

## Accelerating Women's Economic Empowerment Through System of Rice Intensification (SRI)

### I. What is SRI?

The System of Rice Intensification (SRI) is an evolving set of practices, principles, and philosophies aimed at increasing the productivity of irrigated rice by changing the management of plants, soil, water and nutrients. (IRRI)

#### SRI Principles

1. Reduce seed to 3 – 4 kg / sao (500m<sup>2</sup>)
2. Row sowing or broadcast
3. Alternate Wetting and Drying (AWD)
4. Use bio-fertilizer, minimise chemicals
5. Weed and aerate the soil; keep field free from weeds in the first 30 days

### II. Benefits of SRI

- ❖ 30% reduced inputs, 15-20% increase in yield and a total income increase of 20-25%
- ❖ Reducing field farming workload
- ❖ Increased crop resilience to climate risks, while reducing GHG emissions
- ❖ Minimising chemical and water use and conserving the soil ecosystem
- ❖ Cleaner and healthier rice and a potentially higher price



### III. Making SRI gender-responsive



- ❖ Increasing women's technical knowledge and access to advanced farming techniques
- ❖ Promoting women leadership in farmer and business groups and cooperative boards
- ❖ Increasing status and participation of women in decision-making in communities and households

## IV. Comparison between SRI and conventional method of cultivation

Production Steps	SYSTEM OF RICE INTENSIFICATION	CONVENTIONAL RICE PRODUCTION
Soil preparation	<ul style="list-style-type: none"> <li>Well-level the field and divide it into small beds before seeding. Use furrow drainage system</li> </ul>	<ul style="list-style-type: none"> <li>No field beds, no furrow or too shallow furrow</li> </ul>
Amount of seeds/sao (area of 500 m <sup>2</sup> )	<ul style="list-style-type: none"> <li>Soil with Good nutrition: 2,5 - 3 kg/sao</li> <li>Soil with Average nutrition: 3 - 3,5 kg/sao</li> <li>Soil with Poor nutrition: 4 kg/sao</li> </ul>	<ul style="list-style-type: none"> <li>Large amount of seeds: 7 - 8 kg/sao</li> </ul>
Method of seeding	<ul style="list-style-type: none"> <li>Hand seed broadcasting: Divide seeds equally for each bed</li> <li>Drum seeder sowing</li> </ul>	<ul style="list-style-type: none"> <li>Hand seeding, high density</li> </ul>
Fertilising	<ul style="list-style-type: none"> <li>Amount of nitrogenous fertiliser: 4-5 kg/sao</li> <li>Apply organic fertiliser which enhances soil structure and functioning</li> <li>No nitrogenous fertiliser should be applied when rice blast disease and diseases caused by micro-organisms occur</li> <li>Determine the need for nitrogenous fertiliser application based on leaf color and crop appearance</li> <li>Minimise the use of chemical fertilisers during reproductive period</li> </ul>	<ul style="list-style-type: none"> <li>Amount of nitrogenous fertiliser: 8-10 kg/sao</li> <li>Less application of organic manures when preparing soil</li> <li>Overuse of inorganic synthetic fertiliser and nitrogenous fertiliser</li> <li>Continuous application of nitrogen fertiliser increases disease affection risks</li> </ul>
Water management	<ul style="list-style-type: none"> <li>Alternate Wetting and Drying (AWD) method: Non-flooded aerobic soil conditions with intermittent irrigation</li> <li>Only need to pump 6-7 times/crop</li> </ul>	<ul style="list-style-type: none"> <li>Continuous flooding of paddy fields throughout the growing cycle</li> <li>Need to pump 10 times/crop</li> </ul>
Integrated Pest Management (IPM) and chemical using	<ul style="list-style-type: none"> <li>Apply IPM</li> <li>Weeds control: Direct control of weeds can be done through manual weeding by hand or spraying herbicides which are not harmful to the environment</li> <li>Golden apple snails: Furrow facilitate drainage and help snail handpicking easier</li> <li>No pesticide spraying during 40 days after sowing</li> </ul>	<ul style="list-style-type: none"> <li>Overuse of pesticides, some types of pesticides which are extremely toxic and of unknown origin are still used</li> <li>Use chemical to kill golden apple snails</li> </ul>
Harvest	<ul style="list-style-type: none"> <li>Collect straws by hand or by using straw baling machine, no open straw burning</li> </ul>	<ul style="list-style-type: none"> <li>Open straw burning leads to environmental pollution</li> </ul>
Yield	<ul style="list-style-type: none"> <li>7.6 tons/ha</li> </ul>	<ul style="list-style-type: none"> <li>7.4 tons/ha</li> </ul>
Amount of GHG emissions reduced	<ul style="list-style-type: none"> <li>4 tons CO<sub>2</sub>/ha/crop</li> </ul>	

*Project: Enhancing Opportunities for Women's Enterprises (EOWE)  
Programme: Funding Leadership Opportunities for Women (FLOW)*

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