UNDERSTANDING DRUDGERY IN RICE FARMING USING AN INNOVATIVE AND PARTICIPATORY TOOL: RAPID COMPARATIVE PAIN ASSESSMENT (RACOPA)

INTRODUCTION

Agriculture continues to engage the largest segment of the population in India till today. Among all, the rice-field-workers, especially women, work mostly in wet environments for longer hours who fail to escape from the vicious circle of poverty, malnutrition and drudgery.

But historically drudgery assessment is often not integrated in mainstream technology assessment. In most cases, drudgery assessment is a comprehensive exercise which results in not developing appropriate mechanisms to address the health issues of a large vulnerable laboring group. On the other hand, social scientists, by and large, face the challenge of selecting recommended scientific, indigenous tools for drudgery and pain assessment that involve use of sophisticated and expensive instruments by skilled persons during the actual work in the rice field. In this context, it is extremely essential to design and use a participatory and innovative tool that can be employed by a large group of scientists studying technological impacts, designing extension strategies and appropriate tools friendly to women.

OBJECTIVES

The main objectives are to:

- Identify, map and compare gender-wise pain and drudgery experienced by the rice-field-workers in different rice growing systems using a participatory tool.
- And to test the tool in different agro-ecological and social settings where people grow rice differently.

METHODS

As part of the research project, it was attempted to understand the implications of rice intensification (RII) of rice-field-workers in which, drudgery, misery lies direct attention. To comprehend this, the researchers first conducted a focus group discussion on user requirements of rice-field-workers in such group. Thereafter, the participatory tool RaCoPA was developed. This tool used to assess pain and drudgery experiences of rice-field-workers in the research areas. The tool was used in the state of Odisha, Kandhamal and Ganjam in India. First, gender-wise activities mostly done under different types of rice cultivation techniques were identified. Simple drawings of farmer like persons were done on separate papers. On both sides of a body, activities were drawn in simple hands drawings to organisms as they mentioned. Then the participants had to join the activity with body parts by which they experience pain mostly induced by that particular activity. This exercise enabled to:

- Put the focus on pain and drudgery issues.
- Discuss the problem of pain and drudgery issues.
- Understand the magnitude of pain and drudgery issues.
- And to test the tool in different agro-ecological and social settings where people grow rice differently.

RESULTS

The exercise enabled to:

- Understand the way people cultivate rice using different technologies. In the same village;
- Gender-wise work pattern under different technologies;
- And the role of men and women contact their activities with health and physical and articulated drudgery and pain;
- Women, who participated in the RaCoPA exercise in all 2 villages, mentioned that their body pain is considerably less in SRi compared to conventional transplanting method in the areas like uneasy raising, uprooting seedlings and transporting to main field, transplanting and washing on activities those activities are done differently.

However, the pain experienced during transplanting is more depending on the type of woman used by them. Conventional transplanting is completely disadvantageous both for men and women as it induced more pain whereas appropriately designed Mandva weeder has reduced this pain.

Further, in SRi participation of men in the activities that used to be women's domain like transplanting and weeding is reflected in the pain map of men that contribute to reduction of pain of women.

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Men and Women Drury in RaCoPA Exercise

**Physical Pain Experienced by Women Rice-Field-Workers in Rajajipu Village, Ganjmal District**

Activity | Conventional Transplanting | System of Rice Intensification (SRi)
---|---|---
Carrying compact and spreading | Hands, Waist | Hands, Waist, Lower legs
Cleaning weed from the nursery | Hands | Hands
Nursery bed preparation | Very little pain in hands and pubic | Very little pain in hands and pubic
Weeding from the nursery | Hands | Hands
Harvesting (cutting the rice) | Hands, Waist, Legs, Upper legs | Hands, Waist, Legs, Lower legs
Transporting rice seeds to the nursery | hands, Waist, Legs | Hands, Waist, Lower legs
Uprooting seedlings, cleaning, marking and transplanting | Hands, Waist, Legs | Hands, Waist, Lower legs
Transporting rice seedling bundles and spreading in field | Hands, Waist, Lower legs | Hands, Waist, Lower legs
Weeding using weeder | Hands, Waist | Hands, Lower legs
Harvesting (cutting the rice) | Hands, Waist, Legs | Hands, Waist, Lower legs
Physical Pain Experienced by Male Rice-Field-Workers in Gunjigaon Village, Kandhamal District

Activity | Conventional Transplanting | System of Rice Intensification (SRi)
---|---|---
Carrying compact and spreading | Hands, Waist | Hands, Waist, Lower legs
Cleaning weed from the nursery | Hands | Hands
Nursery bed preparation | Very little pain in hands and pubic | Very little pain in hands and pubic
Weeding from the nursery | Hands | Hands
Transporting rice seeds to the nursery | hands, Waist, Legs | Hands, Waist, Lower legs
Uprooting seedlings, cleaning, marking and transplanting | Hands, Waist, Legs | Hands, Waist, Lower legs
Transporting rice seedling bundles and spreading in field | Hands, Waist, Lower legs | Hands, Waist, Lower legs
Weeding using weeder | Hands, Waist | Hands, Lower legs
Harvesting (cutting the rice) | Hands, Waist, Legs | Hands, Waist, Lower legs
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Nursery bed preparation | Very little pain in hands and pubic | Very little pain in hands and pubic
Weeding from the nursery | Hands | Hands
Transporting rice seeds to the nursery | hands, Waist, Legs | Hands, Waist, Lower legs
Uprooting seedlings, cleaning, marking and transplanting | Hands, Waist, Legs | Hands, Waist, Lower legs
Transporting rice seedling bundles and spreading in field | Hands, Waist, Lower legs | Hands, Waist, Lower legs
Weeding using weeder | Hands, Waist | Hands, Lower legs
Harvesting (cutting the rice) | Hands, Waist, Legs | Hands, Waist, Lower legs
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Transporting rice seedling bundles and spreading in field | Hands, Waist, Lower legs | Hands, Waist, Lower legs
Weeding using weeder | Hands, Waist | Hands, Lower legs
Harvesting (cutting the rice) | Hands, Waist, Legs | Hands, Waist, Lower legs

When the tool was used in different agro-ecological and social settings, it was found that both the researchers and the participants were comfortable with the process.

CONCLUSION

Drudgery is part of the package of a specific technological prescription in a given physical situation. When technologies are advanced from expert's perspective, yield and expenditure are often given priority, but once it is assured from the farmers' perspective, implication of the technology on the following factors will be further gone.

Though pain is a personal experience, it is found that when many people of similar age living in similar environment perform similar tasks, while using same specific technology, experience same or different pain in the same body parts. At the same time the people also perform different tasks especially to grow rice or to do different jobs in the same rice village. Thus the ability to differentiate between the activities and pain induced by these activities and attitudes when they discuss the activities for seeing the piece.

The exercise enabled to:

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- And to test the tool in different agro-ecological and social settings where people grow rice differently.

Not only gender division of work varies, also the experience of pain under different rice growing technologies. While the gender division of work, drudgery skills not only from man to man or woman vice versa, also intensity of pain is changed which is well understood by man and woman. Change in management practices with the introduction of a new technology like SRi helps in harmonisation of women's work role and men's work role in rice cultivation. Line transplanting did not bring much change in drudgery experience like SRi.

By using RaCoPA, it was found that SRI is beneficial especially to women rice-field-workers in comparison to conventional transplanting method and line transplanting method across agro-ecological zones and social settings.

While conducting the exercise, the participants themselves told that they did not realise that they do so many things and experience so much drudgery as they accepted these as a part of their life. Many of these expressed that they were now ever discussed these matters with family. These became aware of their work and body link to reality in rice farming for the first time.

With the conclusion, RaCoPA, as a participatory method the pain mapping visual tool, can easily be used by a large number of researchers to assess the implications of different technologies on different groups and to understand the (1) participatory technology development and (2) participatory extension strategy development while promoting and supporting women activities in rice cultivation.

Based on the pain map, further research on health issues can be undertaken in rice farming across technologies.