Swayam Shikshan Prayog - Data Analysis for Misereor Baseline Survey
Misereor Baseline Consolidated Data Analysis

About the baseline data analysis:

- This report involves the detailed analysis of the data collected from the survey of 1913 women from 4 blocks viz. Kalamb, North Solapur, South Solapur and Washi.

- The data collection activity spanned 67 villages in these 4 blocks.

- The data so collected has been reviewed and sorted by Impctree team and the analysis thereof has been presented in this Baseline Report.

- The data analysis is divided into two parts – **Part A** is the consolidated analysis for all the blocks together, and **Part B** is block-wise detailed analysis.

- For the purpose of simplification, the analysis is classified into three broad categories:

  i. **Personal profile of women:** This category lists down the personal details like age, education, financial profile, sanitation habits, etc.

  ii. **Land Ownership and cultivation:** The details about land and farming (including organic farming) carried out by the women are captured here.

  iii. **Empowerment of women:** The level of empowerment is gauged through financial and social independence.
Misereor Baseline Summary Data Analysis

In addition, to the baseline report already published by Impactree consulting, this supplementary analysis covers a few key metrics that have been additionally analysed.

These metrics have been classified into the following subcategories.
1. Age
2. Average annual income
3. Availability of Community Membership
4. Type of Business
5. Size of land
6. Type of Irrigation available
7. Seasonal variance in cultivation
8. Knowledge and use of bio-farming practices
9. Animal Ownership
10. Access to weather information
11. Health Awareness

1. Age

The graph shows women of different age group based on the total number of responses. Of the 1913 women surveyed, majority of the women (67%) are in the working age group, i.e. 20 – 40 years. 31% of the women are in the age group of 41-60, and only 2% of the women are older than 60.
2. Availability of Community Membership

The first metric monitored was the membership of community development platforms such as farmer committee membership. The data indicates that across both districts, Osmanabad and Solapur, there is a poor membership of these community development platforms.

*At an aggregate level, the number of beneficiaries who are members of farmer committee platforms stands at a paltry 5.85%.*

**District level membership** - If these numbers are compared across districts, in Osmanabad, the percentage of members stands at 6.2%, while at Solapur the number of members stands at 4.46%.

**Government committee membership** - The second metric analysed in this case was the membership of government community development programs. The membership for these schemes is even poor.

*At an aggregate level, the membership of such schemes stands at even poor 3.4%.*

**District level membership** - When this data is compared across individual districts, it can be seen that at Osmanabad, the membership stands at 3.85%, while the same Solapur stands at 1.57%.

These data points indicate the poor penetration for both community membership schemes across districts.

**Membership in multiple platforms** - One additional data point checked was to see for any overlap between community and government development memberships. Out of the 1913 respondents, there were 112 members across both government committee and farmer committees. Of these about 46 or 41% have membership in both platforms.
**Benefits of dual committee membership** - The data also indicates to a partial improvement in economics with membership of such schemes. *While individual earning numbers are unavailable, based on the categorization of incomes, beneficiaries who are members of both schemes have 28% higher incomes than the average for all beneficiaries.*

2. **Average Annual Income**

It is observed that this survey has an outreach to *65% of the women have annual family income upto Rs.50,000 per annum*. Merely 1% of the women were having an annual family income over Rs. 2,00,000 per annum.

3. **Primary and Secondary Income sources**

The second metric evaluated was the type of business operated by the beneficiaries. All beneficiaries have either a primary or a secondary source of income.

**a) Primary Income Sources** – The primary sources of income come from the following categories.

1. Farming
2. Agri Allied Business
3. Other Business
4. Employ
5. Daily wages
The secondary sources of income come from one of the following categories

1. Agri Allied (Pashupalan, Goatfarm, Poultry)
2. Business
3. Other Business
4. Textile Business (Reshmi Udhyog)

As expected, the primary income source across both districts is farming with about 69.3% of beneficiaries responding to it. The next 2 primary sources of income are also related to agriculture with the primary income further supplemented daily wages and engaging in other allied agri businesses.

While agriculture is the primary source of income, a significant percentage of respondents also mentioned about having secondary sources of income. Although 26% of the beneficiaries had no secondary sources of income, an analysis was done to understand the breakup of secondary sources of income.

b) Secondary income sources - The data indicates that approximately 58% of the beneficiaries indicted that Agri Allied was their secondary source of income. While other business did have a significant second source of income, pashupalan in combination with either Goat farm and poultry were the major secondary sources of income.

Sources of secondary income
C) **Primary and secondary income analysis** - Considering that agriculture is the predominant source of primary income, it is also important to see the sources of secondary income in conjunction with the beneficiaries in agriculture.

From the primary data, it is seen that 94% of the beneficiaries were connected to agriculture either in whole or in part with other primary sources of income. These data points were analyzed to see which are the post popular secondary sources of income for the beneficiaries in agriculture.

The data indicates that approximately 27% of the beneficiaries in farming had no secondary sources of income. However, a majority of 57% of the beneficiaries did report having agric allied as a secondary source of income.
4. **Size of land**

a) **Type of land** - The fourth metric analyzed was the size of the landholding, meaning the amount of drylands vs irrigated land available.

The data indicates that a majority of the landholding is in the 0 - 1 acre.

*Approximately 37.4% and 59.8% of the land in this category falls in drylands and wetland respectively.*

The distribution among wetlands is more uniform, with the percentage of land between 1.1 - 2 Acre at 33.3%.

At 1.1 - 2 Acre, the percentage of drylands is 23.8%.

As expected, the percentage of landholding reduces with an increase in holding size. For the category above 5 Acres, the percentage of beneficiaries is only 0.26 - 0.3%.

Two cross tabs were also evaluated to understand the effect of land size on number of animals and type of irrigation.
b) Land holding size relation to number of animals - The data indicates that in the majority of cases, the number of animals is between 1-5. Approximately 65% or 1251 respondents had 1-5 animals. In all the landholding sizes, the distribution of animals is between 1.1 - 4 Acre.

*The most popular types of animals were Cow and Buffalo, with the both accounting for 92.4% of all livestock.*

<table>
<thead>
<tr>
<th>Size of Landholding vs Number of Animals</th>
<th>Zero</th>
<th>1 to 5</th>
<th>6 to 10</th>
<th>11 to 15</th>
<th>&gt; 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1</td>
<td>57</td>
<td>98</td>
<td>9</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1.1 - 2</td>
<td>176</td>
<td>354</td>
<td>27</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.1 - 3</td>
<td>131</td>
<td>316</td>
<td>21</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3.1 - 4</td>
<td>90</td>
<td>261</td>
<td>25</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>4.1 - 5</td>
<td>72</td>
<td>202</td>
<td>21</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 5</td>
<td>1</td>
<td>20</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>527</strong></td>
<td><strong>1251</strong></td>
<td><strong>108</strong></td>
<td><strong>15</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution between Animals</th>
<th>Type of Animal</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow</td>
<td>895</td>
<td></td>
</tr>
<tr>
<td>Buffalo</td>
<td>818</td>
<td></td>
</tr>
<tr>
<td>Ox</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Goat</td>
<td>47</td>
<td></td>
</tr>
</tbody>
</table>
c) Type of Irrigation

**Average landholding** - The next metric analyzed was the type of irrigation used by the beneficiaries. The analysis indicates that type of irrigation methods used by the beneficiaries. As reported by the beneficiaries, *the total landholding size is 5849 acres, with an average landholding size of 2.52 acres.*

**Irrigation type used** - The analysis indicates that at 39.4%, Open pipe based irrigation (Patane) was the most commonly used irrigation method. However, what is concerning is that 16% of the beneficiaries indicated no irrigation mechanism used. This means that 206 people with 776 acres did not use any irrigation methods.

A secondary cross tab was analyzed to understand the effect of land size on the type of irrigation used.

The analysis indicates that with a lower landholding size of 0 - 1 Acre, approximately 91% of the beneficiaries in that category do not use any irrigation method.

*What is significant is that with an increase in landholding size, there is a marked increase in the multiple irrigation methods in use.*
The use of open irrigation (patane) is more normally distributed across landholding sizes. However, with smaller landholdings, the more common irrigation methods are Drip, sprinkler and rain pipe.

![Diagram showing extreme patterns in type of irrigation.](image)

**Landholding size vs type of Irrigation**

<table>
<thead>
<tr>
<th>Landholding Size</th>
<th>None</th>
<th>Drip</th>
<th>Sprinkler</th>
<th>Rain Pipe</th>
<th>Patane</th>
<th>Multiple</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1</td>
<td>43.9%</td>
<td>13.5%</td>
<td>10.4%</td>
<td>6.7%</td>
<td>16.6%</td>
<td>8.9%</td>
</tr>
<tr>
<td>1.1 - 2</td>
<td>2.7%</td>
<td>19.8%</td>
<td>19.6%</td>
<td>23.8%</td>
<td>16.3%</td>
<td>17.8%</td>
</tr>
<tr>
<td>2.1 - 3</td>
<td>2.7%</td>
<td>16.4%</td>
<td>20.9%</td>
<td>18.0%</td>
<td>21.4%</td>
<td>20.6%</td>
</tr>
<tr>
<td>3.1 - 4</td>
<td>0.7%</td>
<td>25.4%</td>
<td>22.4%</td>
<td>12.7%</td>
<td>27.1%</td>
<td></td>
</tr>
<tr>
<td>4.1 - 5</td>
<td>2.0%</td>
<td>22.9%</td>
<td>12.5%</td>
<td>20.8%</td>
<td>11.6%</td>
<td>30.3%</td>
</tr>
<tr>
<td>&gt; 5</td>
<td>0.0%</td>
<td>30.0%</td>
<td>10.5%</td>
<td></td>
<td></td>
<td>53.2%</td>
</tr>
</tbody>
</table>
5. Vegetable Cultivation Seasons

The next metric evaluated was the different seasons used for vegetable cultivation. The data indicates that of the beneficiaries who responded, a majority of the farmers used both Rabi and Kharif as the growing seasons. **Independently, Kharif is the most common season, followed by Rabi. Only about 6.3% of the beneficiaries used all the seasons for vegetable growing**

6. Utilization of Bio-Farming

Bio-farming techniques are being increasingly used to improve sustainable agriculture. The next metric evaluates the use of such bio-farming initiatives and the availability of training for the same.

*When asked the question regarding the use of bio-farming initiatives, only 21.59% of the beneficiaries responded positively.*
This data was further checked with the sources of such training. When the respondents were checked about the source of such trainings, an **overwhelming majority of 64%** indicated SSP as their primary source of training. **What is extraordinary here is that this is about 4 times higher than even the government as a source of training.**

Of the beneficiaries checked for organic farming certificates, an overwhelming majority of the women possess it.

While, 83% of the women are not engaged in organic farming. Of the 17% of the women engaged in organic farming, 14% have up to 1.5 acres of land under organic farming, while 3% have 2 to 4 acres of organic farmland.

*The total land which is under organic farming currently is 388.50 acres (6% of total land reportedly to be held by respondents – total land holding reported – 5849 acres)*

7. **Sources for weather information**
The next metric evaluated was the availability of weather information. This is critical from the point of view
of receiving critical information especially for crop seeding and protection.

The data indicates that TV is the overwhelming majority source for all weather information. This is followed shortly by mobile and a combination of both.

With the availability of a digital source the dependence on traditional sources for information has waned.

8. Cultivation and Selling

All the women interviewed grow cereals in their farms, followed by pulses amounting to 89%. Fruits are grown by 74% of the women, while the lowest harvest is that of vegetables at 57%.

9. Awareness of Personal Health measures like Hand Washing

The final metric evaluated was the knowledge regarding hand washing measures for personal use.

The beneficiaries were asked to note under which of the following circumstances would they wash hands.

a. Before Eating
b. Before Cooking
c. Before giving food to child
d. After toilet
e. At all times
Only 16 of the 1913 respondents were unaware of hand washing measures for personal hygiene.

*What is commendable is the awareness of hygiene among all other respondents. An overwhelming 87.6% of the respondents recommending hand washing after all above mention activities.*

10. SHG Membership and Bank Account membership

A high level of participation in SHGs shows a good potential for the women to be empowered. *Further, financial independence is signified by the high number of independent bank accounts.*