

Women's' empowerment in the fragile environment of Semi-Arid

Tropics: focus on norms, agency and attitudes

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Abstract

Empowerment of women, in its simplest meaning refers to the process whereby women acquire an ability to make strategic life choices. Likewise, power is also thought of as an ability to make choices. This view of power focuses on structure or the social norms and forces that enable and or constrain thinking, action and behavior. Hence, there is now a focus and discussion on not just the power relations among actors and their agency (strengthening capabilities to act) but also on social structures, norms, and attitudes that enable (or constrain) the behavior of all actors – women, men, socially included and excluded (Hayward 2000).

Taking cues from the work of Munoz-Boudet et.al (2012), this paper attempts to discuss that social norms, gender roles, individual capacities, assets, and the communities wherein the marginalized rural poor live, determine the opportunities available to women and men.

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Harnessing the rich VLS longitudinal panel data from 6 villages of India, the paper explains the dynamics of intra-household relationships gleaned from the longitudinal panel and highlights how gender differences and inequalities among sample households engaged in agriculture in these villages has changed over time. Q² analysis is used to examine variation in gender norms and attitudes among communities/villages as well as discern distinguishing patterns and pathways towards women's empowerment. The paper also appeals to analysis of the social network architecture, identifying existing formal and informal institutions that enable women's agency, voice, claims and opportunities. Understanding women in their wider social setting - wider social contexts of gender, age, class and other identities that influence their relations with others, leads to a better appreciation of the change agents women can be in their households, communities and nation at large. Ultimately, to bring about socially transformative empowerment, the paper clearly points that it is imperative that individuals and groups develop the capacities to not only address the norms, attitudes and conditions that determine their life choices and aspirations but also challenge them to bring about this change.

Key words

Transformative change, gender norms, attitudes, empowerment, social networks, semi-arid tropics, gender

Main text

Background and introduction:

Literature clearly reveals that in the rural areas where most of the world's hungry people live, women produce most of the food consumed locally. They play multiple roles as producers, laborers, homemakers, managers of farm as well as entrepreneurs. Their contribution could be much greater if they had equal access to essential resources and services, such as land, credit and training. Eliminating the obstacles that hamper women could be the key to achieving the Millennium Development Goals and the sustainable development goal. But that can only be done if policies are shaped by better information about the difficulties experienced by women, and their aspirations, as well as by the participation of rural women themselves.

Understanding gender roles involves looking beyond differences in activities between men and women to also looking at differences in activities between different women and between different men, as mediated by factors such as age, wealth and marital status.

Traditional norms about the role of men and women in society have not adapted to keep pace with India's rapid economic growth and rise in opportunities for women, according to a new report by the International Center for Research on Women (ICRW,2010). Throughout India, social norms and practices are mostly governed by patriarchal ideologies that define the roles of men and women. Men are confined to it, and it's reflected in their attitudes and behaviors. And these views are playing out alongside increasingly reshaped roles for women not only at the homestead but also in the community and society at large.

This paper presents micro-level evidences from the ICRISAT Village-Level Studies (VLS) now called as the Village Dynamics Studies in south Asia (VDSA) on gender norms and attitudes, women's agency and empowerment in the harsh fragile environment of the semi-arid tropics (SAT) of India. Agriculture continues to be the dominant livelihood option of the people in this region. The rural poor inhabiting the SAT have limited access to education, knowledge and technology. Despite policy reforms both at the macro and micro level, rural women have not been able to take advantage of opportunities from new technologies to improve their status either at the household, farm, or community level. Grassroots-level insights from longitudinal panel surveys like VLS prove to be a powerful tool for understanding gender dynamics in vulnerable, marginal settings where smallholder farmers play a dominant role in the village and household economy.

Broadly speaking, empowerment is increasing poor people's freedom of choice and action to shape their own lives (Narayan 2005). It is also referred to as the process of enhancing an individual's or group's capacity and ability to make effective choices, and then to transform those choices into desired actions and outcomes (Alsop, Bertelsen and Holland, 2006; Narayan, 2002, 2005; Alsop and Heinsohn, 2005; Petesh, Smulovitz and Walton, 2005). Empowerment thus is the interaction between two building blocks - agency and opportunity structure – which results in increasing the power of the individual to make informed choices. Agency is the ability of an individual to define one's goals and act upon them through making purposeful choices. Agency is considered to be strongly determined by people's individual assets (such as land, housing, livestock, savings) and capabilities of all types: human (such as good health and education), social (such as social belonging, a sense of identity, leadership relations) and psychological (self-esteem, self-confidence, the ability

to imagine and aspire to a better future), and by people's collective assets and capabilities, such as voice, organization, representation and identity. The opportunity structure on the other hand refers to the broader institutional, social, and political context of formal and informal rules and norms within which actors pursue their interests and goals thereby enabling (or not enabling) the agents to become effective. Social norms are the agreed-upon behavior patterns viewed as appropriate within a particular society or system of social organization. One category of social norms are the gender norms which are a society's or a group's beliefs, attitudes and valuations about the roles, behaviors and practices expected of and considered appropriate for men and women.

In the rural agrarian SAT, gender norms - social rules governing the choices and behavior - are profoundly engrained in the cultural context. These deep-seated gender norms result in men and women having different capacities to take advantage of new opportunities in rural development and agriculture. A better understanding of how gender norms shape the ability of poor women and men to participate in agriculture and allied activities will provide a stronger evidence base for designing interventions aimed at transforming restrictive gender norms and empowering poor rural women as farm producers, entrepreneurs, traders and managers of natural resources.

The paper is organized as follows: the next section describes the methodology for the study. This is followed by a discussion of the results and the findings from the study. Major conclusions from the study and future plans follow next. The last section is the list of literature referenced for this paper.

Methodology

This paper assesses qualitatively the social and gender dynamics in the rural SAT to understand gender norms, agency and empowerment. A mixed method approach for data collection and analysis was adopted. Quantitative and qualitative data was collected through the detailed surveys on labor participation, time allocation, nutrition, gender attitudes and networks. Resident women field investigators were given rigorous training to collect this data.

The research was designed in such a way to capture men's and women's perspectives and their own accounts of how they experience gender differences in their communities and villages. This sociological analysis is complemented by descriptive statistics from the longitudinal household panel data analysis of VDSA for the 6 traditional villages of Telangana, Akola and Solapur regions, India (See Figure 1 – map of the study villages). The profile of the study villages is also presented in table 1.

The VDSA panel data set of ICRISAT (<http://vdsa.icrisat.ac.in/>) and (<http://220.227.250.220/Login.aspx>), which is unique in its structural detail and coverage in the Semi-Arid Tropics, is used to show how gender differences and inequalities among the sample households engaged in agriculture in these villages has changed over time. Existing VLS panel data spanning two generations (1975-84; 2001 onwards) and the additional data collected as a part of the special purpose survey during the year 2013-14 on gender and nutrition is used to explain the dynamics of intra-household relationships gleaned from the longitudinal panel.

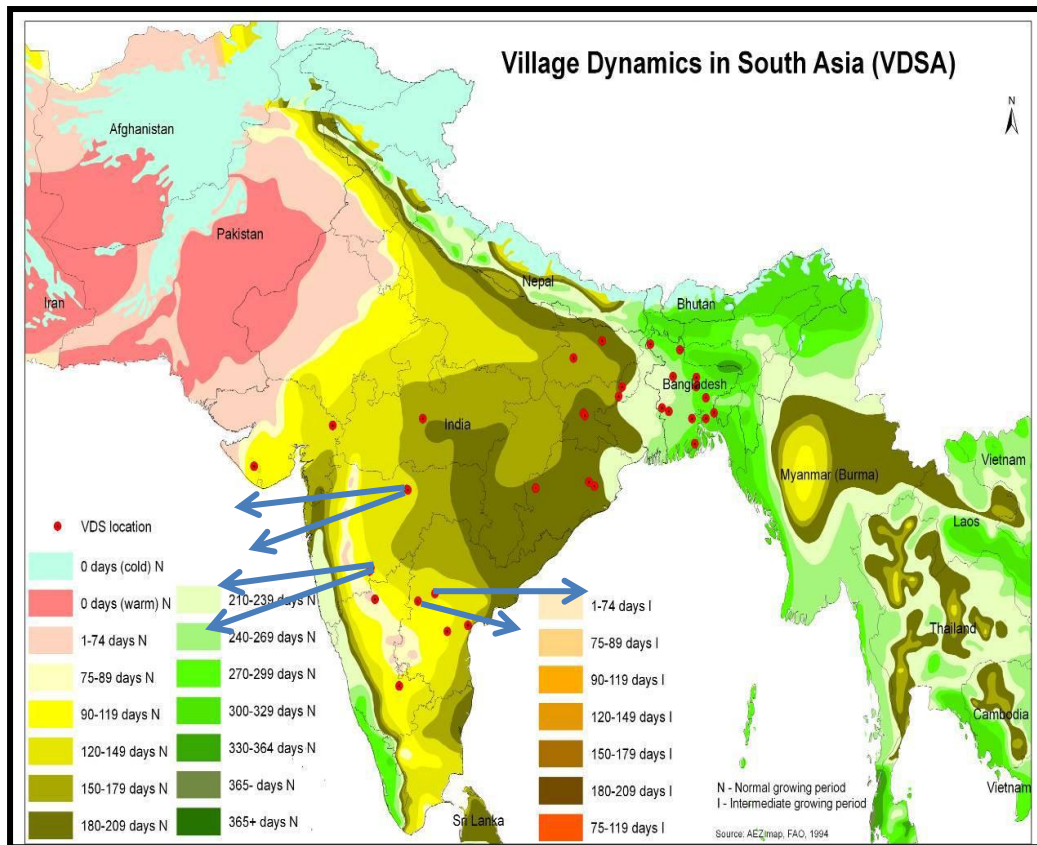


Figure 1: Location of the study villages

A village census approach was also adopted to capture village dynamics and social relationships both within and outside the villages. The data thus generated is to document and map the social network architecture of the study villages. The network architecture is used to examine variation in gender norms among communities and villages to discern distinguishing patterns towards women's empowerment. This data and analysis disaggregated by gender is complemented with Focus Group discussions and individual interviews.

Table 1: Profile of study villages

S. No	Category (Number of households)	Aurepalle (Mahabubnagar district, Telangana, India)	Dokur (Mahabubnagar district, Telangana, India)	Shirapur (Solapur district, Maharashtra, India)	Kalman (Solapur district, Maharashtra, India)	Kanzara (Akola district, Maharashtra, India)	Kinkhed (Akola district, Maharashtra, India)
1	Sample size	65	56	94	65	62	50
2	Total households	984	545	546	660	319	189
3	By headship						
	Male headed	844	471	482	644	292	170
	Female headed	140	74	64	16	27	19
4	By caste						
	Upper Caste	112	98	260	292	89	56
	Other Backward Classes (OBC)	569	348	202	281	133	64
	Scheduled Caste (SC)	292	95	80	58	72	7
	Scheduled Tribe (ST) and Nomadic Tribe	11	4	4	29	25	62
5	By Farm size⁷						
	Landless	147	56	224	160	124	63
	Marginal	265	240	103	96	42	31
	Small	372	169	96	169	50	34
	Medium	126	56	75	146	74	34
	Large	74	24	48	89	29	27
6	By occupation						
	Farming	500	130	174	261	134	79
	Caste occupation	157	83	11	25	10	9
	Non-agricultural labor	155	110	43	72	50	22
	Agricultural labor	130	145	159	160	125	61

⁷ <0.1 ha= Landless; 0.1-<1 ha= Marginal; 1-2 ha=Small; 2-4 ha= Medium; >4 ha=Large

	Others	42	77	159	142		18
7	Literacy (no of people)	4764	3006	2518	3344	1427	876
	illiterate (<4 yrs of schooling)	1926	1540	1166	1506	489	301
	Literate (4-10)	2383	1050	1131	1439	718	467
	Matriculate	420	300	131	223	206	86
	Graduate	32	95	67	111	13	21
	Postgraduate	3	21	22	65	1	1
8	Soil types	Sandy soil, Red soil, Gravel soil	Sandy, red, shallow black, red pebbles, white salty, silt	Deep black, Medium, shallow	Shallow black, Medium black, Murrum	Medium black, Deep black, Shallow Black	Medium Black, Shallow Black, Deep Black,
9	Major crops grown	Cotton, Paddy, Castor, Pigeon pea, ground nut	Paddy, Castor, Pigeon pea, Cotton, Others	Sorghum, Wheat, Maize, onion, Chickpea, Pigeon pea	Pigeon pea, Sorghum, Maize, Vegetables, Sunflower, other pulses	Soya bean, Cotton, Pigeon Pea, other pulses	Soybean, Cotton, Sorghum, Green gram, Black gram, Pigeon pea

Results and discussion

This section presents a discussion of the results based on the sociological analysis and interpretations of the data. Using a sequential analysis, the process of empowerment is illustrated through this systematic analysis:

1. Gender roles and responsibilities - Who does what in agriculture
2. Participation rate in agriculture by gender
3. Time use patterns by gender using a 24 hour recall method
4. Ownership of assets and decision making by gender
5. Social networks and relationships

6. Gender norms and attitudes

Gender analysis – Who does what to understand the roles and responsibilities of men and women in agriculture

As a first step, a gender analysis of “who does what” in agriculture is presented below. This analysis enables the understanding of the different roles men and women play in agriculture. The VDSA introduced a gender analysis module in its second phase of data collection starting 2008 onwards. The data thus used for this analysis is for the period 2008-2011 and the analysis is for the six villages of Telangana and Maharashtra. As can be seen from table 2, the households (respondents were the primary male and the primary female member of the household) reported activities into three categories based on who does the activity: activities which are dominated by men, activities dominated by women and activities jointly performed by both men and women.

Table 2: Who does what in agriculture, Telangana and Maharashtra, 2008-2011

Sl.No	Activity Name	Performance of activities by men and women in agriculture in	
		Telangana villages	Maharashtra villages
1	Land preparation	♂♀	♂
2	Selection of crop and Variety	♂♀	♂
3	Fertilizer and Manure application	♂♀	♂
4	Sowing	♀	♀
5	Irrigation	♂	♂
6	Interculture	♂	♂
7	Hand weeding	♀	♀
8	Harvesting	♂♀	♂♀
9	Threshing	♂♀	♂♀
10	Transport , Marketing, Supervision & other activities	♂	♂

The table clearly reveals that the present agricultural operations are performed jointly by both men and women. This finding is different from what was reported by Kolli and Bantilan (1997) who observed task specificity by genders i.e., men performed heavier activities while women performed light activities. In Telangana villages, it is observed that even activities which were once considered to be exclusively performed by men (e.g. Land preparation) are now being jointly performed. Two activities which continue to be dominantly performed by women are sowing and weeding. An interesting pattern emerges from this simple “who does what” analysis. In the villages of Aurepalle and Dokur (the Telangana region) and the Shirapur and Kalman (Solapur region), more activities are performed jointly while in the villages of Kanzara and Kinkhed (Akola region) there are more activities dominated by men (Figures 2 and 3; Table 3).

Figure 2: Gender roles in crop production in the Semi-Arid Tropics, by village, 2008-2011

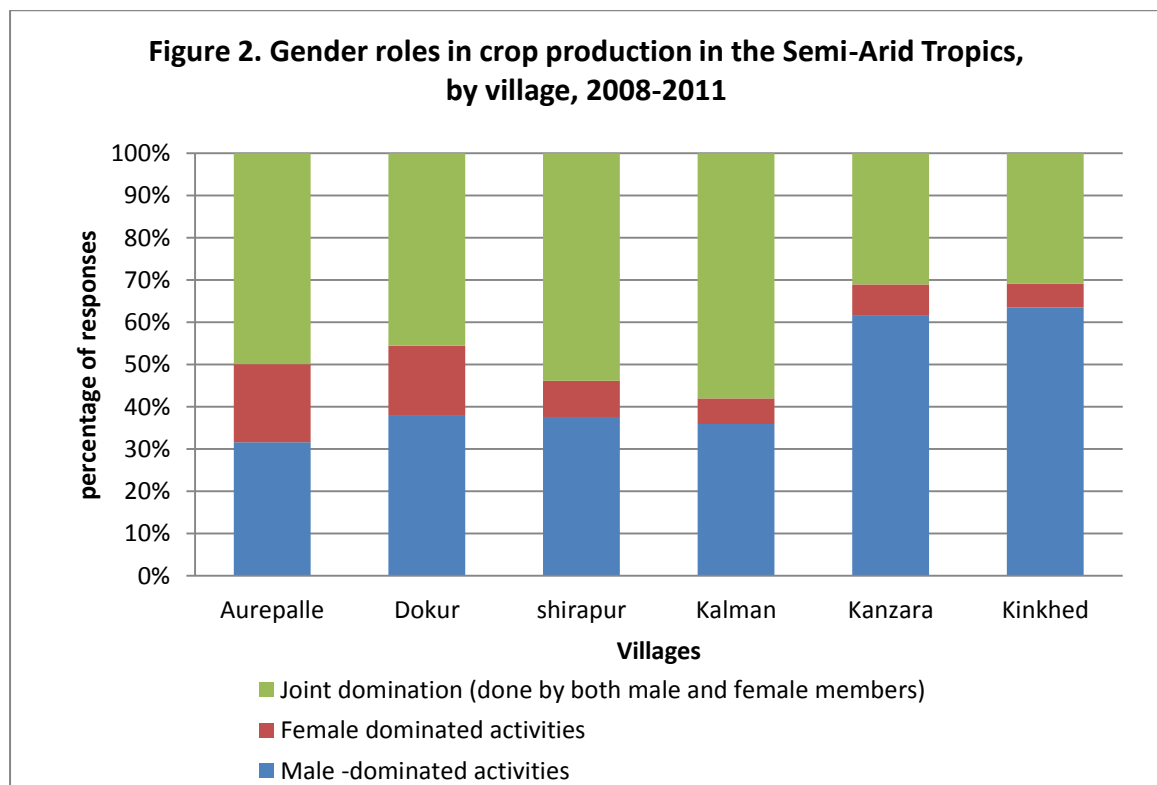
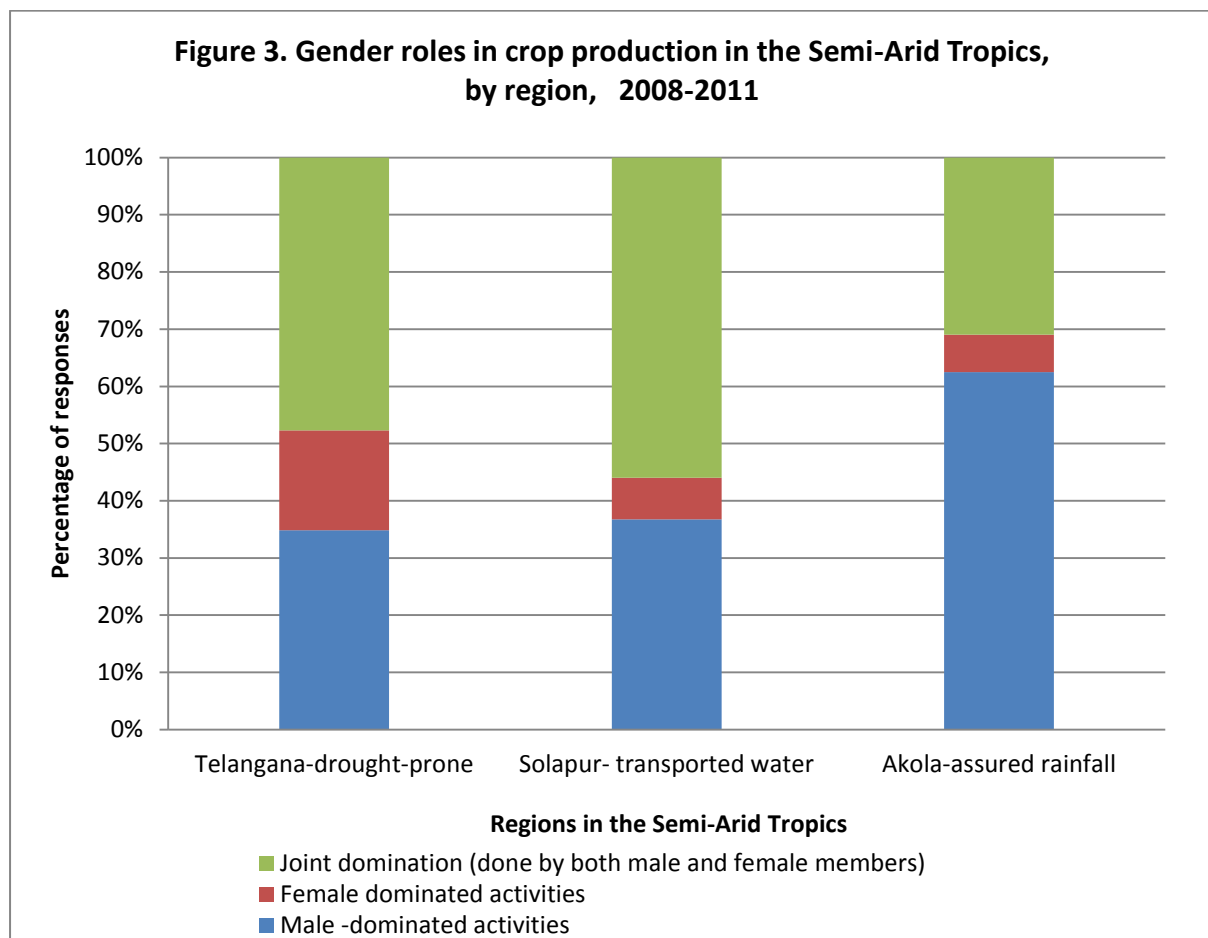


Figure 3: Gender roles in crop production in the Semi-Arid Tropics, by region, 2008-2011



A comparison of the gender-based division of labor using the long term panel data especially on the most labor-intensive and most feminized tasks, 1975 and 2008 (Palacios, 2012) in relation to women’s status is the division of labor, or which tasks have traditionally been men’s work and which tasks are primarily done by women. These are presented below and clearly point that women contribute the most labor to the most labor-intensive tasks.

Most labor-intensive and most feminized tasks, 1975			
Most labor-intensive tasks	Total annual labor spent on task	Most feminized tasks	Task-specific labor force that is female
Weeding	27%	Weeding	97%
Harvesting	17%	Harvesting	75%
Land/seedbed prep	15%	Fertilizer application	74%
Planting	14%	Planting	69%
Threshing	10%	Threshing	52%

Irrigation	9%	Land/seedbed prep	25%
Interculture	5%	Manure application	12%
Manure application	2%	Interculture	3%
Fertilizer application	1%	Irrigation	2%
Pesticide application	~0%	Pesticide application	2%
Most labor-intensive and most feminized tasks, 2008			
Harvesting	37%	Weeding	93%
Weeding	24%	Fertilizer application	73%
Irrigation	8%	Harvesting	66%
Land/seedbed prep	8%	Threshing	60%
Planting	5%	Planting	60%
Threshing	5%	Manure application	33%
Fertilizer application	2%	Land/seedbed prep	22%
Interculture	2%	Pesticide application	12%
Pesticide application	1%	Irrigation	6%
Manure application	1%	Interculture	1%
Source: Palacios, 2011			

Table 3: Gender roles in crop production in the Semi-Arid Tropics, by village, 2008-2011

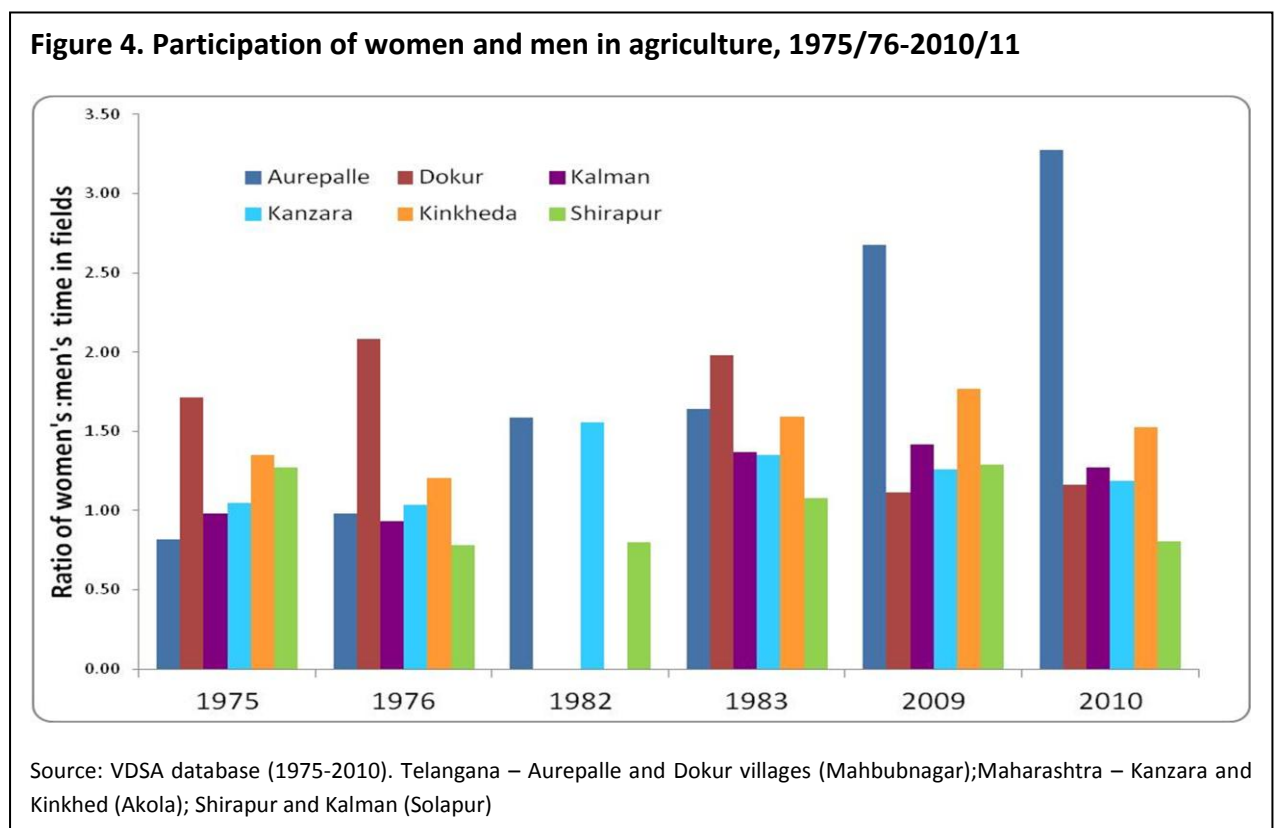
Table 3. Gender roles in crop production activities(as percentage), 2008-2011																		
Village name	Aurepalle			Dokur			Shirapur			Kalman			Kanzara			Kinkhed		
Activity	M	W	J	M	W	J	M	W	J	M	W	J	M	W	J	M	W	J
Land preparation	31	4	64	37	0	63	79	0	21	70	1	29	70	0	30	91	0	9
Selection of crop and Variety	11	8	81	58	1	41	74	5	21	38	1	61	96	1	3	69	11	20
Fertilizer and Manure application	48	9	43	59	1	40	40	2	58	42	1	57	67	19	14	67	6	27
Sowing	0	35	65	0	61	38	30	9	60	3	1	97	1	25	74	0	14	86
Irrigation	90	5	5	65	0	35	52	2	46	77	1	22	100	0	0	100	0	0
Interculture	94	5	1	88	2	10	36	9	55	72	0	28	99	0	1	92	0	8
Hand weeding	1	96	3	0	99	1	0	57	42	2	55	43	1	28	71	0	21	79
Harvesting	0	8	92	6	0	94	6	0	94	3	1	97	22	0	78	21	3	76
Threshing	0	7	93	0	0	100	0	0	99	2	0	98	63	0	37	100	0	0
Transport , Marketing, Supervision and others	41	8	51	67	0	32	57	1	41	51	1	48	97	0	2	95	1	4

Legend: M – Men; W-Women; J - Joint

Labor participation of women and men in agriculture

Having described the roles and responsibilities by gender, the next step to analyze is the level /extent of participation (in terms of work hours) of men and women in agriculture. As can be seen from figure 4, the long-term panel data from 1975 clearly points to evidence of a progressive feminization of agriculture in the rural areas, although the extent is varying across regions.

Figure 4: Participation of women and men in agriculture, 1975/76-2010/11



Our analysis and the insights reveal that in regions that have a promise in agriculture and favour sustained dependence in agriculture, men and women jointly participate in agriculture as they were doing so since the early 70's. The role of women in agriculture increased in these cases but to a lesser extent. However, in regions which have experienced shocks (such as the Mahbubnagar villages), women have a greater role and engagement in agriculture depending on the coping strategies the household adopts -

changing cropping patterns and diversification; working as paid labor on others farms and lastly male members of the household migrating to towns leaving the women to take care of the farms as well as participate in the care economy. Figure 5a to 5f illustrate the time allocation of men and women in agriculture. This refers to the time spent by men and women – both family labor as well as hired labor – in crop cultivation.

Figure 5a: Time allocation of men and women in agriculture in Aurepalle

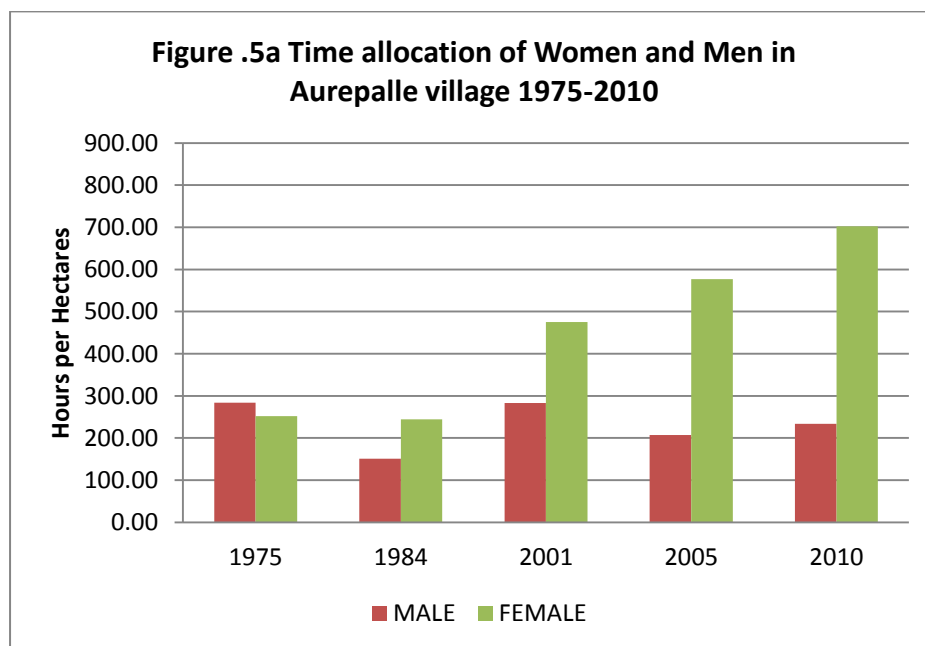


Figure 5b: Time allocation of men and women in agriculture in Dokur

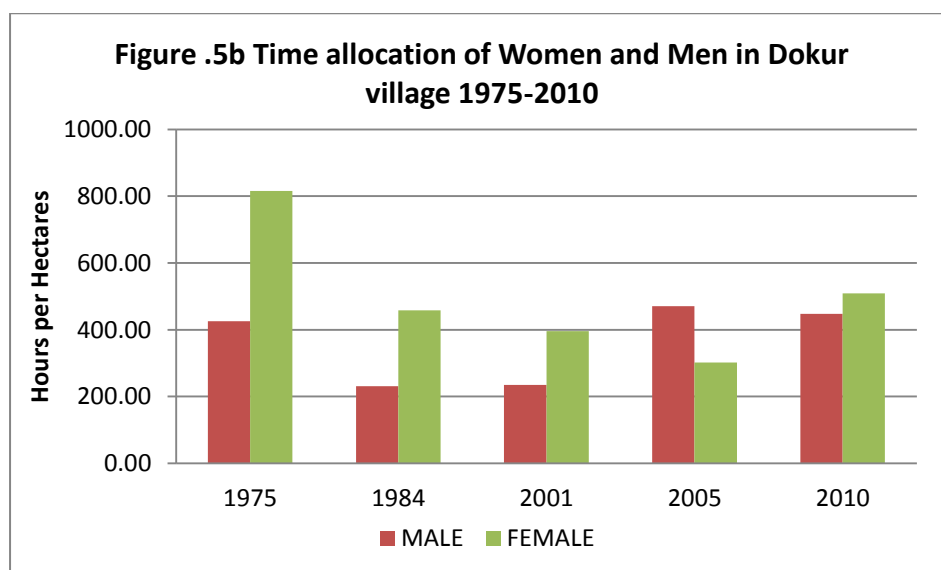


Figure 5c: Time allocation of men and women in agriculture in Shirapur

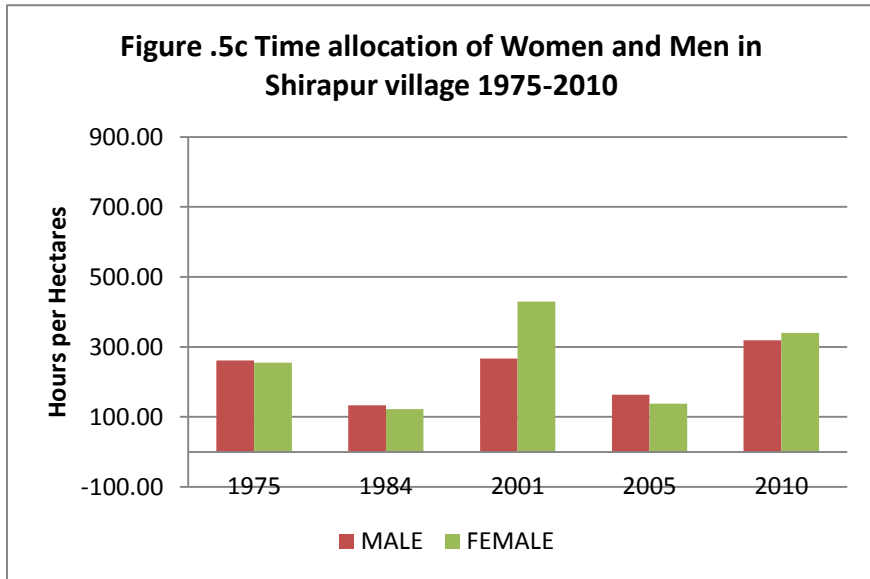


Figure 5d: Time allocation of men and women in agriculture in Kalman

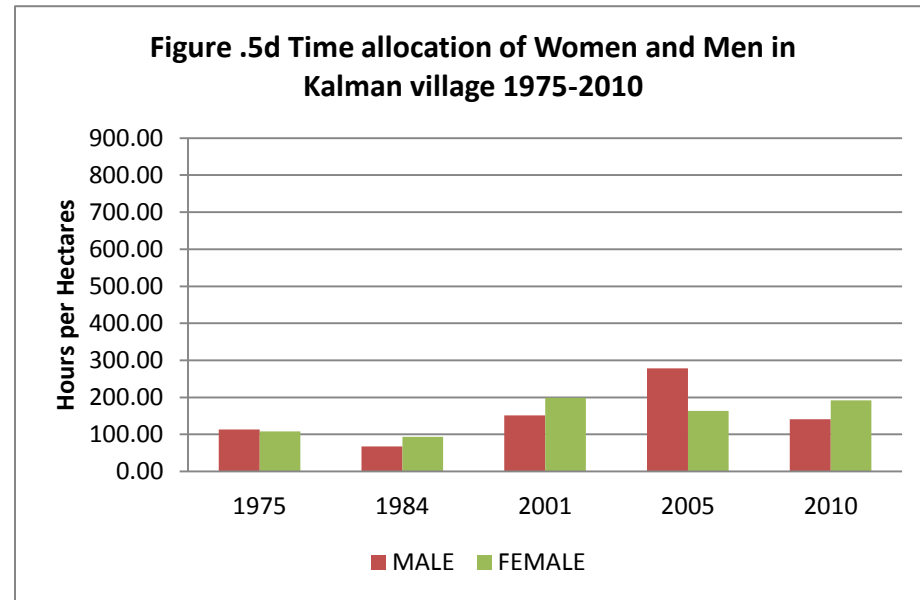


Figure 5e: Time allocation of men and women in agriculture in Kanzara

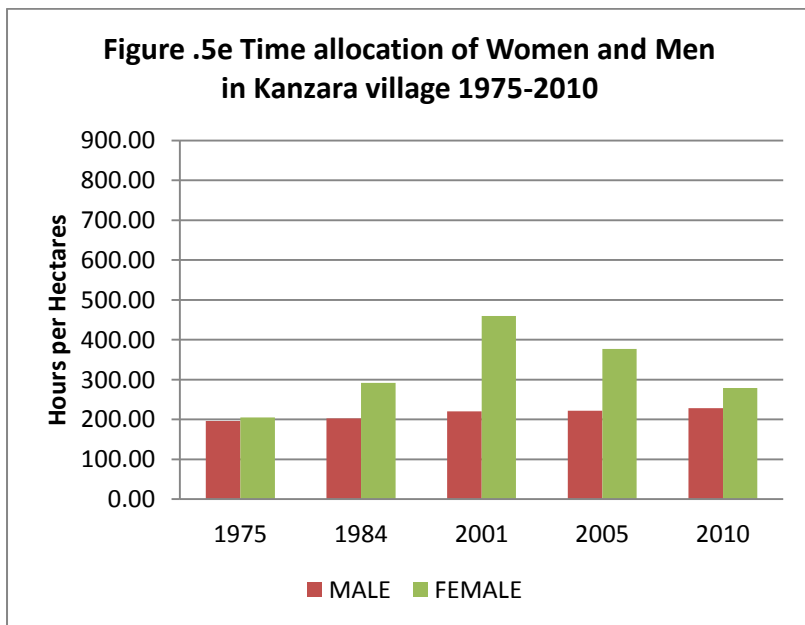
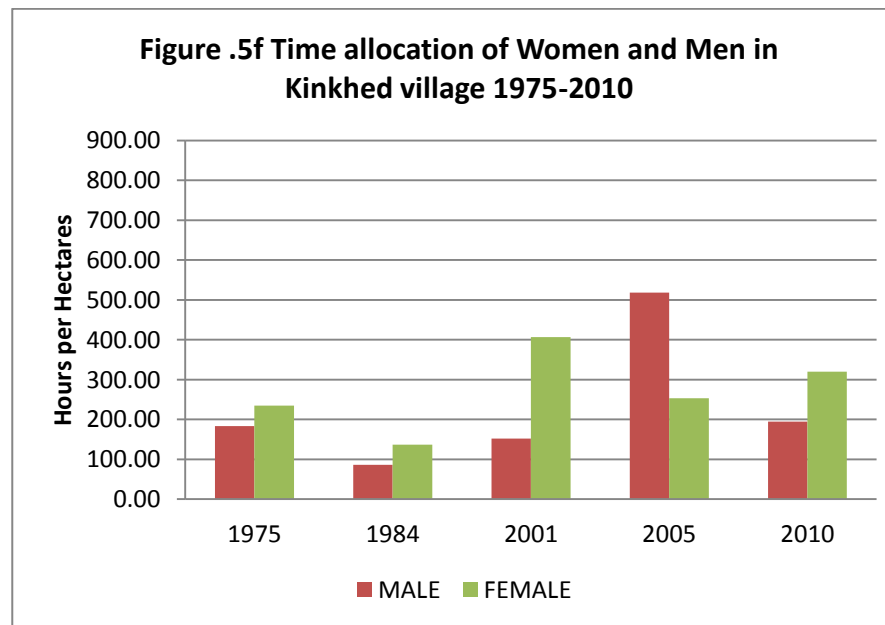


Figure 5f: Time allocation of men and women in agriculture in Kinkhed



To interpret this gender division of activities and participation from a context, a look into the cropping pattern changes is revealing. In Aurepalle, castor was the dominant crop in the 1970s -2000. Castor required very little labor and care. After sowing, there was virtually not much activity in the field until harvesting. Men did the ploughing; women did the sowing and harvesting. Cotton, a labor intensive crop started replacing castor from 2001 onwards, and there is now more operations performed jointly by men and women (Figure 6a). In Dokur (Figure 6b), paddy is one of the dominant crops in the village whenever there is water available for irrigation and cultivation of the crop. Paddy cultivation also requires more operations performed by men and women due to mechanization. In the villages of Solapur region, the changes in the cropping pattern point to more activities jointly performed by men and women (Figure 6c and 6d). In the villages of Akola, the region with assured rainfall, it can be seen that the pathway of development of village Kanzara is through intensification of agriculture. Cotton, the dominant crop, is now replaced by soybean. There is also increasing mechanization with this change in cropping pattern. Hence during the period 2008-2011, the findings from the data show an increase in the operations dominated by men (figure 6e). The village Kinkhed also shows a similar trend (Figure 6f).

The analysis of time spent in the farms (in terms of hours per hectare of land) of women and men in the villages of Telangana and Maharashtra highlights two findings: a. the share of women's participation and employment in agriculture varies from crop to crop, and from activity to activity (planting, for instance, is more frequently practiced by women, picking of cotton is done by women whereas ploughing is an activity generally performed by men); and b. from age group to age group : the younger female age cohorts, for example, join off-farm employment in greater numbers, whereas relatively older women (beyond the age of 35) tend to remain in agriculture in the rural areas even as rural-to-urban migratory patterns develop (Pang et al. 2004; Zhang et al. 2004).

Figure 6a-f: Cropping pattern of six villages in SAT India

Figure 6a: Total cultivated area for significant crops in Aurepalle

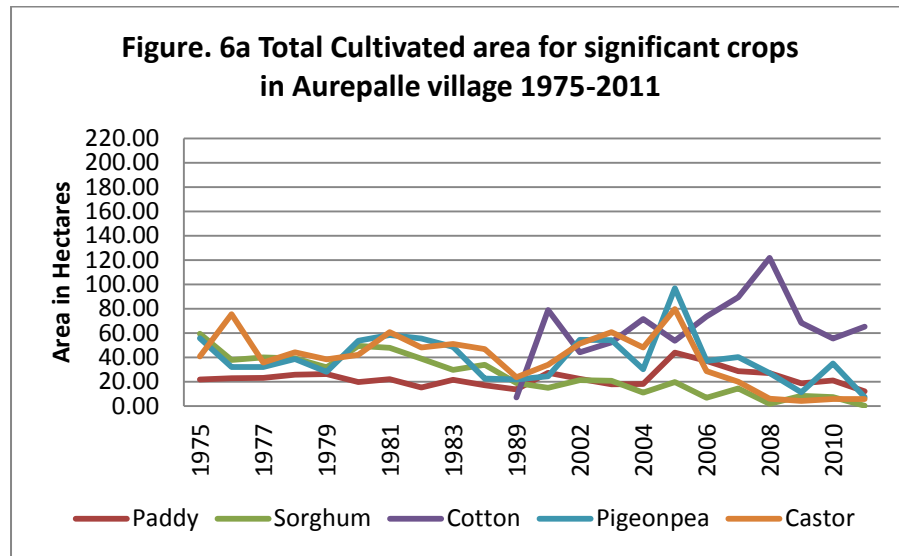


Figure 6b: Total cultivated area for significant crops in Dokur

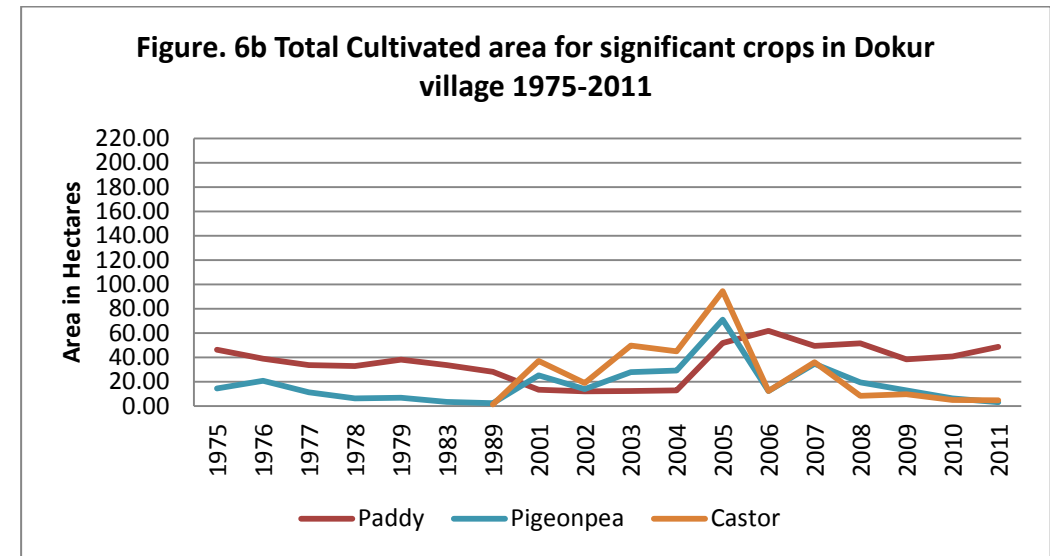


Figure 6c: Total cultivated area for significant crops in Shirapur

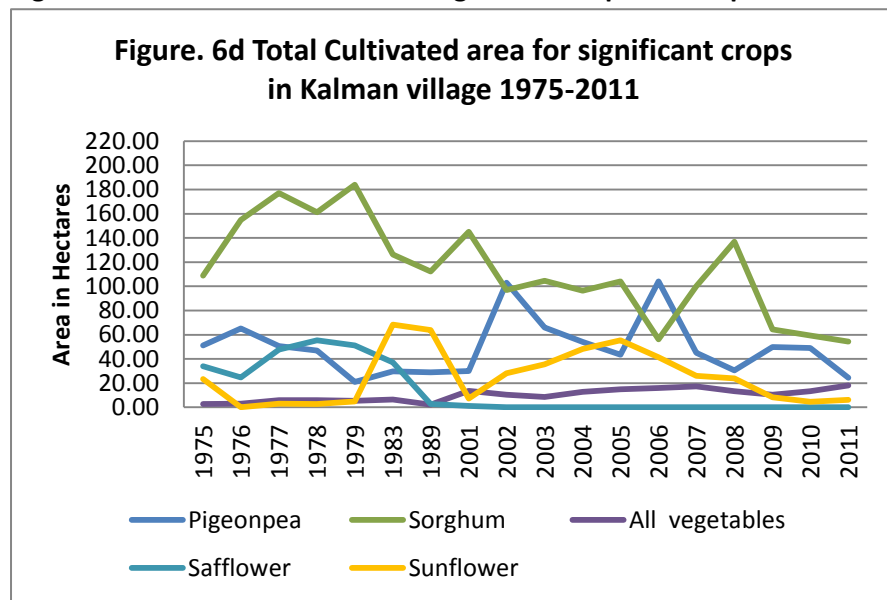


Figure 6d: Total cultivated area for significant crops in Kalman

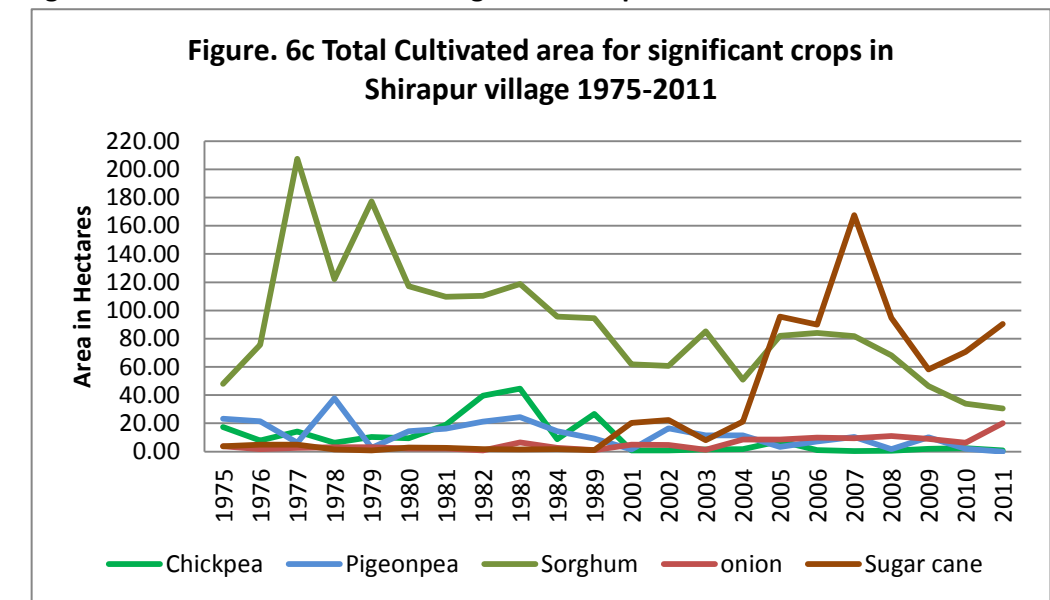


Figure 6e: Total cultivated area for significant crops in Kanzara

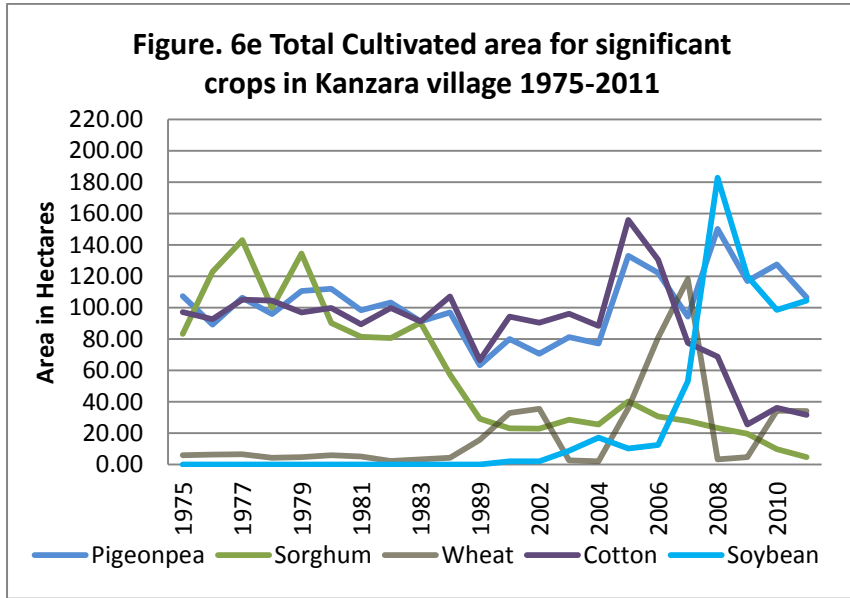
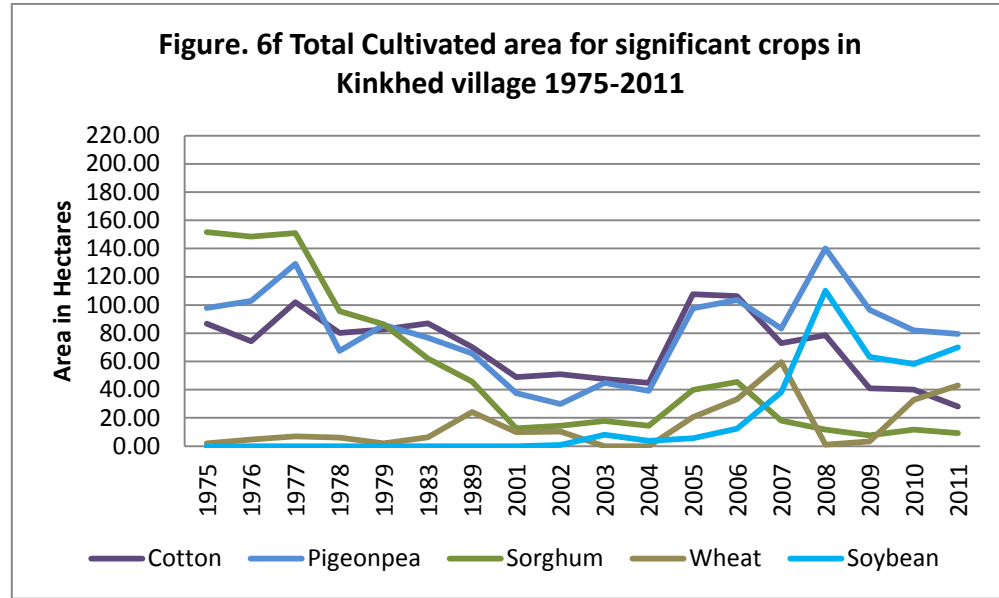


Figure 6f: Total cultivated area for significant crops in Kinkhed



The gender analysis, labor participation, coupled with an analysis of the cropping pattern clearly indicated that more and more crop production activities are being performed jointly by men and women. Women are also performing the activities which were performed exclusively by men earlier. The changes in the cropping pattern and mechanization (wherever applicable) are breaking down the earlier notion of task specialization by gender, as a result of which women are having more roles and responsibilities in modern agriculture.

Time use patterns of rural men and women

Having analyzed who does what in agriculture and how much of time is spent by men and women in the farms, the next step then is to understand how rural men and women use their time for different activities both at the homestead and on the farms. This analysis is based on the 24-hr recall of time use. The time use analysis helps to understand what proportion of time is spent for doing different activities. The analysis presented refers to the data collected in August 2013 and covers all individuals between the ages of 20-45 years.

The argument that women play multiple roles and spent time of several activities holds true in the villages of the semi-arid tropics (Figures 7a and 7b, 8a and 8b and 9a and 9b). Women spend almost double the time on domestic activities which also includes their role in the care economy – taking care of all the members of the household including children, the elderly as well as sick members. The analysis also indicates that women have less leisure time compared to their male counterparts; the time spent for personal care, resting and sleeping, including gossip is less compared to the male members of the household. Village wise analysis of the same by gender also depicts a similar pattern and is presented in table 4.

Table 4: Time use pattern of men and women in the Semi-Arid Tropics, by village, 2013

	Aurepalle		Dokur		Kalman		Kanzara		Kinkhed		Shirapur	
Activities	Men	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Domestic activities	8.32	16.84	4.49	16.50	6.88	17.48	11.59	21.98	7.36	22.90	7.33	18.60
Farm work (including livestock rearing and care)	21.11	24.38	22.17	22.55	21.60	22.11	13.33	12.70	19.93	14.84	23.09	22.71
Non-farm work	23.87	14.76	20.42	9.07	18.64	11.25	20.60	12.92	18.77	13.59	21.23	12.59
Travel, market visits	4.59	5.79	3.77	2.37	5.03	3.79	4.60	4.18	4.67	3.74	2.87	2.59
Leisure	12.09	8.86	11.95	11.20	9.40	7.04	12.18	10.53	12.78	12.03	5.33	5.85
Personal care and other activities	30.02	29.36	37.20	38.31	38.45	38.34	37.70	37.68	36.49	32.90	40.15	37.65

Figure 7a: Time use patterns of men in Mahbubnagar villages, 2013

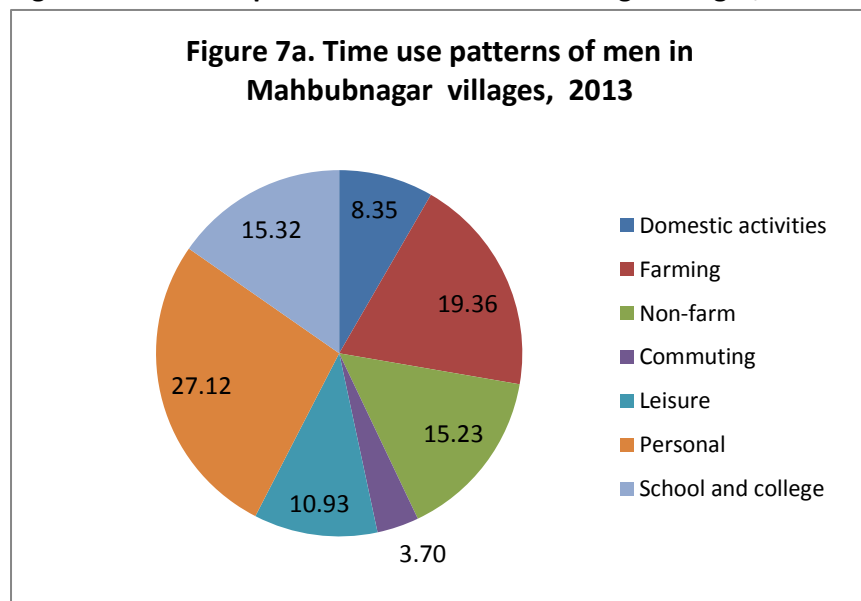


Figure 7b: Time use patterns of women in Mahbubnagar villages, 2013

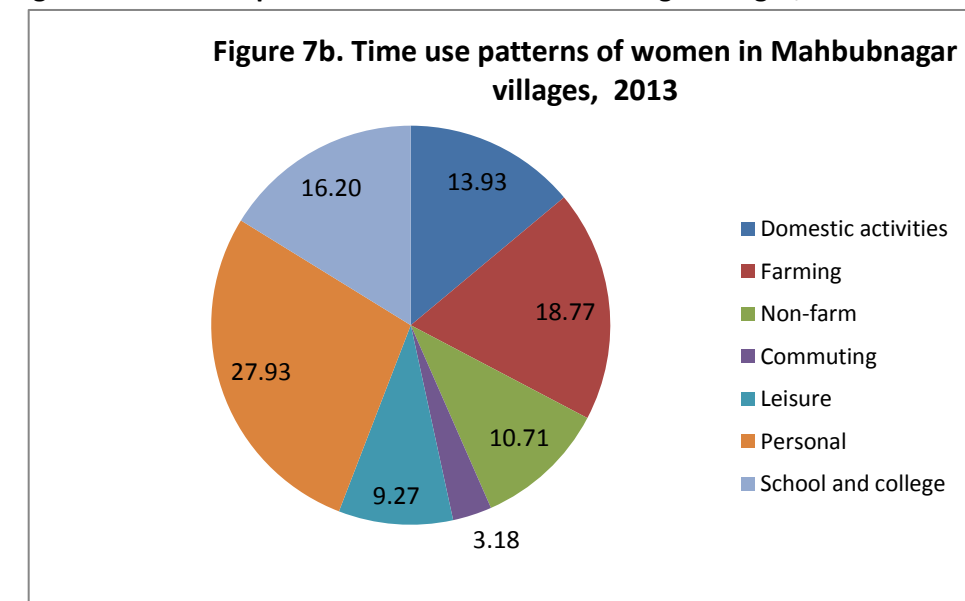


Figure 8a: Time use patterns of men in Solapur villages, 2013

Figure 8b: Time use patterns of women in Solapur villages, 2013

Figure 8b. Time use patterns of women in Solapur villages, 2013

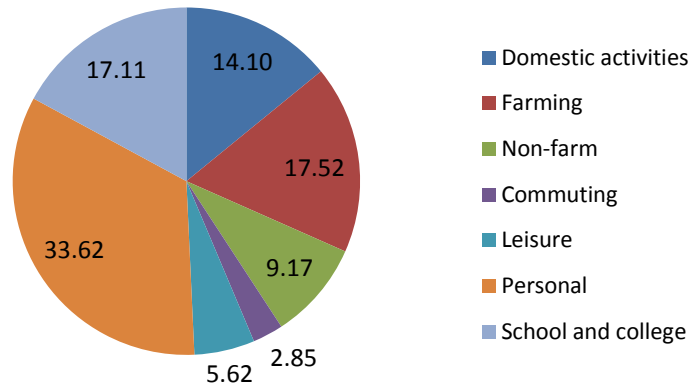


Figure 8b. Time use patterns of women in Solapur villages, 2013

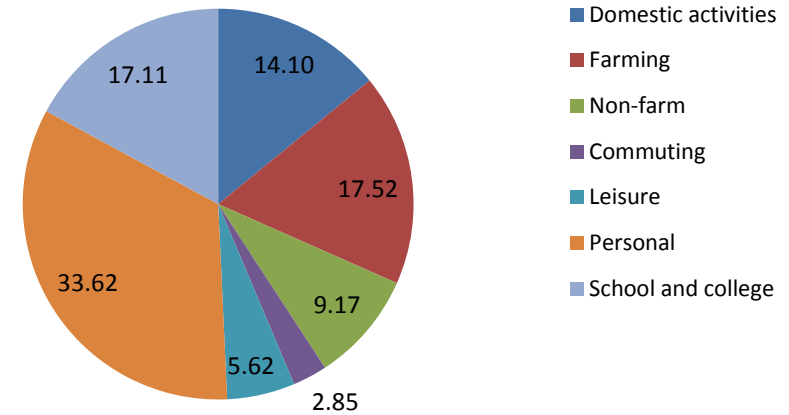


Figure 9a: Time use patterns of men in Akola villages, 2013

Figure 9b: Time use patterns of women in Akola villages, 2013

Figure 9a. time use patterns of men in Akola villages, 2013

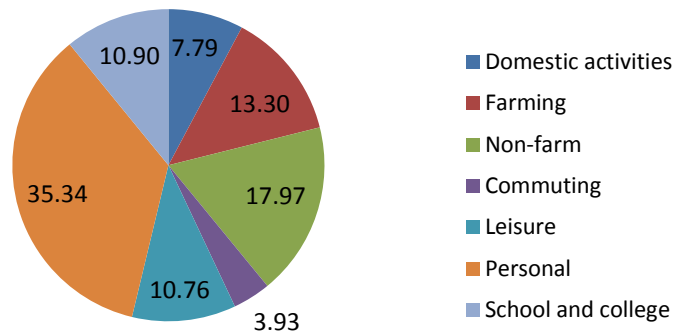
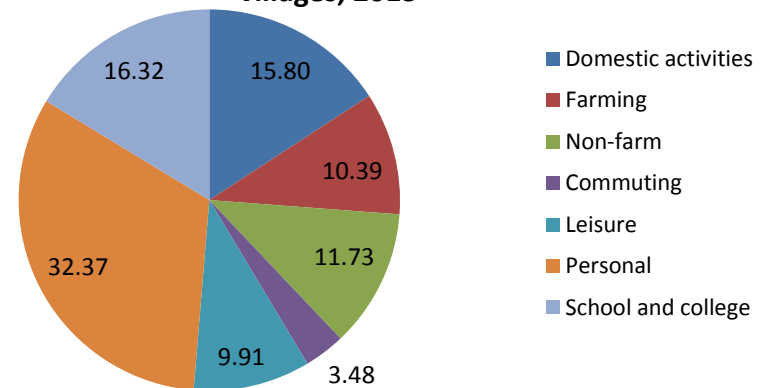


Figure 9b. Time use patterns of women in Akola villages, 2013

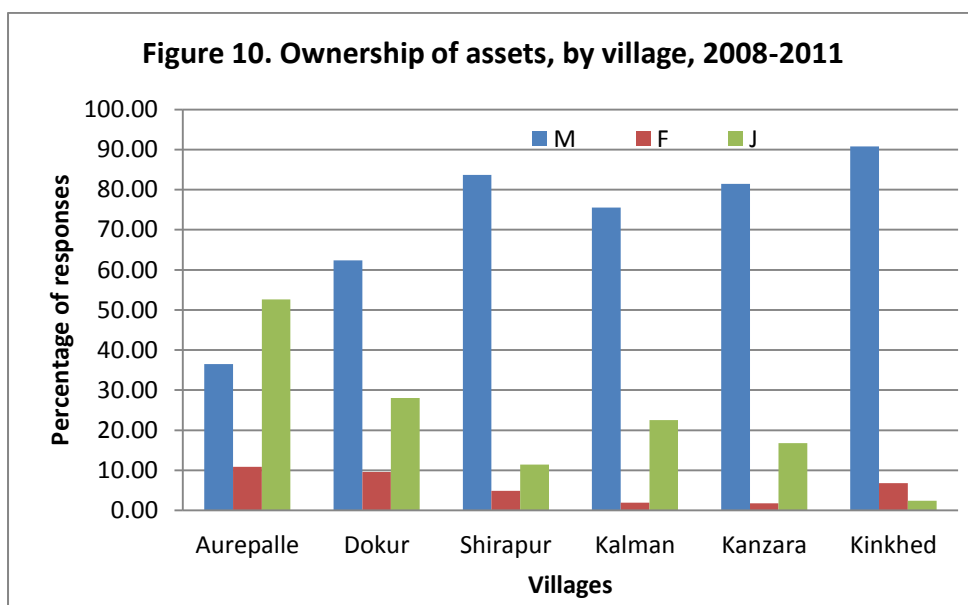


Ownership of assets and role of women in decision making

In this paper, access to resources and assets and control over them is one of the variables to understand empowerment of women and men. The second important variable in this direction is the decision making roles of women and men.

The analysis of the VDSA data from 2008-2011 on ownership of assets shows that in all the six study villages, it is seen that compared to women, men own most of the farm and household assets (Figure 10). The only exception to this is village Aurepalle in Telangana regions, where the majority of the assets are jointly owned by both men and women. This is based on the narrative of the respondents and not verified by any ownership deed or title documents.

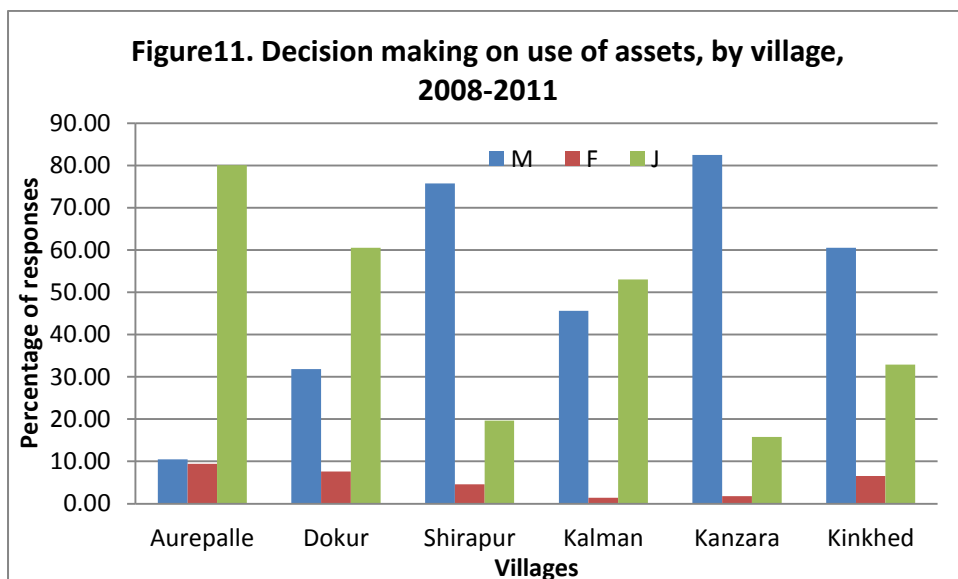
Figure 10: Ownership of assets, by village, 2008-2011



This clearly points that women in the SAT do not own the productive assets but can only access them as they are the family/household assets. The next step then was to understand who makes the major decisions about the use of these assets. Some examples include – who decides what crops to be grown on the family farm owned by the household, who decides to sell the land or lease it out? It can be seen that in the two villages in Telangana region, women do have the ability and also opportunity to participate in the decision making process at the household on the use of these assets. Most of the decisions are made by

men in consultation with the women of the household in Dokur and Aurepalle. However, in the Maharashtra villages, women have very little say or control on the use of the assets (Figure 11).

Figure 11: Decision making on use of assets, by village, 2008-2011



Knowledge or information is the key to be able to make decisions or participate in the decision making process at the farm and household level. What are the sources of information for men and women of the villages? Are there any formal and informal networks existing in the villages that the rural people have access to, that assist/enables to make better choices?

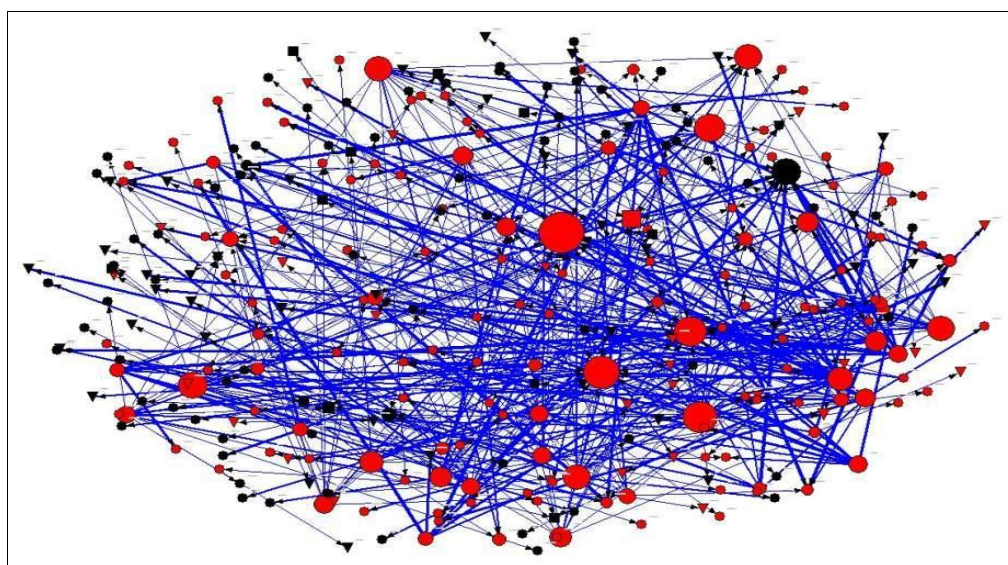
Social network analysis

This paper focuses on not just the power relations among actors and their agency but also on social structures, norms, and attitudes in the fragile environment of the Semi Arid Tropics. It looks at what different women and men are doing and what affect this has on their livelihood options. It also looks at whether these roles change over time, in order to meet the growing economic demands.

The findings presented in this section draw heavily on the corpus of work done as a part of a PhD thesis (Padmaja R, 2012) entitled, " Mapping the social network architecture of rural communities: Gender and technological innovations in the semi-arid tropics of India."

As an example the network maps by gender developed drawing a random sample household for two villages namely Aurepalle in the drought region of Telangana and Kanzara, a village from Akola region are presented and discussed (Figures 12, and 13). The map for Aurepalle men shows dense connections but it can also be seen that there are some open nodes implying that the information flow is not just within the group but there is influx of information from outside the group also. The large nodes that are seen in this map are the actors who hold a favored position in the network and they can access all that is flowing through the network. The presence of a good number of favorable or local/informal leaders in the network of men indicates that leadership – mostly informal help in the flow of information, and knowledge as well, as facilitate the transactions between different members in the group. From the map it can also be deduced that there are a lot of linkages with individuals and groups/people holding positions in offices.

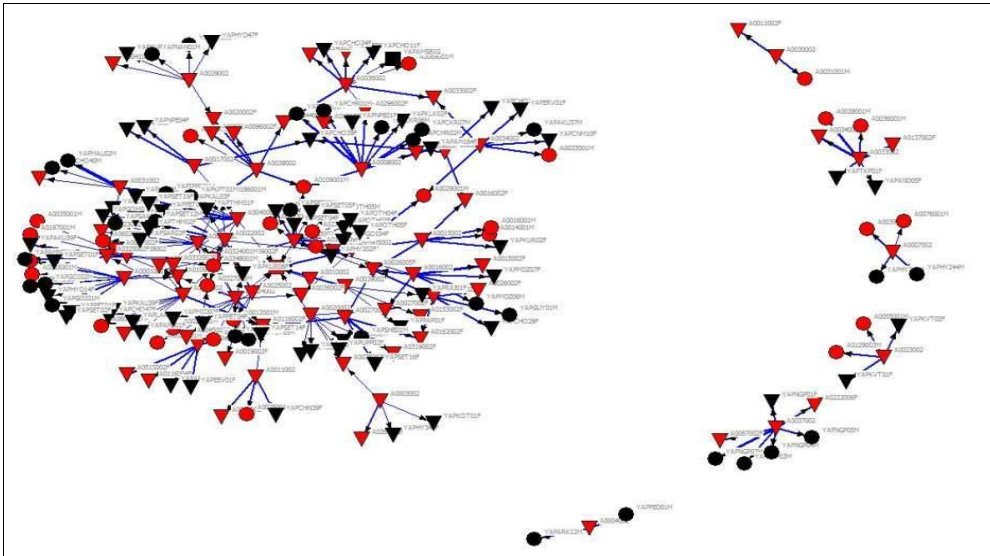
Figure 12: A network map of men for all transactions from sample households, Aurepalle



The map of the sample women in this village also presents an interesting case. This network also reveals linkages with people/organizations both within and outside the village. However, what is interesting in this case is that there are groups/cliques of small networks among women belong to a particular social group or even a SHG. These small networks are then linked to the other cliques through bridging women members, again these are individuals who hold high informal power either through their participation in SHGs or linkages with other individuals who hold informal power. The map also shows a few cliques which are not connected to the bigger network. This indicates that in spite of the village progressing through diversification of livelihood sources as well as access to development programs by the government,

support of the local leaders and access to nearby towns, some sections of the village, especially women are not totally included in the mainstream development. This calls for further inquiry and a more indepth understanding of the causes for such exclusion.

Figure 13: A network map of women for all transactions from sample households, Aurepalle



The development of social networks and gender differences in the social network structure of a random sample of women and men in Kanzara covering all the three kinds of transactions – economic, socio-political and technological transactions is also examined and presented (Figures 14 and 15). The network analysis showed that social networks consisted mostly of dyadic and triadic relationships for both women and men. However, it was found that women always had atleast one male alter with whom they had a direct relationship in their networks. The egos in the clusters are well connected but the clusters are connected by three women who act as bridges connecting the clusters. A further analysis of the network structure of these bridges indicates the pattern of the relationships and ties with other individuals in the village. The ties are mostly with people belonging to the same social structure and those who are able to influence others in the community. The results also indicate that these clusters are not based on a single caste but are multi-caste. The network map of men on the other hand shows a more interlinked network and the ties are mostly with other men in the village (Figure 15).

Figure 14: A network map of men for all transactions from sample households, Kanzara

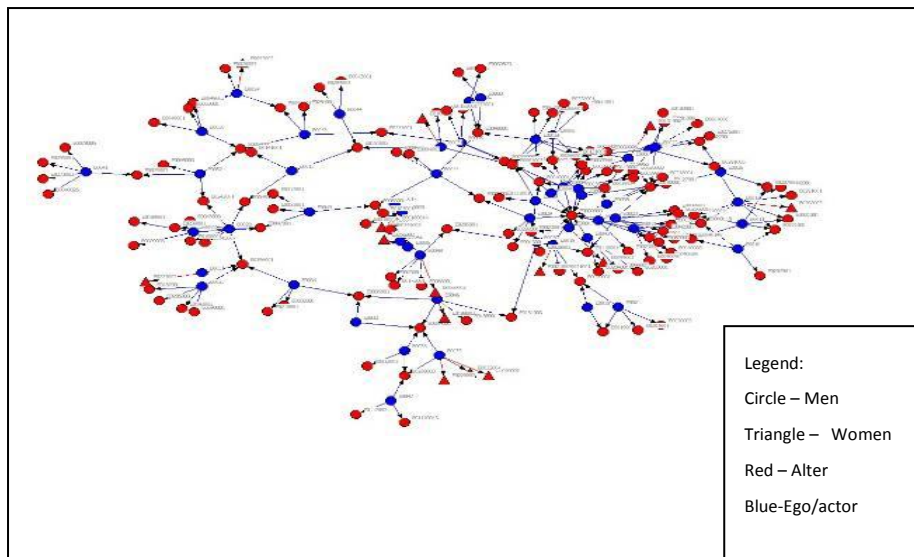
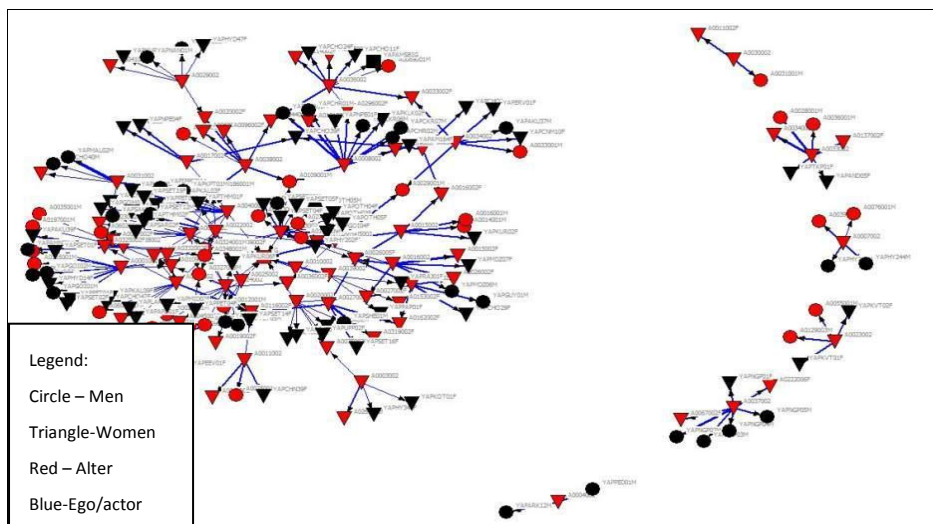


Figure 15: A network map of women for all transactions from sample households, Kanzara



Using a social norms lens to track a woman's pathway to empowerment

This section explores the changing social norms related to ideas and behaviors of women and men. Every society has sets of norms that influence behaviors. Many norms flow (albeit in complex ways) from gendered relations. Patriarchal cultures, where men hold power and women are to varying degrees excluded from power through both formal and informal mechanisms, are the global norm. The norms that flow from and reinforce gender relations and definitions are important because they are behavioral guides. Like any norms, they can play a positive role, but many gender norms become justifications for individual self-censorship and collective social control. In this sense, gender norms have a strong ideological

character: they reflect and reinforce relations of gender power. For example, if norms that flow from the gendered division of labor stipulate that it is not manly to do housework or look after children (as it takes time away from men's prescribed roles as breadwinners), as seen in our study villages, this then creates enormous hardship for women and also tends towards generations of men growing up with reduced empathetic ties to children.

Two sources of data are used in the analysis presented in this paper:

- a. Data collected from the principal male and female member of the household (those who are the decision makers of the household) using a questionnaire with 12 statements requiring an agree/disagree response
- b. Focus group discussions with men and women from two villages in Telangana region (Aurepalle and Dokur) to get a clearer and deeper understanding of social norms and attitudes of men and women in the community.

The twelve statements that each individual male and female member was asked were grouped into four categories for analysis purposes (See Table 5). As can be seen from this table, in the Telangana region, women tended to agree more on the normative statements related to gender equity. By gender equity, in this case, is referred to as ensuring/having equal access to resources, power, and opportunity for both men and women. Men on the other hand tended to disagree more on these statements except that they agreed on par with women that women are capable of making important decisions. In the Akola region, it is surprising to see that both men and women agreed less to the statements (ratios are always less than one), The responses from the Solapur region are mixed – men tended to disagree more on two statements related to the capability of women to be a community leader and that both men and women have the same right to work outside.

This clearly infers that women's economic empowerment depends on their rights, access and ability to make decisions over land and assets. Decision-making power over land and assets is linked to economic

empowerment, such as through entrepreneurship or accessing credit. It also increases their status within the family and their ability to make joint decisions involving the household. The once upon a time rigid norms are slowly changing bringing in more gender equity and thus empowerment of women as can be seen in the Telangana region. Joint decision-making ability within the household is the key to women's empowerment. Women who can jointly participate in household decisions have a greater say over how their own income is spent, over key decisions affecting their children's health and education, as well as over their own well-being.

In Maharashtra villages (Akola and Solapur region), stricter caste distinctions reinforce some of the gender norms even though these villages have made improvements in education of both boys and girls. Caste structures can sometimes be oppressive for women, restricting equal access to opportunities. Similar trends are also observed in the analysis of the statements related to gender roles, gender transformative and gender norms.

Conclusions and way forward

The focus of this paper was not just on the power relations among actors and their agency but also on social structures, norms, and attitudes in the fragile environment of the Semi Arid Tropics. Though an analysis of labor participation in agriculture, access to and control over assets, decision making ability/power, the paper puts a social norms lens at what different women and men are doing and what effect this has on their livelihood options. It also looks at whether these roles change over time, in order to meet the growing economic demands.

The interpretations from the analysis of the data gender roles and responsibilities, participation in agriculture, time use patterns, assets, social relationships indicates that there is still lack of progress in enhancing the agency of women. This lack of progress in agency is caused by gender norms that relegate much of the power and decision-making away from women (Munoz-Boudet, 2012). Agency for women is dictated as much by gender norms as by the actual conditions in the communities in which these women live.

Since norms reflect deeper social structures, and since they are held in place and reinforced by numerous social institutions, changing norms is a daunting task. Change is even more difficult because some people benefit (or perceive that they benefit) from the status quo. Changing norms is even more challenging because personalities are in part constructed through the internalization of gender norms and practices. Since individuals come to embody gender relations and gender norms, helping men (and women) to change what is not only perceived as, but also experienced as, normal behavior for men (and women) can be a difficult task. The way forward is to begin addressing cultural gender norms as well.

Acknowledgments

The authors wish to acknowledge the excellent assistance of the female field investigators in the study villages in the collection of quality data. Many thanks to Swathi, Vidya, Mounika, Srilatha, Tejashri, Aruna, Rupali, Vaijanteemala, Aditi, Asha, Jyothi and Madhuri. Thanks are also due to the three data entry operators – Surekha, Sreelakshmi and Mohini in the entry and tabulation of the data.

The research presented in this paper was made possible through funding from VDSA project with co-funding from CRP on Policies, Institutions and Markets.

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