

Knowledge of tribal farmers about VDVK activities in Andhra Pradesh

ABSTRACT

Van Dhan Vikas Kendra's (VDVK) were formed as a part of Pradhan Mantri Van Dhan Vikas Yojana (PMVDVY) scheme, which constitutes of around 300 members in each VDVK. In VDVK activities like value addition to various forest products, trainings etc., were done in order to provide employment opportunities, avoid exploitation by the middlemen and to improve the livelihood of the tribals. The objectives of the current study were 1. To study the profile characteristics of the tribal farmers. 2. To assess the knowledge of tribal farmers about VDVK activities. 3. To find out the relationship between profile characteristics and knowledge of tribal farmers. The present study i.e., Knowledge of tribal farmers about VDVK activities in Andhra Pradesh was conducted under ITDA-Rampachodavaram which was situated in Andhra Pradesh in the year 2021-2022. Out of the seven tribal mandals, only two mandals i.e., Rampachodavaram, Maredumilli mandals were selected randomly and from each mandal four villages were selected by simple random sampling method. By using proportionate sampling method, a sample size of 105 was taken. Through the findings, it was revealed

that majority of the beneficiaries were young age group and belonged to female gender. Most of the beneficiaries were illiterates, having low annual income and small land holdings. Majority of the beneficiaries had moderate level of utilisation of source of information, with medium extension contact and having medium awareness regarding PMVDVY. While knowledge about VDK activities, majority of the beneficiaries comes under medium category. Thus, the present study helps in finding the lacunae in the implementation of PMVDVY scheme and running VDK's smoothly, effectively and efficiently.

Keywords: Knowledge, Van Dhan Vikas Kendra (VVK), Middlemen, Value addition, Beneficiaries.

Introduction

In the entire globe, there are around 200 million tribal people, which accounts for four per cent of the total global population. In India, there are approximately 8.43 crore people, accounting for 8.6 percent of the total population (Ministry of Tribal welfare 2011). This population is scattered all over the forest and hilly regions of central India. Andhra Pradesh state is one such state, which has the highest tribal population and ranks seventh among states having a tribal population (Rajan *et al.* 2015). In Andhra Pradesh, nine Integrated Tribal Development Agencies (ITDA's) were situated. After

independence, ITDA serves as a single window system for the tribal development. The present study area comes under ITDA-Rampachodavaram which is situated at East Godavari district of Andhra Pradesh. This ITDA serves around 2,13,195 scheduled tribes in a district that spans 4445 square Kilometres.

Tribal depend on various minor forest products like hill brooms, lac, etc., and other agriculture products to meet daily needs and attain livelihood security (Jaiswal 2022). The products produced in the tribal areas and by the tribals have huge demand as they don't contain many chemicals, but their shelf life is less. Around 30-40 per cent of food was wasted every year which is equal to one-third of the food that can be utilised for the human consumption. Around 40 per cent in developing countries and more than 40 per cent of food losses in the industrialised countries occur at post harvest and at processing levels (UNEP 2012). This post harvest losses can be reduced to certain extent by value addition. Value addition is the process of achieving a high price for the same volume of a primary product through processing, packaging, quality improvement, or other means. One of the most important aspects of nutritional security is value addition. Farmers may receive a lower price for a specific farm produce due to surplus production. The most pressing issue these days is providing farmers with a fair price for their farm produce. Farmers who directly sell their produce was exploited by the middlemen

without providing a reasonable and fair price to them. This problem can be solved by adding value to various crops and marketing them both within and outside the country. This can also lead to more rural employment opportunities. Through a specific production process, value added agriculture helps to increase the value of primary agricultural commodities. Small-scale processing units, organic food processing, traditional crop production, Agri-tourism, and bio-fuels development are just a few examples of value-added projects that have helped to create new jobs in rural areas. Value addition in agriculture is required for farmer profitability, to empower farmers and the weaker sections of society, to provide safe, quality, and branded food to consumers, to reduce post-harvest losses, to reduce imports while increasing exports, to encourage the growth of subsidiary industries, to reduce marketing risk, to promote crop diversification, and to increase farmer financial stability (Banarsi lal and Pawan sharma 2019).

Van Dhan Vikas Kendra (VDVK)

VDVK means

V= Van (Forest)

D= Dhan (Products)

V= Vikas (Development)

K= Kendra (Center)

VDVK's were established as a part of the Pradhan Mantri Van Dhan Vikas Yojana (PMVDVY) scheme. A single member of a tribal family from the same area, whose livelihood is dependent on minor forest products and agricultural crops grown in that area, was formed as an MFP with 20 members (IBEP 2021). Around fifteen MFP groups like this, each with around 20 members, will combine to form a VDK with 300 members. Each VDK will have a president, secretary, and treasurer.

The "Van Dhan Vikas Kendra" was established to provide skill development and capacity building training, as well as to set up a primary processing and value addition facility. Tribal farmers are then trained and given working capital in order to add value to the products they collect from the jungle. Through various organisations such as the Integrated Tribal Development Agency (ITDA), Krishi Vigyan Kendras (KVK's), and Girijana Cooperative Cooperation (GCC), various trainings such as how to increase value, awareness regarding value addition, on various processing activities, and value addition activities were provided to the beneficiaries. Through these VDK's, ensure livelihood to the tribals during the time of pandemic and increased employment opportunities for them (Priscilla Jebaraj 2020).

Thus, these value-added products can help in reduction of post-harvest losses, in exporting to other countries where there is a

huge demand and thereby improve tribal's livelihood. Thus, based on the practical importance of the value addition and processing activities, the present study entitled “**Knowledge of tribal farmers about VDVK activities in Andhra Pradesh**” was selected.

Methodology

In the present study, descriptive research design was used. ITDA-Rampachodavaram in East Godavari district of Andhra Pradesh was selected purposively and the study was carried out in the year 2021-2022. Under ITDA-Rampachodavaram there are around seven Tribal mandals, from which two mandals namely Rampachodavaram, Maredumilli were selected by using simple random sampling method, as they were highly tribal populated compared to other mandals. From each mandal around four villages were selected randomly, by combining there are eight villages in total. With the help of VDVK officials, a list of beneficiaries was prepared. Thus, from the list a proportionate sample of 2 per cent from each mandal and 30 per cent of beneficiaries from each village were selected for the study. Thus, a total of 105 beneficiaries were taken as a sample size for the study by using simple random sampling method. Through a well-structured interview schedule, data was collected. Statistical tools such as Mean, Frequency, Percentage, Weighted mean score and Multiple

regression analysis was used to assess the knowledge of tribal farmers about various VDVK activities.

Results and Discussion

Table 1: Traits of the beneficiaries

| S. no | Variable | Maximum value | Minimum value | Mean | Standard deviation | Category with maximum number of beneficiaries | Category with minimum number of beneficiaries |
|-------|---------------|---------------|---------------|----------|--------------------|---|---|
| 1 | Age | 73 | 18 | 37 | 10.73 | Young age group | Old age group |
| 2 | Gender | 2 | 1 | 1.84 | 0.36 | Female | Male |
| 3 | Education | 5 | 0 | 1.84 | 1.64 | Illiterate | Graduation |
| 4 | Annual income | Rs.1,80,000 | Rs.36,000 | 78830.66 | 31598.67 | Low income | High income |

| | | | | | | | |
|---|--|----|---|-----------|------|--------------|---------------------|
| 5 | Size of land holdin g | 4 | 0 | 0.86 | 0.79 | Small | Large |
| 6 | Source of inform ation | 14 | 7 | 11.4 8 | 1.95 | Moder ate | Less and more |
| 7 | Extens ion contac t | 16 | 6 | 10.2 2 | 2.37 | Mediu m | High |
| 8 | Extent of aware ness regard ing PMV DVY | 21 | 8 | 14.2 8 | 3.21 | Mediu m | High |

From the table 1, it was revealed that majority of the beneficiaries were of young age group (50.48 per cent). Through this we can understand that most of the beneficiaries

were of young age, because this scheme was started from past 3-4 years and main focus was on value addition and in developing entrepreneurial skills so young age group are more interested compared to middle and old age group. The above findings were in line with the study of Kumar and Saranya (2019). Most of the beneficiaries in the present study were belonged to female gender (84.76 per cent) because most of the forest products were collected by the woman and they are involved, required in various processing activities. The data also reveals that most of the beneficiaries are illiterates (33.33 per cent). Even though most of the young age group completed their education up to high school and intermediate, but by combining middle age and old age group most of them were belonged to illiterate, primary school category. Most of the beneficiaries comes under low annual income (60.00 per cent) category i.e., from Rs.36,000 to Rs.84,000. The reason for low annual income is because respondents having small land holdings and their dependence on agriculture and related products for their livelihood requirements. Srivani *et al.* (2022) has similar findings. The study also reveals that majority of the beneficiaries had medium level of utilisation of source of information (60.00 per cent). Dhanasree *et al.* (2014) findings were similar to the current study. The reason was that, most of them utilise the information sources like friends, neighbours, progressive farmers and DWACRA instead of other sources

like journals, internet etc. The findings also revealed that majority (62.86%) of the beneficiaries were belonged to medium extension contact category. The reason for the above result might be due to illiteracy, lack of social mobility due to family restrictions and the scheme was implemented through ITDA and in VDVK's so almost all of them are in contact with these officials. The data of the present study reveals that more than half (52.38%) of the beneficiaries have medium awareness regarding PMVDVY. The reason for the above result may be due to lack of complete knowledge on part of the beneficiaries about the scheme like the products included, financial support like loans, savings account and facilities provided under PMVDVY.

Table 2: Knowledge about VDVK activities

| S.no | Statement | Agree (3) | Undecided (2) | Disagree (1) | Weighted mean score | Rank |
|--|--|--------------|------------------|-----------------|---------------------|------|
| Knowledge about value addition activities of VDVK | | | | | | |
| 1 | In VDVK processing of various forest-based | 100 | 5 | 0 | 2.95 | I |

| | | | | | | |
|--|---|----|----|----|------|------|
| | products were done | | | | | |
| 2 | At present the products covered in each VDVK are sufficient | 20 | 29 | 56 | 1.65 | VIII |
| 3 | Processing units provided are sufficient to do value addition of all the products in that season | 35 | 40 | 30 | 2.05 | III |
| Knowledge about marketing activities of VDK | | | | | | |
| 4 | Marketing facilities provided are sufficient | 9 | 32 | 64 | 1.48 | X |

| | | | | | | |
|---|---|----|----|----|------|------|
| | and in the same pace with the production | | | | | |
| 5 | Marketing stalls, kisan melas and fairs conducted were sufficient | 5 | 24 | 76 | 1.32 | XII |
| Knowledge about financial facilities provided through VDVK | | | | | | |
| 6 | Government provides sufficient loan amount for smooth running of the activities of VDVK | 10 | 50 | 45 | 1.67 | VII |
| 7 | Each VDVK get | 0 | 17 | 88 | 1.16 | XIII |

| | | | | | | |
|----|---|----|---|-----|------|-----|
| | the sufficient loan for the various processing and other activities | | | | | |
| 8 | Government provides the loan at the right time and in right amount when needed | 0 | 5 | 100 | 1.05 | XIV |
| 9 | In each VDVK there is a saving account facility. | 32 | 0 | 73 | 1.61 | IX |
| 10 | All members of VDVK are | 21 | 0 | 84 | 1.40 | XI |

| | | | | | | |
|--|--|----|----|----|------|----|
| | utilizing this saving facility | | | | | |
| Knowledge about trainings provided through VDVK | | | | | | |
| 11 | Trainings provided were sufficient | 42 | 23 | 40 | 2.02 | IV |
| 12 | Training duration is sufficient to learn new skills | 31 | 18 | 56 | 1.76 | VI |
| 13 | Whether officials are encouragin g farmers in establishing enterprises related to value added products such as pickle making, | 46 | 29 | 30 | 2.15 | II |

| | | | | | | |
|----|---|----|----|----|------|---|
| | candle making and others like mushroom cultivation in off season etc. | | | | | |
| 14 | Does through trainings entrepreneu rial skills were developed? | 25 | 56 | 24 | 2.01 | V |

The data in table 2 was the result of the knowledge of tribal farmers about VDVK activities, based on the weighted mean score statements i.e., in VDVK processing of various forest-based products were done, whether officials are encouraging farmers in establishing enterprises related to value added products such as pickle making, candle making and others like mushroom cultivation in off season etc. were ranked at 1st and 2nd positions which indicates that tribal has more knowledge towards these activities. While statements like processing units provided are sufficient to do value addition of

all the products in that season, trainings provided were sufficient, Does through trainings entrepreneurial skills were developed and training duration is sufficient to learn new skills were ranked between 3rd to 6th position. Whereas, statements like government provides sufficient loan amount for smooth running of the activities of VDK, at present the products covered in each VDK are sufficient, in each VDK there is a saving account facility, marketing facilities provided are sufficient and in the same pace with the production, all members of VDK are utilising this saving facility, marketing stalls, kisan melas and fairs conducted were sufficient, each VDK get the sufficient loan for the various processing and other activities and government provides the loan at the right time and in right amount when needed were ranked from 7th to 14th position respectively.



Fig. 1. Packaging of Tamarind for marketing at VDKV



Fig.2. Trainings organized by KVK for VDKV beneficiaries about importance, awareness of value addition.

Table 3: distribution of respondents on the basis of their overall knowledge about VDVK activities

| Category | |
|-------------------------------|------------------|
| <u>Beneficiaries</u> | |
| | Frequency |
| percentage | |
| Low (Up to 24.5) | 21 |
| 20.00 | |
| Medium (25-29.61) | 70 |
| 66.67 | |
| High (more than 29.61) | 14 |
| 13.33 | |
| Total | 105 |
| 100.00 | |

From the table 3, it was revealed that majority (66.67%) of the beneficiaries had medium knowledge regarding VDVK activities. While around 20.00 per cent and 13.33 per cent of the beneficiaries had low and high level of knowledge respectively.

Table 4: Correlation coefficient of Knowledge about VDVK activities with their selected traits.

Traits**Correlation coefficient****'r' value**

Age

-0.038^{NS}

Gender

-0.096^{NS}

Education

0.095^{NS}

Annual

income

0.571^{**}

Size

of

land

holding

0.478^{**}

Source

of

information

0.213^{*}

Extension

contact

0.106^{NS}

Extent

of

awareness

regarding

PMVDVY

0.563^{**}

^{**} Correlation is significant at 0.01 level.

^{*}Correlation is significant at 0.05 level.

From the table 4, it is evident that variables such as annual income, size of land holding and extent of awareness regarding PMVDVY has a highly significant relationship with knowledge about VDVK activities at 0.01 level of significance. While variables like source of information had a significant relationship with knowledge at 0.05 level of significance. Whereas age and gender had a negatively non-significant relationship, education and extension contact has a positively significant relationship with knowledge about VDVK activities.

Table 5 Model summary of multiple regression analysis

| Model summary | | | | |
|--|-------------------|-----------------|--------------------------|-----------------------------------|
| Model | R | R square | Adjusted R square | Standard error of estimate |
| Predictors (annual income, size of land holding, source of information, Extent of awareness regarding PMVDVY.) | .670 ^a | 0.448 | 0.402 | 1.978 |

The information in table 5 showed that the independent variables' coefficient of determination (R^2) was 0.448. This shows that the selected independent variables, such as annual income, size of land holding, information source, and extent of awareness of PMVDVY accounted for 44.80% of the total variation on the dependent variable i.e., knowledge of VDVK activities. While the standard error was 1.978, this could be attributed to unexplained variation brought on by variables that were left out of the current study.

Table 6 ANOVA

| Model | | Sum of squares | df | Mean square | F | Sig. |
|--------------|------------|-----------------------|-----------|--------------------|----------|-------------------|
| 1 | Regression | 305.263 | 8 | 38.158 | 9.755 | .000 ^b |
| | Residual | 375.499 | 96 | 3.911 | | |
| | Total | 680.762 | 104 | | | |

The results of the ANOVA, represented by the F-statistical value of (9.755), show that the regression analysis as a whole is significant at $p=0.005$. This indicates that the relationship between the independent and dependent variables in the multiple regression analysis was significant.

Conclusion:

From the findings of the study, it can be concluded that majority of the beneficiaries had medium level of knowledge

about the various activities of the VDVK. The Pradhan Mantri Van Dhan Vikas Yojana (PMVDVY) scheme was implemented from 2018, majority of the beneficiaries does not have complete knowledge related to the scheme activities. In order to broaden the horizon of beneficiaries about VDVK and the scheme activities and facilities, there is a need for organisation of trainings for creating awareness about the scheme, its activities and facilities, and roles of the beneficiaries, there is also need for increasing the awareness, importance of the value addition to the beneficiaries. Beneficiaries should also maintain various extension contacts and be updated about the recent technologies, schemes that were developed and introduced by the various organisations. So, Tribals were also benefitted from the VDVK activities by getting fair price after adding value to their products and also exploitation by the middlemen can also be minimized. Thus, having knowledge about activities that were undergone in VDVK is very much advantageous to the tribal farmers for acquiring fair price and thereby increasing their income and improving their livelihood.

Consent

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

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