SOME ASPECTS OF SOCIO-ECONOMIC CHANGE IN RURAL ARNI WITH SPECIAL REFERENCE TO THE SILK WEAVING INDUSTRY

N. A. Arivukkarasi
K. Nagaraj

Madras Institute of Development Studies

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N.A.Arivukkarasi*
K.Nagaraj**

Introduction

This Paper provides a description account of the present status and changes over the last decade and half in the socio-economic situation in the rural areas of Arni region. Since the last decade and half – i.e., since the last comprehensive survey here was conducted in the period 1993-95, the region has witnessed very significant socio-economic changes, while at the same time maintaining significant continuities also. Some of these continuities and changes are described in this paper without any attempt at explaining the factors underlying them. The socio-economic aspects covered relate to demography, caste structure, literacy, employment structure and the status of silk weaving industry in the region; and the last of these, viz., the status of silk industry today and the significant changes in it over the last decade or so are dealt with in some detail in the paper.

The paper is very largely based on primary data collected in a complete census of all the households in three villages – Nesal, Vinayagapuram and Veerasambanur during January-March, 2009. We have drawn upon earlier studies on the region, particularly the ones in Barbara Harriss–White and S. Jankarajan (2004), to provide the comparative picture. General village level enquiries have also provided some important clues as to the factors underlying some of the important changes observed. These are provided as tentative hypotheses in the paper and need to be probed further.

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*N.A.Arivukkarasi, Research Scholar and **K.Nagaraj, Professor, Madras Institute of Development Studies (MIDS), Chennai.

I . Some Aspects of Demographic Change

Table 1 gives the growth of population in the 3 villages over a period of nearly three and a half decades, between 1973 and 2009, based on the four surveys conducted in the villages over this period.

Perhaps the most striking conclusion that can be drawn from the table is the extremely sluggish rate at which the population has grown in the three villages over this entire period of nearly three and a half decades. If we consider all the three villages together, the combined entity in the table, the annual compound growth rate (ACGR) for this entire period of 1973-2009 is a low 0.70; and this is considerably lower than the natural rate of growth of population in rural Tamil Nadu over this period, which is 1.24 percent per annum. And this sluggishness is observed in all the three sub-periods, viz.., 1973-83, 1983-93 and 1993-2009, although during the second sub-period i.e., 1983-93, growth rate of population was relatively higher than in the other two sub-periods. The sluggish growth of population is observed in all the three villages, and with the exception of Vinayagapuram grew at a very rapid rate during 1983-93, possibly in response to rapid growth of silk weaving there.

If we assume that the natural rate of growth of population in the three villages is the same as the natural rate in rural Tamil Nadu, which we believe is a reasonable assumption, and we can work out in rough and ready terms, the volume of net out-migration (or in- migration) for the three villages. And it is clear from the table that the substantial amount of net out-migration has taken place from all the three villages over the three and a half decades, the only exception being Vinayagapuram during 1983-93 when it witnessed a large influx of population. This out-migration was particularly high during the first and the third sub-periods, i.e., 1973-83 and 1993-2006, when all these three villages lost substantial numbers of their population. This out-migration was modulated a bit during 1983-93; and this was solely because of rapid influx of population to Vinayagapuram; the other two villages kept losing their population even during this decade.

Table 1: Growth population in the survey villages, 1973-2009

Year	Total population of the villages				Annual compound growth rate of population in the villages				Annual natural rate of growth of population in rural Tamil nadu	Estimated net out-migration(-)/ in-migration(+) from/to the village			
	Nesal	Vinayagapuram	Veerasampanur	Combined	Nesal	Vinayagapuram	Veerasampanur	Combined		Nesal	Vinayagapuram	Veerasampanur	Combined
1973	1388	750	565	2703	NA	NA	NA	NA	NA	NA	NA	NA	NA
1983	1487	814	620	2921	0.69	0.82	0.93	0.78	1.58	-137	-63	-41	-241
1993	1551	1153	578	3282	0.42	3.54	-0.7	1.17	1.29	-139	228	-127	-38
2009	1692	1204	583	3479	0.55	0.27	0.05	0.36	1.09	-130	-150	-96	-376

Source: 1 Srinivasan (2004) for population in 1973,1983 & 1993

2 Village houselisting- 2009, for population in 2009

3 Sample Registration System (SRS) for natural rate of growth of population in rural Tamilnadu

Thus Nesal and Veerasambanur lost population in substantial numbers all through these three and a half decades; Vinayagapuram, after losing some population in the first decade witnessed a rapid influx in the next, but then again lost population in rather large numbers during the last decade and a half.

There is a reason to believe that during the last decade and a half, i.e., during 1993-2009, not only was the volume of out-migration was high, but also its characteristics, particularly in terms of its gender and age composition, were different from the earlier out-migration from these villages. Some clues to this are provided by tables 2 and 3 which give the sex ratios and age distributions of the population in the villages.

Apart from the latest village survey (i.e., of 2009), we could get data on sex ratios for the village population from only one other survey, viz., for 1993. So we have supplemented the data from these two surveys, with data on sex ratios from the four censuses (from 1971 onwards), leaving out the data for Veerasambanur for 1991, which is unreliable. The data on age distribution of the population are available only from the latest survey (2009) and are given in table 3.

It appears that the sex ratios in the three villages as given by the censuses are generally above 1000; and they are generally higher than the sex ratios either in rural Tamil Nadu or in the rural areas of the district in which the villages are situated (North Arcot in the 1971 & 1981 censuses and Tiruvannamalai in the 1991 & 2001 censuses). The village survey data for 1993 also seem to confirm this.

Thus right up to 2001 it appears that these villages had witnessed out-migration of the `standard ‘type with sex selective out-migration by males in the working age group being the dominant stream. But the picture seems to have undergone a rapid change, possible from around the beginning of this century.

Table 2: Sex Ratio & Average household size in the survey vilages										
	Sex ratio according to the census				Sex ratio according to the Village surveys		Number of households (Village surveys)		Average household size (Village surveys)	
Village/ Region	1971	1981	1991	2001	1993	2009	1993	2009	1993	2009
Nesal	1015	1039	1026	999	1030	972	339	423	4.56	4.00
Vinayaga puram	912	927	987	1059	974	880	259	322	4.45	3.74
Veera sampanur	1045	1162	NA	1055	1035	950	136	145	4.25	4.02
Combined	1000	1032	1016	1020	1011	935	734	890	4.47	3.91
Rural North arcot/T.V. malai Dist	972	979	984	993	nil	nil	nil	nil	nil	nil
Rural Tamil nadu	990	987	981	992	nil	nil	nil	nil	nil	nil

Note: The 1991 census data for the population of the Veerasampanur (Male:1035, Female:471, Total:1506; Sex Ratio:455) are unreliable & hence have not been used. The Combined figure for 1991 refers to Nesal & Vinayagapuram

Table 3: Age-distribution of population & Age specific sex ratios in the survey villages, 2009										
Age-group (years)	Nesal		Vinayagapuram		Veersampanur		Combined		Rural Tamilnadu census 2001	
	Population	Sex ratio	Population	Sex ratio	Population	Sex ratio	Population	Sex ratio	Population	Sex ratio
0-14	405 (23.9)	893	149 (20.7)	741	119 (20.4)	1017	773 (22.2)	858	9782 (28.1)	939
15-34	594 (35.1)	948	428 (35.6)	829	216 (37.0)	831	1238 (35.6)	884	12099 (34.8)	1020
35-59	490 (29.0)	1076	372 (30.9)	1078	164 (28.1)	1187	1026 (29.5)	1094	9656 (27.8)	1013
60+	203 (12.0)	971	154 (12.8)	833	84 (14.4)	787	441 (12.7)	885	3223 (9.3)	994
All Ages	1692 (100.0)	972	1203 (100.0)	880	583 (100.0)	950	3478 (100.0)	935	34760 (100.0)	992

Note : 1. Figures in brackets give column percentages.

2. Information on age is not available for one female member in Vinayagapuram

3. Source: For the three villages -Houselisting 2009; for rural Tamilnadu: Census 2001

The data from the latest survey, i.e., from the 2009, show that the sex ratios for all the three villages have shown a sharp decline compared to either 1993, or even 2001. The sex ratios for all the three villages in 2009 are significantly lower than 1000, the figure for the three villages combined being only 935. The ratio is particularly low for Vinayagapuram, which has witnessed a very sharp decline, from 1059 in 2001 to 880 in 2009.

While the possibility of female undercount in the 2009 survey cannot be ruled out, and this is an issue we shall take up for verification, one plausible explanation for this sharp decline in sex ratios is the likelihood that sex selective female, employment related, migration has became a dominant stream from these villages . Our village level enquiries also showed that large scale female migration in search of employment does take place now, from these villages. Most of them migrate to work in construction sites or brick kilns in the urban centers in the region, or even in relatively far off places like Bangalore.

The data on age distribution of population in the three Villages, given in table 3, seem to indicate that sex selective female migration perhaps occurs among both the younger age groups as well as the aged. The low sex ratio for the age group 0-14 years, and the low percentage of them in the total population perhaps is indicative of large scale out-migration by female children. The low sex ratio and population is somewhat intriguing: does it mean that the females among even the aged migrate in search of work in significant numbers while the aged men stay back in the village?

But it is also worth noting that in the case of working adults, i.e, in the age group 35-59 years, the sex ratio is higher than 1000 in all the three villages indicting the dominance of the standard pattern of sex selective male migration in this age group. This would indicate, we believe, that while the older, more standard patterns and streams of migrants still continue to be important, the picture is getting more complicated with newer migrant streams, particularly of females in younger age groups, entering the scene in significant numbers.

There is one more aspect of demographic change that is worth noting from table2. While the population in the three villages has been growing at a sluggish rate over the last decade and a half, the number of households in fact has seen a significant, though modest, increase. The annual compound growth rate of the number of households is 1.21 percent as against the growth of population of only 0.36 percent for the three villages combined. This has meant a rather significant decline in the average household size in all the three villages, with Vinayagapuram, again registering the lowest figure of 3.74 members per household, among the three.

While one possible factor underlying this declining and low household size is the process of nucleation of families, it would also indicate that familial migration perhaps is not the dominant mode of migration in the villages; rather migration by individuals from the families, by both males and females, but increasingly the latter appears to be the dominant mode.

II. **Caste Composition of the population:**

Table 4 below gives the caste composition of the population in the three villages for the year 2009. The numerical dominance of the Dalits (or scheduled castes- SCs), the Most Backward Castes (MBCs) and the Backward Castes (BCs) in the three villages is striking. The Forward Castes (FCs) have next to no presence in the three villages, five Brahmin households in Nesal with a population of 19, less than one percent of total population of the three villages, being the sole representative of the FCs.

The Dalits, including the Christian Dalits who are concentrated in Veerasambanur, account for nearly 40 percent of the population in the three villages combined, and constitute numerically the most important community. The backward class communities come next, accounting for roughly a third of the population. Among the BCs the most important castes are the Agamudia Mudhaliars, who as we shall see shortly, are the most important weaving community in the region and the yadavars.

Table 4: Caste composition &Sex Ratio & Family size by caste in the survey villages, 2009													
Broad caste group	Caste	Nesal			Vinayagapuram			Veersampanur			Combined		
		Population	House-hold size	SexRatio	Population	House-hold size	Sex Ratio	Population	House-hold size	Sex Ratio	Population	House-hold size	SexRatio
SC (incl. Christian SC)	Parayan	715	4.13	1020	251	4.18	946	296	4.00	922	1262	4.11	981
	Other SC	66	4.17	886	27	3.96	1077	5	2.50	1500	98	4.26	960
	Total for SC	781 (46.2)	4.18	912	278 (23.1)	4.15	958	301 (51.6)	3.96	929	1360 (39.1)	4.12	980
MBC	Vanniar	7 (0.4)	3.50	1333	874 (72.6)	3.66	876	76 (13.0)	4.75	1111	957 (27.5)	3.72	895
BC	A. mudaliar	382	3.71	969	Nil	Nil	Nil	206	3.89	925	588	3.77	953
	S. mudaliar	10	5.00	429	Nil	Nil	Nil	Nil	Nil	Nil	10	5.00	429
	Yadavar	304	4.05	911	Nil	Nil	Nil	Nil	Nil	Nil	304	4.05	911
	Other BC	141	3.71	880	52	3.25	625	Nil	Nil	Nil	193	3.57	804
	Total for BC	837 (49.5)	3.84	924	52 (4.3)	3.25	625	206 (35.3)	3.89	925	1095 (31.5)	3.82	908
Muslim (BC)		48 (2.8)	4.36	1087	Nil (0.0)	Nil	Nil	Nil (0.0)	Nil	Nil	48 (1.4)	4.36	1087
Bhramins		19 (1.1)	3.80	1375	Nil (0.0)	Nil	Nil	Nil (0.0)	Nil	Nil	19 (0.5)	3.80	1375
Total		1692 (100.0)	4.00	972	1204 (100.0)	3.74	881	583 (100.0)	4.02	950	3479 (100.0)	3.91	936

Source: For the three villages -Houselisting survey 2009.

These two castes account for a fourth of the population in the three villages. The Vanniars, who belong to the Most Backward Caste community, account for slightly more than a fourth of the population. Thus the four castes Dalits, vanniars, Agamudia Mudaliars and yadavars account for close to 92 percent of the total population in the three villages.

While this is the overall picture in the three villages taken together, there are some significant differences across the villages. Nesal is a village essentially dominated numerically by the backward castes, Agamudia Mudhaliars & Yadavas, and Dalits with each accounting for roughly half of the population. Vinayagapuram on the other hand is predominantly Vanniar village, with this community accounting for close to three fourths of the population here, the rest being taken up by Dalits. In Veerasambanur there is a significant presence of all the three major communities, with Dalits accounting for around half the population and ranking first; Agamudiamudaliars with a third of the population coming next and the Vanniars accounting for the rest.

In broad, general terms there is a stability or continuity in the caste structure of the population between 1993 & 2009. The four major castes, Dalits, Vanniars, Agamudiamudaliars and Yadavars, which are overwhelmingly dominant in numerical terms today in the three villages, were so even in 1993. And in 1993, as today, Nesal was dominant by Dalits & BC's, Vinayagapuram by Vanniars and Veerasampanur by Dalits and Agamudiamudaliars with significant presences of vanniars. While this is the general, overall picture there are certain important changes in the caste structure that need to be noted. (See Table 5)

First of all the numerical dominance of the four major castes, if anything, has increased in the three villages over this period. They accounted for 87.7 percent of the population in 1993 and this percentage is increased to 92.2 in 2009. Consequently the weight of the other castes has declined from 12.3 percent to 7.8 percent. Caste-wise these villages have got more homogeneous.

Table 5: Caste composition of the population in the survey villages, 1993 & 2009										
Caste/ Caste group	Nesal		Vinayagapuram		Veerasampanur		Combined			
	Population		Population		Population		Population		Average household size	
	1993	2009	1993	2009	1993	2009	1993	2009	1993	2009
SC (incl. Christian SC)	626 (40.4)	781 (46.2)	238 (20.6)	278 (23.1)	276 (47.8)	301 (51.6)	1140 (34.7)	1360 (39.1)	4.42	4.12
Vanniar	4 (0.3)	7 (0.4)	806 (69.9)	874 (72.6)	69 (11.9)	76 (13.0)	879 (26.8)	957 (27.5)	4.31	3.72
A.mudaliar	362 (23.3)	382 (22.6)	Nil (0.0)	Nil (0.0)	212 (36.7)	206 (35.3)	574 (17.5)	588 (16.9)	4.48	3.77
Yadavar	285 (18.4)	304 (18.0)	Nil (0.0)	Nil (0.0)	Nil (0.0)	Nil (0.0)	285 (8.7)	304 (8.7)	4.83	4.05
Naidu	49 (3.2)	37 (2.2)	Nil (0.0)	Nil (0.0)	Nil (0.0)	Nil (0.0)	49 (1.5)	37 (1.1)	4.9	3.7
Others	225 (14.5)	181 (10.7)	109 (9.5)	52 (4.3)	21 (3.6)	Nil (0.0)	355 (10.8)	233 (6.7)	4.73	3.76
Total	1551 (100.0)	1692 (100.0)	1153 (100.0)	1204 (100.0)	578 (100.0)	583 (100.0)	3282 (100.0)	3479 (100.0)	4.47	3.91

Sourse : 1. For 1993 Caste-wise population is taken from Gold, Lisa & Barbara Harriss-White (2004) & Caste-wise number of households & hence, average household size- from Colatei, Diego &Barbara Harriss-White (2004).

2. For 2009 the the source is the village survey

And within the major castes, it is the Dalits who have gained the most in terms of numerical strength. Their weight in the population has increased by more than 4

percentage points, from 34.7 percent in 1993 to 39.1 in 2009.The other three castes have either gained only marginally in terms of their weight (Vanniars), or have just just about maintained it (Yadavars), or even have seen a minor decline (Agamudiamudaliars). So the decline in the weight of the 'other castes' in the villages has been almost solely taken up by Dalits.

The points made above has an important corollary: Of all the caste groups in the three villages, it is only for Dalits that the annual compound rate of growth (ACGR) of population between 1993 and 2009, which is 1.1 percent, is higher, albeit marginally, than (annual) natural rate of growth of population in rural Tamil Nadu in this period, indicating that the magnitude of the net out-migration from this community from the three villages perhaps has not been significant. For all the other caste groups, the ACGR for population has been significantly lower than the natural rate. It is 0.5 percent for Vanniars, 0.2 for Agamudiamudaliars, 0.4 percent for yadavars, and -2.5 for the rest. Thus it appears that significant extent of net out-migration has taken place from all the caste groups except perhaps the Dalits from all the three villages.

III. Literacy rate in the three Villages.

One area there seems to be a remarkable change, an impressive improvement, in the three villages is the literacy levels of the population. The percentage of literates has seen a sharp increase in all the three villages. For the population, of 6 +years and above, as a whole this increase is the order of 23 percent points in Nesal, 26 percent points in the Vinayagapuram, and 28 percent points in Veerasampanur (see Table 6).

Consequently, the literacy rate in the three villages today perhaps as high, if not higher, than the rate in rural Tamil Nadu. The literacy rate for the 6+ year's population in the three villages combined is 78.1 percent; the rate for rural Tamil Nadu in 2001 was 63.2 percent.

Table 6: Literacy Rates by broad age-groupsin the survey villages													
Year	Age-group (years)	Nesal			Vinayagapuram			Veerasampanur			Combined		
		Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
2009	6 to 29	98.5	95.1	96.9	96.8	95.4	96.2	99.3	98.5	98.9	98.0	95.8	97.0
	30-59	80.3	56.0	67.9	85.9	50.5	68.3	84.0	51.5	67.5	82.9	53.4	68.0
	60+	61.2	17.0	39.4	57.1	11.3	36.1	70.2	32.4	53.6	61.5	17.8	41.0
	All(6+) years	86.9	68.7	78.0	87.1	65.6	76.9	89.2	72.1	80.9	87.3	68.2	78.1
1993	All(6+) years	65.2	45.0	54.9	66.1	35.9	51.2	68.3	37.4	52.6	NA	NA	NA

Source : 1 Literacy rates for 1993 are from Srinivasan (2004).

2. Data for 2009 are from the Village survey

It is also noteworthy the increase in literacy rates is particularly sharp among the females: In Nesal the increase was 24 percent points for females compared to 22 percent points for males; the corresponding figures in Vinayagapuram were 30(females) and 21 (males) and in Veerasampanur 35 (females) and 21(males).

For age-group 6-29, consisting of the children adolescents and the youth, universal literacy appears to have been attained in all the three villages. For the children i.e., for the 6-14 age-group, the literacy rate for three villages all together is an incredibly high 99.8 percent; only one out of 510 members in this age-group was reported to be illiterate. Even among the adolescents and the youth, i.e., for the 15-29 age-group, literacy level is a very high 95.6 percent.

The issue of whether these impressive gains in literacy have been translated into effective years of schooling, particularly for female children, is left open in this paper. But one has to recocnise that this gain in literacy in itself is a large impressive achievement. At least a large part of it may be related effective state intervention in the last decade or so. And it also has to be recognized that attainment of near universal literacy in the age-group 6-29 years is in a substantial measure due to gains achieved much earlier. Even by the time last survey was done in the three villages the degree literacy for children, i.e., for the 6-14 age-group, was quite high, at around 88 percent; and this cohort accounts for a large percentage of today's 15-29 age-group. While these earlier achievements have to be recognised, the fact that they have been consolidated and extended is also noteworthy.

These impressive gains in literacy perhaps would have important linkages with increasing migration from the village. Whether these high levels of literacy in themselves are due to a possible selectivity in migration, with the propensity to migrate being higher among illiterates compared to literates, is an issue that perhaps needs to be probed further, although we would discount such a linkage. In fact the more likely scenario, we believe, is one where increasing literacy and perhaps also effective education – would provide the basis, motivation and incentives for migration, particularly for young women in search of semi-skilled occupation in urban areas. Whether such a link exists or not needs to be probed further.

We may just summarise the main points that come out from our discussions so far. These points, which mostly relate to migration are, we would like to emphasise, in the nature of preliminary hypothesis and need to be probed in detail further.

Firstly, the extent of migration seems to be very considerable from the three villages, the number of out-migrants, it appears, has increased considerably since the last survey in the village. We do not know when this trend set in, but a safe guess is the beginning of this century; but the issue needs to be probed further.

Secondly, it is not just an issue of volume of out-migration, but also its nature. Migration has become a much more complex issue now. While the earlier standard pattern of sex selective migration among males in the working age-group adults in search of employment does persist and is an important stream, added to this, it appears that many more migrant streams have entered the stream. Particularly noteworthy here would be out-migration by females among the young in search of employment. While the mode of migration does not appear to be predominantly familial, but individual, these streams would perhaps vary a great deal from one another. There would be increasing circular communication to work to near by town like Arani; there would be seasonal migration for sugarcane cutting; there would be longer term migration for work in construction sites and brick –kilns in semi-urban areas; there would more permanent migration to urban areas in search of semi-skilled jobs etc., All these streams would have to be identified and studied in greater detail.

As to the factors underlying the process of migration, the account we will provide in the paper, we are aware, is woefully inadequate. We have touched upon the linkages between increasing level of literacy and propensity to migrate earlier in the paper. There are at least two other issues which need to be taken on the broad in explaining the process of migration in the region concerned. The first is the far reaching changes that seem to have occurred in the organization of silk weaving industry in the region. We shall provide some details, some tentative hypotheses, regarding this later in the paper.

The second important factor relates to agrarian crisis, the fact that the agrarian sector is in a deep crisis in most part of the country is generally accepted by now, and Tamil Nadu is no exception to this. We have not studied the agrarian situation in the three survey villages so far and all that we can say at this stage that agrarian crisis that is observed in the state at least from around the middle or late 1990's would not have by-passed in the three villages. But there is one aspect of agrarian situation, i.e., the extent of landlessness, which may have important implications for migration, and on which we have some information.

IV. Landlessness in the Three Villages:

Table 7 gives extent of landlessness by caste in the three villages for 1993 and 2009. It is clear that not only is the extent of landlessness very high in the three villages, but also that it is increasing sharply over the last decade and half. Considering the villages together, the number of landless households increased over this period by around 57 percent, from 338 in 1993 to 531 in 2009. While the phenomenon of landlessness is observed in all the three villages, it is particularly high in Nesal, where close to three-fourths of the households are landless today.

Among the castes the Dalits, as one would expect, have the highest level of landlessness, with 80 percent of the Dalit households owning no land. While the extent or degree of landlessness among other castes like Vanniars and Agamudia Mudaliars is lower than the Dalits, these castes have also seen a much more sharp increase in degree landlessness over the last decade and half. While in the case of Vanniars the numbers of landless households increased by 69 percent, from 55 to 73 between 1993 and 2009, in the case of Agamudia Mudaliars the increase is of the order of 151 percent.

In sum it appears that the extent or degree of landless is very high in the three villages; it is increasing very fast; and it is spreading across space and different castes. This phenomenon, we believe, is an indicator of rural distress unless the landless have recourse to gainful, stable, skilled non-farm employment, an issue we turn to now.

Table 7: Number of Landless households by caste in the survey villages, 1993 & 2009								
		Number (percent) of landless households in each caste						
Village	Year	SC (incl. Christian SC)	Vanniar	A. mudaliar	Yadavar	Naidu	Others	Total
Nesal	1993	127 (87.6)	1 (100.0)	29 (37.2)	20 (33.9)	4 (40.0)	27 (58.7)	208 (61.4)
	2009	163 (87.2)	2 (100.0)	64 (62.1)	35 (46.7)	9 (90.0)	37 (80.4)	310 (73.3)
Vinayaga puram	1993	21 (41.2)	46 (24.9)	Nil (0.0)	Nil (0.0)	Nil (0.0)	12 (52.2)	79 (30.5)
	2009	41 (61.2)	86 (36.0)	Nil (0.0)	Nil (0.0)	Nil (0.0)	10 (50.0)	137 (42.5)
Veerasam panur	1993	35 (57.4)	8 (44.4)	4 (8.0)	Nil (0.0)	Nil (0.0)	4 (66.7)	51 (37.5)
	2009	60 (78.9)	5 (31.3)	19 (35.8)	Nil (0.0)	Nil (0.0)	Nil (0.0)	84 (57.9)
Combined	1993	183 (70.9)	55 (27.0)	33 (25.8)	20 (33.9)	4 (40.0)	43 (57.3)	338 (46.0)
	2009	264 (80.0)	93 (36.2)	83 (53.2)	35 (46.7)	9 (90.0)	47 (75.8)	531 (59.7)

Source: 1. The 1993 data are from Colatei , Deigo & Barbara Harriss-white (2004)

2. The 2009 data are from the village survey

V. Occupational Distribution of Workers in the Villages:

Table 8 (a) gives data on occupational distribution of workers for all the three villages combined, by sex, and for both 1993 and 2009. Table 8 (b) summarizes these data village-wise.

Looking at the data for all workers (male & female workers combined) for all the three villages together, it appears that while farm sector continues to be the predominant source of employment, accounting for close to two-thirds of the employment in 2009, there has been some decline, by about 5 percentage points in its weight over the last decade and half. But it is also noteworthy that this decline is almost solely due to a decline in workers, i.e., in terms of percentage of workers employed in the sector as well as the absolute numbers in it, in the livestock sector. 'Agricultural Workers', i.e., cultivators and agricultural labourers have not seen any decline in terms of their proportion in the workforce. The two, together, accounts for nearly 62 percent of workers in both 1993 and 2009. Within 'agricultural workers' there is a modest drop in the weight of cultivators, their absolute number in fact increased just by a figure of 10 over the entire period of 1993-2009. But the number of agricultural labourers has increased significantly by about 19 percent, from 594 in 1993 to 704 in 2009. This is in line with our earlier observation regarding increase in landlessness in the village, at least a substantial part of the disposed seem to have swelled the rank of agricultural labourers.

As for availability of gainful, stable, skilled non-farm employment, the prospects do not seem bright, to say the least. One such avenue of skilled non-farm employment which was open to the village workers earlier in its phase any ascendancy in the 1980's in particular, i.e., silk weaving, in fact declined as an employment avenue; not only has the percentage of workers in the sector declined from 11.0 in 1993 to 7.3 in 2009, even the absolute number has done so from 195 to 142, or by a substantial 27 percent. And this decline has not been compensated by any significant increase in employment avenues in any other industrial activity, household or otherwise.

Table 8A : Industrial classification of workers in three villages combined ,1993 & 2009											
Sex	Year	Culti vation	Agri. Labou r	Live. Stocks	Wea v ing	Other House hold Indus.	Constr uction	Other workers	All workers	Agri. Secto r (incl live stock)	Total non-Agri. Secto r
Male	1993	301 (31.2)	187 (19.4)	67 (7.0)	136 (14.1)	16 (1.7)	37 (3.8)	220 (22.8)	964 (100.0)	555 (57.6)	409 (42.4)
	2009	284 (25.9)	234 (21.3)	20 (1.8)	104 (9.5)	21 (1.9)	118 (10.7)	317 (28.9)	1098 (100.0)	538 (49.0)	560 (51.0)
Female	1993	207 (25.8)	407 (50.7)	60 (7.5)	59 (7.4)	2 (0.2)	1 (0.1)	66 (8.2)	802 (100.0)	674 (84.0)	128 (16.0)
	2009	234 (27.4)	470 (55.0)	24 (2.8)	38 (4.4)	2 (0.2)	4 (0.5)	83 (9.7)	855 (100.0)	728 (85.1)	127 (14.9)
Persons	1993	508 (28.8)	594 (33.6)	127 (7.2)	195 (11.0)	18 (1.0)	38 (2.2)	286 (16.2)	1766 (100.0)	1229 (69.6)	537 (30.4)
	2009	518 (26.5)	704 (36.0)	44 (2.3)	142 (7.3)	23 (1.2)	122 (6.2)	400 (20.5)	1953 (100.0)	1266 (64.8)	687 (35.2)

Source : Data for 1993 are from Jayaraj (2004) & 2009 are from village survey

Table 8B : Percentage distribution of workers by broad Industrial classification in three villages, 1993 & 2009

Sex	Year	Male workers					Female workers					All workers				
		Culti vation	Agri. Labour	Live. Stocks	Total farm sector	Total non-farm sector	Culti vation	Agri. Labour	Live. Stocks	Total farm sector	Total non-farm sector	Culti vation	Agri. Labour	Live. Stocks	Total farm sector	Total non-farm sector
Nesal	1993	23.9	21.4	9.9	55.2	44.8	17.9	52.4	13.2	83.5	16.5	21.4	34.2	11.2	66.8	33.2
	2009	14.2	24.2	2.9	41.3	58.7	15.1	59.5	5.8	80.5	19.7	14.6	38.8	4.1	57.4	42.6
Vina yaga puram	1993	39.3	16.4	4.5	60.2	39.8	30.8	48.7	3.9	83.4	16.6	35.1	32.1	4.2	71.4	28.6
	2009	40.0	15.2	1.0	56.2	43.8	37.2	49.9	0.6	87.6	12.4	38.7	31.4	0.8	70.9	29.1
Veera sam panur	1993	34.2	19.7	4.0	57.9	42.1	31.2	51.3	3.3	85.9	14.1	32.8	35.4	3.6	71.8	28.2
	2009	28.4	26.2	0.5	55.2	44.8	35.0	55.9	0.7	91.6	8.4	31.3	39.3	0.6	71.2	28.8

Source : Data for 1993 are from Srinivasan (2004) & 2009 are from village survey

Consequently there appears to be a sharp increase in the number and percentage of workers employed in the unorganized and informal sector activities in and around the villages. One such avenue is work on construction site, mostly in urban or semi–urban localities around the villages. There is a tripling of workers in this sector, from 38 in 1993 to 122 in 2009. Apart from this informal sector work, tertiary activities have also seen a significant increase of around 40 percent, from 286 in 1993 to 400 in 2009.

In sum it appears that the overall picture in the three villages is one where the problem of agrarian crisis and increasing landlessness is being compounded by loss of employment in the silk weaving sector. Consequently a substantial section of the workers have either gravitated to low-paying, insecure, intermittent employment as agricultural labourers, construction workers or informal sector workers, or have resorted to migration. While this is the overall picture there are significant differences across males and females.

For the male workers there is a substantial decline, in the proportion as well as the number of them, in the farm sector. And this decline is solely due to a decline in the livestock sector worker as well as of cultivators. On the other hand there is a significant increase, of the order of 25 percent, in the number of agricultural labourers.

Apart from cultivators and livestock workers, silk weaving has also witnessed a substantial decline in the number of male workers. And these declines have largely been taken up by construction and 'other workers' the latter being largely informal sector employment. In fact these two sectors together account for close to 40 percent of the male workers, and hence, are the reason why the majority of male workers are in the non-farm sector today.

The picture is quite different for female workers. An overwhelming proportion, i.e., 85 percent of them are still in the farm sector, and there is no decline over time in this proportion; if anything it has registered a increase, albeit marginally. And this is in spite of the fact that the livestock sector has seen a decline in the numbers of female workers.

Consequently the number and proportion of agricultural workers has increased substantially; and while the increase in the number of cultivators has been modest, it is substantial in the case of agricultural labourers. As for the non-farm sector is concerned, while there is a decline in the number of female workers in silk weaving, the increase in either construction or in other non-farm employment has only been modest; consequently only about 15 percent of the female workers are in the non-farm sector.

Thus it appears that the response of male and female workers to farm crisis and loss of employment in silk weaving has been quite different as the male workers gravitated towards non-farm, informal sector employment, while the female workers, paradoxically, appear to be thrown back to the farm sector to swell the army of agricultural labourers. We should hasten to add that this formulation appears only to workers who were resident and were enumerated in the villages. As pointed out earlier, a number of them, particularly women would have migrated in response to this crisis and we have no information on the type of work they do in their destination.

The patterns of employment as well as the changes in it vary even across the three villages. Of the three, Nesal has the highest percentage of non-farm employment, its closeness to Arni town obviously being a factor in this. The village has witnessed a rather substantial increase in non-farm employment, from around 33 percent in 1993 to 43 percent in 2009. And this is very largely due to a rather sharp increase, by about 14 points, of the percentage of male workers in this sector. Close to 60 percent of its male workers are in the non-farm sector. The village has a sharp decrease in the percentage of cultivators, particularly among its male workers, as also in the livestock sector. Interestingly the weight and number of agricultural labourers in the village has increased; the female workers even today are predominantly agricultural labourers. Consequently occupational diversification away from the farm sector is largely confined to male workers even in Nesal.

In the other two villages, i.e., Vinayagapuram and Veerasambanur, the farm sector, which accounts for slightly more than 70 percent of the workers in 2009, has hardly seen any decline in its importance. And this absence of diversification in overall

terms is largely because of a 'throw back', as it were, of the female workers into farm sector. In Vinayagapuram this 'throw back' has taken the form of a rather substantial increase in the number and percentage of cultivators among female workers. And in Veerasambanur it has taken the form of an increase in both the number and proportion of cultivators and agricultural labourers.

In sum it appears that the extent and nature of occupational change in the three villages have strong gender and location specificities. There seems to be only one commonality across both the gender, across all the villages, rather a sharp decline in the number and proportion of workers in the livestock sector. This perhaps is related to the decline in the livestock in general in rural Tamilnadu, however this issue needs to be probed further. All the same, in spite of this diversity of patterns, a broad generalization appears plausible. The response of male workers to employment crisis has largely been in the nature of a move towards non-farm employment, albeit largely of an informal type; but in the case of females this response has often taken the form of a 'throw back' to the agricultural sector, more often than not, to swell the army of agricultural labourers. While the first type of response, that by male workers, is observed largely in Nesal, a village close to a town and already is on way to employment diversification; the second type of response by females, is more marked in Vinayagapuram and Veerasambanur, the relatively more backward, remote villages.

VI. Silk Weaving in the three villages:

We had stated earlier that employment opportunities in silk weaving seem to have shrunk in rural Arni over the last decade and a half. This was based on data on employment for all three villages together. Unfortunately we have not been able to obtain these data for the each of three villages separately (thus table 8 (b) does not give data separately for the weaving sector) and hence have not been able to say, so far, anything about the differential patterns of change, if any, in the sector in the three villages. We propose to redress this lacuna at least in part by looking at the data on the number of weaving households village-wise, a weaving household being defined as one where at

least one member of the household works in the weaving sector. The data are summarized in table 9.

It is clear from the table that considering all the three villages together, there has been a substantial decline in silk weaving over the last decade and a half: This is true whether one looks at the number of workers in the weaving sector or the number of weaving households. The later declined from 120 in 1993 to 108 in 2009; and weaving households as a percent of total households declined from 16.3 in 1993 to 12.1 in 2009.

But what is also striking, from the table, are the differences across the three villages. Vinayagapuram with the highest number of weaving households in 1993, accounted for half of the weaving households of the three villages put together in that year; however has witnessed the most rapid decline in them and the number decreased from 60 households in 1993 to just 24 in 2009, a decline of 60 percent between the two years. Veerasambanur, which was not a major weaving village even in 1993, as it had just 14 such households in that year, also has witnessed a sharp decline of 50 percent, from 14 households to 7 during the same period. In sharp contrast, there has been a rapid increase in the number of weaving households in Nesal; it was already an important weaving village, even in 1993 accounting for a third of the total weaving households in the three villages, and the number of weaving households in the three villages has increased by around 67 percent, from 46 households to 77, between 1993 and 2009. Consequently, Nesal today has emerged as the most important weaving village of the three, replacing Vinayagapuram from that position; as it accounts for slightly more than 70 percent of the weaving households in the three villages. This, we believe, is part of a general tendency in the last decade or so, of silk weaving getting increasingly concentrated in urban and semi-urban localities in the region. And this tendency is in sharp contrast to the earlier tendency towards increasing ruralisation of the industry observed in the 1993 study. This important issue needs to be probed further in terms of its magnitude, causes underlying for the change and its consequences.

Table 9 Number of weaving households in the survey villages 1993 & 2009								
	Nesal		Vinayagapuram		Veerasampanur		Combined	
Item	1993	2009	1993	2009	1993	2009	1993	2009
Total no of Households	339	423	259	322	136	145	734	890
No of weaving Households(HHs)	46	77	60	24	14	7	120	108
weaving Households as a % of total HHS	13.6	18.2	23.2	7.5	10.3	4.8	16.3	12.1
No of workers in weaving sector	NA	113	NA	19	NA	10	195	142
Workers in weaving sector as a % of total workers	NA	12.8	NA	2.6	NA	3.1	11	7.3

Source: 1. Data for 1993 are from Jayaraj (2004) & Jayaraj &Nagaraj (2006).

2. For 2009, from village survey

VII. Caste composition of Weavers

Table 10 gives the caste composition of the weavers in the three villages. Weaving in the three villages is essentially an occupation of the various backward castes in the three villages with only a marginal presence for the Scheduled castes and practically no representation by the Forward castes (like Brahmins).

Within the Backward Castes, it is the Agamudiamudaliars who dominate the scene accounting for around 40 percent of the weaving households in the three villages. Then the Vanniars come who are considered, officially, the Most Backward Caste in TamilNadu, they account for close to a fourth of the weaving households. The various other Backward Castes like Yadavas etc. among them account another fourth of the weaving households. Thus the backward castes as a whole, including Vanniars, account for close to 93 percent of the weaving households, leaving just about 7 percent in the three villages.

While this is the overall pattern considering the three villages as a whole; there are clear differences across the three villages. Nesal seems to have drawn its weavers from the most diverse caste groups compared to other two, even here the backward castes dominate scene accounting for nearly 90 percent of the weaving households in the village. It is also noteworthy that Nesal accounts for all but one of the eight Dalit weaving households in the three villages; and within the village Dalits account for close to a tenth of the weaving households.

In Vinayaaagapuram, in sharp contrast, weaving is almost completely dominated by Vanniars who account for close to 90 percent of the weaving households. Similarly, it is the Agamudia Mudaliars who dominate the scene in Veerasambanur, accounting for close to 85 of the weaving households in the village.

Table :10 Caste composition of weaving & non-weaving householdx in the survey villages, 2009													
		Nesal			Vinayagapuram			Veerasampanur			Combined		
Caste/Castegroup		No of weaving house holds	No of non-weaving house holds	Index of access to weaving	No of weaving house holds	No of non-weaving house holds	Index of access to weaving	No of weaving house holds	No of non-weaving house holds	Index of access to weaving	No of weaving house holds	No of non-weaving house holds	Index of access to weaving
SC(Incl. Christian SC)		7 (9.1)	180 (52.0)	0.21	1 (4.2)	66 (22.1)	0.20	nil (0.0)	76 (55.1)	0.00	8 (7.4)	322 (41.2)	0.20
MBC (Vanniar)		2 (2.6)	nil (0.0)	5.49	22 (91.7)	217 (72.8)	1.24	1 (14.3)	15 (10.9)	1.29	25 (23.1)	232 (29.7)	0.80
BC	A. Mudaliar	38 (49.4)	65 (18.8)	2.03	nil (0.0)	nil (0.0)	nil (0.0)	6 (85.7)	47 (34.1)	2.64	44 (40.7)	112 (14.3)	2.32
	Other BC	28 (36.4)	87 (25.1)	1.34	1 (4.2)	15 (5.0)	0.84	nil (0.0)	nil (0.0)	nil (0.0)	29 (26.9)	102 (13.0)	1.82
	Total BC	66 (85.7)	152 (43.9)	1.66	1 (4.2)	15 (5.0)	0.84	6 (85.7)	47 (34.1)	2.64	73 (67.6)	214 (27.4)	2.10
Muslim BC		2 (2.6)	9 (2.6)	1.00	nil (0.0)	nil (0.0)	nil (0.0)	nil (0.0)	nil (0.0)	nil (0.0)	2 (1.9)	9 (1.2)	1.50
Bhramin		nil (0.0)	5 (1.4)	0.00	nil (0.0)	nil (0.0)	nil (0.0)	nil (0.0)	nil (0.0)	nil (0.0)	nil (0.0)	5 (0.6)	0.00
Total		77 (100.0)	346 (100.0)	1.00	24 (100.0)	298 (100.0)	1.00	7 (100.0)	138 (0.0)	1.00	108 (100.0)	782 (100.0)	1.00

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A comparison of the caste structure of the weaving households between 1993 and 2009 (table 11) brings out both continuities and significant changes. Weaving in 1993, as in 2009, was completely dominated by the Backward Castes, Agamudia Mudaliars and Vanniars in particular, next to no presence of either Dalits or Forward Castes in the sector. In fact the access to weaving for Dalits improved, albeit marginally, between 1993 and 2009.

It is within the broad group of backward castes that significant changes have occurred. The Vanniars who were the predominant weaving community, accounting for half of the weaving households in 1993, have lost that position to Agamudia Mudalliars. The number and proportion of Vanniar weaving households have declined sharply; the former from 60 to 25 and the later from half to less than a fourth between 1993 and 2009. And this decline is almost solely because of the decline in silk weaving in Vinayagapuram, which, as we had noted earlier is almost solely dominated by Vanniars. The loss to Vanniars, it appears, has been the gain to others among the Backward Caste communities. Agamudia Mudaliars, in particular, have gained considerably, the number of weaving families among them increasing from 30 in 1993 to 44 in 2009. This makes them, as we had noted earlier, the predominant caste among weavers today accounting for 40 percent of weaving households in the three villages. Yadavars, the other major Backward Caste community have also gained, the number of weaving households among them increasing from 13 in 1993 to 18 in 2009. It is also noteworthy that the increase in the importance in weaving of these two communities is solely due to growth of weaving in Nesal in this period.

We may now summarise the major findings on changes in the strength of weaving in the survey villages. Firstly, while in overall terms, there appears to be a decline in weaving in rural Arani, the changes in the fortune of this appear to location and caste specific.

Table 11: Caste composition of Weaving households in the survey village 1993 & 2009													
		1993						2009					
Village	Item	A. Mudaliar	Vanniar	Yadavar	SC	Others	Total	A. Mudaliar	Vanniar	Yadavar	SC	Others	Total
Nesal	No of weaving house holds	21 (45.7)	nil (0.0)	13 (28.3)	2 (4.3)	10 (21.7)	46 (100)	38 (49.4)	2 (2.6)	18 (23.4)	7 (9.1)	12 (15.6)	77 (100.0)
	Index of access to weaving	1.98	0.00	1.62	0.10	1.32	1.00	2.03	5.49	1.32	0.21	1.18	1.00
Vinayaga puram	No of weaving house holds	nil (0.0)	56 (93.3)	nil (0.0)	nil (0.0)	4 (6.7)	60 (100.0)	nil (0.0)	22 (91.7)	nil (0.0)	1 (4.2)	1 (4.2)	24 (100.0)
	Index of access to weaving	nil (0.0)	1.31	nil (0.0)	0.00	0.75	1.00	nil (0.0)	1.24	nil (0.0)	0.20	0.84	1.00
Veera sampanur	No of weaving house holds	9 (64.3)	4 (28.6)	nil (0.0)	nil (0.0)	1 (7.1)	14 (100.0)	6 (85.7)	1 (14.3)	nil (0.0)	nil (0.0)	nil (0.0)	7 (100.0)
	Index of access to weaving	1.75	2.16	nil (0.0)	0.00	1.62	1.00	2.35	1.29	nil (0.0)	0.00	nil (0.0)	1.00
Combined	No of weaving house holds	30 (25.0)	60 (50.0)	13 (10.8)	2 (1.7)	15 (12.5)	120 (100.0)	44 (40.7)	25 (23.1)	18 (16.7)	8 (7.4)	13 (12.0)	108 (100.0)
	Index of access to weaving	1.43	1.80	1.35	0.05	1.08	1.00	2.32	0.80	1.98	0.20	1.49	1.00

Note: Index of access of a caste to weaving is defined as **a**i = Piw / Pi where Piw = Percentage of weaving households accounted for by caste i & Pi is the percentage of total households accounted for by the castes.

Secondly, as for location specificity, weaving activity seems to be declining in remote, backward villages, like Vinayagapuram and Veerasambanur, and appears to be getting concentrated in semi-urban areas like Nesal and perhaps in urban centers like Arani.

Thirdly, weaving again is appearing to get concentrated among communities like AgamudiaMudaliars, Who though not a traditional weaving community, took to weaving quite early. And it seems to be declining among communities like Vanniars who took to silk weaving not long ago, perhaps only around the 1980's.

Fourthly, all the four tendencies go counter, as it were, to the tendencies observed earlier in the 1993 study. Silk weaving was increasing at a rapid rate during this period; it was getting increasingly ruralised; and it was spreading among hitherto non-weaving communities like the Vanniars.

Fifthly, the poor and the vulnerable sections, particularly in backward, remote areas, having to face an agrarian crisis on the one hand and loss of employment in weaving on the other, have taken to various livelihood strategies. A number of them, the women in particular, seem to migrate; some gravitate towards informal non-farm occupations; some, paradoxical though it may seem, fall back on agriculture, particularly to swell the ranks of landless agricultural labourers and poor farmers.

As for the last issue noted above, we have provided only indirect and circumstantial evidences. We do have some direct evidences on some of the aspects noted there from our house listing operations in 2009. One of questions we asked all the residents in the village was whether they were employed in weaving earlier and have discontinued it. If the answer was affirmative, the details on the period in which they quit weaving, their present occupation etc., were obtained. The data on these issues is summerised in the Table 12.

Table 12: Some Charecteristics of workers who have left weaving in the survey villages, 2009

Total no of workers who have discontinued weaving	Caste composition			Period in which weaving was discontinued			Present occupation				
	Vanniar	A.Mudaliar	Others	Between 1994 - 1999	Between 2000 - 2002	Between 2003 - 2005	Culti vation	Agri. Labour	Construction	Coolie Weaver in Powerloom	Others
54 (100.0)	39 (72.2)	11 (20.4)	4 (7.4)	13 (24.1)	13 (24.1)	28 (51.9)	37 (68.5)	11 (20.4)	2 (3.7)	2 (3.7)	2 (3.7)

It is clear that a large proportion, close to three-fourths of those who discontinued weaving were from Vanniar community (MBC). It is also worth noting that close to three-fours of them quit weaving during the present decade, between 2000 and 2005. And over whelming proportion of them were 'thrown back' as it were, to farming, with large number of becoming cultivators, and the rest working as agricultural labourers. We should hasten to add that these data refer to only residents and hence do not say anything about those who restored to migration consequently to loss of employment in weaving.

As for the other generalizations made above, we do not have, at this stage, any firm explanations for the changes observed in the silk weaving sector in rural Arani. We can only provide tentative hypotheses on this at this stage. But before we do that it would be useful to provide some information on the characteristics of weaving households, particularly, in contrast to non-weaving households in the three villages.

VIII. Some Characteristics of Weaving Households.

Table 13 gives some demographic characteristics for weaving and non-weaving households. It brings out clearly the differences between weaving and non-weaving households. Weaving households are generally larger, they have a significantly higher child dependency ratio, and they also have higher levels of fertility among them compared to non-weaving households. We do not have any explanations regarding the reasons underlying these differences as also their significances. And we do not wish to pursue these issue any further in this paper.

Table 14 gives extent of landlessness and average area of land owned per land owning household in the three villages. It is clear that the weaving households are much more divorced from land and agriculture compared to the non-weaving households. Considering the three villages as a whole, close to three-fourth of the weaving households are landless and even when they have access to land, they are, on an average, marginal owners. Interestingly, the differential between weaving and non-weaving households in terms of access to land appears to be the lowest in Nesal, the most diversified of the three villages, where the extent of landlessness is the highest among both the weaving and non-weaving households.

Table 13: Some Demographic indicators for weaving & non-weaving households in the survey villages, 2009.							
				Dependency ratio			
Village	Type of house hold	Average size of house hold 2009	Sex ratio 2009	Child Dependency ratio 2009	Aged Dependency ratio 2009	Total Dependency ratio 2009	Child-women ratio 2009
Nesal	Weaving	4.44	966	404	116	520	429
	Non-Weaving	3.9	974	366	206	572	282
Vinayaga puram	Weaving	4.2	906	563	16	578	565
	Non-Weaving	3.7	879	289	208	497	273
Veera sampanur	Weaving	5.57	696	438	231	669	714
	Non-Weaving	3.94	971	316	220	537	319
Combined	Weaving	4.46	928	425	105	530	480
	Non-Weaving	3.83	937	328	209	537	284

Source: For 2009, village house listing survey, 2009

Table 14: Extent of landlessness & Average size of land owned for weaving & Non-weaving households in the survey villages, 2009.								
	Nesal		Vinayaga puram		Veerasampanur		Combined	
Item	weaving house holds	non-weaving house holds	weaving house holds	non-weaving house holds	weaving house holds	non-weaving house holds	weaving house holds	non-weaving house holds
Percentage of landless house holds	77.90	72.30	70.80	40.30	28.60	59.40	73.10	57.80
Average area of land owned (in acres) / per land owning HHs	1.46	1.99	0.96	2.83	1.30	2.34	1.31	2.50

Source: For 2009, village house listing survey, 2009

This greater degree of divorce of the weaving households from the agricultural sector and from the farm sector in general is brought out clearly by the distribution of workers by 'industrial categories' among weaving and non-weaving households (tables 15 & 16). And the differentials here appear to be higher among the male workers compared to female workers and higher in Nesal, the most diversified village, compared to other two villages. This issue of a relatively high degree of divorce between weaving and agriculture today needs to be probed further, but we may note here that this situation is in striking contrast to the one observed in 1993. Silk weaving in fact had a 'large degree of overlap' (Jayaraj and Nagaraj; 2006, p34). How and why this transformation has come about and what are the implications of this are issues that we leave open in this paper.

But there is another important change, between 1993 and 2009, in the characteristics of the silk weaving that is important from the issue dealt with in this paper and that relates to age-specific work participation rates, to child labour in particular.

Data on age-specific work participation rates (WPR) for both males and females in weaving and non-weaving households for 1993 and 2009 are given in table 17. And there are, as usual, significant continuities as well as major changes.

Overall work participation rates (for the population in the 5 + age group) are higher for the weaving households compared to non-weaving ones in both 1993 and 2009. And this is true for both males and females. This pattern is generally true across the three villages in 2009, except in the case of males in Vinayagapuram where the differentials are not significant.

This higher overall work participation rate among weaving households is due to a combination of higher age-specific WPRs among them and there are significant commonalities, and differences, in the patterns in 1993 and 2009.

Table 15 : Industrial classification of workers in weaving & non-weaving households in the survey villages, 2009												
Sex	Type of house hold	Distribution of workers by Industrial classification								Percentage of workers in Farm Sector	Percentage of workers in Non-Farm Sector	
		Cultivation	Agri. Labour	Live. Stocks	Weaving	Other House hold Indus.	Construction	Other workers	All workers		incl. weaving	other than weaving
Male	weaving	16 (9.9)	9 (5.6)	2 (1.2)	104 (64.6)	1 (0.6)	5 (3.1)	24 (14.9)	161 (100.0)	16.8	83.2	18.6
	non-weaving	268 (28.6)	225 (24.0)	18 (1.9)	nil (0.0)	20 (2.1)	113 (12.1)	293 (31.3)	937 (100.0)	54.5	45.5	45.5
Female	weaving	11 (9.0)	61 (50.0)	4 (3.3)	38 (31.1)	nil (0.0)	1 (0.8)	7 (5.7)	122 (100.0)	62.3	37.7	6.6
	non-weaving	223 (19.2)	409 (35.3)	20 (1.7)	nil (0.0)	2 (0.3)	3 (0.4)	76 (10.4)	733 (100.0)	88.9	11.1	11.1
Persons	weaving	27 (9.5)	70 (24.7)	6 (2.1)	142 (50.2)	1 (0.4)	6 (2.1)	31 (11.0)	283 (100.0)	36.4	63.6	13.5
	non-weaving	491 (23.4)	634 (30.2)	38 (1.8)	nil (0.0)	22 (2.1)	116 (10.9)	369 (31.4)	1670 (100.0)	69.6	30.4	30.4

Table 16: Percentage Distribution of workers by Farm & Non-Farm Sectors in the survey villages, 2009

Sex	Type of house hold	Nesal			Vinayagapuram			Veerasampanur		
		Percentage of workers in Farm Sector	Percentage of workers in Non-Farm Sector		Percentage of workers in Farm Sector	Percentage of workers in Non-Farm Sector		Percentage of workers in Farm Sector	Percentage of workers in Non-Farm Sector	
			incl. weaving	other than weaving		incl. weaving	other than weaving		incl. weaving	other than weaving
Male	weaving	14.0	86.0	17.6	26.7	73.3	16.7	17.6	82.4	29.5
	non-weaving	49.0	51.0	51.0	58.6	41.4	41.4	59.0	41.0	41.0
Female	weaving	54.5	45.5	5.7	84.6	15.4	7.7	75.0	25.0	12.5
	non-weaving	88.4	11.6	11.6	87.9	12.1	12.1	92.6	7.4	7.4
Persons	weaving	31.7	68.3	12.4	53.6	46.4	12.5	36.0	64.0	24.0
	non-weaving	65.0	35.0	35.0	72.3	27.7	27.7	74.1	25.9	25.9

Table 17 : Age-specific work participation rates for weaving & non-weraving households in the survey village														
			Male						Female					
Village	Year	Type of house hold	5 to 14	15-29	30-44	45-59	60+	All 5+ years	5 to 14	15-29	30-44	45-59	60+	All 5+ years
All three (com bined)	1993	weaving	43.1	95.7	100.0	96.2	79.0	84.9	29.0	81.3	83.1	78.1	23.5	65.1
		non-weaving	6.2	72.8	98.3	97.3	57.5	61.6	6.3	65.5	84.6	73.3	30.1	51.0
	2009	weaving	4.3	85.3	98.5	85.2	76.5	71.6	2.6	67.1	88.5	74.2	29.4	58.4
		non-weaving	nil	69.1	96.7	93.1	56.2	64.2	nil	54.1	84.5	76.8	33.5	53.4
Nesal	2009	weaving	6.1	83.0	100.0	88.9	76.9	72.2	7.1	68.0	83.3	74.1	23.1	57.1
		non-weaving	nil	71.4	96.9	87.3	56.7	62.6	nil	48.6	75.4	61.9	17.2	44.2
Vinayaga puram	2009	weaving	nil	100.0	93.3	66.7	100.0	65.2	nil	66.7	100.0	100.0	nil	61.9
		non-weaving	nil	67.0	98.0	97.0	59.0	66.5	nil	61.0	97.3	92.4	50.0	65.0
Veera sampanur	2009	weaving	nil	80.0	100.0	100.0	66.7	81.0	nil	60.0	100.0	50.0	66.7	61.5
		non-weaving	nil	68.5	92.9	97.8	50.0	63.6	nil	52.9	81.8	81.6	41.2	53.4

In both the years WPR for the aged, i.e., for 60 + population, is higher for the weaving households compared non-weaving, however females in Vinayagapuram in 2009 being the only exception.

This may be largely because weaving is a home based occupation. WPR for the age-group 15-29 years is also generally higher for the weaving households compared to non-weaving one. This is largely because of the employment of adolescents, those in the age-group 15-19 years, on the much more significant scale in weaving compared to non-weaving.

While the two points noted above are some sense the continuities between 1993 and 2009, the most striking difference between the two years is to be seen in terms of the incidence of child labour in weaving. While large scale and increasing employment of children in weaving in the Arani region was a disturbing phenomenon observed in 1993, it has almost completely disappeared by 2009. The house listing operations enumerated 42 child workers in weaving in 1993; and this number has come down to 3 in 2009, and all the three child labourers were found in Nesal. Consequently WPR for children has come down sharply, for both males and females, possibly in all three villages between 1993 and 2009. The sharp decline in overall WPR for weaving households between 1993 and 2009 is partly due to this disappearance of child labour.

As an aside we may just note here that there is a significant loss of employment in weaving, particularly from the beginning of this decade. What we have said above perhaps indicators that a considerable part of this loss would be attributable to disappearance of child labour. While this is largely true, loss of adult employment in weaving was also an issue whose importance can not be minimized: Between 1993 and 2009, there was a decline in the number of weaving workers from 195 to 142 in the three villages, or a decline of 53 workers. Now 39 of this decline, or three fourths of it, can be attributed to decline in child labour, the rest being due to decline in adult labour.

Looked at it the other way, the adult labour force in weaving has declined by about 10 percent over this period. And this has to be seen in contrast to the 1980s, when the labour force employed in weaving in rural areas, both adults and children, was witnessing a rapid increase.

A concomitant of this almost total disappearance of child labour from weaving has to do with the situation on the literacy front. Since the children are not working on looms, they are in school. The literacy rates for the 6-29 age-group appears to be close to 100 percent today, and this is true for both weaving and non-weaving households (Table 18). This again is in sharp contrast to the situation in 1993, when children were being withdrawn in significant numbers from schools to work in weaving and the literacy rate among children in weaving households was significantly lower than in non-weaving households.

IX. Changes in Product Mix and Technology:

The 1993 study had noted that the silk weaving sector in the Arani region had witnessed, possibly in the 1980s, rapid changes in terms of both product mix and technology. The old type Arani silk sarees were replaced almost completely by Kancheepuram type Korvai sarees. Simultaneously there was also, what could be termed, a 'technological regression' in so far as fly shuttles were completely replaced by throw shuttles. It is a combination of these two transformations which resulted in the employment of children on a large scale in silk weaving in the region. It was also noted in the 1993 study that by the time that survey was complete a few Thallu Machines were introduced which obviated the need for child labour while weaving korvai on a throw shuttle.

Things, once again, seem have undergone significant changes between 1993 and 2009. While throw shuttles still rule the roost in rural Arani, the product mix here once again has seen important changes. Korvai has largely been replaced by Dharmavaram type of silk sarees. Of the 108 weaving households in the three villages, 74 or 69 percent reported that they weave only Dharmavaram type of sarees;

Table 18: Literacy rates by broad age-groups for weaving & non-weaving households in the survey villages, 2009

Age-Group (years)	Type of house hold	Nesal			Vinayagapuram			Veerasampanur			Combined		
		Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
6 to 29	weaving	98.7	94.5	96.6	95.5	87.5	91.3	100.0	100.0	100.0	98.2	93.1	95.7
	non-weaving	98.4	95.2	96.9	97.0	96.3	96.7	99.2	98.4	98.8	98.0	96.2	97.2
30-59	weaving	80.0	54.0	67.2	90.5	43.8	70.3	100.0	50.0	81.8	83.9	51.8	68.8
	non-weaving	80.4	56.6	68.1	85.4	51.0	68.1	82.8	51.6	66.7	82.8	53.6	67.9
60+	weaving	76.9	7.7	42.3	0.0	0.0	0.0	100.0	66.7	83.3	76.5	17.6	47.1
	non-weaving	58.9	18.4	39.0	57.8	11.4	36.6	68.2	29.4	51.3	60.4	17.8	40.4
All ages	weaving	89.0	69.8	79.5	90.9	68.3	80.0	100.0	75.0	90.9	90.4	69.8	80.5
	non-weaving	86.4	68.4	77.7	86.8	65.4	76.7	88.4	71.9	80.2	86.9	68.0	77.8

22 or 20 percent weave only the Korvai; and the rest 12 or 11 percent weave both the type. The disappearance of Korvai is particularly noticeable in Vinayagapuram where silk weaving declined sharply.

Now Dharmavaram Saree, the predominant product in rural Arani today is a poor cousin of the Kancheepuram. While the borders and pallu in this saree have contrasting colours compared to the body of the saree, it is the same threads which run through all, unlike in the Korvai. It is woven on a throw shuttle, but without any help from weaving assistants, who generally happen to be child labourers.

The Korvai that is woven in the three villages today is done either with the help of Thallu machines or by assistance from adolescent labourers rather than child labourers. Consequently there is a spread of Thallu machines to a significant scale in the three villages. Of the 108 weaving households, 74 reported that they work on looms owned by them. Of the 74, 14 or 19 percent had Thallu machines.

Our general enquiries in Arani also revealed another important technological transformation that has come about in silk weaving in the Arani region, in Arani town in particular: Power looms seem to have entered silk weaving in large numbers in Arani town. And they have entered the scene at least in two ways. A large number of them weave Dharmavaram type of sarees. But we were also told that a number of them, particularly in the Saidapet region of the town, weave a type of Korvai. We were told that Korvai saree that is woven by a power loom, which was always thought to be impossibility, is not of pure silk, but of a mix of silk with cotton or artificial fibers. Even the silk used on these looms is an imported variety, and is stronger than the local variety. We have had very little success so far in obtaining authentic information on this sector viz., the handloom sector in silk weaving, and this needs to be studied further.

The technological changes and the changes in the product mix in the silk weaving sector in rural Arani have been associated with the sharp decline in child labour. But the entry of power looms in a significant way in Arani town seems to have a deleterious effect on the fortunes of the silk weaving sector in rural Arni, leading to significant loss of employment.

X. Socio-Economic Changes in the Weaving Sector – A summary:

At the risk of being repetitive let us summarise the major changes that have occurred in the silk weaving sector in the Arani region – in rural Arani in particular, over the last decade and a half, from 1993 to 2009.

1. While in overall general terms there appears to be a decline in the fortunes of the sector in rural Arni, the changes in the strength of the sector seem to have locational and caste specificities.
2. As for the location specificities, the strength of the sector seems to have declined in backward, remote villages, like Vinayagapuram and Veeramsambanur, but in Nesal, a semi-urban locality close to Arani, silk weaving in fact has grown. Thus in sharp contrast to the process of ruralisation, earlier in 1980's, of the industry, it is being increasingly concentrated in semi-urban and urban areas.
3. As for caste specificities, what is observed, once again, is the reversal of the earlier trend; castes which had entered silk weaving recently like the Vanniars, have been pushed out, while those with longer tradition and experience in the vocation like Agamudia Mudaliars have gained.
4. Silk weaving sector in rural Arani seems to be increasingly divorced from the agricultural sector in terms of landlessness and occupational diversification away from the farm sector. It may be worth noting here that the strong linkages between silk-weaving and the agricultural sector earlier, in fact provided a 'fall back' option to agriculture for weavers during the times of crisis. With increasing divorce between the two, this option of 'fall back' would also get restricted.
5. Child labour, which was increasing at a rapid rate in the earlier phase of expansion of silk weaving in rural Arni, has declined sharply almost to the point of complete disappearance. Consequently the earlier trend, a disturbing one, of children being withdrawn from school to work in weaving, seems to have been reversed.

6. The product mix in Arani silk industry seems to have undergone a sea change. Dharmavaram sarees have replaced Korvai to a very large extent in rural Arani. In Arani town proper, again, Dharmavaram seems to have picked up; so also a lower-end Korvai, woven from silk mixed with other fibres.
7. There have been significant technological changes; power looms seem to have entered silk weaving in a big way, particularly in Arani town, weaving Dharmavarm in a large scale, a possibly also Korvai. This had serious deleterious consequences for the fortunes of the weaving sector in rural Arni.

The observation made above, we would reiterate, should be seen as preliminary hypotheses, which need to be firmed up on the basis of detailed empirical work. We do not even know, at this stage, the basis for these and how many of these changes relate to one another. All that we can do at this stage is to put forward three possible scenarios regarding the basis for these changes and the interaction among them.

1. With increasing emphasis on state provision of primary education, enforcement by the state principles of universalisation of literacy and with increasing levels of aspirations on the part of even the poor, children start going to school, rather than to work. This leads to a shortage of labour, particularly of assistants, to silk weaving. Consequently weavers either shift to Dharmavaram sarees or go in for Thallu Machines. This in fact is the scenario presented by a nunmber of weavers during our general enquiries.
2. The demand structure for silk fabrics undergoes rapid changes with demand for Dharmavaram sarees and relatively lower end Korvais. We give this only as a possibility and we do not have any clue as to the larger socio-economic factors underlying this possible change. Once the demand

structure changes, large number of weavers shift to Dharmavaram sarees, surplussing labour, particularly child labour from the sector.

3. Certain technological changes, particularly in terms of the nature and quality of fiber used, facilitate the entry of power looms in weaving Dharmavaram and Korvai sarees. This leads to a concentration of the industry in urban and semi-urban areas with deleterious consequences for the industry in rural areas.

These are very sketchy, preliminary scenarios. In the complex social situation prevailing in Arani, these three, along with many more, are all operative, and interact with one another. Identifying as many of such scenarios and studying their interactions is a task we have just begun.

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