

BASELINE SURVEY MENDIPATHAR

Oyster Mushroom Cluster

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FINAL BASELINE SURVEY

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TABLE OF CONTENTS

1. INTRODCUTION

- 1.1. Background and Rationale
- 1.2. Project Rationale and Scheme Conformity
- 1.3. Oyster Mushroom Project Need Gap Analysis
- 1.4. Aim and Objective of the Baseline Survey

2. METHODOLOGY

- 2.1. Sampling and Sample Covered
- 2.2. Survey Tools and Data Sources

3. BASELINE SURVEY FINDINGS

- 3.1. Profile of the Target Study Areas
- 3.2. Findings from Household Survey

4. CONCLUSION

ANNEX

1. INTRODUCTION

1.1. Background and Rationale

The State's rural population is heavily dependent upon the natural resources for livelihood support. However, pressure on natural resources due to increased needs coupled with unsustainable resource utilization warrant putting in place a developmental framework that ensures sustainable livelihoods, gainful employment opportunities, and inclusive growth. Climate change coping strategies (mitigating and adaptive measures) further call for a fresh approach toward appropriate natural resources planning and management. Better convergence, better governance and higher participation of the Community in the Developmental efforts will have to be therefore, central to any new initiative for holistic development.

In spite of rich natural resource base and the opportunities that come along with it, substantial population of the State particularly in the rural areas has to still grapple with very low income. Clearly it portrays the case of poverty amidst plenty. About half the people of Meghalaya live below the poverty line (Meghalaya State Planning Board, 2009). If the state were to achieve the Millennium Development Goal of halving the poverty level and improving the basic services and welfare of the people residing in rural villages comprising 4,30,573 lakh households, it is imperative to adopt a forward-looking approach for making optimum and productive utilization of the State's natural resources, viz., 'Water', 'Land' and 'Biotic Resources'.

Despite the growing recognition of the benefits and values of Livelihood Promotion Programme for economic growth, improved quality of life, poverty reduction, Meghalaya state is still striving to overcome key challenges which include: limited capacities (resource, skill, knowledge and practices); limited institutional framework, collaborations and coordination among key stakeholders across different sectors, deficiency of proper and sophisticated design & development, planning, implementation and execution of projects supported through institutional mechanism for infrastructure development to be utilized for the benefit of the farmers as well as monitoring framework at the grassroot level etc.

1.2. Mushroom Project Rationale and Scheme Conformity

To support the sustainability and growth of mushroom farmers in North Garo Hills region by addressing common issues such as improvement of technology, skills and quality, market access, access to capital, etc., MMCS along with MLF planned to integrate the farmers into a cluster and implement the project under the SFURTI Scheme of MSME, GoI. The project endeavors to build capacity of the farmers or common supportive action through formation of cluster, create new infrastructure facility for inputs, production, value addition, spawn production, training, market connect etc.

The project entails a number of major investment in production and value addition infrastructure, resource management, technical assistance to new and improved production techniques and practices, capacity building and support strategy targeting the tribal mushroom farmers of North Garo Hills region consisting 50% women for improved Oyster Mushroom production through institutionalization of inputs and outputs, financial and resource help, knowledge sharing and capacity building at the local level. More importantly,

this project is meant to enhance the technical and administrative capacities of the target administrations at community and district levels in planning, designing, and delivering necessary services for socio-economic development in the form of logical investments in rural livelihood and production systems through climate sensitive planning, budgeting, and execution.

SFURTI scheme of MSME has been designed with thorough and cautious consideration of foremost relevant policies at national and local levels. Particularly, it is aligned with and responsive to the following key policy objectives, including but not limited to:

- To organize the farmers/ artisans into clusters to make them competitive and provide support for their long-term sustainability and economy of scale.
- To provide sustained employment for traditional industry artisans and rural entrepreneurs.
- To enhance marketability of products of such clusters by providing support for new products, design intervention and improved packaging and also the improvement of marketing infrastructure.
- To make provision for common facilities and improved tools and equipment for artisans to promote optimum utilization of infrastructure facilities.
- To strengthen the cluster governance systems with the active participation of the stakeholders, so that they are able to gauge the emerging challenges and opportunities and respond to them in a coherent manner;
- To build up innovated and traditional skills, improved technologies, advanced processes, market intelligence and new models of public - private partnership s, so as to gradually replicate similar models of cluster - based regenerated traditional industries.
- To make a paradigm shift from a supply driven selling model to a market driven model with the right branding, focus product mix and correct positioning and right pricing to make the offering holistic and optimal for each of the focus categories.
- To tap the E-Commerce as a major marketing channel given the outreach and the growing market penetration of E-Commerce, there is a need to devise a quick strategy to make its presence felt in the E - Retail space.

Given the diverse nature of the MSMEs in terms of both geographical location and sectoral composition, the SFURTI scheme aims at addressing the needs of the industries, through well-defined clusters and geographical areas. The capacity building of associations, setting up of special purpose vehicles (SPVs), consortia, etc. which are integral part of the scheme would enable the MSMEs to leverage their resources and also to have better access to public resources, linkages to credit and enhance their marketing competitiveness.

1.3. Oyster Mushroom Project Need Gap Analysis

Based on the stated rationality, the project's Need gap Analysis framework, which include core issues current situation, its impact and level of priority has been constructed. Below is the brief summary of the

project needs & objectives, its impact and sustainability, relevant priority based on the need and current situation for the project.

Nature	Core Issues	Current situation	Impact	Need priority High/normal /low
Raw material (spawn and other)	<p>Non availability of input material locally</p> <p>Cost of raw material is high due to transportation cost</p> <p>Infected/unhygienic raw material</p>	<p>Raw material (especially spawn) has to be purchased from outside state at a higher cost-plus additional transportation cost.</p> <p>Quality of Raw Material is also very poor</p>	<p>Higher cost of production</p> <p>Lower quality of finished goods</p>	High
Marketing	<p>Middlemen/ traders heavily involved</p> <p>Low profit margins</p> <p>Delay in cash realization</p> <p>High dependency on contracting farming for traders</p>	<p>Farmers are giving the produce to traders/ middle</p> <p>Sales margins are very less</p> <p>No assurance for the produce reaching the market (in case trader is not available)</p> <p>Proper marketing channel and support needed</p>	<p>Lower profit margin.</p> <p>Lower ROI</p>	High

Quality	<p>Grow medium, Compost preparation</p> <p>Conduct awareness camps on quality management practices</p> <p>Pest and Disease management</p> <p>Training of Local service providers</p>	<p>Compost preparation and casing soil preparation require elaborate training</p> <p>Management and understanding of different pests and disease through training and supports services</p>	<p>Higher and larger market reach</p>	High
Technology	<p>No access to latest Technology</p> <p>No knowledge on maintaining temperature, humidity etc in grow rooms</p>	<p>Use of old technology due to lack of funds and technical knowledge</p>	<p>Low productivity</p> <p>Low quality</p> <p>High COP</p>	Medium
Finance	<p>No proper financial planning/ management</p> <p>Organize funding opportunities and interaction meet with FIs/Bankers</p>	<p>Due to improper financial planning, funds are not channelized and/ or utilized properly</p>	<p>Non-availability of funds</p> <p>Lower ROI</p>	Medium
Manpower	<p>Non availability of trained manpower</p> <p>Enhancing of skills to the existing staff at the cooperative</p>	<p>Non availability of skilled manpower causes major production issues and also lower quality of production</p>	<p>Unskilled labor</p> <p>Low Productivity</p>	Medium

	<p>Linking cooperatives/ societies/ SHGs/ FPos with training institutes</p> <p>Create skilled to manpower for community linkage</p>			
Infrastructure	<p>Inadequate availability of spawn labs</p> <p>Lack of facility providing all quality inputs, sanitized and of standard quality and protocol</p> <p>Lack of value addition facility</p> <p>Felicitating in establishment of common facility center, bag making unit, spawn lab, VA facility</p>	<p>Non availability sufficient and good quality spawn facilities causes higher turnaround time and high cost</p> <p>Non availability of standardized bag making units causes non standardized production</p> <p>No availability of VA facility causes large amount of post production losses due to very short shelf life</p>	<p>Higher spawn procurement cost</p> <p>High Turnaround time</p> <p>High losses due to post-production losses</p>	Very High
IT	<p>Not using technology in all stages of value chain</p> <p>Development of system and processes relating to production business</p> <p>Website design and development to connect to larger market</p>	<p>Not using much IT support for improvement of functions</p>	<p>Connect with market is missing</p> <p>Connect with new and larger number of stakeholders is also challenging</p>	Emerging Need

1.4. Aim and objective of the Baseline Survey

Mendipathar Multipurpose Cooperative Society (MMCS), the Implementing Agency for the cluster has been commissioned to carry out baseline study in order to support in planning of the Oyster Mushroom project management and its implementation by thoroughly gathering precise baseline data. The overall information and summary illustrating the entire project's strategic need gap analysis is denoted in Section 1.3 above. However, for the purpose of this study, the MMCS team was commissioned to focus mainly on individual Household involved in mushroom farming.

Consistent with the project objectives and in line with the scheme guidelines, this study aims at assisting SPV in project management and operations. Team from MMCS planned and carried out a scientific baseline study to collect fundamental baseline data and arrange sophisticated systematic dataset whilst preparing a concrete and applicable foundation for future project implementation towards its progress and success through well-prepared project design / intervention and performance frameworks as well as for future follow-up surveys and end-line project impact assessment. The results of the baseline study coupled with the confirmation of practical project frameworks will also assist the SPV and Implementing Agency in making strategic intervention in the target areas, in designing a proper roadmap for future monitoring and evaluation (M&E) with regards to the relevance or appropriateness, effectiveness, efficiency, impact, sustainability, and opportunity cost or core values of this project in 14 villages covering 604 farmers.

To achieve this aim, the following study objectives were addressed painstakingly throughout this baseline assessment:

- Establish baseline data against the project's outcome, output and indicators; and
- Identify and recommend appropriate results of key project outcome, output and impact indicators that serve as a baseline to compare the progress and success of the project in relation to its relevance, effectiveness, efficiency, impact, opportunity cost / core values, and sustainability.

2. METHODOLOGY

To undertake baseline study in accordance to the objectives, five different stepwise phases of study were undertaken as follows:

- a) Desk work and design of survey (including tools)
- b) Planning phase
- c) Field research (survey and Consultations)
- d) Data analysis & report writing
- e) Submission and finalization of report

2.1. Sampling and Sample Covered

For the baseline survey, the Focus Group Discussion process was employed to stimulate primary qualitative explanation to triangulate quantitative data (i.e. collected through survey questionnaires) in addition to elaborating on the indicators and parameters designed for quantitative questionnaire survey. These include inquiries on interactive discussion into the state of local economic drives, local communities' current livelihoods, livelihood challenges and opportunities, local communities' current livelihood level, various types of works they are involved in, local communities' asset base and ownership, agricultural support system, local communities' usage of banking system, savings method, frequency etc.

This method enabled the project beneficiaries to proactively intermingle in discussing, specifying, and reasoning their views or reflections on their involvement in and benefit from the project implementation, project design, project sustainability, project accountability and transparency (leadership, structure, and practices), and benefit sharing as well as on their suggestions for successful implementation and expansion of the project.

The study being focused on oyster mushroom farmers only, the target population was the farmer's households who are members of the Oyster Mushroom Cluster. A one-stage cluster sampling procedure was adopted for the selection of households to begin the survey. Total of 14 villages covering 604 farmer households in North and East Garo Hills were to be covered. The villages were distributed in groups based on the distance. A total of 3 weeks was spent for conducting the field survey followed by 3 weeks of desk work including data compilation and representation.

2.2. Survey Tools and Data Sources

For much of the baseline information is based on the sample survey, household survey method was adopted using structured closed ended questionnaire, such as for collection of data on socio-economic; households and farm settings; cultivation area under various agriculture and horticulture activities; production volume for all project targeted crops; marketed volume and average selling prices for the

produce marketed; trainings availed by the household members; gender concerns; food security; and household dietary diversity data.

FGDs were also used to collect added data on types of trainings / capacity building support received by farmers as members of farmers groups; on market information usually received by the households; on existing water supply services, assets base, type of household etc; main constraints facing the households in agriculture (in general and separately for males and females); specific crops that women farmers were interested to cultivate; and expected technologies to overcome agricultural challenges.

Based on the indicators and parameters provided in the survey outline template by IIE-G, the quantitative survey questionnaire was used to collect quantitative data to measure perception on existing vulnerability, livelihood assets and strategies, livelihood challenges, internal and external influencing or enabling factors leading to livelihood improvement or shock, self-reliant/-sufficient or endogenous livelihood improvement activities, and other participatory climate resilient and climate sensitive livelihood and rural production systems in the project's coverage areas. Some of the features covered in the survey are as under:

- Household assets (i.e., house, land, infrastructure and IT facilities, material and non-material possession, etc.).
- H/Hs access to and use of small-scale water management infrastructure or facilities (i.e., dry/wet seasonal irrigation systems for increasing agricultural and land productivity and food security).
- H/Hs income generation ability from on-farm (annual rice yield, home-grown productivity, animal raising, NTFP collection, etc.) and off-farm-based livelihoods.
- H/Hs access to extension services and agricultural technology.
- Access to and use of available freshwater (i.e., sources of supply, time spent on water collection, etc.).
- Access to loan from external micro financial institutes/ banks (MFIs) and indebtedness.
- Access to market, market mechanisms, access to information, etc.; and
- Existence of value-added groups to improve livelihood security (e.g., women livelihood groups, saving groups, smallholder learning groups, agricultural/ farmer cooperative, etc.).

3. SURVEY FINDINGS

3.1. Profile of the Target Study Areas

The project is located in Resubelpara block of North Garo Hills district of Meghalaya state. The district forms the Northern most part of the Garo Hills region of the state of Meghalaya and it is the gateway to the entire region as it shares a long border with the neighboring state of Assam. The population is a mixture of indigenous Garo tribes along with other minor tribes comprising of Rabhas, Hajongs, Kacharis and Boros. The climate is sub-tropical with adequate rainfall. The people are an ethnic mix of Indo-Burmese-Tibetan ancestry.

3.1.1. The Study Area location

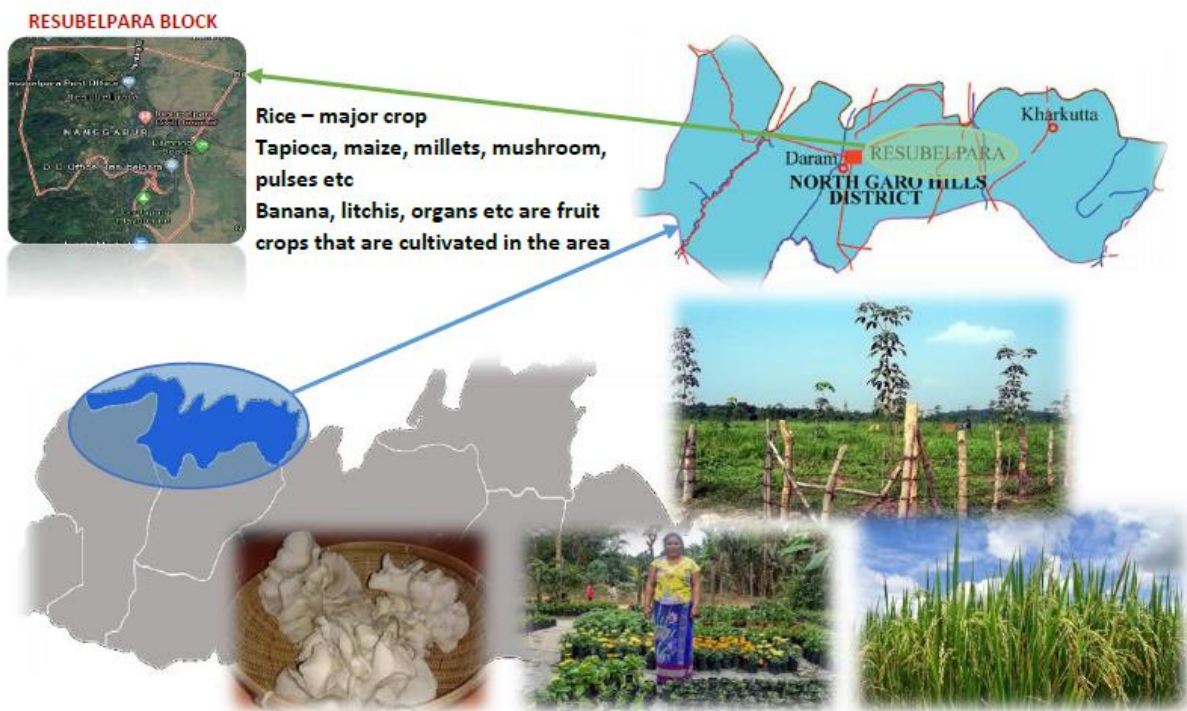


Figure 3.1: Location of the study area

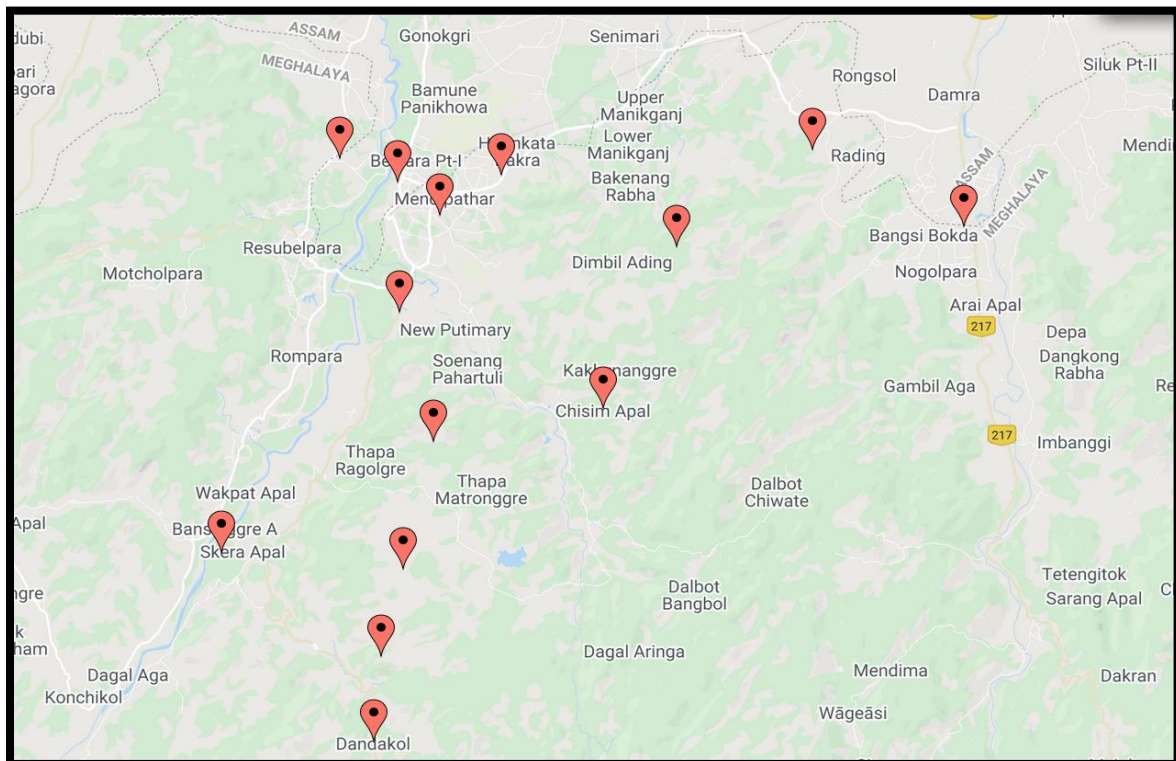
3.1.2. Villages Covered in the study area:

14 villages of North and East Garo Hills, Meghalaya were covered during the survey. The names of the villages, total no. of farmers to be engaged in the project is given in Table 3.1:

Table 3.1: Number of villages in the study area

Name of the village	Total no. of farmers in Mushroom farming	Distance of the Village from MMCS in Kms
Chisim Apal	43	23
Dandakol	69	21.1
Harinkatabakra	26	2.3
Chipakram	38	6.4
Jampara	62	4.3
Chirimdare	17	13.4
Manikganj	35	6.8
Sepikol	39	14.8
Babupara	38	2
Mongrey	08	7.1
Dalbinggre	46	18.4
Thapa Dangre	90	6.6
Dajonggre	50	12.4
Chidimit	43	30.9

Figure 3.2: Geo location map of the villages under study area



3.2. Findings from Household Survey

3.2.1. Demography

The distribution of the surveyed respondents (604 farmers) for collecting baseline data was 42.8% males and 57.2% females. Majority of the respondents were found to be in the 25-35 years category and then in the 36-45 years category. The distribution of these respondents is provided in below (figure 3.1). It was also made clear from the survey that 91.5% of the respondents are married (Table 3.1).

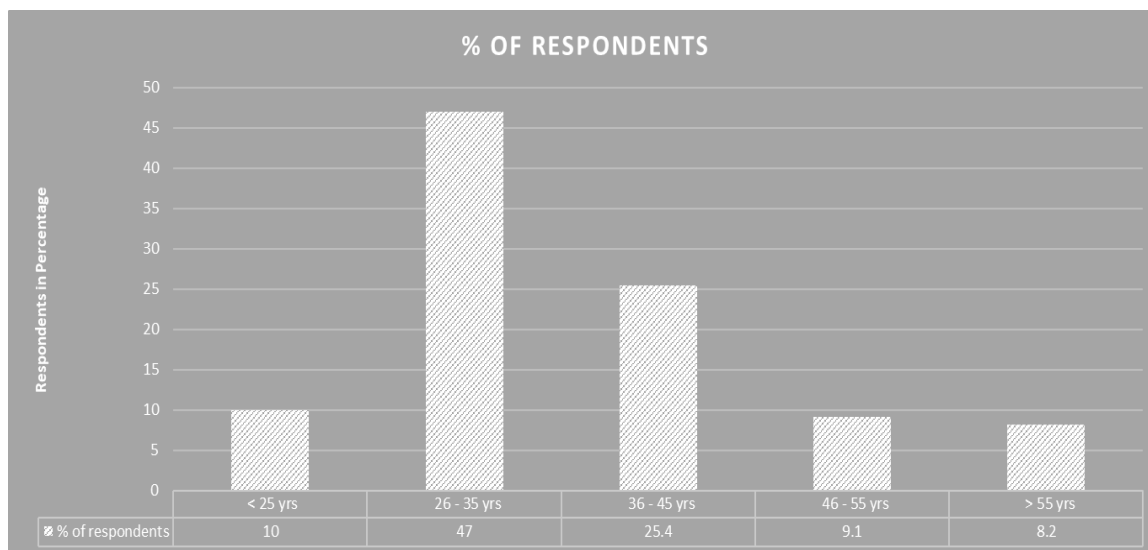


Figure 3.1: Graph showing the age profile of the survey respondents.

Table 3.1: Marital status of the respondents

Status	Frequency	Percentage
Married	553	91.5
Unmarried	51	8.4

Out of 604 households interviewed, 93.2% of the farmer members are educated upto 10th standard. Only 12 respondents are educated upto graduate level and one farmer member is post graduate and very well qualified (Table 3.2).

Table 3.2: Educational status of the respondents

Education status	Frequency	Percentage
Upto Class 10	563	93.2
Upto Class 12	28	4.6
Graduate	12	1.9
Post-graduate	1	0.1

3.2.2. Socio-Economic profile of the respondents

From the survey it was made clear that 80% of the farmers were self-employed with 10% each being salaried employees and daily wage earners, average annual income of the farmers is between INR 40,000 – 50,000 implying that on an average the farmer H/H is making between 3,000 – 4,200 rupees per month. Saving in bank account is not a regular feature or routine followed by the survey respondents. Though they all agree of having bank accounts, but due to the terrain and low-income profile, farmers access the banks for savings whenever possible for them.

When asked about the farmland ownership and ownership of any agriculture equipment, only 50% of the respondents said that they own land while others take land on lease for farming and a very small number ie. Only 10 household respondents own a bullock cart and a power tiller as far as farming assets are concerned.

When asked about farming/ cultivation of Oyster Mushroom, all 604 farmer members are involved in Oyster mushroom farming. However, only 50% of the respondents do it regularly in every season and a small percentage ie. 10% do oyster mushroom farming at the commercial level. Since the production is a niche activity and has a very limited shelf life not all are able to do it through out the year, but are ready to produce it throughout the year, if they get support for inputs and outputs.

Rural markets are the main marketing channel of the region. On asking about the market access for sale of produce, almost 95% of the respondents suggested of accessing rural periodic markets of the region for meeting all the sale/ purchase requirements. It was made clear during the survey that the respondents access the immediate rural market in the vicinity for meeting their household requirements and the other markets in the district for selling the agriculture, handloom, livestock produce, as they get more access to buyers. 5% of the farmer do sales through the route of intermediaries also.

When respondents were asked about the main livelihood activities they are involved in, more than 90% said to be involved in agriculture and allied activities, out of which 61.5% are engaged in arecanut farming, around 43% are involved in paddy cultivation. Just about 20% of the respondents are involved in vegetable cultivation. It is notable to see that 54.65 of the respondents are involved in animal husbandry ie. piggery and poultry. A small percentage ie. Around 2% are involved in liquor production also (Figure 3.2).

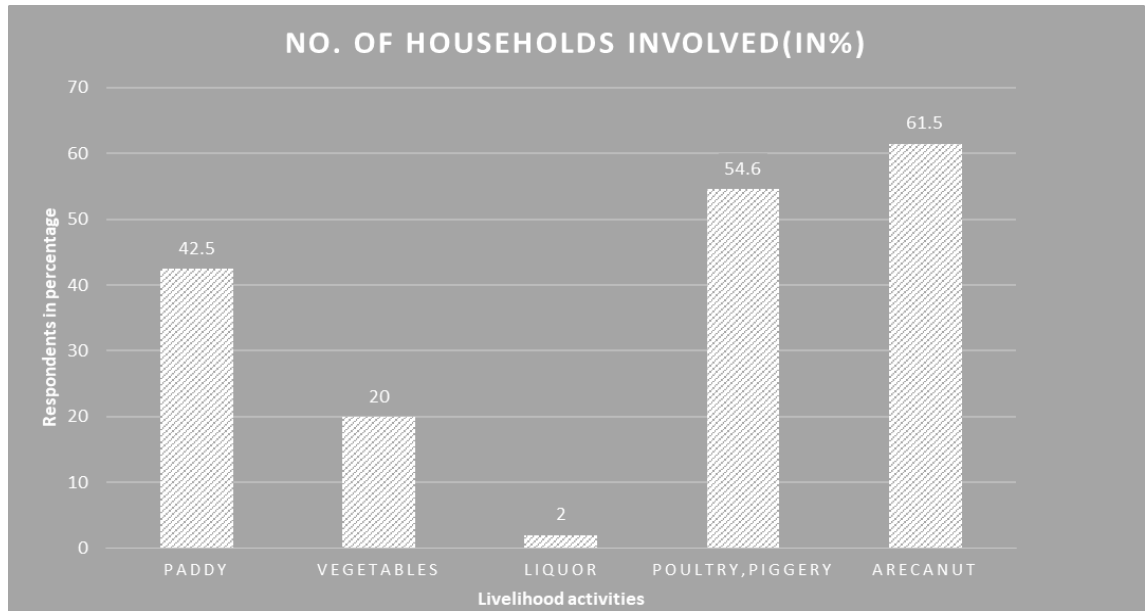


Figure 3.2: Livelihood options of the survey respondents in percentage

3.2.3. Asset ownership of the survey respondents

In terms of assets, around 80% of the respondents own mobile phones and 50% own television sets. For mobility purpose, 40% own bicycle and around 20% own a motorcycle/ 2-wheeler only a very small percentage ie. 2% own a 4-wheeler clearly indicating the low-income profile of the respondents. Figure 3.3 represents the asset ownership of the survey respondents.

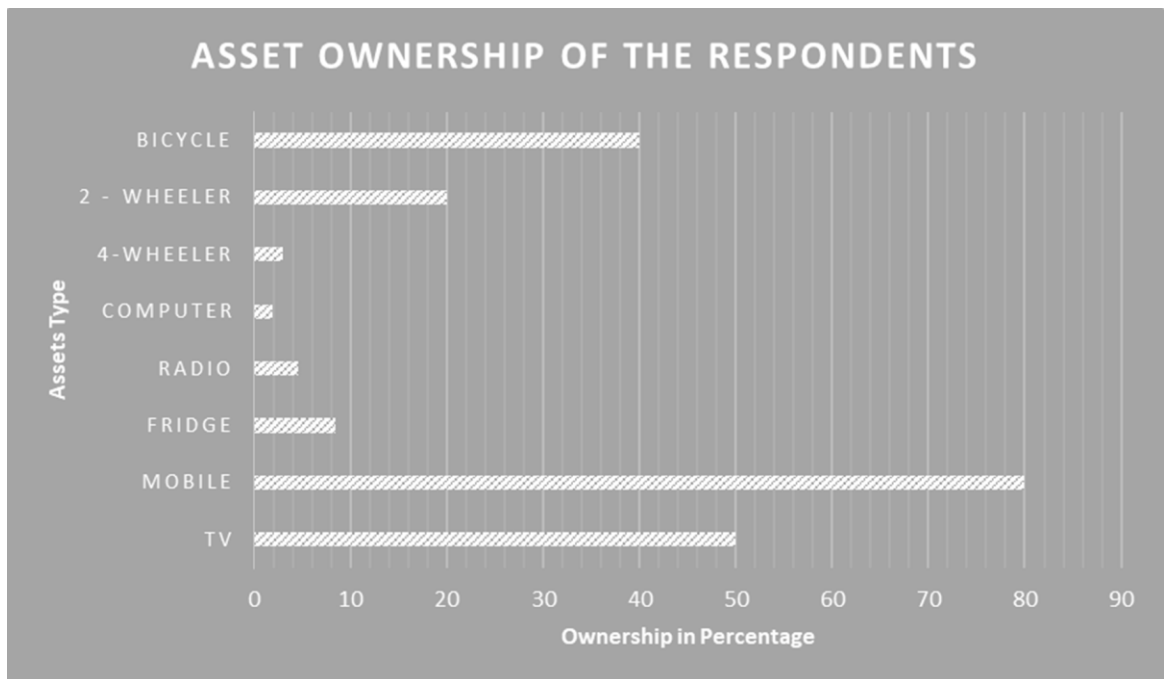


Figure 3.3: Asset ownership of the survey respondents

4. CONCLUSION

- Though majority of the households in the project area have kuchha houses (with tin roof), toilet, drinking water supply and decent number of household's assets are existing with the survey respondents. In general H/Hs own very less agricultural equipments and machineries. Despite households having accessibility to certain inputs through horticulture and agriculture department such as for sprayers, fertilizers, power tillers, agro-processing mills, most households have poor accessibility to transplanters, threshers, dryers and graders amongst others due to non-availability in the district.
- Rural households are mostly dependent on agriculture (about 98% HHs) for their cash income, followed by income from livestock but at the same time about 55% of the HHs having annual cash income from all sources between INR 3,000 to INR 4,500 per month indicating that in overall cash income to the households are comparatively low in terms of their needs.
- In general, majority of the households (95%) use the current market system for sale/ purchase with no access to market information but less than 6% reach outside market through the route of intermediaries. HHs have poor access to marketing infrastructures in view of not having proper market infrastructure like market sheds, collection or packaging centres, weighment facility and storage facilities etc.
- For majority of the households, participation in agricultural trainings / awareness and that for undertaking farm works are done equally by males and females.
- The households are challenged with several agricultural constrains and have expressed strong need to have appropriate technologies and measures to curb these challenges such as wild animals destroying crops; pests, diseases and weeds; inadequate irrigation facility and water; inadequate inputs; and unavailability of marketing infrastructures and markets.