Assessment of Training Needs on Entrepreneurship Development for NTFR Stakeholders in Gurez Valley of Kashmir

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Authors’ contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Entrepreneurship on non-timber forest resources (NTFR) is an important source of sustainable livelihoods and income diversification in the Gurez valley of Kashmir. In order to increase the efficiency of NTFR stakeholders, training is indispensable. This study attempts to assess the training needs, suitable training programme and socioeconomic profile of the NTFR stakeholders. Multistage random sampling procedure was used to select 337 households from 18 sample villages for field survey. Data were collected through personal interviews administering structured interview schedule and analysed using simple descriptive statistics. Results indicated that majority of the NTFR stakeholders were belonged to low socioeconomic status class as reflected by their...
household characteristics. Among the ten selected major thematic areas the ‘commercialization of NTFR’ (WMS, 3.00; priority percentage, 12.87%) was ranked 1st while ‘conservation of NTFR through JFM’ (WMS = 1.68; priority percentage, 7.21%) was ranked 10th. The short duration trainings (1-7 days) (WMS, 3.00) was ranked 1st among the delivery methods followed by the medium duration trainings (8-14 days) (WMS, 2.84; rank 2nd) and the long duration trainings (3-4 weeks) (WMS, 2.79; rank 3rd). The findings suggested that the trainings on NTFR entrepreneurship of stakeholders is the crucial intervention for livelihood diversification, socioeconomic development and forest conservation; hence, need-based trainings must be planned and imparted to the individuals for improving the entrepreneurial productivity, performance and efficiency. To achieve the desired change in the NTFR entrepreneurship, the training needs identified in this study must be given due consideration during designing the training curriculum.

Keywords: Training needs; entrepreneurship; socio-economics; NTFR stakeholders; Gurez; Kashmir; India.

1. INTRODUCTION

“Training is an important process of capacity building of stakeholders for acquisition of new skills, attitude and knowledge as to improve the productivity and performance of an organization or enterprise” [1]. “Training is an indispensable instrument for human resource development which helps the trainees to function effectively and efficiently in their entrepreneurship or business on completion of the training” [2]. “Systematically arranged training programmes aid in producing desirable changes in the behavior of people” [3]. The planning of an effective training programme requires a clear picture of the training needs which is the difference between the required level of individual competence and his present level of competence” [4]. “Assessment of the training needs is vital to a training process which helps to identify present problems and future challenges to meet through training and development” [5]. “In order to make any training programme meaningful and effective, it is imperative for the training organizers to identify the training needs of the stakeholders based on which a suitable training module can be developed so that the appropriate training is given to the right people, in the right form, at the right time so that the degree of productivity and profitability can be achieved” [6-7]. “The training need assessment is an examination of the areas, aspects or programmes where training should be applied for stakeholders or clientele groups within an organization” [8-9]. “Krishi Vigyan Kendra’s (KVKs), Extension Education Institutes (EEIs) and Farmers Training Centers (FTCs) impart need based, skill oriented vocational training programme’s to the agrarian community in India” [10]. “These institutions consider the training needs of the farmers, farm women, rural youths and other stakeholders to be imparted to them for upgradation and utilization of the knowledge and skill in the new techniques” [11].

“Entrepreneurship in non-timber forest resources (NTFR) is a well-known traditional small-scale forest-based enterprises of rural communities in rural Kashmir” [12]. “Undoubtedly, it is the most widespread and admired entrepreneurship transferred from time immemorial and intensely rooted in local socio-culture” [13]. “The NTFR entrepreneurship on herbal medicines, essential oils, spices and condiments, wild foods (fruits, vegetables, mushrooms, etc.), fibres and utensils, beverages, fodder and forage, green manure and composts, basket and wicker works, tool handles and agricultural implements, wood carving and furniture making, fuel wood and charcoal making, sport goods, musical instruments and toys making, pickles, sauces, jam, jelly, squash etc. have received acclamation worldwide for their exceptional enterprises, artifact and efficient utilities” [14]. “NTFR entrepreneurship plays a significant role in income diversification, self-employment, socioeconomic improvement, socio-culture, petty business, poverty alleviation and income inequalities mitigation of NTFR stakeholders in Kashmir” [15]. “The NTFR entrepreneurship has exclusive knowledge and skill inherited from generations and has become prioritized business option for rural livelihood diversification” [16]. The identification and analysis of the training needs of the NTFR stakeholders is a tool of systematic thinking and comprehensive diagnosis which scrutinize internal factors and illuminate the external factors of an organization. Understanding the training needs of the NTFR stakeholders will provide thoughtful basis to the training organizers for strategy formulation towards transfer of scientific technologies and
business know-how to enhance their performance. In this regard, there is also the need to rationalize training to minimize repetition of the same message, more exposure to relevant technology and communication techniques, more avenues for personal career development and frequent contact between various categories of extension personnel. With this background the present investigation was planned to identify the training needs of the NTFR stakeholders so as to develop an interactive training programme that combine scientific technical knowledge with local indigenous knowledge in client-centered problem-solving activities in Gurez valley of Kashmir.

2. MATERIALS AND METHODS

2.1 Description of the Study Area

Gurez Valley (Fig. 1) is situated at 34°0'23” to 34°41’N latitude and 74°37’ to 74°46’E longitude at an altitude of 2370 meters above MSL in Bandipora district of Jammu and Kashmir UT. The valley is surrounded on north by Ladakh, south by Bandipura, east by Ganderbal and west by Kupwara. Razdan pass- the coldest and dangerous peak located at 3557 m amsl connects the region with the rest of Kashmir and differentiates it on geographical, socio-cultural and linguistic lines. The valley is drained by mighty Kishenganga River between Kaobal Gali in east and Kanzalwan in west with other aquamarine and crystal streams. The valley has an area of above 57842 hectares mostly mountainous with ranges of the Himalayas and lush forest cover inhabited by 31912 people [17]. Main occupations of the people are agriculture, livestock production and NTFR collection [18]. The valley has fascinating scenic beauty, abundant biodiversity and inimitable culture. It houses a unique Shina speaking tribe of Dards inhabitants of Shina Communities who are ethnically and culturally quite distinct from Kashmiris. The mountainous terrain having lofty hills and peaks scattered by long flat grasslands are used by the migratory people to graze their livestock during the snow free summer months. The climate is temperate with four usual seasons; the heavy snow precipitation during winters keeps the valley snow bound and inaccessible for almost six months. It has dense coniferous and broad-leaved forests mostly dominated by Acer caesium, Abies pindrow, Pinus wallichiana, Picea smithiana, Juniperus macroposta, Taxus wallichiana and Betula utilis. The vegetation at higher elevations is rather sparse and dotted mostly with moraines, boulders and slopes of varying steepness with few important shrubs like Rhododendron anthropogon and colorful flowering herbs such as Bergenia ciliata, Dactylorrhiza hatagirea, Eremurus hispanicus, Saussurea spp. The vegetation starts growing from late April with the melting of snow and comes to its full bloom during June to September and starts dying out by the end of October.

2.2 Sampling Procedure

Multi-stage random sampling technique [19] was employed to select the blocks, villages and the households. In the first stage, three blocks including Gulshanpora, Dawar and Tilail were selected. In the second stage, eighteen (18) villages were sampled including two villages from Gulshanpora block, four villages from Dawar block and twelve villages from Tilail block. In the third stage, a total of 337 households were withdrawn from the selected villages having 10% sampling intensity for field survey. The NTFR stakeholders identified for assessing the training needs on entrepreneurship development were different in farming activities, land holding size and other different socioeconomic attributes.

2.3 Data Collection

Data were collected from the randomly selected NTFR stakeholders using pre-tested structured schedule through personal interviews [20]. The interviews were conducted at the respondent’s residence/work place by the investigators and the responses were recorded in the schedule. Utmost care was taken to make the respondents to understand about the objectives of the study and clarified their doubts in the interview schedule. For this purpose, an interview schedule was constructed for data collection from respondents in the light of the objectives of the study. For the present study, a list of 10 major components/thematic areas was prepared. The specific and relevant training need items were collected through different review of literature, discussion with state extension functionaries, KVK staff as well as investigators own field experiences and were systematically incorporated in the interview schedule. The schedule was administered to the indicated respondents for data collection. In this regard, the NTFR stakeholders were requested to give a tick (‘’*) in one of the three response categories namely, very important (VI), moderately important (MI) and not important (NI) provided.
against the identified specific training needs with assigned score as 3, 2 and 1 respectively. The perceptions on preference of training methods among NTFR stakeholders were recorded as highly preferred (HP), moderately preferred (MP) and least preferred (LP) with their respective scores of 3, 2 and 1. The socioeconomic variables were measured on the basis of “Socio-economic status scale” developed by Venkataramaiah (1990) after updating for 2022 [21]. The household socioeconomic variables included in the interview schedule were age, education, social membership, family composition, size of land holding, main occupation, housing status, farm power, farm implements, livestock possession, wealth status and gross annual income.

2.4 Analytical Procedure

In order to achieve the objectives and to get meaningful results the data were analysed by simple descriptive statistics viz., frequency, percentage, average, confidence interval and rank order [22] after coding with numerals using scoring techniques [21]. In this study, the NTFR stakeholder’s responses were collected in a 3-point continuum scale as very important (VI), moderately important (MI) and not important (NI) by assigning scores 3, 2 and 1 respectively. The results were calculated as weighted mean score (WMS) for each of the thrust area identified for the training using simple ranking technique.

Weighted mean score (WMS) = ((No. of VI×3) + (No. of MI×2) + (No. of NI×1) \ Total no. of VI + MI + NI)

Where, VI = Very important, MI = moderately important and NI = Not Important

The preference of the training methods was assessed using the same formula used for training need assessment. The WMS of the training needs ranged from 1 to 3. Data were processed and analysed with MS Excel and Statistical Package for Social Sciences (SPSS) software and displayed through Table and Graph.

Fig. 1. Location map of the study area
3. RESULTS AND DISCUSSION

3.1 Socioeconomic Characteristics of NTFR Stakeholders

The socioeconomic variables (Table 1) indicated that most of the NTFR stakeholders were middle aged (M=41.75, SD=9.53), having low education up to primary level (M=2.89, SD=0.93), membership of only one organization (M=1.14, SD=1.20), large sized families (M=2.90, SD=0.88), inadequate housing status (M=3.57, SD=1.01), insufficient farm power (M=1.04, SD=0.64) and conventional farm implements (M=9.64, SD=3.78). Among most of the surveyed households, the farm size was marginal (M=1.19, SD=0.53) having 6 to 10 livestock (M=1.91, SD=0.56), engaged mainly in cultivation (M=2.80, SD=1.20) with medium wealth status (M=8.09, SD=3.36) and average gross income (M=92811.24/year, SD=32134.19/year).

The socioeconomic variables of the NTFR stakeholders are important components that have significant effects on the determination of the NTFR entrepreneurship, business strategies and insights toward NTFR trade [23]. They are the key factors directly associated to NTFR collection, subsistence consumption, diverse use pattern, trade for cash income, safety net functions, NTFR-based livelihoods and poverty-NTFR use interactions. The socioeconomic conditions play a vital role in NTFR extraction for livelihood dependence, associated NTFR depletion and degradation, biodiversity management and ecosystem services of the NTFR among the aboriginal communities [24]. The present analysis reflected that the existing socioeconomic conditions of the NTFR stakeholders are far away from desired level and hence, there is urgent need to improve their quality of life by livelihood diversification through entrepreneurial training and capacity building. The valid characterization of the households’ socioeconomic variables established in the study can be a confounder in NTFR entrepreneurial planning, NTFR management and diversifying NTFR-based economy.

3.2 Training Needs of the NTFR Stakeholders

The NTFR stakeholder’s perception on the training needs with respect to NTFR entrepreneurship (Table 2) indicated that the most important training need is found to be the ‘commercialization of NTFR’ (WMS=3.00; rank 1st) which was closely followed by the ‘entrepreneurship in value chains of NTFR’ (WMS=2.84; rank 2nd), NTFR for agri-business development (WMS=2.79; rank 3rd) and demand forecasts and price determination in NTFR (WMS=2.69; rank 4th). The ‘livelihood diversification through NTFR based cottage industries and handicrafts’ (WMS=2.31; rank 5th), ‘cost benefit considerations in NTFR production’ (WMS=2.26; rank 6th), ‘collection, processing and value addition of NTFR’ (WMS=2.03; rank 7th), ‘NTFR for achieving food and nutritional security’ (WMS=1.90; rank 8th), ‘domestication and production of NTFR production’ (WMS=1.80; rank 9th) and ‘conservation of NTFR through JFM’ (WMS=1.68; rank 10th) were noted as key training needs but were ranked lower in importance. The NTFR stakeholders viewed the ‘commercialization of NTFR’ as the very prominent training need accounting for 12.87% of the total perceptions while the training need ‘conservation of NTFR through JFM’ received lowest priority comprising 7.21% of the total perceptions (Fig. 2).

The Gurez valley is bestowed with rich NTFR, abundant biodiversity and excellent human resources [23]. Ecological and economical sustainability of NTFR is prerequisite for livelihood security and income diversification of tribal communities depending on forests overwhelmingly. They have remained backward, underdeveloped or neglected due to the factors like lack of ambition, lack of initiative, inadequate land holding, limited needs and orthodox behaviour [24]. Further, due to lack of alternative livelihood sources, the NTFR is the only livelihood source needed as important strategy of poverty reduction and socio-economic upliftment of backward tribal people. Since, the enhancement of NTFR production either by increasing the area or productivity is not feasible anymore the only alternative is to adopt the better management practices, commercialization of NTFR, livelihood diversification through NTFR based cottage industries and handicrafts, NTFR for agri-business development, collection, processing and value addition of NTFR, entrepreneurship in value chains of NTFR, demand forecasts and price determination in NTFR, NTFR for achieving food and nutritional security, conservation of NTFR through JFM, domestication and production of NTFR, cost benefit considerations in NTFR production and use of certain modern forestry technologies through imparting need-based training. Training
is an integral part of development activity and knowledge/skills of the NTFR stakeholders in forestry technologies are important factors for increased income and employment [25]. Training involves the acquisition of knowledge which is cognitive, abstract and includes theory and concepts, as well as tacit knowledge gained as a result of the experience of performing certain tasks [26]. It also implies the existing skills are refreshed in order to meet the expectation of the job at hand. Skills are attributed to doing or performing the right technique at the right time.

### 3.3 Preference of Training Methods

The short duration trainings (1-7 days) (WMS, 3.00; rank 1<sup>st</sup>) was the highest rated delivery method as adjudged by the NTFR stakeholders which was followed by the medium duration trainings (8-14 days) (WMS, 2.84; rank 2<sup>nd</sup>). The long duration trainings (3-4 weeks) (WMS, 2.79; rank 3<sup>rd</sup>) was perceived as the lowest rated delivery method by the NTFR stakeholders Table 3.

![Percentage training needs on entrepreneurial contents among NTFR stakeholders (N=337)](image)

The findings on the preference in the training methods perceived by the NTFR stakeholders revealed that all the training methods including short duration trainings (1-7 days), medium duration trainings (8-14 days) and long duration trainings (3-4 weeks) were considered appropriate and should be adopted in future training programmes for NTFR stakeholders. The preference of low duration trainings over long duration trainings among NTFR stakeholders could be due to the reasons like poor utilization of sources of information, lack of awareness, low literacy, non-recognition of the information sources, difficult accessibility of the villages, primitive socio-cultural background and pressure of earning livelihoods [23,27]. With the inclusion of all ten major training areas of NTFR entrepreneurship and with the continuance and adoption of the presently used and newly identified delivery methods, a new training model for the NTFR stakeholders should be used.

- **Commercialization of NTFRs**
- **Livelihood diversification through NTFRs based cottage industries and handicrafts**
- **NTFRs for agri-business development**
- **Collection, processing and value addition of NTFRs**
- **Entrepreneurship in value chains of NTFRs**
- **Demand forecasts and price determination in NTFRs**
- **NTFRs for achieving food and nutritional security**
- **Conservation of NTFRs through JFM**
- **Domestication and production of NTFRs production**  

**Fig. 2. Percentage training needs on entrepreneurial contents among NTFR stakeholders (N=337)**
Table 1. Descriptive statistics for socioeconomic characteristics of NTFR collectors (N=337)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>41.75</td>
<td>9.53</td>
<td>40.17</td>
<td>43.33</td>
<td>25</td>
</tr>
<tr>
<td>Education</td>
<td>2.89</td>
<td>0.93</td>
<td>2.73</td>
<td>3.04</td>
<td>2</td>
</tr>
<tr>
<td>Social participation</td>
<td>1.14</td>
<td>1.20</td>
<td>0.94</td>
<td>1.34</td>
<td>0</td>
</tr>
<tr>
<td>Family composition</td>
<td>2.90</td>
<td>0.88</td>
<td>2.76</td>
<td>3.05</td>
<td>2</td>
</tr>
<tr>
<td>Size of land holding</td>
<td>1.15</td>
<td>0.53</td>
<td>1.06</td>
<td>1.24</td>
<td>1</td>
</tr>
<tr>
<td>Main occupation</td>
<td>2.80</td>
<td>1.20</td>
<td>2.61</td>
<td>3.00</td>
<td>1</td>
</tr>
<tr>
<td>Housing status</td>
<td>3.57</td>
<td>1.01</td>
<td>3.40</td>
<td>3.74</td>
<td>2</td>
</tr>
<tr>
<td>Farm power</td>
<td>1.04</td>
<td>0.64</td>
<td>0.94</td>
<td>1.15</td>
<td>0</td>
</tr>
<tr>
<td>Farm implements</td>
<td>9.64</td>
<td>3.78</td>
<td>9.01</td>
<td>10.27</td>
<td>4</td>
</tr>
<tr>
<td>Livestock possession</td>
<td>1.91</td>
<td>0.56</td>
<td>1.82</td>
<td>2.00</td>
<td>0</td>
</tr>
<tr>
<td>Wealth status</td>
<td>8.09</td>
<td>3.36</td>
<td>7.53</td>
<td>8.65</td>
<td>2</td>
</tr>
<tr>
<td>Gross annual income</td>
<td>92811.24</td>
<td>32134.19</td>
<td>47381.15</td>
<td>74393.49</td>
<td>18000</td>
</tr>
</tbody>
</table>

Table 2. Training needs on entrepreneurship development for NTFR stakeholders (N=337)

<table>
<thead>
<tr>
<th>Entrepreneurial training contents</th>
<th>Perception</th>
<th>Weighted mean score (WMS)</th>
<th>Mean rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercialization of NTFR</td>
<td>337 (100) *</td>
<td>3.00</td>
<td>1st</td>
</tr>
<tr>
<td>Livelihood diversification through NTFR</td>
<td>187 (55.49)</td>
<td>2.31</td>
<td>5th</td>
</tr>
<tr>
<td>NTFR for agri-business development</td>
<td>284 (84.03)</td>
<td>2.79</td>
<td>3rd</td>
</tr>
<tr>
<td>Collection, processing and value addition of NTFR</td>
<td>104 (30.86)</td>
<td>2.03</td>
<td>7th</td>
</tr>
<tr>
<td>Entrepreneurship in value chains of NTFR</td>
<td>297 (88.13)</td>
<td>2.84</td>
<td>2nd</td>
</tr>
<tr>
<td>Demand forecasts and price determination in NTFR</td>
<td>264 (78.34)</td>
<td>2.69</td>
<td>4th</td>
</tr>
<tr>
<td>NTFR for achieving food and nutritional security</td>
<td>27 (8.01)</td>
<td>1.90</td>
<td>8th</td>
</tr>
<tr>
<td>Conservation of NTFR through JFM</td>
<td>67 (19.90)</td>
<td>1.68</td>
<td>10th</td>
</tr>
<tr>
<td>Domestication and production of NTFR production</td>
<td>49 (14.54)</td>
<td>1.80</td>
<td>9th</td>
</tr>
<tr>
<td>Cost benefit considerations in NTFR production</td>
<td>157 (46.59)</td>
<td>2.26</td>
<td>6th</td>
</tr>
</tbody>
</table>

* Figures in the parentheses indicate percentages
Table 3. Preference of training methods among NTFR collectors (N=337)

<table>
<thead>
<tr>
<th>Training methods</th>
<th>Highly preferred (HP)</th>
<th>Moderately preferred (MP)</th>
<th>Least preferred (LP)</th>
<th>Weighted mean score (WMS)</th>
<th>Mean rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short duration trainings (1-7 days)</td>
<td>337 (100)</td>
<td>00 (00.00)</td>
<td>00 (00.00)</td>
<td>3.00</td>
<td>1st</td>
</tr>
<tr>
<td>Medium duration trainings (8-14 days)</td>
<td>297 (88.13)</td>
<td>27 (8.01)</td>
<td>13 (3.86)</td>
<td>2.84</td>
<td>2nd</td>
</tr>
<tr>
<td>Long duration trainings (3-4 weeks)</td>
<td>284 (84.03)</td>
<td>37 (10.97)</td>
<td>16 (4.75)</td>
<td>2.79</td>
<td>3rd</td>
</tr>
</tbody>
</table>

4. CONCLUSION

The findings provide important insights in the training needs of NTFR stakeholders from both methodological and content viewpoint. Methodologically it provides a novel framework for survey analysis which allows in-depth analysis, typology of the sample based on the dominant theories and interpretation of the results. From content point of view this research helps to make training organiser closer to NTFR stakeholders helping to reduce their training gap. More specifically, using the results of this study a common training framework can be designed that can cope with the potential gaps for NTFR entrepreneurship of individual stakeholders in a pragmatic, inclusive and dynamic manner. The survey findings reflected the reality that the NTFR stakeholders have had long term experience in the entrepreneurship. They have wishes, interests and needs for training but these needs are not critical but remain at necessary level only. The NTFR stakeholders want to receive training on most of the contents, except a few of the contents which they do not think are practical. The importance of training in NTFR entrepreneurship cannot be overemphasized. The aim is to impact new knowledge, teach better skills to bring about more efficient performance in the NTFR entrepreneurship. Adequate training in areas of NTFR entrepreneurship is a necessary factor to sustainable rural livelihood and consequently rural development. Effective training needs in NTFR entrepreneurship can generate employment, improve quality in enterprises and would have a multiplier effect on NTFR entrepreneurship for better level of living.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES


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