The Tejaswini Rural Women’s Empowerment Programme, implemented by the Mahila Arthik Vikas Mahamandal (MAVIM), Government of Maharashtra, has empowered marginal women farmers by helping them improvise upon existing agricultural practices through organic farming and System of Rice Intensification (SRI) methods and, in turn, increasing their yield. The emphasis on the role of women in agriculture has helped in elevating their status as stakeholders in agricultural activities. SRI, is a low water, labour-intensive method for organic rice production. Evidence from the six blocks in which the project is under implementation has shown that the costs of production have reduced by 30 percent, increased women’s participation in decision-making matters of the household and reinforced faith in the capacity and potential of women-related government schemes in agriculture, besides popularising crop insurance.

Rationale

Agricultural activities in the field are carried out by both men and women in the household. Women perform activities such as seeding and weeding, which require them to bend and work for long hours in the field. This causes considerable amount of drudgery for women who, aside from farming, also perform household activities on a daily basis. The harsh conditions of women farmers prompted Mahila Arthik Vikas Mandal (MAVIM) or the Women Economic Development Corporation, Maharashtra to initiate reforms in Chandrapur district to address the drudgery of women. As rice/paddy cultivation is the main agricultural practice in Chandrapur, it was decided after consultations with the Department of Agriculture and the Krishi Vigyan Kendra that a new methodology for rice cultivation, SRI, would be implemented here.

In the trial phase, it was found that while the introduction of SRI considerably reduced work and expenditure, it increased productivity and provided an ideal platform for imparting knowledge on agricultural practices through MAVIM’s women’s network. This programme, which was piloted in three blocks of Chandrapur in 2010, has now been expanded to cover 18 villages across the district.

Objectives

The programme had clear objectives to reduce the drudgery for women, empower women farmers by using modern agricultural technologies, introduce organic farming in agriculture, encourage sustainable livelihood practices and also improve the quantum and quality of production in agriculture.

Key Stakeholders

The key stakeholders in the programme are MAVIM, Department of Agriculture, Krishi Vigyan Kendra, District Coordinating Officer, Community Managed Resource Centre and Village Level Committee.

1MAVIM is the State Women’s Development Corporation of Government of Maharashtra, established to implement women empowerment programmes through SHGs and enable social, economic and political justice for women.
Centre (CMRC), Village Level Committee, Self-Help Groups (SHGs) and women paddy cultivators.

Implementation Strategy

MAVIM’s rural women empowerment programme called Tejaswini is being implemented in 33 districts of Maharashtra, including Chandrapur. The programme is built on four work components:
1. Grassroots institution building
2. Micro-financial services
3. Livelihood and micro-enterprise development and
4. Women empowerment

MAVIM’s intervention with women farmers began with a study that was conducted to determine the activities of SHGs and the reasons for the high rate of loan defaults. Agriculture was identified as the primary source of expenditure. On consultation with the Department of Agriculture and the Krishi Vigyan Kendra, it was also found that SHG-bank linkages are usually for crop loans. However, there were defaulters due to the uncertainty in climatic conditions and poor yields. Farmers take crop and kisan loans but not many avail of crop insurance despite the high dependence on nature.

The other observations were that expenditure on chemical fertilisers and pesticides are high, which can be controlled by adopting organic farming practices. Similarly, the cost of seeds can be controlled if agricultural practice allows for the use of less seeds. It was found that labour cost could be reduced with the use of mechanical agricultural equipment like a conoweeder, which would prove to be more efficient in carrying out farming tasks. On the basis of these observations and the high number of paddy cultivators among women farmers, the Department of Agriculture suggested the use of SRI method for organic rice cultivation to improve the condition of women farmers.

a. Pilot project

A joint programme by MAVIM and the Department of Agriculture was initiated in October 2010 after a meeting with 30 villages in Chandrapur district. Around 715 women were given training and capacity building on SRI on small plots of land called bandhis (approximately 1/4th of an acre). The training began with theoretical classes but important practical demonstrations on preparation of the soil bed, vermin-composting and preparing pesticides and organic fertilisers were given. Where 30-50 kg seeds were used in a one-acre plot initially, the new method required the use of merely 3-5 kg. This raised doubts in the minds of the beneficiaries but they were convinced after the final results.

After two months, they found at least 95 tillers on the plot, which was a much higher output than that of the traditional method. At this stage, the beneficiaries were taught to use the conoweeder. With the conoweeder, weeding could be carried out with only two people and in a manner that helped them separate the weed to make organic fertilisers. The women were then informed of diseases associated with crops and of effective ways to tackle them.

Finally, after the harvest stage, having observed the success of the SRI method, the programme was implemented in

Figure 2: SRI methodology

Seed selection and treatment
- Seeds treated with fungicide and dipped in brine water for separating bold grains that settle down

Nursery placement
- Wet bed nursery in lowlands recommended

Transplantation
- Uprooting of tender (9-15 days old) seedlings to be done without disturbing roots
- Soil surrounding roots to be scooped as well to prevent root damage
- Seedlings transplanted in the main fields with only one seedling per hill and wide spacing of 1 ft row-to-row and 1 ft plant-to-plant to allow profuse tillering in later stages

Regulation of water depth
- Use of alternate wetting and drying for best results
- Where not possible, thin film of water to be maintained in the field, especially for SRI paddy

Weeding and hoeing
- Recommended 2-3 times during the growth phases of paddy

Source: OneWorld Foundation India, 2014
2011 with 715 women on 1,000 acres in 18 villages of three blocks of Chandrapur, Gondpipri and Pombhurna.

b. Current implementation

The area under cultivation increased from 565 acres in 2010-11 to 1,000 acres in 2012-13 before falling to 970 acres in 2013-14. The number of women participants peaked to 915 in 2012-13, up from 715 when it was initiated in 2010-11 before falling again. There has been a lingering reluctance to switch from the traditional method.

Emphasis has been laid on ensuring that beneficiaries receive training and capacity building for SRI. For this, the participation of women farmers in field schools and evening classes are actively pursued by Sahyoginis (field workers) of the CMRC, which is the cluster level federation that coordinates ground-level work. Other technical education and awareness generation activities, which are based on the need expressed by the beneficiaries, have also been carried out at the block level at the behest of the Department of Agriculture.

For developing a comprehensive approach and attracting more farmers to imbibe the SRI method, existing schemes of the Agriculture Department have been converged with this programme. This includes the distribution of mini kits for seeds, pesticides and organic fertilisers, provision of tractors and enabling bank linkages.

With the passage of time, it has been observed that women farmers are no longer passive participants but have taken ownership of the programme. There is increased interaction between workers during meetings, increased support from male members of the household, increased participation in exposure visits to other villages and attempts to expand their group activities to marketing and branding.

c. Awareness generation

Creating awareness has been an important component in building faith among people and in creating replication value for the project. There has been a strong focus on Information, Education and Communication (IEC) exercises, which include holding presentations for community groups on the agricultural and monetary benefits of the SRI method, taking people out on exposure visits led by Sahyoginis and beneficiaries to various villages, sharing experiences of over 350 women on Akashvani (All India Radio) and publicity through newspapers and other media.
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Social Sector Service Delivery: Good Practices Resource Book 2015

Reduction in women’s drudgery: Prior to this scheme, women performed all agricultural activities where they were required to bend in the fields (in addition to their regular household activities). With the introduction of SRI and conoweeder, this was greatly reduced. Under SRI method, there was a 75% reduction in drudgery and with the use of conoweeder, there was a reduction of up to 95%. (Table 2).

Increased participation of women in decision-making: The programme led to an increase in women’s participation in decision making matters of the household as they were the primary stakeholders that implemented paddy cultivation by SRI method. Agriculture related activities such as juice-making and achaar-making undertaken by women became an additional source of income. The act of attending SHGs and agricultural trainings without necessitating any male support, and directly contributing in income-generating activities, therefore, enhanced their role in decision-making.

Faith in women-related government schemes: The programme reinforced faith in the capacity and potential of women related government schemes in agriculture. The project has led to 86 SHGs receiving bank linkage services while 700 women benefited from crop insurance.

Key Challenges

There was resistance in shifting from traditional practice in the community. Initially, the target was to cover 1,000 acres of cultivation but this came down to 565 acres. This was primarily because the beneficiaries, particularly the husbands, objected to the reduced use of seeds at the transplantation stage, in the fear that it would result in lower yield. This led to the withdrawal of a number of participants. However, this perception was dispelled after higher productivity under the SRI method was demonstrated.
Table 2: Comparative study of traditional farming and SRI

<table>
<thead>
<tr>
<th>Component (per acre)</th>
<th>Traditional Method</th>
<th>Changes</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>Seeds</td>
<td>50 to 30 kg</td>
<td>3 kg</td>
<td>By use of SRI method.</td>
</tr>
<tr>
<td></td>
<td>Rs.1,500 to 2,500</td>
<td>Rs. 150</td>
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<tr>
<td>Fertilizers</td>
<td>4 bags of Di-Ammonium Phosphate (DAP) &amp; Urea Rs. 2,500 to 3,000</td>
<td>Use of organic fertilizers (zinc sulphate, 2 roac phosphate) Rs. 1,000</td>
<td>Other organic fertilisers, 9 culture, compost, vermicompost</td>
</tr>
<tr>
<td>Spray</td>
<td>Chemical spray Rs. 2,000</td>
<td>Organic spray Rs. 200</td>
<td>Done by women themselves</td>
</tr>
<tr>
<td>Labour- drudgery</td>
<td>Paddy cultivation - 10 labourers for Rs. 1,500 within 3 days</td>
<td>5 labourers for Rs.500 to 700 within two days</td>
<td>75% drudgery reduction in SRI method</td>
</tr>
<tr>
<td></td>
<td>(b) Nindan 10 labourers for Rs. 2,500 within 5 to 7 days</td>
<td>2 labourers for Rs. 300 within 3 days</td>
<td>By using konoweeder 95% drudgery reduction</td>
</tr>
<tr>
<td>Footway</td>
<td>Upto 20 to 30</td>
<td>Upto 50 to 110</td>
<td>Use of SRI method</td>
</tr>
<tr>
<td>Production</td>
<td>9 to 11 quintals</td>
<td>Upto 13 to 15 quintals</td>
<td>-</td>
</tr>
<tr>
<td>Production rate</td>
<td>Per kg Rs.17 to 20</td>
<td>Per kg upto Rs. 25 to 40</td>
<td>Due to organic farming</td>
</tr>
</tbody>
</table>

Source: MAVIM

Another challenge was that the community displayed lack of faith in government initiatives. People had a pre-disposed mind-set that government programmes/schemes are not successful and will not show the desired results. This was overcome by showing the results of the trial phase and through continuous IEC efforts.

Inter-departmental convergence was also a key challenge. At the start of the project, convergence with the Department of Agriculture required considerable effort to break away from the status quo of imparting SRI training only to the male members of the community. However, this has come to pass and the Department of Agriculture, in addition to convergence activities, has started supporting and participating in the marketing exhibitions held by women SHGs. Ground-level implementation of some agricultural schemes requires land to be in the name of beneficiary but as land is often in the name of the man while the target beneficiaries of this programme are women, difficulties arose in combining assets. Hence land ownership emerged as a hindrance in the scheme.

Due to issues of pricing and lack of sufficient marketing channels, there has been an overall reduction in the production of rice. This is being addressed now by encouraging the creation of SHG federations for production and marketing.

**Replicability and Sustainability**

After the pilot phase, the programme was able to garner support not only from its primary target group - women farmers - but also from the men in the community. Since a majority of the beneficiaries are small and marginal farmers, there is a high motivation to form collectives under the framework of this programme and sustain it in the long run.

This also aligns with MAVIM’s long-term goal to ensure that SHGs are empowered to undertake projects wholly and completely, not only financially but also materially, after initial implementation. As such, in the next phase of the implementation, the programme will be replicated to the benefit of 2,100 women in 57 villages and 10 blocks of Chandrapur district.

Financially, the SRI programme requires funds for training, while all other aspects are covered by SHG investment...
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and convergence with existing government schemes. The sustainability of the programme has, therefore, been interwoven with the benefits of other schemes offered by the Department of Agriculture for producing long-term results. For the purpose of replication, it is important to analyse the role of women in agriculture and co-opt them along with men in agricultural training and capacity building. Stakeholders’ contribution, fiscally and otherwise, is also a key factor in eliciting participation from the ground upwards and ownership of such a programme.

Conclusion

With the expansion of the programme to new villages, focus will be placed on better production, storage and marketing. For example, a project can be initiated within this programme for the construction of community rice mills. Through the Comprehensive Livelihood Development Plan (CLDP) and Micro-Livelihood Development Plan (MLP) of MAVIM, women will be collectivised for bringing about higher impact.

Fact Sheet

<table>
<thead>
<tr>
<th>Theme</th>
<th>Women’s Empowerment</th>
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<tbody>
<tr>
<td>Nodal Implementing Agency</td>
<td>Mahila Arthik Vikas Mandal (MAVIM)</td>
</tr>
<tr>
<td>Geographical Coverage</td>
<td>40 villages across 6 blocks in Chandrapur district of Maharashtra State</td>
</tr>
<tr>
<td>Target Groups</td>
<td>Women paddy cultivators</td>
</tr>
<tr>
<td>Years of Implementation</td>
<td>2010 - Present</td>
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</tbody>
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