

# Communication Behavior of Turmeric Growers in Chhattisgarh Plain

## ABSTRACT

A Research on communication behavior of turmeric growers in Chhattisgarh plain was undertaken to find out the information seeking behavior used by turmeric growers. A comprehensive list of beneficiaries farmers was collected from the horticulture department. In order to reach required sample size of 160 beneficiaries farmers, **proportionate random sampling** method was used and equal numbers of non-beneficiaries farmers (160) were also selected randomly from same villages. In this way, a total of 320 farmers were considered as respondents to respond as per the interview schedule design for the study. The study revealed that most of the beneficiaries (48.12%) and non-beneficiaries (55.00%) were found in medium level of extension contact. Whereas, farmers used mass media it was observed that most of the beneficiaries (45.63%) and non-beneficiaries (50.62%) had used medium level of mass media **utilization**.

**Keywords:** *Communication behavior, turmeric growers and Chhattisgarh plain.*

## 1. INTRODUCTION

Turmeric (*Curcuma longa L.*), the ancient and sacred spice of India known as 'Indian saffron' is an important commercial spice crop grown in India. It is used in diversified forms as a condiment, flavouring and colouring agent and as a principal ingredient in Indian culinary as curry powder. It has anti cancer and anti viral activities and hence finds use in the drug industry and cosmetic industry. 'Kum-kum', popular with every house wife, is also a by-product of turmeric. It finds a place in offerings on religious and ceremonial occasions. A type of starch is also being extracted from a particular type of turmeric. The increasing demand for natural products as food additives makes turmeric as ideal produce as a food colourant.

Turmeric is the dried rhizome of *Curcuma longa L.*, a herbaceous perennial belonging to the family Zingiberaceae and a native of South Asia particularly India. The plant is propagated from rhizomes. The leaves are long, broad, lanceolate and bright green. The flowers are pale yellow and borne on dense spikes. The pseudostems are shorter than leaves. The rhizomes are ready for harvesting in about 7 to 9 months after planting.

Turmeric is one of the important cash crops in India. India is the larger producer and exporter of turmeric in the world. Turmeric occupies about 6 per cent of the total area under spices and condiment products in India. In the year 2014-15 turmeric cultivation was 233 thousand ha with the production of 1190 thousand tonnes. It reached to 349 thousand ha with the production of 1334 thousand tonnes in the year 2021-22 (Anonymous, 2021a). Chhattisgarh is also one of the important states of turmeric cultivation. In the Chhattisgarh state cultivated area of turmeric is about 10.785 thousands ha with production of 100.971 thousand tonnes (Anonymous, 2021b).

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**Commented [nc3]:** •The whole introduction revolves around the turmeric. Please brief it and add about communication behavior as your TITLE reflects.  
•Add more citations in your introduction

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## 2. MATERIALS AND METHODS

The present study was conducted in Chhattisgarh plains. Five districts were selected purposively on the basis of maximum area and maximum number of turmeric growers. From each selected districts, two blocks were selected purposively for the study on the basis of maximum area and maximum number of turmeric growers. From each selected block, four villages were selected purposively on the basis of maximum area and maximum number of turmeric growers. From each selected villages, four beneficiaries and four non-beneficiaries were selected randomly for the comparison between both groups. In this way total 320 farmers were considered as respondents for the study. The data was collected personally through pre-tested semi structured interview schedule.

The *ex-post-facto* research design was used for the study.

Appropriate statistical tools used for analysis and interpretation of data.

## 3. RESULTS AND DISCUSSION

The data presented in Table 1 reveals that in case of beneficiaries, cent per cent of the respondents were aware about field consultant, followed by 86.25 per cent aware about RHEO (Rural Horticulture Extension Officer). Followed by Scientist \_\_\_\_\_, while 20 per cent aware about HDO (Horticulture Development Officer) and 54.38 per cent aware about SHDO (Senior Horticulture Development Officer). About 85 per cent were aware about Scientist.

**Table 1: Distribution of the beneficiaries according to their contact with extension personnel regarding turmeric cultivation**

| Sl. No. | Extension Personnel     | Awareness   |             | Level of contact |             |             |
|---------|-------------------------|-------------|-------------|------------------|-------------|-------------|
|         |                         | Yes         | No          | R                | S           | N           |
|         |                         | f (%)       | F (%)       | F (%)            | F (%)       | F (%)       |
| 1       | Field consultant of NHM | 160 (100)   | 0 (0.00)    | 97 (60.62)       | 63 (39.38)  | 0 (0.00)    |
| 2       | RHEO                    | 138 (86.25) | 22 (13.75)  | 37 (23.13)       | 109 (68.12) | 14 (8.75)   |
| 3       | HDO                     | 32 (20.00)  | 128 (80.00) | 1 (0.63)         | 1 (0.63)    | 158 (98.74) |
| 4       | SHDO                    | 87 (54.38)  | 73 (45.62)  | 8 (5.00)         | 15 (9.38)   | 137 (85.62) |
| 5       | KVK (Scientist)         | 136 (85.00) | 24 (15.00)  | 2 (1.25)         | 11 (6.88)   | 147 (91.87) |

**R- Regular, S- Sometime, N-Never**

Regarding beneficiaries, none of the respondents had contact with field consultant, followed by 39.38 per cent respondents sometime and 60.62 per cent of them regularly contacted. About 8.75 per cent

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•Discuss the results accordingly

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respondents had no contact with RHEO (Rural Horticulture Extension Officer), while 68.13 per cent respondents sometime and 23.13 per cent of them regularly contacted. About 98.75 per cent respondents had no contact with HDO (Horticulture Development Officer), followed by 0.63 per cent respondents sometime and 0.63 per cent regularly contacted. About 85.63 per cent of the respondents had no contact with SHDO (Senior Horticulture Development Officer), while 9.38 per cent respondents sometime and 5 per cent of them regularly contacted. About 91.88 per cent of the respondents had no contact with scientist, followed by 6.88 per cent respondents sometime and 1.25 per cent of them regularly contacted the scientist.

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The data presented in Table 2 reveals that in case of non-beneficiaries, 46.88 per cent of the respondents had awareness about field consultant, followed by 91.88 per cent aware about RHEO (Rural Horticulture Extension Officer), while 17.50 per cent were aware about HDO (Horticulture Development Officer) and 49.38 per cent aware about SHDO (Senior Horticulture Development Officer) . About 81.88 per cent were aware about Scientist.

**Table 2: Distribution of the non-beneficiaries according to their contact with extension personnel regarding turmeric cultivation**

| Sl. No. | Extension Personnel     | Awareness      |                | Level of contact |                |                |
|---------|-------------------------|----------------|----------------|------------------|----------------|----------------|
|         |                         | Yes<br>F (%)   | No<br>F (%)    | R<br>F (%)       | S<br>F (%)     | N<br>F (%)     |
| 1       | Field consultant of NHM | 75<br>(46.88)  | 85<br>(53.12)  | 0<br>(0.00)      | 30<br>(18.75)  | 130<br>(81.25) |
| 2       | RHEO                    | 147<br>(91.88) | 13<br>(8.12)   | 48<br>(30.00)    | 107<br>(66.88) | 5<br>(3.12)    |
| 3       | HDO                     | 28<br>(17.50)  | 132<br>(82.50) | 0<br>(0.00)      | 7<br>(4.38)    | 153<br>(95.62) |
| 4       | SHDO                    | 79<br>(49.38)  | 81<br>(50.62)  | 3<br>(1.88)      | 36<br>(22.50)  | 121<br>(75.62) |
| 5       | KVK (Scientist)         | 131<br>(81.88) | 29<br>(18.12)  | 0<br>(0.00)      | 8<br>(5.00)    | 152<br>(95.00) |

**R- Regular, S- Sometime, N-Never**

Regarding non-beneficiaries, 81.25 per cent of the respondents had no contact with field consultant, followed by 18.75 per cent respondents sometime and none of them not regularly contacted. About 3.13 per cent respondents had no contact with RHEO (Rural Horticulture Extension Officer), while 66.88 per cent respondents sometime and 30.00 per cent of them regularly contacted. About 95.63 per cent respondents had no contact with HDO (Horticulture Development Officer), followed by 4.38 per cent

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respondents sometime and none of them not regularly contacted. About 75.63 per cent of the respondents had no contact with SHDO (Senior Horticulture Development Officer), while 22.50 per cent respondents sometime and 1.88 per cent of them regularly contacted. About 95.00 per cent of the respondents had no contact with scientist, followed by 5.00 per cent respondents sometime and none of them regularly contacted the scientist.

#### Overall extension contact regarding turmeric cultivation

The data given in Table 3 and Fig-4 reveals that out-of-total, maximum number half of the respondents of the respondents (51.56%) had medium level of extension contact, followed by 41.56 per cent had low (41.56%) and 6.88 per cent had high (6.88%) level of extension contact.

**Table 3: Distribution of the respondents according to their overall extension contact regarding turmeric cultivation**

| Sl. No.      | Category | Respondents   |            |                   |            |           |            |            |
|--------------|----------|---------------|------------|-------------------|------------|-----------|------------|------------|
|              |          | Beneficiaries |            | Non-beneficiaries |            | 'Z' value | Total      |            |
|              |          | F             | %          | F                 | %          |           | F          | %          |
| 1            | Low      | 65            | 40.63      | 68                | 42.50      | 10.069**  | 133        | 41.56      |
| 2            | Medium   | 77            | 48.12      | 88                | 55.00      |           | 165        | 51.56      |
| 3            | High     | 18            | 11.25      | 4                 | 2.50       |           | 22         | 6.88       |
| <b>Total</b> |          | <b>160</b>    | <b>100</b> | <b>160</b>        | <b>100</b> |           | <b>320</b> | <b>100</b> |
| Mean         |          | 3.06          |            | 1.81              |            |           |            |            |
| SD           |          | 1.28          |            | 0.87              |            |           |            |            |

'Z' value = 10.069\*\*

**\*\*0.01 level of probability**

The reframed table. Please look into it. This explains your results at best

| Sl. No. | Category | Respondents   |       |                   |       | 'z' value |
|---------|----------|---------------|-------|-------------------|-------|-----------|
|         |          | Beneficiaries |       | Non-beneficiaries |       |           |
|         |          | f             | %     | f                 | %     |           |
| 1       | Low      | 65            | 40.63 | 68                | 42.50 | 10.069**  |
| 2       | Medium   | 77            | 48.12 | 88                | 55.00 |           |
| 3       | High     | 18            | 11.25 | 4                 | 2.50  |           |

**\*\*0.01 level of probability**

In case of beneficiaries, most of the respondents (48.12%) had medium level of extension contact, followed by 40.63 per cent had low and 11.25 per cent had high level of extension contact.

Similarly, in case of non-beneficiaries, 55.00 per cent of the respondents had medium level of extension contact, while 42.50 per cent had low and 2.50 per cent had high level of extension contact.

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The calculated 'Z' value for extension contact was 10.069 which was found to be significant at 0.01 level of probability. ~~Thus the earlier stated null hypothesis that there is no difference between extension contact of beneficiaries and non-beneficiaries was rejected.~~ Therefore, it can be concluded that there is significant difference between extension contacts of beneficiaries and non-beneficiaries.

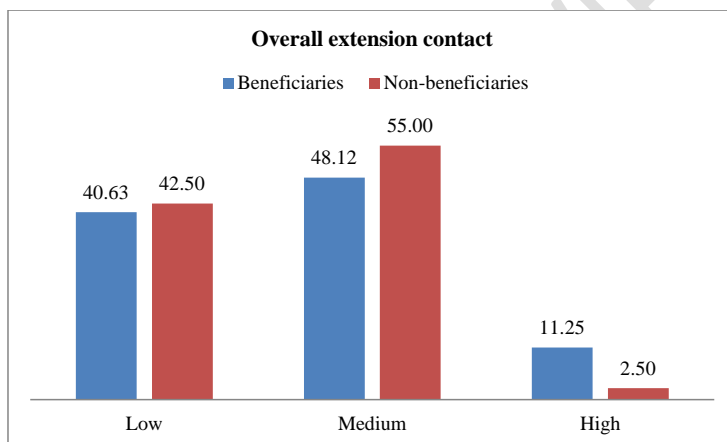
A close observation of the above data clearly indicates that the majority of the beneficiaries and non-beneficiaries respondents had medium to low level of extension contact.

The reason for this might be the beneficiaries respondents were participated in various non-formal educational activities including visit of demonstration unit and training etc. The non-beneficiaries had less interest as compared to beneficiaries respondents. The similar results were also reported by Sanjeev and Saroj (2014), Garg *et al.* (2013) and Girawale *et al.* (2016).

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**Fig. 1: Distribution of the respondents according to their overall extension contact**

Heading??

It was evident from the Table 4 that great majority of the respondents (87.50%) did not read any newspaper, followed by 9.38 per cent were reading sometime and only 3.13 per cent read regularly. About 81.25 per cent respondents did not read agriculture magazines, followed by 14.37 per cent read sometime and 4.38 per cent read regularly. About 82.50 per cent respondents did not listen to radio, followed by 11.88 per cent listened sometime and 5.62 per cent listened regularly. About 14.38 per cent respondents never view television, whereas 47.50 per cent viewed sometime and 38.12 per cent viewed regularly. About 67.50 per cent respondents never call to kisan call centre, while 25.00 per cent called sometime and 7.50 per cent called regularly. About 86.25 per cent respondents did not use internet, followed by 8.75 per cent used sometime and 5.00 per cent used regularly.

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**Table 4: Distribution of the respondents according to their mass media utilization**

| Sl. No. | Mass media exposure   | Respondents   |               |                |                   |               |                |
|---------|-----------------------|---------------|---------------|----------------|-------------------|---------------|----------------|
|         |                       | Beneficiaries |               |                | Non-beneficiaries |               |                |
|         |                       | R             | S             | N              | R                 | S             | N              |
|         |                       | F (%)         | F (%)         | F (%)          | F (%)             | F (%)         | F (%)          |
| 1       | Newspaper             | 5<br>(3.12)   | 15<br>(9.38)  | 140<br>(87.50) | 2<br>(1.25)       | 11<br>(6.88)  | 147<br>(91.87) |
| 2       | Agriculture magazines | 7<br>(4.38)   | 23<br>(14.37) | 130<br>(81.25) | 4<br>(2.50)       | 27<br>(16.88) | 129<br>(80.62) |
| 3       | Radio                 | 9<br>(5.62)   | 19<br>(11.88) | 132<br>(82.50) | 13<br>(8.12)      | 36<br>(22.50) | 111<br>(69.38) |
| 4       | Television            | 61<br>(38.12) | 76<br>(47.50) | 23<br>(14.38)  | 39<br>(24.38)     | 70<br>(43.75) | 51<br>(31.87)  |
| 5       | Kisan Call Centre     | 12<br>(7.50)  | 40<br>(25.00) | 108<br>(67.50) | 9<br>(5.62)       | 36<br>(22.50) | 115<br>(71.88) |
| 6       | Internet              | 8<br>(5.00)   | 14<br>(8.75)  | 138<br>(86.25) | 5<br>(3.12)       | 11<br>(6.88)  | 144<br>(90.00) |

#### R- Regular, S- Sometime, N- Never

With respect to non-beneficiaries, majority of the respondents (91.87%) did not read any newspaper, followed by 6.88 per cent read sometime and only 1.25 per cent read regularly. About 80.62 per cent respondents were not reading agriculture magazines, followed by 16.88 per cent read sometime and 2.50 per cent read regularly. About 69.38 per cent respondents did not listen to radio, followed by 22.50 per cent listened sometime and 8.12 per cent listened regularly. About 31.87 per cent respondents never view television, whereas 43.75 per cent viewed in sometime and 24.38 per cent viewed regularly. About 71.88 per cent respondents never call to kisan call centre, while 22.50 per cent call sometime and 5.62 per cent call regularly. About 90 per cent respondents did not use internet, followed by 6.88 per cent used sometime and 3.12 per cent used regularly.

Heading??

The data given in Table 5 and Fig. 2 brings to light about percentage distribution of the respondents which reveals that out of total, most of the respondents (48.13%) had medium level of mass media exposure, while 40.31 per cent had low and 11.56 per cent had high level of mass media exposure.

**Table 5: Distribution of the respondents according to their overall mass media use**

| Sl. No. | Category | Respondents   |                   |       |
|---------|----------|---------------|-------------------|-------|
|         |          | Beneficiaries | Non-beneficiaries | Total |

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|                      |        | F          | %          | F          | %          | F          | %          |
|----------------------|--------|------------|------------|------------|------------|------------|------------|
| 1                    | Low    | 63         | 39.37      | 66         | 41.25      | 129        | 40.31      |
| 2                    | Medium | 73         | 45.63      | 81         | 50.62      | 154        | 48.13      |
| 3                    | High   | 24         | 15.00      | 13         | 8.13       | 37         | 11.56      |
| <b>Total</b>         |        | <b>160</b> | <b>100</b> | <b>160</b> | <b>100</b> | <b>320</b> | <b>100</b> |
| Mean                 |        | 2.44       |            | 2.09       |            |            |            |
| SD                   |        | 1.92       |            | 1.51       |            |            |            |
| 'Z' value = 1.854 NS |        |            |            |            |            |            |            |

**NS = Non-significant**

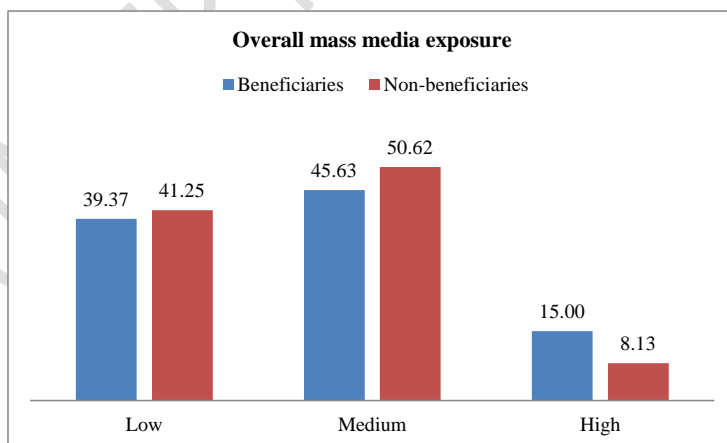
In case of beneficiaries, most of the respondents (45.63%) had medium level of mass media exposure, followed by 39.37 per cent had low and 15.00 per cent had high level of mass media exposure.

Similarly, in case of non-beneficiaries, majority of the respondents (50.62%) had medium level of mass media exposure, followed by 41.25 per cent had low and 8.13 per cent had high level of mass media exposure.

The calculated 'Z' value for mass media exposure was 1.854 which was found to be non-significant. Thus the earlier stated null hypothesis that there is no difference between mass media exposure of beneficiaries and non-beneficiaries was not rejected. Hence, it can be concluded that there is no difference between mass media exposure of beneficiaries and non-beneficiaries.

It can be concluded that majority of the beneficiaries and non-beneficiaries had low to medium level of mass media utilization.

This is due to the reason that they use the mass media as a source of information only when needed or when they face problem. The similar results were also reported by Verma *et al.* (2014), Singh and Verma (2014) and Patil *et al.* (2010).



**Fig. 2: Distribution of the respondents according to their overall mass media exposure**

#### 4. CONCLUSION

From the findings of the study it can be concluded that maximum number of beneficiaries and non-beneficiaries farmers had low to medium level of extension contact, while most of the beneficiaries and non-beneficiaries farmers had low to medium level of mass media exposure. Overall, majority of the beneficiaries farmers obtained information from field consultant in regular and contacted with R.H.E.O. 'sometime' for getting information. Large majority never contacted with H.D.O., Scientist and S.H.D.O. for getting information. In case of non-beneficiaries, majority of the farmers obtained information from R.H.E.O., S.H.D.O. and field consultant in sometime and large majority never contacted with H.D.O., Scientist and Field Consultant for getting information. **Any recommendations??**

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