# Profile of Cluster Frontline Demonstration Bbeneficiaries in Madhya Pradesh and Chhattisgarh State


## Abstract

Cluster Ffrontlline ddemonstration(CFLD) is a unique approach by the Indian Council of Agricultural Research on Oilseed crops to provide a direct interface between scientists and farmers where farmers are guided by the KVK scientists during demonstrations in implementation of improved technologies like seed treatment, IPM, INM, land preparation etc.and so on, Demonstrated fields are regularly monitored by the scientists. The present study was carried out to know the profile of CFLD beneficiaries in selected districts of Madhya Pradesh and Chhattisgarh over a complete sample of 346 beneficiaries. The results revealed that majority of the CFLD beneficiaries were in middle age (61.57%), belongs to male category (86.13), educated up to middle school (26.98), had large family size (40.17%), medium social participation (50.00%), medium material possession (61.27%), medium annual income (67.92%), large size of land holding (46.54%), had more than 0.4 ha land under oilseed crop (48.26%) with good cropping pattern (44.52%), had medium level extension participation(74.27%), medium information seeking behaviour(64.16%), medium mass media exposure(84.11%), medium scientific orientation (53.18%), medium innovativeness (58.96%), medium risk preference(55.20%), medium knowledge about oilseeds (63.53%), had fair management efficiency (62.13%), attended more than one training programme (63.01%) under cluster frontline demonstration.


Comment [B1]: Write the full meaning first Ditto: IPM, INM, CFLD


**Keywords: Ppprofile, Ccluster ffrontline Ddemonstration, ffarmer bbeneficiaries**


### Introduction

Globally, India having a prominent position, on the oilseeds map of the world. India is the fourth largest producer of oilseed accounting about 20% of the global area and 10% of the global production. To increase the production and productivity of oilseed crops in the country Ministry of Agriculture and Farmer Welfare, Government of India sanctioned the project on "Cluster Frontline Demonstration of Rabi oilseed 2015-2016 under National Mission on Oilseed and Oil Palm (Mini Misiion-1) implemented through eight Zones of ICAR- Agriculture technology Application Research Institute and conducted by KVKs in a different district. Cluster Frontline Demonstration (CFLD) is a unique approach to increase production and productivity of oilseed crops. It was initiated with main objective to demonstrate production potential of new varieties and the related scientific production technologies. The programme also aimed at increasing the productivity of oilseed throughout the country. Keeping in the mind, our main objectives for current paper isobjective for current paper is to find out the profile of beneficiaries of Cluster Frontline Demonstration in Madhya Pradesh and Chhattisgarh.

### Material and Methods

The present study was conducted in Chhindwara and Rewa districts of Madhya Pradesh as well as Raipur and Kawardha districts of Chhattisgarh. In these four districts the CFLD on two crop modules i.e., Soybean and Linseed were laid down by the Krishi Vigyan Kendras. Total eight blocks under these four districts were selected where the CFLD on soybean and linseed was being implemented. Further 25 villages from these eight blocks were selected covering all the CFLD beneficiary farmers. Total farmersA total farmer whose field was taken up for CFLD during the year 2019-2020 and 2020-2021 was selected. Thus, a total of 346 farmers constituted the sample for the study. The socio- personal, agro economical, communication, psychologicaland psychological variables were studied to know the profile of CFLD beneficiaries. The data was collected through the personal interview method and analysed using mean standard deviation, frequencies and percentages for drawing meaningful interpretations.

### Result and Discussion

The beneficiary farmers of CFLD were distributed into different categories based on their selected profile characteristics and the results were presented below:

**Table 1: Profile of the Cluster Frontline Demonstration Beneficiaries**

| Profile Characteristics | Categories | Frequency n=346 | Percentages |
|---|---|---|---|
| **Socio-Personal Characteristics** | | | |
| **Age** | Young (Up to 35 years) | 36 | 10.40 |
| | Middle (36 – 55 years) | 213 | 61.57 |
| | Old (above 55 years) | 97 | 28.03 |
| **Gender** | Female | 48 | 13.87 |
| | Male | 298 | 86.13 |
| **Education** | Illiterate | 05 | 1.44 |
| | Can read only | 07 | 2.02 |
| | Can write only | 33 | 9.53 |
| | Can read and write | 40 | 11.56 |
| | Primary education | 68 | 19.95 |
| | Middle school | 92 | 26.98 |
| | Higher secondary school | 57 | 16.58 |
| | Graduation/other | 41 | 11.95 |
| **Family size** | Small | 78 | 22.55 |
| | Medium | 129 | 37.28 |
| | Large size | 139 | 40.17 |
| **Social participation** | Low | 76 | 21.96 |
| | Medium | 173 | 50.00 |
| | High | 97 | 28.04 |
| **Material possession** | Low | 69 | 19.95 |
| | Medium | 212 | 61.27 |
| | High | 65 | 18.78 |
| **Agro- Economical Characteristics** | | | |
| **Annual income** | Low | 83 | 23.99 |
| | Medium | 235 | 67.92 |
| | High | 28 | 08.09 |
| **Land holding** | Marginal | 02 | 0.57 |
| | Small | 25 | 7.23 |
| | Medium | 158 | 45.66 |
| | Large | 161 | 46.54 |
| **Area under oilseed crop** | 0.4 hector | 179 | 51.74 |
| | More than 0.4 hector | 167 | 48.26 |
| **Cropping pattern** | Poor | 103 | 29.76 |
| | Fair | 89 | 25.72 |
| | Good | 154 | 44.52 |
| **Communication Characteristics** | | | |
| **Extension participation** | Low | 00 | 00.00 |
| | Medium | 74.27 | 74.27 |
| | High | 25.73 | 25.73 |
| **Information seeking behaviour** | Low | 53 | 15.32 |
| | Medium | 222 | 64.16 |
| | High | 71 | 20.52 |
| **Mass media exposure** | Low | 24 | 06.93 |
| | Medium | 291 | 84.11 |
| | High | 31 | 08.96 |
| **Psychological Characteristics** | | | |
| **Scientific orientation** | Low | 74 | 21.38 |
| | Medium | 184 | 53.18 |
| | High | 88 | 25.44 |
| **Innovativeness** | Low | 64 | 18.49 |
| | Medium | 204 | 58.96 |

| | | | |
|---|---|---|---|
| | High | 78 | 22.55 |
| **Risk preference** | Low | 67 | 19.36 |
| | Medium | 191 | 55.20 |
| | High | 88 | 25.44 |
| **Knowledge about oilseeds** | Low | 63 | 18.21 |
| | Medium | 220 | 63.58 |
| | High | 63 | 18.21 |
| **Management efficiency** | Poor | 80 | 23.13 |
| | Fair | 215 | 62.13 |
| | Good | 51 | 14.74 |
| **Training** | Only one | 128 | 36.99 |
| | More than one | 218 | 63.01 |

**Age:**

The Table 1 showed that, out of 346 beneficiaries, 61.57 per cent were belonged to middle age, followed by old and young age category. The probable reason might be that young farmers showed less interest in farming and they are more interested in non-agricultural pursuits, while older farmers were moving away from farming and given their land holdings for lease to other farmers. This study is supported by Sisodiya (2018).

**Gender:**

Majority 86.13 per cent of the beneficiaries were male followed by female. The reason may be the socio-cultural and religious barriers that do prevent public interactions between male and female world. There is need to consciously increase the percentage of female beneficiaries under cluster frontline demonstration in the study area. This finding is supported by Niranjan *et al.*~~,~~ (2002) and Patel (2016).

**Education Llevel:**

Nearly (26.98%) of the beneficiaries were middle school passed followed by primary educated (19.95%), higher secondary school (16.58%), graduate (11.95%), and only can read and write (11.56%), can write only (9.53%), can read only, (3.17%) and with the least number of illiterate (0.28%). This might be because of the education status of beneficiary farmers is quite good and due to the facilities provided by the government to their village area. This finding is supported by Raghuwanshi *et al. (*2018) and Parmar (2017).

**Family size:**

Near about half of the beneficiaries i.e., 40.17 per cent had large size family followed by medium (37.28%) and small family size (22.55%). The probable reason could be that, small and nuclear family norm is not yet accepted by the rural people. The other reason could be that agriculture which is the main occupation in majority of the families is labour intensive and need team work. This finding is supported by Puri ~~S~~ (2017).

**Social Ppparticipation:**

Half of the beneficiaries (50.00%) were belonged to medium social participation category, followed by 28.04 per cent had high and 21.96 per cent had medium social participation. This might be due to that they either realized the importance of social participation or got opportunities of social participation in a study area. This finding is supported with Yashashwini *et al.* (2015).

**Material ppPossession:**

Majority i.e., 61.27 per cent of the beneficiaries had medium material possession, followed by 19.95 per cent low and 18.78 per cent had high material possession. The possible reason may be that maximum number of beneficiaries only had necessary material which is required in farming. Finding is supported with Mishra (2012).

**Annual Iincome:**

The study highlighted that majority i.e., 67.92 per cent of the beneficiaries had medium annual income, followed by high (23.99%) and only 8.09 per cent had high annual income. This might be due to they were depend mostly upon family activities throughout the year. This finding is supported by Deshmukh (2012) and Meena *et al.*~~,~~ (2012).

**LandHholding:**

The study also reveals that, higher per cent of beneficiaries i.e., 46.54 per cent had possessed large size of landholding, followed by medium, small size land holding and only few i.e., 0.57 per cent had marginal land holding. The reason behind that most of the farmers owing large piece of land is ~~may be~~maybe they possess ancestral property. This finding is in conformity with the findings of Sisodiya (2018) and Puri (2017).

**Area Uunder oOilseed cCrop**

Nearly half (51.74%) of the beneficiaries had 0.4 ha area under CFLD oilseed, followed by 48.26 per cent had 0.8 ha area under CFLD oilseed. The probable reason ~~behind~~ behind this is that the ~~demonstrations under CFLDs covers~~demonstration under CFLDs covers under a minimum area of 0.4 ha. This study is conformity with the finding of Singh *et al.*, (2018).

**Cropping pPattern:**

The result showed that higher percentage (44.52%) of the beneficiaries had good cropping pattern, followed by poor and fair cropping pattern. Actually, the respondents had large size of land holding and the favourable climatic conditions for the cultivation of various crops. This finding is similar to the finding of Jambuvant (2017).

**Extension pParticipation:**

Majority i.e., 74.27 per cent of the beneficiaries had medium level of extension participation, followed by high and none was found in the low extension participation category. The feasible reason for this may be that most of CFLDs beneficiary farmers had frequent contact with Krishi Vigyan Kendra scientists for the implementation of the CFLDs. This finding is supported by Deshmukh (2012) and Yashashwini *et al.* (2015).

**Information Sseeking bBehaviour:**

Higher percentage (64.16%) of the beneficiaries possessed medium information seeking behaviour, followed by high and low information seeking behaviour. The reason for above situation might be due to the fact that majority of the beneficiaries are educated and had medium level of social participation in the study area. This finding is similar to the findings of Yashashwini *et al.* (2015) and Sazgaya (2013).

**Mass mMedia Eexposure:**

Higher percentage (84.11%) of the beneficiaries had medium mass media exposure, followed by high and low mass media exposure. This might be a result of the reason that most of the beneficiaries are literate and have realized the importance of newspapers and farm magazine in updating information, similar findings are reported by Niranjana *et al.* (2002) and Patidar (2011).

**Scientific oOrientation:**

More than half (53.13%) of beneficiaries had medium scientific orientation, followed by high and low scientific orientation. This might be a result of the reason that majority of CFLD beneficiary farmers were found to be educated and had higher percentage of scientific orientation which is a positive sign and spoke on the interest of farmers to perceive things scientifically. The study had the conformity with Raghavendra (2010) and Rathor *et al.* (2013).

**Innovativeness:**

Most of the beneficiaries i.e., 58.96 per cent were belonged to medium innovativeness category, followed by high and low innovativeness category. The above pattern may be due to the fact that CFLDs tend to increase farmers' capacity to test new technologies or innovations in their own fields and evaluate findings and their relevance to specific circumstances. Present study is line with the results of Raghavendra (2010) and Deshmukh (2012).

**Risk Ppreference:**

More than half i.e., 55.20 per cent beneficiaries had medium risk preference, followed by high and low risk preference. This pattern of results may be attributed to the fact that CFLD beneficiary had medium innovativeness and expressed some anxiety in implementing new technologies, therefore the risk preference perceived as medium to high. This result is line with the findings of Yadav (2016) and Raghuwanshi *et al.* (2018).

**Knowledge lLevel rRegarding oOilseeds:**

As far as knowledge of oilseed production technology (specially soybean and linseed) is concerned, it was found that, out total beneficiary of CFLD, majority (63.58%) had possessed medium level of knowledge, followed by high and low knowledge level. The CFLD beneficiaries had frequent contact and regular touch with subject matter specialists of the Krishi Vigyan Kendra during the CFLD programme,programme; therefore, they had more knowledge regarding the production technology of oilseeds. This study is line with the study of Deshmukh *et al.* (2014).

**Management eEfficiency:**

Two third of the beneficiaries i.e., 62.31 per cent had fair management efficiency, followed by poor and good management efficiency. Due to proper training and guidance from the Subject Matter Specialists of the Krishi Vigyan Kendra, the CFLD beneficiaries got proficient to manage the available resources in farming. This finding is supported by the finding of Yashashwini *et al.* (2015).

**Training:**

Most of the beneficiaries (63.01%) attended more than one training programme, while rest of the beneficiaries (36.99%) attended one training programme under CFLD. The reason behind this is the provision of sufficient training programme by the Krishi Vigyan Kendra under CFLD programme. The result is in conformity with Raghuwanshi *et al.* (2018)

**Conclusion**

The results revealed that majority of the CFLDs beneficiary farmers belonged to medium to high level of profile characteristics with respect to most of the variables selected. Majority of the CFLD beneficiaries falls in middle age group, educated up to middle school, belonged to large family size and had medium level of social participation. The economic profile of the beneficiaries was medium material possession, medium annual income from all the resources, large size of land holding, beneficiaries had 0.4 ha area under CFLD oilseed with good cropping pattern under the cluster frontline demonstration. The communication characteristics of the beneficiaries were: medium level of extension participation, medium level of information seeking behaviour, medium mass media exposure, whereas the psychological characteristics of beneficiaries were found: medium scientific orientation with medium innovativeness, medium risk preference, medium knowledge regarding oilseeds, fair management efficiency with more than one training attended. Hence there is immediate need to promote CFLDs to the non-beneficiary farmers, focusing more on need of the CFLDs scheme by showing its distinctly superior results through demonstrations, organizing large scale field days in the fields of farmers to orient them towards adoption of new technologies.

**Comment [B2]:** recast

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