

CONSTRUCTION OF A STANDARD SCALE FOR MEASURING CONSTRAINTS OF OIL SEED GROWERS CO-OPERATIVE MEMBERS AND FUNCTIONARIES OF IGMP BIKANER

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India is the third largest edible oil economy in the world after U.S.A. and China. It occupies a distinct position not only in terms of area under oil seeds but also in terms of diversity in cultivated oil seeds.

Though the production of oil seeds has increased overtime in the country. Yet there is a large gap between their demand and supply. Demand and supply of oil seeds is expressed in terms of edible oils. The availability of edible oils in the country is only 15 gm per head per day as against a minimum requirement of 18 gm head per day as against a minimum requirement of 18 gm per head per day as recommended by the Food and Agricultural Organisation (F.A.O.)

This has necessitated to trace out these. In the light of stagnancy in the production of oil seeds and heavy expenditure of foreign exchange in the import of edible oils. Govt. of India in 1986 constituted a "Technology Mission" on oil seeds for organizing efforts from all sides to increase the oil seeds production. Similarly in Rajasthan RAJFED initiated the action of installing various plants based on oil seeds and subsequently Rajasthan State co-operative oil seed grower federation Ltd. (TILAM SANGH) was created on 3rd July, 1990. Almost a decade has passed after inception of this project.

As stated earlier that still there is a gap

between demand and supply of oil seeds. This gap may be attributed to some constraints which the functionaries of TILAM SANGH might be facing in the achievement of target production. This has necessitated to conduct this study.

METHODOLOGY :

The study was conducted in one project i.e. Integrated Groundnut and Mustard Project Bikaner of "TILAM SANGH". The sample was comprising of 80 oil seed cooperative members, 24 members from management committee of OSCS and 12 functionaries from the different sectors of the plant.

A standard scale was developed to measure the various constraints encountered by functionaries of TILAM SANGH in achieving the set targets by the investigator.

RESULTS AND DISCUSSION :

Social science variables have the limitation that the standard tools are not available to measure these variables in a consistent manner.

A scale for measurement of constraints encountered by Oil Seed Co-operative members, management committee members and functionaries of IGMP, Bikaner was not available which had to be developed. The procedural steps adopted for construction of the scale are presented below.

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(A) Collection and Editing of Items—

An inventory of items which appeared to constitute constraints encountered by Oil Seed Grower Co-operative Members, management committee members as well as functionaries was prepared. For preparation of this inventory OSCS members were contacted other than the sample once and discussion were held with them. In addition, the pertinent literature was studied to collect the items. The list so prepared was further enriched by consulting the experts in the discipline besides officials related with the day to functioning of OSCS. The items, thus collected, were then subjected to a through scrutiny and editing on the basis of the criteria suggested by Edward (1957). Based on these criteria 126 statements in increasing oil seed production constraints from the view point of Oil seed Grower Co-operative Members and other respondents were retained for inclusion in the inventory.

(B) Judges rating of items—To determine the degree of importance of each of the items in increasing oil seed production the constraints encountered by respondents, it was necessary to obtain the opinion of judges. The items were listed and sent to 50 judges under a covering letter.

The judges were requested to give their judgement regarding the importance of constraints encountered by the respondents for inclusion in the scale on a 3 point continuum ranging from most important, important and less important by placing a tick-mark in the each of the item. The panel of judges comprised experts drawn from the Department of Extension Education, Rajasthan Agriculture University, Bikaner and Integrated Groundnut and Mustard Project officials and other field extension workers. Out of the 50 judges, 40 responded with their judgement of the items.

(C) Final Selection of Items—The responses of the Judges to the items indicated the degree of importance of a constraints on a 3 point continuum by way of its being most important, important and less important. On the basis of the degree of importance. The items were given a weightage of 3, 2 and 1 respectively. Following this criteria, the responses received from the 40 Judges were computed for each of the items. The raw scores of each of the items were then converted into Z scores.

For final selection of items, it was necessary to drop such items which were not important constraints in the opinion of the Judges. To do this all the items having positive Z score values and in the opinion of Judges constituted most important and important constraints were included in this scale. The item which were Judged to be not so important were rejected. With this exercise 106 statement finally selected for inclusion in the scale for measuring the constraints of respondents.

(D) Reliability of Scale—For testing the reliability of the instrument "Test-retest" method was used. In this method, the instrument was administered twice to the same group consisting of 80 Oil seed Grower Co-operative Members, management committee members and functionaries identical to the respondents at an interval of 10 days. The agreement between the scores obtained from the two applications of the same instrument was determined with the help of correlation coefficient which was called stability or dependability. The coefficient calculated for the scale was 0.730, which was highly significant.

(E) Validity of Scale—The content validity of the scale was established during

the process of construction of the scale. The items presented to the Judges represented the whole universe of the constraints collected from different sources mentioned earlier. The final selection of the statements retained in the scale was based on the degree of importance determined by 40 Judges. Accordingly, the content validity was built in the process of scale construction.

MEASUREMENT OF CONSTRAINTS

For the purpose of the study constraints were defined as such of the bottleneck, obstacles or pressing reasons which may either be Technical, Financial, Infrastructural, Social and Educational intervening the efficient functioning of the Oil seed Grower Co-operative societies in increasing the production of major oil seed crops.

The constraints faced by OSCM were categorized in to Technical Financial, Infrastructural, Social and Educational.

For measurement of constraints a scale was developed as described earlier.

The scale was having three response categories viz most important, important and less important. The scores 3, 2, & 1 were awarded to them respectively.

The total score of a constraint was summed up and then divided by total number of respondent to obtain mean score. The constraints were ranked in descending order on the basis of these mean scores. Similar procedure was adopted for measuring constraints of functionaries of IGMP, Bikaner.

CONCLUSION :

Despite of the fact that India occupies significant place among the major oil seed producers in the world. There is a large gap between the demand and the supply of edible oils. Although Tilam Sangh had made tremendous impact in increasing the area and production of oil seed crops. Yet there is a wide gap between availability and demand of oil seeds. This gap may be attributed to some constraints of different level in Tilam Sangh. Yet a scale for measurement of constraints encountered by oil seed co-operative members was not available which had to be developed. The data were collected with the help of specially developed interview schedule consisting of device to measure the dependent and independent variables.

APPENDIX-II

PART-I

Table 1. Judges rating of items constituting the constraints encountered by oil seed growers co-operative members in increasing production of important oil seed crops

S.No.	Constraints	Raw score	Z score
(A) Technical constraints			
1.	Delay in grading of oil seed by OSCM		
2.	Susceptibility to diseases and pest of mustard and groundnut	89	0.19
3.	Lack of knowledge about improved package of practices of oil seed crops	94	0.67
4.	Poor conception rate in groundnut	89	0.19
5.	Lack of adaptability of HYVs of mustard of adverse climatic conditions	58	-2.80
6.	Decline in production after F ₁ generation in HYVs of oil seed crops	90	0.29
7.	Lack of knowledge about grading system	91	0.38
8.	Lack of constant technical guidance by OSCM	92	0.48
9.	Irregular and incorrect grading of oil seeds	91	0.38
		89	0.19

S.No.	Constraints	Raw score	Z score
(B) Financial constraints			
1.	No monetary incentives for supplying oil seed to the co-operative society	95	0.39
2.	HYVs seed is very costly	102	0.94
3.	Low price of oil seeds offered by the society	93	0.23
4.	There is no provision of loans for purchasing of farm implements by society and unit	94	0.31
5.	Non availability of fertilizers of subsidized rates	101	0.86
6.	Private purchaser provide advance payment	63	-2.12
7.	Problems in receiving payment from the society	91	0.07
8.	Cost of cultivation of groundnut is very high	98	0.63
9.	Price of produce is unpredictable	92	0.15
10.	Payment to members is not timely made by the OSCS	96	0.47
11.	Quality out deducted with cash amount	65	-1.97
(C) Infrastructural constraints			
1.	Irregular and in adequate supply of inputs	106	1.11
2.	Unavailability of HYVs seed at the sowing time	102	0.86
3.	Poor storage facilities at oil seed co-operative societies	97	0.55
4.	Society purchase center away from their home	51	-2.28
5.	Non available of irrigation facility through out the year	94	0.37
6.	More concentration of VEWs towards local leaders and higher classes	90	0.12
7.	Gunny bags are of poor quality	60	-1.72
8.	Poor transportation facilities of oil seeds at OSCS level	91	0.18
9.	Non availability of gunny bags at the time of purchasing	89	0.06
10.	Delay in procurement of oil seeds by OSCS	92	0.24
11.	Lack of wide publicity about different extension activities among farmer members	96	0.49
(D) Social constraints			
1.	Irregularity in meeting of society members	97	0.83
2.	Factions among members due to caste consciousness	94	0.55
3.	Lack of co-ordination and co-operation among members	95	0.65
4.	Labour requirement of HYVs is more than local variety	69	-1.76
5.	Lack of systematic procedure of election	97	0.83
6.	Negative attitude of higher classes towards depressed and back ward classes	90	0.18
7.	Schedule caste members take less interest due to their poor social structure	74	-1.30
(E) Educational constraints			
1.	Lack of confidence about potentiality of HYVs on the farmer's field	94	0.68
2.	Lack of knowledge and skills about proper method of oil seed production	89	0.25
3.	More educated person take less interest in the OSCS activities	69	-1.46
4.	Lack of knowledge about proper application methods of chemical fertilizer	97	0.94
5.	Educated person unnecessary press to other members	71	-1.29
6.	Lack of knowledge about bye-laws of the society	96	0.86

PART-II

Table 2. Judges rating of items constituting the constraints encountered by members of management committee.

S.No.	Constraints	Raw score	Z score
		103	1.08
1.	No provision of salary for secretary	105	1.22
2.	No provision of rent for the office building from Tilam Sangh	98	0.74
3.	Lack of training facilities of office bearers	91	0.27
4.	In-adequate extension activities organised by Tilam Sangh	90	0.20
5.	Commission to the society is not paid timely		

S.No.	Constraints	Raw score	Z score
6.	Lack of storage facilities at society level	89	
7.	Delay in advance from bank to the society	53	0.13
8.	Procurement is not done timely in absence of order from Tilam Sangh head office	92	-2.31
9.	Sometimes oil seeds are not of good quality which affect procurement	91	0.34
10.	Shortage of funds with the society	89	0.27
11.	Selection of managers are not done properly	102	0.13
12.	Delay in sending the input requirement to the project office	92	1.02
13.	Meetings at the society level are not conducted properly	90	0.34
14.	The quality standards are not maintained in the society at the procurement time because of political pressure	90	0.61
15.	Lack of educational programme for the OSCS	55	0.20
16.	Factions in villages due to election causes failure of society	69	-2.17
17.	Delay in payment by the Tilam Sangh	97	0.13
18.	Field officers are not interested in visiting the society	101	0.68
19.	Members don't think the society is their own	52	0.95
20.	Less knowledge about co-operative principles and functioning pattern of OSCS	89	-2.38
21.	Lack of motivation among oil seed growers co-operative members	89	0.13
22.	Lack of unit nominee in management committee	90	0.13
23.	Lack of co-ordination and co-operation between society and unit	91	0.20
24.	Bye-laws of the societies are not implemented strictly	90	0.27
25.	Transportation cost is high and no provision of advance to OSCS by Tilam Sangh	92	0.20
26.	Lack of proper input supply	91	0.34
27.	No expenditure on development activities	51	0.27
28.	Payment of oil seed by Tilam Sangh is made only on grading basis	90	-2.44
29.	Low price of oil seed offered by Tilam Sangh	92	0.20
30.	Lack of proper election system	89	0.34
31.	Less number of active members in society	90	0.13
32.	Society HQ is away from their residence	58	0.20
33.	Most of the executives don't co-operative with society	94	-1.97
			0.47

PART III

Table 3. Judges rating of items constituting the constants encountered by the functionaries of IGMP Bikaner

S.No.	Constraints	Raw score	Z score
(A) Constraints in Procurement of Oil Seeds			
1.	Lack of proper procurement policy	94	0.68
2.	Lack of skilled and experienced purchasers	89	0.11
3.	Non availability of godown facilities at OSCS level	89	0.11
4.	Fixation of rates by the Tilam Sangh Affect the procurement from different mandies	90	0.22
5.	Problem of bribe creates deloviation in the quality	58	-3.44
6.	Targets are not achieved due to delay in payment to societies	96	0.91
7.	Lack of confidence of OSCS members in grading	89	0.11
8.	Untrained managers in grading at OSCS level	90	0.22
9.	Prepare unnecessary records	63	-2.87
10.	Lack of confidence of OSCS in quality detection at plant level	89	0.11

S.No.	Constraints	Raw score	Z score
11.	Procurement of poor quality seeds by the OSCS	91	0.34
12.	Lack of proper division of work particularity in the procurement operations at project level	92	0.45
13.	Lack of transportation facilities	89	0.11
14.	Lack of regular inspection by the project staff officials	90	0.22
15.	Adverse effect of natural calamities on the quality of seeds	89	0.11
16.	Lack of conveyance facilities to field staff	91	0.34
17.	Problems of funds during the procurement time	89	0.11
18.	Lack of support from the community for effective functioning of society	90	0.22
19.	Incentives and awards to efficient field workers are not given by Tilam Sangh	92	0.45
20.	Irresponsive and mischievous transporter	93	0.57
21.	Lack of training facilities for procurement staff	90	0.22
22.	Irregular meeting of board of directors conducted by Tilam Sangh	92	0.45
23.	Vast area of jurisdiction under a single supervisor	89	0.11
(B) Constraints in Supply of Inputs			
1.	Unavailability of inputs of the proper time	92	0.16
2.	Unavailability of input demand to the project from the OSCS	91	0.08
3.	Poor quality of fertilizer and pesticides	65	-2.09
4.	Lack of interest in supply of fertilizers seeds insecticides, implements etc. by the Tilam Sangh	93	0.25
5.	Lack of close co-ordination between the Tilam Sangh and other co-operative sectors i.e. IFFCO, KRIBHCO etc.	102	1.00
6.	Inputs subsidized by the Govt. is very negligible	93	0.25
7.	Costly transportation of fertilizer and gypsum	92	0.16
8.	Lack of co-ordination between the Tilam Sangh staff and OSCS members	93	0.25
9.	Members are not interested to take fertilizers from the OSCS	61	-2.42
10.	Frequent deputation of field staff to other places	94	0.33
11.	Poor financial condition of the OSCS	97	0.58
12.	Lack of facilities for conducting extension activities	99	0.75
13.	Lack of provision to make available fertilizers on credit basis	98	0.67
(C) Constraints in Marketing of the Products			
1.	Higher rate of Tilam brand oil as compared to other local brands	89	0.22
2.	Unawareness of consumer about the Tilam Brand oil	102	1.21
3.	Open competition between the Tilam Sangh and other unorganised oil mills	87	0.07
4.	Lack of interest by the government in establishing and extending the market of Tilam oil	89	0.22
5.	Competition with other local mills	57	-2.20
6.	Fixation of oil rates at HO level adversely affect the sale of oil at project level	92	0.45
7.	Unavailability of skilled and experienced marketing personnel	93	0.53
8.	Unnecessary wastage of time in filling and unfilling of tankers	87	0.07
9.	No proper utilization of machinery for processing of seeds resulting into the irregular supply of oils	89	0.22
10.	Poor marketing system	96	0.75
11.	Lack of provision to provide oil and cake to society on credit basis	91	0.37
12.	Lack of interest in selling oil and cake by the OSCS	90	0.30
13.	Non utilization of solvent oil by the consumers	56	-2.27

APPENDIX-II

Interview schedule to measure the constraints as perceived by the oil seed grower co-operative members

S.No.	Constraints	M.L(3)	I(2)	L.L.(1)
	(A) Technical constraints			
1.	Delay in grading of oil seed by OSCS			
2.	Susceptibility to diseases and pest of mustard and groundnut			
3.	Lack of knowledge about improved package of practices of oil seed crops			
4.	Lack of adaptability of HYVs of mustard of adverse climatic conditions			
5.	Decline in production after F ₁ generation in HYVs of oil seed crops			
6.	Lack of knowledge about grading system			
7.	Lack of constant technical guidance by OSCS			
8.	Irregular and incorrect grading of oil seeds			
	(B) Financial constraints			
1.	No monetary incentives for supplying oil seed to the co-operative society			
2.	HYVs seed is very costly			
3.	Low price of oil seeds offered by the society			
4.	There is no provision of loans for purchasing of farm implements by society and unit			
5.	Non availability of fertilizers of subsidized rates			
6.	Problems in receiving payment from the society			
7.	Cost of cultivation of groundnut is very high			
8.	Price of produce is unpredictable			
9.	Payment to members is not timely made by the OSCS			
	(C) Infrastructural constraints			
1.	Irregular and in adequate supply of inputs			
2.	Unavailability of HYVs seed at the sowing time			
3.	Poor storage facilities at oil seed co-operative societies			
4.	Non available of irrigation facility through out the year			
5.	More concentration of VEWs towards local leaders and higher classes			
6.	Poor transportation facilities of oil seeds at OSCS level			
7.	Non availability of gunny bags at the time of purchasing			
8.	Delay in procurement of oil seeds by OSCS			
9.	Lack of wide publicity about different extension activities among farmer members			
	(D) Social constraints			
1.	Irregularity in meeting of society members			
2.	Factions among members due to caste consciousness			
3.	Lack of co-ordination and co-operation among members			
4.	Lack of systematic procedure of election			
5.	Negative attitude of higher classes towards depressed and back ward classes			
	(E) Educational constraints			
1.	Lack of confidence about potentiality of HYVs on the farmer's field			
2.	Lack of knowledge and skills about proper method of oil seed production			
3.	Lack of knowledge about proper application methods of chemical fertilizer			
4.	Lack of knowledge about bye-laws of the society			

APPENDIX-III

Interview schedule to measure the constraints as perceived by the members of management committee of oil seed growers co-operative societies

S.No.	Constraints	MI(3)	I(2)	LI(1)
1.	No provision of salary for secretary			
2.	No provision of rent for the office building from Tilam Sangh			
3.	Lack of training facilities of office bearers			
4.	In-adequate extension activities organised by Tilam Sangh			
5.	Commission to the society is not paid timely			
6.	Lack of storage facilities at society level			
7.	Procurement is not done timely in absence of order from Tilam Sangh head office			
8.	Sometimes oil seeds are not of good quality which affect procurement			
9.	Shortage of funds with the society			
10.	Selection of managers are not done properly			
11.	Delay in sending the input requirement to the project office			
12.	Meetings at the society level are not conducted properly			
13.	The quality standards are not maintained in the society at the procurement time because of political pressure			
14.	Factions in villages due to election causes failure of society			
15.	Delay in payment by the Tilam Sangh			
16.	Field officers are not interested in visiting the society			
17.	Less knowledge about co-operative principles and functioning pattern of OSCS			
18.	Lack of motivation among oil seed growers co-operative members			
19.	Lack of unit nominee in management committee			
20.	Lack of co-ordination and co-operation between society and unit			
21.	Bye-laws of the societies are not implemented strictly			
22.	Transportation cost is high and no provision of advance to OSCS by Tilam Sangh			
23.	Lack of proper input supply			
24.	Payment of oil seed by Tilam Sangh is made only on grading basis			
25.	Low price of oil seed offered by Tilam Sangh			
26.	Lack of proper election system			
27.	Less number of active members in society			
28.	Most of the executives don't co-operative with society			

APPENDIX-IV

Interview schedule to measure the constraints as perceived by the functionaries of integrated groundnut and mustard project Bikaner

S.No.	Constraints	MI(3)	I(2)	LI(1)
	(A) Constraints in Procurement of Oil Seeds			
1.	Lack of proper procurement policy			
2.	Lack of skilled and experienced purchasers			
3.	Non availability of godown facilities at OSCS level			
4.	Fixation of rates by the Tilam Sangh Affect the procurement from different mandies			
5.	Targets are not achieved due to delay in payment to societies			
6.	Lack of confidence of OSCS members in grading			
7.	Untrained managers in grading at OSCS level			
8.	Lack of confidence of OSCS in quality detection at plant level			
9.	Procurement of poor quality seeds by the OSCS			

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|-----|---|--|--|
| 10. | Lack of proper division of work particularity in the procurement operations at project level | | |
| 11. | Lack of transportation facilities | | |
| 12. | Lack of regular inspection by the project staff officials | | |
| 13. | Adverse effect of natural calamities on the quality of seeds | | |
| 14. | Lack of conveyance facilities to field staff | | |
| 15. | Problems of funds during the procurement time | | |
| 16. | Lack of support from the community for effective functioning of society | | |
| 17. | Incentives and awards to efficient field workers are not given by Tilam Sangh | | |
| 18. | Irresponsive and mischievous transporter | | |
| 19. | Lack of training facilities for procurement staff | | |
| 20. | Irregular meeting of board of directors conducted by Tilam Sangh | | |
| 21. | Vast area of jurisdiction under a single supervisor | | |
| | (B) Constraints in Supply of Inputs | | |
| 1. | Unavailability of inputs of the proper time | | |
| 2. | Unavailability of input demand to the project from the OSCS | | |
| 3. | Lack of interest in supply of fertilizers seeds insecticides, implements etc. by the Tilam Sangh | | |
| 4. | Lack of close co-ordination between the Tilam Sangh and other co-operative sectors i.e. IFFCO, KRIBHCO etc. | | |
| 5. | Inputs subsidized by the Govt. is very negligible | | |
| 6. | Costly transportation of fertilizer and gypsum | | |
| 7. | Lack of co-ordination between the Tilam Sangh staff and OSCS members | | |
| 8. | Frequent deputation of field staff to other places | | |
| 9. | Poor financial condition of the OSCS | | |
| 10. | Lack of facilities for conducting extension activities | | |
| 11. | Lack of provision to make available fertilizers on credit basis | | |
| | (C) Constraints in Marketing of the Products | | |
| 1. | Higher rate of Tilam brand oil as compared to other local brands | | |
| 2. | Unawareness of consumer about the Tilam Brand oil | | |
| 3. | Open competition between the Tilam Sangh and other unorganised oil mills | | |
| 4. | Lack of interest by the government in establishing and extending the market of Tilam oil | | |
| 5. | Fixation of oil rates at HO level adversely affect the sale of oil at project level | | |
| 6. | Unavailability of skilled and experienced marketing personnel | | |
| 7. | Unnecessary wastage of time in filling and unfilling of tankers | | |
| 8. | No proper utilization of machinery for processing of seeds resulting into the irregular supply of oils | | |
| 9. | Poor marketing system | | |
| 10. | Lack of provision to provide oil and cake to society on credit basis | | |
| 11. | Lack of interest in selling oil and cake by the OSCS | | |

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