of them (61.67%) beneficiaries had medium level of knowledge, followed by those with low (20.00%) and rest (18.33%) had low levels of knowledge.

**Keywords:** Crop insurance, knowledge, farm income

### 1. Introduction

Agrarians are highly dependence on monsoon rainfalls. Agriculture in India is proverbially called a "Gamble on the Monsoon". But Climate change is a big blow to agriculture and its allied sectors. As agriculture is highly dependent on weather, even if small changes occur in any stage of the crop it could affect crop growth and consequence changes occur in the livelihood farmers. Not only environmental effect, but also pests and diseases it effect the crop growth and yield. Agricultural production and farm incomes in India are frequently affected by natural disasters, susceptibility of agriculture to these disasters is compounded by the outbreak of epidemics and manmade disasters such as fire, sale of spurious seeds, fertilizers and pesticides, price crashes. Agricultural insurance is considered as one of the important mechanism to effectively address the risks to farm production and income resulting from various natural and manmade events. One of the populistic game-changer insurance schemes brought out by the government of India is Pradhan Mantri Fasal Bima Yojana (PMFBY) which not only provides insurance coverage to farmers against natural calamities and pests, but also encourages them to adopt innovative modern agricultural practices. The aim of new scheme is to cover 50 per cent of total crop area i.e. 19.40 million hectare and use of digital technology to improve yield data and automate claims (Goel, 2016) [4].

### 2. Methodology

The present study was conducted in Srikakulam district of Andhra Pradesh State during the year 2018-2019. The *ex-post facto* Research design was used forth is study. Srikakulam district was purposively chosen for the study as it is having highest number of farmers enrolment and highest number farmers of beneficiaries of PMFBY in the North Coastal zone of Andhra pradesh State. In srikakulam ten farmers from each village randomly selected namely Muddada, Ponnada, Ibrahimbad, Konagaram from Etcherla mandal; Gara, Korlam, Korn, Kothurusyrigam from Gara mandal; Telukunchi, Tulasigam, Paitharikerthipuram, Haripuram from Ichchpuram mandal were selected for the study. Thus a total of twelve (12) villages were selected in this study.

Pearson’s correlation coefficient (r) and Multiple Linear Regression (MLR) are some statistical tools used in this study. The data were collected from 120 respondents through personal interview method by using the random sampling technique and with a well-structured interview schedule. Respondents were asked to express problems faced by them during the implementation of PMFBY. The level of knowledge about PMFBY were expressed by the respondents through closed-ended Questions. Thus, obtained responses were summed up and expressed in terms of frequency and percentages. To measure the knowledge of beneficiaries about the PMFBY 23 Questions were used. The questions framed were objective type i.e., multiple choice, fill in the blanks, true or false, yes or no statements with a score of one for correct response and zero for incorrect response. The total knowledge score for each respondent was calculated by summing up the number of items correctly answered by an individual respondent and the maximum score one could obtain was 23 and minimum score was 0. By adding the scores of all the items, the individual total score was worked out. The beneficiaries were categorized into three groups based on the mean and standard deviation. Lastly, a rank was given based on the knowledge to each item. Most of the

respondents belong to medium category in knowledge about PMFBY followed by high category and then low category.

### 3. Results and Discussion

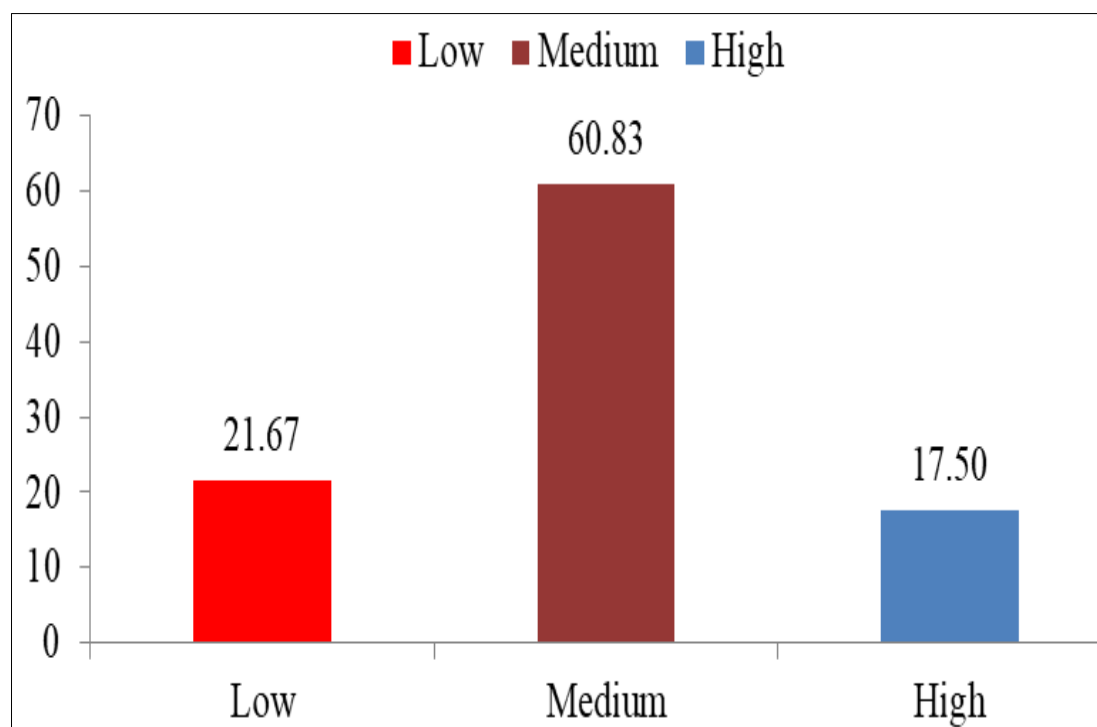
The data in the Table 1 reveals that the knowledge of beneficiaries in PMFBY in percentage in ranking order of their importance that most of beneficiaries (61.67%) had medium level of knowledge, followed by those with low (18.33%) and rest (20.00%) had high levels of knowledge. Some other reasons that could be possible attributed for medium knowledge were irregular visit of Bank officials, insurance officials and extension functionaries due to unmanageable area to be covered.

**Table 1:** Distribution of beneficiaries according to their level of knowledge on PMFBY (N=120)

S. No.	Category	Frequency	Percentage
1	Low (< 8.22)	22	18.33
2	Medium (8.23-13.58)	74	61.67
3	High (> 13.59)	24	20.00
Total		120	100.00
Mean = 10.1			SD = 3.24

**Table 2:** Item analysis of knowledge level on PMFBY, (N=120)

S. No	Particulars	Knowledge				Rank
		Correct		Incorrect		
		F	%	F	%	
1.	Year of Introduction of Pradhan Mantri Fasal Bima Yojana (PMFBY) is 2016	51	42.50	69	57.50	X
2.	Pradhan Mantri Fasal Bima Yojana (PMFBY) does not provides the loan for summer crops.	28	23.33	92	76.66	XVI
3.	Pradhan Mantri Fasal Bima Yojana (PMFBY) provides loan for Kharif, Rabi and horticultural crops.	80	66.66	40	33.33	VI
4.	The crops covered under Pradhan Mantri Fasal Bima Yojana (PMFBY) during kharif season are cereals, millets, pulses and oil seed crops.	100	83.33	20	16.66	II
5.	The crops covered under Pradhan Mantri Fasal Bima Yojana (PMFBY) during Rabi season are cereals, millets, pulses and oil seed crops.	47	39.17	73	60.83	XI
6.	The amount of premium rate for kharif crops under the PMFBY is 2%.	112	93.34	8	6.66	I
7.	The amount of premium rate for Rabi crops under the PMFBY is 1.5%.	40	33.33	80	66.67	XIV
8.	The amount of premium rate for commercial and horticultural crops under the PMFBY is 5%.	94	78.33	26	21.67	III
9.	The basis for implementation of Pradhan Mantri Fasal Bima Yojana (PMFBY) is on Area Approach Basis.	7	5.83	113	94.16	XX
10.	The crop loss assessment in Pradhan Mantri Fasal Bima Yojana (PMFBY) is done by using drones and smart phones.	24	20.00	96	80.00	XVIII
11.	The remote sensing lab for crop insurance to give early warnings to the farmers and government about the losses under Pradhan Mantri Fasal Bima Yojana (PMFBY) was established by HDFC ERGO general insurance company.	27	22.50	93	77.50	XVII
12.	The Farmers under Pradhan Mantri Fasal Bima Yojana (PMFBY) has to intimate individual loss (natural calamities /mid-season losses) within 72 hours to the officials of the department of Agriculture DOA.	89	74.16	31	25.84	IV
13.	The farmers under Pradhan Mantri Fasal Bima Yojana (PMFBY) has to intimate post- harvest losses within 14 days to department of Agriculture DOA.	76	63.33	44	36.64	VII
14.	Pradhan Mantri Fasal Bima Yojana (PMFBY) beneficiaries is mandatory for Loanee farmers, who have taken institutional loans from banks	42	35.00	78	65.00	XII
15.	Pradhan Mantri Fasal Bima Yojana (PMFBY) beneficiaries is optional for Non-Loanee farmers, who have taken institutional loans from banks.	2	1.66	118	98.34	XXII
16.	The reasons for failure of Pradhan Mantri Fasal Bima Yojana (PMFBY) delay payment, insurance company not respond immediately & village as a unit.	88	73.33	32	26.64	V
17.	The source of funds for government to pay premium in Pradhan Mantri Fasal Bima Yojana (PMFBY) is Krishi Kaliyan Yojana	73	60.83	47	39.17	VIII
18.	The Share of Premium Rate by Central And State Governments in Pradhan Mantri Fasal Bima Yojana (PMFBY) is 50:50.	60	50.00	60	50.00	IX
19.	The companies provide Insurance under this scheme (PMFBY) in Srikakulam is Agriculture Insurance Company Limited	1	0.83	119	99.16	XXIII
20.	The companies provide Insurance under this scheme (PMFBY) are private sector insurance companies and public sector insurance companies	39	32.50	81	67.50	XV
21.	The types of the risks that are covered under this scheme (PMFBY) are yield loss, post-harvest losses, localized calamities, wild animals attack.	22	18.33	98	81.64	XIX
22.	The registration of farmers under Pradhan Mantri Fasal Bima Yojana (PMFBY) gradually reduces year by year from inception of the programme	42	35.00	78	65.00	XIII
23.	In Pradhan Mantri Fasal Bima Yojana (PMFBY) the losses arising out of war and nuclear risks, malicious damage and other preventable risks shall be excluded.	3	2.50	117	97.50	XXI



**Fig 1:** Distribution of beneficiaries according their level of knowledge about PMFBY

From the Table 2 it could be revealed that 75 to 100 per cent of the beneficiaries had knowledge on simple aspects. Generally beneficiaries have more knowledge on aspects which are being followed by them. The amount of premium rate in kharif crops under PMFBY (93.34%) followed by crops covered under PMFBY during kharif season crops (83.33%), the amount of premium in horticultural and commercial crops (78.33%).

It could be understood from the Table 2. Fifty to less than seventy five per cent of beneficiaries had knowledge about the aspects like farmers has intimate the individual losses (natural calamities/mid-season losses) within 72 hours to the officials of the department of Agriculture DOA (74.16%), reasons for failure of PMFBY delay payment, insurance company not respond immediately & village as a unit. (73.33%), The PMFBY provides loan for kharif, *Rabi* and horticultural crops (66.66%), the farmers under PMFBY has to intimate the post-harvest losses within 14 days to department of Agriculture DOA (63.33%), the source of funds for government to pay premium in PMFBY (60.83%). For understanding above items needs practical experience in PMFBY and enthusiasm interest and critical on observation on the part of beneficiaries for acquiring knowledge about the above items. So the extension functionaries should organize training programmes, demonstrations to further enhancement of knowledge of the beneficiaries on PMFBY.

From Table 2. revealed that 25 to 50 per cent of beneficiaries had knowledge about the aspects like The share of premium rate by central and state governments in PMFBY (50.00%), Year in introduction of PMFBY (42.50%), The crops covered under *Rabi* season (39.17%), PMFBY is mandatory for Loanee farmers who have taken institutional loans from banks (35.00%), The registration of farmers under PMFBY gradually reduces year by year from inception of the programme (35.00%), The amount premium rate for rabi crops under PMFBY (33.33%), The companies provide insurance under this PMFBY (32.50%). The above items involve technical skills, expertise and comprehensive

awareness to understand. Knowledge of the beneficiaries on the areas can be improved by organizing training programmes, screening of videos organization of study tours etc.

From Table 2. Revealed that less than 25 per cent of beneficiaries had knowledge about the aspects like PMFBY insurance does not provide loan for summer crops (23.33%), The remote sensing lab for crop insurance to give early warnings to the farmers and government about the losses under PMFBY (22.50%), The crop losses assessment in PMFBY was done by using drones and smart phones (20.00%), The types of risks that are covered under this PMFBY (18.33%), The basis for implementation of PMFBY (5.83%), In PMFBY the losses arising out of war and nuclear risks, malicious damage and other preventable risks shall be excluded (2.50%), PMFBY is optional for Non-Loaned farmers taken from banks (1.66%) and The companies provides insurance (PMFBY) in Srikakulam Dist. (2.00%).

Farmers perceived that above items are complex to understand and difficult to implement so there is a need to skill oriented training programmes for enhancement the knowledge of beneficiaries about PMFBY.

#### 4. Conclusion

The oblige of the government, extension agency and research institutions are to reduce the gaps in knowledge of beneficiaries of Pradhan Mantri Fasal Bema Yojana for getting more benefits from PMFBY. The indemnity is given to farmers by the companies to be credited at right time.

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