

Changing Gender Division of Labour in Rural Areas and Women Friendly Farm Tools

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Abstract

In order to identify the existing and emerging rural work opportunities among rural women workers, a study was carried out among 160 randomly selected women worker participants of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during 2008-10 in the districts of Palakkad in Kerala and Dhar in Madhya Pradesh. The study revealed that MGNREGS has resulted in widening labour opportunities for rural women and thereby changed the traditional gender division of labour in both states. Through the MGNREGS field operations, the rural women workers of the two states are now able to get opportunities in additional areas of labour roles such as digging of soil, tank construction, pond construction, levelling, canal and bush clearing, well construction, head load work, bund forming, canal forming, etc., which otherwise were traditionally neither available to women nor did women participate in the same. However, to perform the new labour roles, they need tools and implements which are suitable for their anthropometric measures, are less hazardous and can improve their efficiency.

Introduction

Livelihoods in a given locality are predominantly decided by the culture and resources – natural as well as human made. Farming had served as the main source of food and income for both land owning farmers and landless workers in a locality. Traditionally as part of the major livelihoods, in each region, there were different sets of works, categorized as men's work and women's work and those were largely in accordance with the gender role division followed in each society. Farming system studies reveal that, though men and women workers perform farm labour operations, those field operations involving physical exertions are mostly carried out by men labourers using farm implements Kala (1976), Geethakutty and Bindu (2001)) and Geethakutty *et al* (2004)). Any major change in the existing pattern of division of labour between women and men rural workers had not occurred in the farming sector over a long period and

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interestingly, in the recent past, wage employment and self employment programmes of the country have started to break these gender based work roles: this has resulted due to the participation of women workers in field works which were men specific. The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) with its gender inclusive criteria of one third reservation of work opportunities for women and equal wage rate is reported to impart this visible change in the gender role division of the rural labour sector and it is creating new and increased work opportunities for rural women. Chandrasekhar and Ghosh (2008) had observed that “for India as a whole, women are participating in MGNREGS much more actively than they participated previously in all forms of recorded work. Women workers account for nearly half the work days in MGNREGS so far, while they accounted for only 36 per cent of all rural workers in 2004-05. This amounts to a difference of more than one-third, but this varies widely across states. Women’s involvement is much higher than their overall work participation in the southern states. In Kerala, especially where women’s participation in paid work has traditionally been low under MGNREGS, women’s participation is reported as 85 per cent of the total employment under the scheme, and this greater involvement of women in the MGNREGS must also be leading to social changes.”

Though the work opportunities initially included under MGNREGS were predominantly land based, they were mainly non farm activities. Hence the scheme had served to increase the availability of work in addition to the existing farm labour opportunities for the rural workers in general and particularly the women inclusive criterion had served to increase the participation of the rural women workers in MGNREGS work sites. Further, it can be noticed that, as a pattern, the scheme had led to the evolving of more areas of non farm work opportunities for the rural women across the country. Thus rural development interventions of wage employment can be identified as one of the major causes for the change in the traditional division of labour work, gender roles of labour and resulted in the availability of new areas of work for rural women workers. The recently amended criteria of including farming sector activities under the arena of the MGNREGS work are also helping the resilience of the traditional roles of women in the farming sector like transplanting as well, together with the newly made available labour roles. However, it can be seen from the cafeteria of work of MGNREGS that the rural women are now getting involved in field operations which were otherwise performed mostly by men. This trend in turn demands concern and attention on the part of the implementing agencies, researchers and

policy makers; they need to analyse whether these women are able to perform the physically exerting works efficiently without health hazards and able to produce the expected work output. It is to be noted that, presently only traditional implements and tools used by men workers for such field operations are available to women workers! Are these traditionally men oriented tools and implements handy and suitable for the “new users who have a different anthropometry”? Is the need identified and attention bestowed to evolve women friendly farm tools and implements in the changed gender role scenario of rural livelihoods?

These questions of designing, producing and promoting women friendly implements and tools in the rural sector have now gained unforeseen relevance and importance. In this context, an attempt was made, to look at the changes taking place in the gender role division of labour in the rural areas in relation to MGNREGS and generate data on women friendly tools by the authors of this paper as part of a study from the National Institute of Rural Development (NIRD) during 2008-2010. The focus of the study was on identifying existing and emerging livelihoods of regional importance among rural women workers and identifying tools and implements used for field operations by the women workers.

Materials and Methods

The study was carried out in two purposively selected states in India, namely, Kerala and Madhya Pradesh. Kerala is a state where women’s work participation was previously low, but had increased during MGNREGS implementation, while Madhya Pradesh is a state wherein women’s work participation was high both in the pre and post MGNREGS phases. One district from each of these states, where MGNREGS was in implementation during 2007-2008, was randomly selected as the locale of the study- Palakkad in Kerala and Dhar in Madhya Pradesh . From each of the districts, two Blocks and from each Block, two gram panchayats were selected at random. From each of the Gram Panchayats, from the list of MGNREGS workers, 20 women worker participants were randomly selected as respondents. Accordingly, in the state of Kerala, from Palakkad District, Mannarkad and Malampuzha Blocks and Gram Panchayats of Kanjirapuzha, Thenkara, Akathethara and Malampuzha formed the locations of the study. In Madhya Pradesh, from the District of Dhar, the Blocks selected were Gandhwani and Dehi and the Gram Panchayats selected were Keshwia, Pantha, BabliKhud and Kalmani. Thus, 160 women workers of MGNREGS selected from the 8 Gram Panchayats in two states through stratified random sampling, formed the respondents of the study.

The relevant data for the study were collected through personal interview using a structured and pretested interview schedule from 160 randomly selected MGNREGS women workers. Focus group discussions with selected stake holders-MGNREGS workers, implementing agencies, elected Members of the Panchayats, Farmers etc., of Kanjirapuzha gram panchayath in the Mannarkadu Block of Palakkad, Kerala were also carried out as part of data collection. The qualitative and quantitative data thus collected were analysed using SPSS and interpreted using simple statistical tools like frequency and percentage analysis.

Results

The data collected from 160 rural women worker participants of MGNREGS and observations drawn on the selected case through focus group discussion are analysed under two major headings - Traditional and newly emerged labour roles of women workers identified through field survey and focus group discussion, and Tools and implements used in MGNREGS.

Table 1 presents the data on the labour roles which were traditionally available to the rural women workers in the study area prior to MGNREGS, while Table 2 presents data on the new labour roles which emerged as livelihood opportunities for the rural women workers of Kerala and Madhya Pradesh.

Table 1. Wage Employment Activities available to the Rural Women Workers prior to MGNREGS

Type of work	Name of the State		Total N=160
	Madhya Pradesh n=80	Kerala n=80	
Farm labour work / farming in own field			
Transplanting	27 (34)	4(5)	31(19)
Weeding	25(31)	30(38)	55(34)
Harvesting	54(68)	60(75)	114(71)
Threshing	33(41)	42(53)	75(47)
Processing	4(5)	3(4)	7(4)
Irrigation	2(4)	65(81)	67(42)
Fertilizer application	1(1)	31(39)	32(20)
Spraying	-	31(39)	31(19)

Seeding	13(16)	68(85)	81(51)
Fodder / grass collection	4(5)	34(43)	38(24)
Firewood collection	2(3)	34(43)	36(23)
Honey production	-	1(1)	1(1)
Broom grass collection	-	6(8)	6(4)
A) Non-farm sector			
Factory work	-	3(4)	3(2)
Helper in shops	-	19(24)	19(12)
Masonry work	1(1)	33(41)	34(21)
Helper in construction work	22(28)	27(34)	49(31)
Head load work	10(13)	-	10(6)
Maid servant	1(1)	-	1(1)
Petty business activities	-	30(38)	30(19)

Figures in parenthesis represent percentage

Table 2. Labour Opportunities available to Women Workers through MGNREGS Programmes of Kerala and Madhya Pradesh

N = 160

Type of work	Name of the State		Total N=160
	Kerala n=80	Madhya Pradesh n=80	
Digging	32(40)	55(69)	87(54)
Bund Forming	8(10)	32(40)	40(25)
Canal Forming	23(29)	-	23(14)
Canal Clearing	67(84)	-	67(42)
Bush Clearing	55(69)	8(10)	63(39)
Pond Construction	7(9)	20(25)	27(17)
Tank Construction	1(1)	74(93)	75(47)
Desilting of Tanks	2(3)	25(31)	27(17)
Head Load Work	41(51)	16(20)	57(36)
Levelling of Soil/Field	39(49)	31(39)	70(44)
Well Construction	3(4)	56(70)	59(37)

Figures in parenthesis represent percentage

Through the MGNREGS field operations, the rural women workers in the two states are now engaged in digging of soil (54%), tank construction (47%), pond construction (17%), levelling of land (44%), canal and bush clearing (39%), well construction (37%), head load work (36%), bund forming (25%), canal forming (14%), etc which otherwise were traditionally neither available to women

nor participated by women in the field. It is observed from Table 1, that previously the rural women workers were predominantly engaged in operations like seeding (51%), harvesting (71%), threshing (47%), weeding (34%), processing (4%), irrigation (42%), fertilizer/manure application (20%), fodder collection (24%), firewood collection (23%), spraying (19%), broom grass collection (4%), etc in the farm sector and factory work (2%), masonry work (21%), helper job in shops (12%) and construction sites (31%), domestic support (1%), petty business (19%) etc., in the non farm sector.

In the case of rural women workers of Kerala, canal clearing (84%), bush clearing (69%), head load work (49%) and digging (40%) are the major new roles of labour that have emerged through the MGNREGS operations (Table 2). It is also evident from Table 2 that the rural women workers of Madhya Pradesh are now engaged in tank construction (93%), digging of soil (69%), well construction (70%), bund forming (40%), levelling of field (39%), de-silting of tanks (31%), pond construction (25%), head load work (20%) and bush clearing (10%).

The observations on the gender role change that occurred in the rural labour market were further reinforced through participatory analysis of the traditional gender roles that existed and newly emerged gender roles in field operations in one of the study locations- Kanjirapuzha Gram panchayat in Mannarkad Block in Palakkad District by conducting focus group discussion with agencies involved, such as, elected representatives, men and women workers of MGNREGS, field mates of MGNREGS, implementing officials and farmers of the area.

Results presented in Table 3 (a) and (b) highlight the observations of the focus group discussion. It was noted that prior to the introduction of MGNREGS, women workers as part of wage employment in Palakkad district were primarily engaged in farming sector activities like paddy sowing, harvesting, transplanting, weeding, harvesting, threshing, processing of grain and straw, coir making, coconut leaf plate making, etc. The women workers were also engaged in non farm sector roles like support work in construction sites, tailoring, match box companies, head load work, quarry work, minor stone breaking, and brick making. The labour roles identified for men workers by the group were paddy field operations like ploughing, digging and bund formation, de-silting of tanks, drainage, irrigation, pesticide spraying, harvesting with machines, threshing with machines, etc and garden land operations like spade work, coconut tree climbing, rubber tapping, toddy tapping, clearing of land, wood cutting, irrigation canal forming, green manure cutting, etc.

Table.3 (a) Participation of Men and Women in traditional wage employment opportunities(prior to MGNREGS) in Palakkad district of Kerala

(Mapping done through Focus Group Discussion)

	Sl.No.	Job Activities in Wage Employment	Men	Women
1.		Paddy Field Operations		
	a)	Ploughing	√	-
	b)	Digging	√	-
	c)	Bund formation	√	-
	d)	Tank deepening/ de-silting	√	-
	e)	Drainage	√	-
	f)	Irrigation	√	-
	g)	Sowing/ seeding	√	√
	h)	Transplanting	-	√
	i)	Fertilizer/ manure application	√	√
	j)	Pesticide (weedicide) spraying	√	-
	k)	Weeding(manual)	-	√
	l)	Harvesting (manual)	-	√
	m)	Harvesting (mechanized)	√	-
	n)	Threshing (Manual)	-	√
	o)	Threshing (mechanized)	√	-
	p)	Processing of straw(manual)	-	√
	q)	Processing of grain(manual)	-	√
2.		Garden land operations	√	-
	a)	Digging/ploughing (spade work)	√	-
	b)	Tree Basin operations	√	-
	c)	Weeding	-	√
	d)	Head load work	√	√
	e)	Coconut tree climbing	√	-
	f)	Wood cutting/ splitting	√	-

	g)	Irrigation channel formation	√	-
	h)	Green Manure collection	√	√
	i)	Rubber tapping	√	-
	j)	Rubber nursery	√	√
	k)	Fence work	√	√
	l)	Wild growth cleaning	√	-
	m)	Coir making	-	√
	n)	Coconut leaf plating	-	√
	o)	Bamboo / reed cutting	√	√
3.		Non farm Activities		
	a)	Construction work (Masonry)	√	-
	b)	Carpentry	√	-
	c)	Catering	√	-
	d)	Brick making	√	√
	e)	Support work in construction site	-	√
	f)	Tailoring	√	√
	g)	Match company work	-	√
	h)	Head load of sand/ stone	√	√
	i)	Quarry work (stone breaking)	√	√
	j)	Minor stone breaking	-	√
	k)	Loading and down loading of goods	√	-
	l)	Driving (lorries/bus/auto rickshaw tractors	√	-
	m)	Drainage cleaning/ deepening	√	-
	n)	Drainage/ canal digging	√	-

√ High participation

- No participation/rare participation

Table 3 (b) Participation of Men and Women in rural self employment opportunities in Palakkad District, Kerala

(Mapping done through Focus Group Discussion)

Sl.No.	Job Activities in Self Employment	Men	Women
1.	Basket making	-	√
2.	Cattle rearing	-	√
3.	Candle making	-	√
4.	Lab work	-	√
5.	Nursery operations	-	√
6.	Honey bee rearing	-	√
7.	Fire wood collection and selling	-	√
8.	Green grass collection and selling	-	√
9.	Sericulture operations	√	√
10.	Compost production	-	√
11.	Catering	√	√
12.	Group farming of vegetables and paddy	-	√

√ High participation

- No participation

Table 4 depicts the observations from the focus group discussion on the role change that has happened in the gender division of labour in Palakkad District due to MGNREGS interventions. The rural women workers engaged in MGNREGS of the region presently have a high rate of participation in manual operations requiring physical exertion also, such as water channel construction, canal clearing, drainage work, construction and strengthening of river banks, bund construction, rainwater harvesting pond cleaning, desilting and deepening of tanks and ponds, check dam construction, land terracing, bund protection etc. It is also to be noted from the table that men workers have very low participation in these operations under MGNREGS.

Table 4. Participation of men and women in the MGNREGS activities in Palakkad District, Kerala (Mapping through focus group discussion)

Sl.No.	MGNREGS Field operations	Men	Women
1.	Water channel construction	*	**
2.	Canal cleaning	*	**
3.	Road drainage work	*	**
4.	Removing / clearing wild growth	*	**
5.	Construction and strengthening of river bank wall	*	**
6.	Bund construction with sand bag	*	**
7.	Rain water harvesting	*	**
8.	Strengthening of irrigation canal distilleries	*	**
9.	Pond / tank construction	**	**
10.	Pond cleaning	**	**
11.	Tank construction and Deepening and de-silting of tanks / ponds	**	**
12.	Well construction	**	*
13.	Check dam construction	*	**
14.	Gully plugging for soil conservation	*	**
15.	Live fence construction (organic fence)	*	**
16.	Tree planting grass planting in waste land	*	**
17.	Country road construction and maintenance	*	**
18.	Play ground construction	*	**
19.	Waste disposal	*	**
20.	Land levelling	*	**
21.	Head load transportation of sand	*	**
22.	Digging of land	*	**
23.	Sand filling in gunny bags and baskets	*	**
24.	Earth fence / wall construction for soil conservation	*	**
25.	Terracing of land	*	**
26.	Trench construction	*	**
27.	Elephant Trench construction	**	**
28.	Fire belt construction	**	**
29.	Water body protection works	*	**
30.	Bund protection works	*	**

* Low participation; ** High participation

Table 5 and 6 present the commonly used tools and implements in MGNREGS field operations by the rural women workers of Kerala and Madhya Pradesh respectively.

Table 5. Commonly used tools and implements in MGNREGS field operations by the rural women workers of Kerala

n=80

Sl.No.	Tool/Implement	f	%
1.	Shovel (<i>kulam kori</i>)	33	41
2.	Pick Axe	69	86
3.	Chopper	9	11
4.	Short handled Spade (<i>Mammatty</i>)	41	51
5.	Bill hook	16	20
6.	Big knives (<i>madaval</i>)	33	41
7.	Basket (<i>kutta</i>)	3	41
8.	Iron pan (<i>irumpu chatti</i>)	33	41
9.	Coir	1	1
10.	<i>Maram</i>	1	1
11.	Small billhook	5	6
12.	Crow bar (<i>kadapara</i>)	5	6

More than four-fifth of the women workers are making use of pick axe in their new field work while short handled spade (*Mammatty*) is also being used by more than half of the women workers in their new work. Big knives (*madaval*), shovel, basket and iron basin are also used by about two-fifth of the women workers in MGNREGS worksites of Kerala. Other tools reported to be in use are chopper, billhooks, coir and crow bar.

It is evident from Table 6 that *Phawarah* (98%), Pick Axe (50%), basket (49%), iron pan (48%), hal breaker, mixer machine (28%), vibrator (28%), hammer (28%) and karni (34%) are the tools the rural women workers of Madhya Pradesh are making use of in their new labour roles under MGNREGS.

Table 6. Commonly used tools and implements in NREGS field operations by the rural women workers of Madhya Pradesh n=80

Sl.No.	Tool/Implement	f	%
1.	Pick Axe	40	50
2.	Basket	39	49
3.	<i>Phawarah</i>	78	98
4.	Grass cutter	40	50
5.	Hal breaker	39	49
6.	Iron pan	38	48
7.	<i>Tipan</i>	1	1
8.	<i>Panada</i>	1	26
9.	Plumb	21	1
10.	<i>Lagiri</i>	1	1
11.	Thread	20	25
12.	Mixer Machine	22	28
13.	Vibrator	22	28
14.	Hammer	15	19
15.	Tagari	20	25
16.	<i>Karni</i>	27	34
17.	<i>Gaiti</i>	1	1

Discussion

A comparison of Tables 1 and 2 will enable us to understand that the MGNREGS has brought more labour roles for rural women workers in these two states - in Kerala as well as in Madhya Pradesh and the visible changes have occurred in the gender division of labour in the rural labour market. It is to be noted that through the MGNREGS field operations, the rural women workers in the two states are now having opportunities in ten additional areas of labour roles such as digging of soil, tank construction, pond construction, levelling of land, canal and bush clearing, well construction, head load work, bund forming, canal forming, etc which otherwise were traditionally neither available to women nor carried out by women in the field. It is to be noted that these jobs were mainly performed mostly by men in both the states. Earlier studies in the farming sector of Kerala have reported that women rarely participate physically in field preparations where spade work and digging are involved (Geethakutty 2004, Geethakutty and Bindu (2001). Except for head load work, all the other field operations listed in the Table 1 are the new labour roles for rural women workers

of Kerala. Including the head load work, all the labour roles listed in the Table 2 are new to the rural women workers of Madhya Pradesh as well.

The change brought by MGNREGS work opportunities in the gender division of rural labour in Kerala is visible from Tables 3(a), 3(b) and 4. It is observed that in the MGNREGS work sites, now women are the major performers of water channel construction, canal cleaning, road construction, drainage work, clearing of wild bush, bund construction, tank construction, pond de-silting, check dam construction, water body protection, terracing, levelling, tree planting, head load work, gully plugging and soil conservation etc. The women workers were rarely participating in these works previously and men workers were the major actors. Through the MGNREGS, the role reversal has happened in almost all the above listed field operations. It can be noted that all the operations demand considerable physical exertion and normally are operated by men using tools and implements like spade, pick axe, crow bar, etc. Table 5 reveals that in their new field work of MGNREGS, the commonly used tools and implements by the rural women workers of Kerala are pick axe, and short handled spade (*Mammatty*), Big knives (*madaval*), shovel, and basket and iron basin. Other tools reported to be in use are chopper, billhooks, coir and crow bar. *Phawarah*, pick axe, iron basket, iron pan, hal breaker, mixer machine, vibrator, hammer and *karni* are the tools the rural women workers of Madhya Pradesh are making use of in their new labour roles under MGNREGS (Table 6).

It can be noted that the women workers are making use of the same tools and implements, usually used by their men labour counterparts, for their new labour roles. The ground reality to be noted here is that, as these labour roles traditionally used to be more or less performed by men only, no tools or devices are available as such, which are suitable for women performers of those operations, in both the regions. Focus Group Discussion with the participants had revealed many difficulties and constraints these women had, in using these work tools of men workers. Major hurdles reported as affecting their work efficiency were heavy weight and unsuitable handles of the tools; the women had to bend too much and strain. They further pointed, resulting low work output, reduced wages and associated back pain and health hazards. The situation warrants interventions for developing appropriate tools, mass scale production and promotion of the implements among the rural workers.

The study results are otherwise indicative of the general pattern of non availability of work tools for women in the rural sector. Earlier studies in the farming system context had also highlighted that there are very few tools and

implements available for field operations usually performed by women workers (Geethakutty et al, 2006). In spite of the fact that many of the drudgery involved and back breaking works of the farming sector are performed by women manually, such as transplanting, weeding, etc, there was not much effort or attention to evolve women specific tools. This clearly indicates the lack of focus on women's technology requirement and gender sensitivity in the research system. Geethakutty *et al* (2004) had observed that sickle is the only tool available in a rice farming system for women farm labourers, while their men counterparts have spade, tractor, pick axe, sprayers, plough etc. as tools in their work. Ironically, whatever drudgery alleviating devices have been developed in the farming sector for jobs mostly operated by women, are also observed to be evolving as designed and made men-friendly only! On closer analysis, this trend is evident from the instances of the men worker oriented designs of mechanised paddy transplanter, harvester, weeder, thresher etc. This indicates how farm machine modernisation can virtually displace the women workers from their traditional farming sector roles.

The results of the study reveal that there is a need for developing women friendly tools and implements which are suitable for the anthropometric measures of women workers of different regions. Worker women's average height, arm length, breathing pace, heart beat, etc are to be considered in developing tools and implements for those field operations which are mostly performed by women in every region. It is praiseworthy that recently, there are certain gender responsive efforts initiated by the Central Institute of Agricultural Engineering (CIAE), Bhopal of the Indian Council of Agricultural Research (ICAR) and other State Agricultural Universities (SAUs) and centres of agricultural engineering to address this requirement. The fine tuning of the mechanised paddy transplanter to make it women friendly and its popularisation among women labour groups from Kerala Agricultural University (KAU) is noteworthy (Nair, 2010 and Suresh Kumar *et al*, 2005). A team of scientists of KAU from agricultural engineering, agronomy and agricultural extension were keen to observe the changes happening in the field and to intervene appropriately. The pioneering capacity building efforts carried out by KAU's Centre for Gender Studies in Agriculture were effective in developing gender sensitivity among the stakeholder-scientists of KAU, extension workers, firms, farm workers and farmers and led to bringing appropriate changes; women friendly changes in the design of the machines, training and women's agency building and farmer orientation were introduced and corresponding level of success are also reported. This case of success highlights

the necessity and potential of nationwide capacity building for mainstreaming of gender sensitivity among scientists and technologists to address the issue as a need of the hour. Such an approach will ensure social justice by sustaining the job opportunities of women workers and the improved tools will improve their work efficiency, reduce occupational health hazards and work output as well.

In the present study situation also, the need or the demand was exactly the same, but from another angle i.e., now the demand is for evolving and popularising women friendly tools and implements for the new field operations women have entered into. To perform the new labour roles which the women workers undertake as part of the MGNREGS field work, they need tools and implements suitable for their anthropometric measures; which are less hazardous; which will enable them to work continuously, efficiently and increase their work output. Almost all the new labour roles in which the women engaged were mostly performed by men and hence all the available tools/ implements also are men friendly- e.g. pick axe, spade, shovel, crow bar, etc. Hence, naturally, the women fieldworkers of MGNREGS are not finding these men friendly tools and their attributes (weight, length, handle etc) suitable to their ergonomics and find it difficult to carry out the work efficiently and to produce the desired work output of MGNREGS and also face health hazards because of the hard and hazardous manual work. The time and motion study of Maithri (2008) in the context of work efficiency of MGNREGS workers in Kerala also had indicated that often the tools the workers use are of poor quality and these contribute negatively to the turnout of the total work. This observation is of much importance from the point of view of the workers' efficiency and work output as well, as the work output is the single deciding criterion for MGNREGS payment and in turn, the crux of ensuring equal wage concept adopted through MGNREGS!

In view of the changing trend of gender division of labour in the rural areas, this paper recommends that the researchers, policy makers and planners make note of the emerging need for designing women friendly tools and implements and ensure their mass scale production and availability in the rural sector.

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