

Women in Indian Agriculture -Drudgery Reducing Equipments for Farm Women

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SUMMARY

The vision of socio-economic empowerment of women will not be complete without empowering those who are living at India's last periphery viz. the women farmers of India, whose voices often go unheard owing to their gender, and who struggle to establish their identity at a grassroots level due to patriarchal traditions and gender socialization. While the focus remains on making women work for the good of the economy, making the economy work for women has yet to be seriously addressed. Gender equality can be achieved by assessing current labour and wage standards to ensure domestic workers, migrant workers and informally employed workers are covered by all current and future labour standards legislation. The concept of drudgery should be taken into account seriously and formulate policies to save women by protecting from drudgeries in work place. Though there is much advancement in farming community, there still exists some gap between planning and implementation. These tools and equipments are still not accesible to certain regions. Many women lack awareness about the equipments and their availability. It is therefore essential to make these equipments readily available to the farm women all over the country.

INTRODUCTION

Hunger and poverty cannot be terminated without empowerment of both men and women farmers. We must supply food for a mounting global population in perspective of persisting and promising socio economic and environmental concerns which include price instability, market uncertainty, price fluctuations and mass migrations. These concerns are influenced by hasty urbanization, changes in livelihood systems, dietary patterns, depletion of natural resource and climate change (FAO, 2020). Women stand as the backbone of any developed society. The present day agriculture sector spotlights primarily on male where he is dominant decision maker and is benefited by policies. Agriculture sector has developed and emerged immensely by empowering men with technology invigorating the position of women labor. In a developing country like India, 13.5% of the Gross Domestic Product of the economy in India is through agriculture which is a source of fifty five percent employment in the India out of which majority work force is shared by women. Women present in agriculture sector must not be overlooked since they encompass thirty three percent of the agriculture labor and forty eight percent of the self-employed farmers. In India female workforce are taken for agricultural activities and their identity is still under covered. Among the household activities done by women the crucial job is of nourishment of poultry or Livestock farm. Livestock & poultry feed her family besides allows her to earn that extra income. The number of rural men migrating to urban areas for better opportunities has been increasing day by day which lead women to perform many roles in the agriculture sector - from homemaker to laborer to cultivator and even entrepreneur.

Understanding Drudgery:

Drudgery can be defined as physical and mental strain, agony, monotony and hardship experienced by human beings. Women tend to bear the brunt of drudgery since they go on with illiteracy, undernourishment and unemployment (Nag, P.K, 2004). Women usually perform their economic tasks with traditional tools, which were constructed mainly for men keeping in mind their physical features (height, weight bearing etc.). Women friendly and gender appropriate tools are either unavailable or insufficient in number or unused due to lack of awareness. Such tools, coupled with often hazardous, unhealthy work conditions and long work hours create and accelerate many health problems for women farmers. A woman having to invest a lot in both agricultural and household work with dismal returns is supposed to be a source of extreme drudgery on them (Verma, SK and Sinha, BP 1991). The migration of men has also led to a massive increase in the number of households headed by women in the villages. The rural woman's drudgery has, thus, increased manifold as they are now the primary providers of the households as well, shouldering themselves and their husbands' responsibilities. A recent study on awareness towards better farm tools and implements by the women farmers and farm workers disclosed that

majority 93% of the women use traditional tools and implements for their agricultural activities. Some of the common bodily problems cited by respondents in usage of traditional tools were the joint pains, waist, forearms, shoulder, knee and feet, back or neck pain, swelling or inflammation, numbness in hands. (Bhushan et. al, 2016). Other risk factors were static posture, forceful exertion, repetitive movement, extreme range of motion, awkward posture etc.

Drudgery reduction techniques in Indian Agriculture:

Implement	Problem (traditional method)	Solution	Technology involved
Hand Ridger CIAE, Bhopal- NRCWA sub centre	1.Suffer pain in the back and shoulders 2. Often complain spondylitis and musculoskeletal ailments.	1.67% saving in cardiac cost of worker per unit output with the ridger 2. avoids bending posture, 3. Productivity of worker doubles with the equipment	1. It consists of ridger and pulling beam with T-type handle 2. operated by two women workers, one for pulling and another for pushing and guiding
Manual dibbler (CIAE, Bhopal)	1. Sowing has to be completed in single go. 2. Strain on vertebral column resulting in lower as well as upper back causing pain	1.13% saving in cardiac cost of workers per unit of output. 2. It also avoids bending posture	1. 2.push insert action mechanism to sow seeds 3.Seed loss is minimum (6%)
Groundnut decorticator sitting type (TNAU, Coimbatore)	1.Removing groundnut kernel from the pod regularly results in injury and often bleeding in forefinger and thumbs	1. About 79% saving in cardiac cost of workers per unit of output. 2.Squatting posture is avoided which avoids pain at knee 3.Eliminates knee pain and numbness 5.Hitting of elbow to abdomen is being eliminated 6.The decorticating capacity is 30kg/hour	1. Oscillatory type device having cast iron shoes with projections for decortications of groundnut pods. 2 It is operated by a woman worker by sitting for which a stool is provided on a wooden Platform.
Tubular maize sheller (CIAE, Bhopal)	1. Separating maize from dehusked cobs injures the forefingers and thumbs. 2. Development of sprain in forearm of women farmers.	1.15% saving in cardiac cost of workers per unit of output 2. The productivity of workers increased 1.6 times compared to traditional one 3. Injury to fingers are eliminated thus making the operation safer for workers.	1. Four tapered fins are provided in the maize sheller, which helps in shelling the maize grain from dehusked cobs. 2. A cob is inserted into it and by twisting action shelling is achieved.
Cono weeder (TNAU, Coimbatore)	1. Bending posture leading to musculoskeletal ailments.	1. Bending posture is avoided thus reducing drudgery of workers. 2. Capacity-120 m ² /h 3. The equipment is operated in standing posture thus avoiding bending involved during uprooting of weeds by hands in traditional practice.	1. Two truncated rollers one behind other are fitted at the bottom of a long handle. 2.The conical rollers have serrated blades on the periphery. A float provided prevents the unit from sinking in soil.

1. Hand ridger



2. Manual dibbler



3. Groundnut decorticator



4. Fertilizer broadcaster



5. Tubular maize sheller



6. Cono weeder



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