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WOMEN AGRICULTURAL LABOURERS - REGIONAL VARIATIONS IN INCIDENCE AND EMPLOYMENT

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INTRODUCTION

Although it is well known that women agricultural labourers are among the poorest members of the rural population in the country, the relationship between regional impoverishment and the incidence of female agricultural labourers is neither simple nor straightforward. The presence of an impoverished rural population in a region may be the result of agroclimatic factors such as poor rainfall, irrigation or soil quality; it may also be due to a high degree of land inequality and landlessness in a region where agricultural productivity is fairly high. Whether women agricultural labourers (as a proportion of the female population, or as a ratio to male agricultural labourers) are likely to be more numerous in the former or the latter case, is not an easy question to answer apriori. Indeed, to the extent that both the poverty of the household and its low capacity to absorb female labour on a family farm, work in the same direction in the two situations cited above, a high incidence of female agricultural labourers may occur in both cases.

Thus, for example, the incidence of women agricultural labourers in the female population is fairly high in the paddy growing, high productivity coastal districts of Andhra Pradesh and Tamil Nadu, where land inequality is also high. But the incidence is, if anything, even higher in the dry, low productivity, internal districts of Maharashtra where land inequality is lower. Of course, where both agroclimatic factors are unfavourable and land inequality is high,

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as in the internal districts of Andhra Pradesh, the incidence of women agricultural labourers is also likely to be high.[1/]

I do not wish to infer from this that land inequality and unfavourable agroclimatic conditions together exhaust the factors affecting the regional incidence of women agricultural labourers. In an earlier paper, I had discussed the possibility that the presence of migrant tribal labourers may reduce the participation of local women as agricultural labourers, and that this phenomenon may be particularly important in the north-eastern states.[2/] But even in such cases, land inequality may continue to be an important factor. For example, West Bengal's paddy districts have lower Gini coefficients of land owned than those of Andhra or Tamil Nadu, and this may be an important factor in the lower incidence of women agricultural labourers in the former.

The previous paper had suggested, at the state level, a correlation between the incidence of women agricultural labourers and (i) low agricultural growth, (ii) importance of coarse grains in gross cropped area (excluding Rajasthan), (iii) low incomes of agricultural labour households, and (iv) male inter- and intra-district migration (excluding Assam). This paper looks more closely at the relationship between incidence and agricultural growth, productivity, land inequality, and the cultivation of coarse grains at the <u>district</u> level. It also examines some of the regional features of unemployment and differential earnings among women agricultural labourers. The penultimate section of the paper also makes some comments on data collection and compilation. Our

main data sources are the Census, the Rural L bour Enquiries, and the 32nd round on Employment and Unemployment of the NSS.

REGIONAL INCIDENCE OF WOMEN AGRICULTURAL LABOURERS

The district level analysis of the relationship between incidence, i.e., the proportion of agricultural labourers in the female rural population, and variables such as the agricultural growth rate was undertaken for 1971 principally because of the availability of data in this year. The 1971 census tended to undercount women workers, but this problem was probably more serious for female cultivators than for agricultural labourers.[3] As a precaution, however, we compared incidence in 1971 against 1961, a year when the census definitions and procedures were more inclusive than exclusive. The correlation coefficient for 291 districts was positive and high at 0.946 (significant at the 0.1% level).[4]

While there was a decline in incidence in many districts between 1961 and 1971, maps I and II indicate that the regional distribution does not appear to have undergone dramatic changes. Maps III and IV indicate the districts in which there were as many or more women agricultural labourers than men.

Despite the many known problems with the census data on women, I believe that for the study of the regional dispersion of women agricultural labourers, the data are not altogether unreliable.[5] Indeed, the state level rankings of the proportion of female to male

agricultural labourers obtained from the 1961 census and the 1963-65 Rural Labour Enquiry are highly correlated.[6/] The data on agricultural productivity, agricultural growth, and the Gini coefficient of owned land are from the published results of the JNU/ICSSR study, while the data on the proportion of gross cropped area under rice/wheat were calculated from the Indian Agricultural Statistics.

Our hypothesis is that regional impoverishment as manifested in a high proportion of coarse grains in gross cropped area, in low agricultural productivity and in poor growth performance, as well as inequality as measured by a high Gini coefficient of owned land, are positively associated with a high incidence of women agricultural labourers in the female population. A visual impression of these relationships can be obtained by comparison of maps V, VI, VII and VIII with map II. Simple regressions of incidence in 1971 against each of the other variables taken singly all have the expected signs and significant t-ratios. See Table I. Since however, we expected at least some of the 'independent' variables to be correlated with each other, multivariate analysis was also used to determine this. The correlation matrix is given in Table II.

From Table II it appears that agricultural productivity is highly correlated with the proportion of foodgrain GCA under rice and wheat as well as with the agricultural growth rate. The coefficient of agricultural productivity was not significant in a multiple regression that included all four variables. Accordingly, multiple regressions

were run after excluding agricultural productivity. Despite the correlation between rice/wheat area and land inequality, both were highly significant in the regression. The proportion of area under rice and wheat is also correlated with agricultural growth rate but at the 5% significance level. We retained both variables in the multiple regression since the former might capture some of the historical givens of impoverishment, while the latter measures change. The results are given in Table III.

Again, all the signs are as expected, and the coefficients are significant. The strongest relationship is between the incidence of women agricultural labourers in 1971 and low agricultural growth rates (for 19 crops as a composite) for the period 1962-65 to 1970-73. Inequality in land ownership also bears a positive relationship to the incidence of women agricultural labourers, as does the proportion of coarse grains.

The finding of a strong negative relationship between the incidence of women agricultural labourers and the agricultural growth rate suggests that the regional disparities in incidence are possibly becoming more closely (and negatively) related to rural poverty over time. Some inferences along these lines can be drawn from the state level data on the average daily earnings of women agricultural labourers, and annual household incomes of landless agricultural labour households obtained by the RLE for 1964-65 and 1974-75. See Table IV.

The state level rankings of the annual income of landless agricultural labour households in 1974-75 is strongly negatively

correlated with the incidence of women agricultural labourers obtained from the 1971 census.[8] The same variables show no significant correlation between the 1964-65 income data and the 1961 census data. Thus the regional disparities in the income of landless households appear to be more closely associated with the incidence of women agricultural labourers in the later period. This happened despite the fact that the strong negative correlation between incidence in 1961 and the average daily earnings in agriculture of women agricultural labourers in 1964-65 got somewhat weaker in the later period.[9] Thus, for the later years, the regional disparities in women's daily earnings were not so closely linked to differences in incidence though the correlation is still significant. Despite this, the effect of disparities in the annual income of landless households on incidence has grown stronger. One possible implication is that regional disparities in the number of days of female employment and/or in male incomes have become more closely negatively linked to the incidence of women agricultural labourers in the female rural population.

Unfortunately it is difficult to obtain reliable estimates of the district-wise growth in the incidence of women agricultural labourers between 1961 and 1971, because of the changes in the definitions between the two census years. However, if we assume that the 1971 data on the number of women agricultural labourers are, if anything, underestimates, we can obtain a <u>minimal</u> set of 91 districts in which the incidence of women agricultural labourers in the female

rural population increased between 1961 and 1971. Map IX presents these districts, but it must be remembered that due to undercounting in 1971, there may have been other districts also in which incidence increased during this period. Districts where peak-season demand for female casual labour increased, as has been claimed for Punjab-Haryana, but where the work was not of sufficient duration for the workers to be counted as agricultural labourers, would have been particularly affected by this.

From the minimal set of 91 districts, we excluded 17 where the incidence was still below 1% of the female rural population in 1971. The remaining 74 districts were classified according to agricultural growth performance in the period between 1962-65 and 1970-73. This classification is presented in Table V. It appears from the table that the incidence of women agricultural labourers increased in both high and low (even negative) growth districts. There appears, nevertheless, a concentration in the low to moderate growth range; 60% of the districts fall in the agricultural growth range of 0 to 2.99%.

These districts are largely in the states of Gujarat, Rajasthan, West Bengal, Madhya Pradesh and Tamil Nadu. Of these, the first three are in the low incidence range while the latter two have a higher incidence of women agricultural labourers. We may conclude tentatively from this (with all the already mentioned caveats about the data) that the incidence of women agricultural labourers appears not to have increased as much in districts that have experienced either very high or very negative agricultural growth rates, as it has in low to

moderate growth districts. This result appears to have some intuitive appeal in that potential women labourers may be more "discouraged" from seeking work in the negative growth districts; on the other hand, the rise in household incomes in high growth districts may reduce the necessity for women in such districts to combine agricultural labour with the domestic work that they have, in any case, to perform.

This section may be summed up as corroborating at the district level for 1971 some of our earlier results based on state level analysis. The incidence of women agricultural labourers appears to be higher in districts with low agricultural growth rates, a low proportion of rice and wheat in GCA, and high inequality in land ownership. The state level incidence also seems to bear a stronger negative relationship to the income of landless households in the 1970's. Finally, the minimal set of 74 districts in which incidence increased between 1961 and 1971 are concentrated in the low to moderate growth ranges.

UNEMPLOYMENT

This section uses the Rural Labour Enquiry, 1964-65, and the published results of the 32nd round of the NSS conducted in 1977-78.[10/] The analysis is therefore confined to the state level, and focusses on the extent of unemployment among women agricultural labourers, the type of work and the agricultural operations in which they are concentrated.

The RLE and the 32nd round of the NSS provide distinct sets of information on employment and unemployment. The RLE classifies agricultural labour households on the basis of an income criterion. It then quantifies the number of 'full intensity' days of labour worked by women from these households in agricultural and non-agricultural operations, self-employment, as well as the number of days not worked due to a variety of reasons, including non-availability of work. It was the ratio between these days not worked due to lack of work and the sum of such days plus the days of wage labour plus self-employment, that was used to measure unemployment as analysed previously by Gulati.[11/]

A measure of unemployment based on the number of <u>days</u> rather than the number of <u>persons</u> is probably more useful in a context where there is considerable <u>under</u>employment but little open unemployment. However, the unemployment measure that can be obtained from the RLE is, as noted by Gulati, questionable because 18% of the days are listed as either 'unaccounted" (because of the way in which 'full intensity' is measured) or 'unclassified', at the all-India level. Further, this varies widely between states, from 31% in Karnataka to 6% in West Bengal. This variation may vitiate inter-state comparisons of unemployment based on these data and may account for the lack of any significant correlations in the earlier study.[12/]

Our hypothesis is that, in a context where women are in agricultural labour as a response to impoverishment, and where there is a pent-up inadequacy of work (as much as 96 days at the all-India level[13]), there would be a positive correlation between underemployment and the incidence of women agricultural labourers in the rural population. No such relationship can be found, however, between the RLE unemployment data for 1964-65 and the incidence of women agricultural labourers as obtained from the 1961 census. Three states- Uttar Pradesh with a high number of unemployed days despite a low incidence of women agricultural labourers, and Maharashtra and Karnataka where the reverse is true - do not match the hypothesized relationship. See Table VI. What arouses suspicion that the data are not innocent is the fact that all three states, especially Karnataka, have a high number of unclassified plus unaccounted days. Indeed, if these three states are excluded from the analysis, there is a strong positive correlation between unemployment and the incidence of women agricultural labourers.[14] We do not, nevertheless, wish to place any great faith in this result, and shift our focus instead to the 32nd round of the NSS.

It is not possible, from the NSS data to obtain the number of unemployed days for a woman agricultural labourer as such. Rather, a woman is classified as employed or unemployed by current daily, current weekly, or usual status. A person is counted as employed by daily status if she worked for four or more hours in a day, by weekly status if she was employed in a gainful activity for at least one hour on any one day in the reference week, and by usual status

if she was employed for the major part of the year.

Clearly, the weekly status will give the lowest measure of unemployment, a definite underestimate. Daily status corresponds most closely to a rate based on number of days unemployed. The daily status unemployment rate will be higher than the usual status rate in those states where the average woman agricultural labourer works for a large part of the year (so that she is counted as employed by usual status) but is still seeking or available for work for a considerable amount of the rest of the time. The daily status rate would be lower than the usual status rate in the reverse situation where the average woman labourer works on some days (implying some employment by daily status), but not enough to be counted as employed by usual status. The latter situation holds in Assam, West Bengal, Punjab, Haryana, Uttar Pradesh and Rajasthan. See Table VII. These are all states where the incidence of women agricultural labourers in the population is low, and this would therefore corroborate the argument. Kerala is a unique case where both the usual status and the daily status rates are very high, with the former (29.18%) having a slight edge over the latter (27.41%).

It follows from the above that the usual status unemployment rate probably underestimates the extent of underemployment in states where there is a high incidence of women agricultural labourers, and grossly overestimates it in states which have low incidence. For this reason, I would argue that the daily status unemployment rate probably gives the most accurate composite picture of both

unemployment and underemployment. The hypothesized positive relationship between the incidence of women agricultural labourers in the rural population, and female unemployment was tested using the daily status unemployment rate for rural women. The correlation was found to be positive and strong, i.e., the higher the incidence of women agricultural labourers, the higher the unemployment rate among rural women.[15/]

Two additional relationships appear to support our belief that the daily status rate is not only the best available measure of unemployment among rural women, but that it reasonably reflects the regional dispersion of unemployment among women agricultural labourers as well. The first is a significant positive relationship between the daily status unemployment rate and the percent of rural women (above 5 years of age) whose usual activity is domestic work due to non-availability of gainful employment.[16/] The second is a strong positive relationship of the percent of rural women (above 5 years of age) whose usual activity is casual agricultural wage labour and who are available for additional work, to both the daily status unemployment rate, and directly to the incidence of women agricultural labourers in the rural female population.[17/] See Table VII. That is, states with a high incidence of women agricultural labourers, and with a high daily status unemployment rate among rural women, have a high proportion of casual women agricultural labourers who want more gainful work.

It should be pointed out here that the relation between the unemployment rate for rural women taken as a whole and the need for work among women agricultural labourers is not self-evident, since as many as 42% of usually employed rural women (above 5 years of age) are cultivators, while only 37% are agricultural labourers at the all-India level, according to the NSS 32nd round.[18] Thus the variation in the rates for rural women as a whole would not automatically reflect the variation for women agricultural labourers.

Turning from unemployment to the type of work, we find that the 32nd round of the NSS also confirms that among women labourers in agriculture, even more so than among men, it is casual labourers who predominate, and they account for 96.37% at the all India level. Magnitudes of this range are true in all states except Assam and Punjab, and hence the inter-state variations are quite small. See Table VIII. Despite this low level of regional variation, there is a strong positive correlation between this ratio and the incidence of women agricultural labourers in the rural female population, indicating that the states which have a high incidence of women agricultural labourers also have a proportion of casual labourers among all labourers that is higher than the average.[19]

Both the 32nd round of the NSS and the earlier RLE indicate the presence of a sexual division of labour in agricultural operations. According to the RLE of 1964-65, the distribution of the total number of days worked by a usually occupied woman from an agricultural labour household was as follows. If we exclude the category

'unclassified', the category of 'others' usually tends to be the highest, followed by either harvesting or weeding. Transplanting is also an important absorber of female labour, especially in the paddy growing states. Ploughing and sowing account for very little female labour. For men, on the other hand, while 'others' is again the largest single category, ploughing followed by harvesting is next in importance. See Table IX. Weeding, transplanting and sowing absorb very little male wage labour. This pattern is largely true in most of the states, and is corroborated by the 32nd round of the NSS.

Of the five main categories, ploughing, harvesting and transplanting are all peak season, often time-bound, activities that absorb a considerable amount of agricultural labour. Sowing absorbs very little labour as such, while weeding, a predominantly female task, is largely an off-peak activity. This distinction between peak and off-peak activities may have an impact on women's earnings and on the earnings differentials between women and men.

EARNINGS AND DIFFERENTIALS

We have already mentioned in an earlier section that RLE data on the average daily earnings in agriculture of women from agricultural labour households are negatively correlated with the incidence of women agricultural labourers (1964-65 against incidence in 1961, and 1974-75 against incidence in 1971) at the state level. (See footnote 9 and Table IV). Average daily earnings are lower in states

that have a higher incidence of women agricultural labourers.

When examined by agricultural operation, it appears that, relative to other agricultural operations, the average daily earnings for women agricultural labourers tend to be higher in harvesting and transplanting (peak-season activities) and lower in weeding and 'others' (off-peak activities) in the majority of states. Certainly, with the exception of Maharashtra and Karnataka which have relatively low earnings for women in harvesting, and Karnataka which has relatively high earnings in 'other operations in 1964-65, the observed pattern is true in all states which have an above average incidence of women agricultural labourers. This is evidenced by the RLE of 1964-65 and 1974-75, as well as the NSS 32nd round for 1977-78.[20/]

The differentials between the average daily earnings of women and men agricultural labourers appear to have decreased somewhat between 1964-65 and 1974-75 according to the RLE. Women earned two-thirds to three-fourths of men's earnings in the latter year, in the operations that absorb most female labour, i.e. harvesting, transplanting, weeding and 'others'. Weeding, the off-peak activity, shows the highest differential in 1974-75; harvesting, which absorbs considerable quantities of both female and male labour, shows the least differential. Again, this pattern at the all-India level is particularly true for the states with a high incidence of women agricultural labourers in the population.[21/] Thus, the distinction between peak and off-peak activities appears to have some usefulness

in an analysis of both earnings and earning differentials. Among the activities that absorb the bulk of female agricultural labour, the off-peak activity (weeding) has both lower earnings for women, and a higher differential between women and men, than the peak activities (harvesting and transplanting)

COMMENTS ON THE DATA

The three major sources for the data used in this paper are the population census, the Rural Labour Enquiry, and the 32nd round of the National Sample Survey. The problems of undercounting of women workers by the census have been extensively discussed before.[22/] These problems have been judged to have been particularly severe in the 1971 census. Despite this, I have argued that, so far as women agricultural labourers are concerned, even the 1971 census provides reasonably reliable information for the study of regional variations, although not, perhaps, for the study of absolute magnitudes.

In examining the regional incidence of women agricultural labourers, a critical need is to be able to isolate the effects of short-term, peak-season migration of agricultural labourers, both female and male. It is our hypothesis that such short-term seasonal in-migration of women labourers may account for the low incidence of female agricultural labourers in the paddy growing northeastern states. That is, to put it crudely, seasonal migrants may do much of the work that would otherwise be done by the women of the region. The canvassing of this information, even by the population census

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iself, may be no more difficult than the usual census questions on migration. Both 'birthplace migration' and 'migration from place of last residence' avoid the issue of the time factor involved. The questions on seasonal migration for purposes of work could difectly ask who migrated seasonally, where, for how long, for what work, and whether as a contract or other type of labourer during the previous twelve months (or some other appropriate period). Given the probable prevalence of short-term migration, these questions may in fact give us a much richer picture of the work patterns and locations of agricultural labourers, female and male, besides helping resolve some of the puzzles in the regional incidence of women agricultural labourers. The 38th round of the NSS is currently canvassing such information.

So far as unemployment is concerned, the NSS estimates appear to be more reliable than the RLE, for women agricultural labourers at least. This is because of the inordinately high number of 'unaccounted' and 'unclassified' days in the RLE, leading us to doubt the data especially for Karnataka, Maharashtra and Uttar Pradesh. The daily status unemployment incidence as obtained by the 32nd round of the NSS appears to provide the most reliable information.[23/]

The break-down of employment and earnings according to agricultural operation in both the RLE and the NSS suffers from the relative importance of the category 'others'. For example, 39% of male labour time and 32% of female labour time was absorbed by this category in 1964-65. A more detailed break-down of agricultural operations would relieve this problem. It might also make it possible then to use the

data to examine changes in the task- and sex-based division of labour as new agricultural techniques are introduced, for example. Such changes, which may well be extremely important in altering the number of days of female employment, and earnings, are now rendered opaque by the very broad categories presently in use.

CONCLUSION

The discovery of a relationship between poverty and the incidence, employment and earnings of women agricultural labourers is not very startling. That, within a region, agricultural labourers and a fortiori women agricultural labourers, are among the poorest is quite well known. I have attempted to argue in this and the previous paper, that the relationship holds across regions as well.

District level data for 291 districts of the major states of the country indicate a higher incidence of women agricultural labourers in the female population in districts where agricultural growth is low, coarse grains tend to be grown, and land ownership is more unequal. Furthermore, the unemployment rate among rural women is higher in the states that have a higher incidence of women agricultural labourers, while average daily earnings are lower. This corroborates our earlier finding that, according to the RLE of 1974-75, the annual incomes of landless agricultural labour households are lower in the states which have a higher incidence of women agricultural labourers.

The policy implications of these relationships are, in some

ways, too obvious to need stating, but their regional dimensions need to be noted. It is worth emphasising that more employment for rural women is a particularly urgent need in precisely those states that have a high incidence of women agricultural labourers, although female unemployment is in fact a pressing problem in almost all the states.

Table I - Simple regressions

(Dependent variable - ratio of women agricultural labourers to the female rural population, 1971)

Independent variable	Coefficient	Std. error	t value
Rice plus wheat area 1969-70 GCA under foodgrains	- 0.0549	0.0129	4.2649***
Agricultural growth rate, 1962/65-70/73	- 0.009	0.001	8.8272***
Agricultural productivity, 1971	very low	very low	3.8673***
Gini coefficient of owned land, 1971	0.1298	0.0553	2.3485*

* - 5% significance level

*** - 0.1% significance level

Table II - Correlation matrix

Women agricultural labourers / Female rural population	1.0				
Rice plus wheat area / GCA under foodgrains	-0.247	1.0			
Agricultural growth rate	-0.470	0.156*	1.0		
Agricultural productivity	-0.239	0.583***	0.378***	1.0	
Gini coefficient of owned land	0.131	0.224***	0.039	0.064	1.0

* - 5% significance level

** - 1% significance level

*** - 0.1% significance level

Table III - Multiple regressions

(Dependent variable - ratio of women agricultural labourers to the female rural population, 1971)

Independent variable	Coefficient	Std. error	t value
Intercept	0.0071	0.0260	0.2719
Rice plus wheat area / GCA under foodgrains	-0.0499	0.0118	4.2365***
Agricultural growth rate	-0.0085	0.0010	8.6548***
Gini coefficient of owned land	0.1874	0.0492	3.8105***

* - 5% significance level

** - 1% significance level

*** - 0.1% significance level

Table IV - Incidence, earnings and household incomes

	1	2	3	4	5	6
India	0.08	0.95	651	0.07	2.27	1710
Andhra Pradesh	0.19	0.85	722	0.18	1.96	1443
Assam	0.01	1.70	1071	0.003	3.07	2459
Bihar	0.09	1.20	614	0.07	2.74	1654
Gujarat	0.07	1.19	986	0.07	2.52	2086
Haryana	0.01	*	*	0.01	3.94	2980
Karnataka	0.09	0.79	665	0.09	1.81	1528
Kerala	0.06	1.23	733	0.07	4.28	1714
Madhya Pradesh	0.10	0.86	437	0.11	2.73	1527
Maharashtra	0.16	0.77	778	0.14	1.53	1672
Orissa	0.06	0.89	568	0.04	1.83	1018
Punjab	0.004	1.45	917	0.002	3.41	3522
Rajasthan	0.02	1.09	1787	0.02	2.58	2422
Tamil Nadu	0.11	0.85	516	0.11	2.32	1618
Uttar Pradesh	0.04	0.93	542	0.03	2.47	2023
West Bengal	0.03	1.36	NA	0.03	2.83	1618

* - included in Punjab

1 - Women agricultural labourers, 1961
Female rural population

2 - Average daily earnings in agriculture of women from agricultural labour households, 1964-65

3 - Average household income of landless agricultural labour households, 1964-65

4 - Women agricultural labourers, 1971
Female rural population

5 - Average daily earnings in agriculture of women from agricultural labour households, 1974-75

6 - Average household income of landless agricultural labour households, 1974-75

Sources: Census of India, 1961, 1971; Rural Labour Enquiry, 1963-65 and 1974-75.

Table IV-A - Ranks corresponding to Table IV

	1	2	3 (reverse)	4	5	6 (reverse)
Andhra Pradesh	1	11	7	1	12	2
Assam	13	1	12	14	4	13
Bihar	5	5	5	6	6	7
Gujarat	7	6	11	6	9	11
Haryana	13			13	2	14
Karnataka	5	13	6	5	14	4
Kerala	8	4	8	6	1	9
Madhya Pradesh	4	10	1	3	7	3
Maharashtra	2	14	9	2	15	8
Orissa	8	9	4	9	13	1
Punjab	15	2	10	15	2	15
Rajasthan	12	7	13	12	7	12
Tamil Nadu	3	11	2	3	10	5
Uttar Pradesh	10	8	3	10	9	10
West Bengal	11	3	NA	10	4	5

Table V - Districts in which incidence increased classified by agricultural growth rates

Agricultural growth rate	No. of districts	Frequency %
≥ 6.00	4	5.41
4.50 - 5.99	5	6.76
3.00 - 4.49	8	10.81
1.94 - 2.99	18	24.32
1.50 - 1.93	7	9.46
0 - 1.49	19	25.68
- 1.49 - 0	0	0.00
- 4.49 - -1.50	9	12.16
≤ -4.50	4	5.41
	74	

N.B. - The average agricultural growth rate was calculated by Bhalla and Alagh as 1.94.

Table VI

	No. of days not worked by women from agricultural labour households due to want of work		Unaccounted plus unclassified days
	Days	Ranks	
India	96		67
Andhra Pradesh	99	6	107
Assam	43	13	25
Bihar	103	5	90
Gujarat	82	7	22
Haryana	*		*
Karnataka	8	14	114
Kerala	120	2	43
Madhya Pradesh	75	9	69
Maharashtra	44	12	82
Orissa	105	4	46
Punjab	59	11	94
Rajasthan	81	8	33
Tamil Nadu	155	1	27
Uttar Pradesh	108	3	78
West Bengal	73	10	21

* - included in Punjab

Source: Rural Labour Enquiry, 1963-65

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Table VII - Unemployment according to NSS 32nd round

	1	2		3		4	
			rank		rank		rank
India	5.52	9.18		2.89		50.58	
Andhra Pradesh	5.22	14.33	3	2.79	8	55.29	5
Assam	5.83	1.35	15	4.08	5	11.36	15
Bihar	3.98	9.23	8	2.37	9	35.23	11
Gujarat	1.74	5.61	9	4.47	4	51.58	6
Haryana	20.79	3.17	11	1.40	12	28.22	14
Karnataka	4.13	11.54	4	5.02	3	58.27	3
Kerala	29.18	27.41	1	7.15	1	69.87	1
Madhya Pradesh	0.75	3.39	10	0.71	13	33.26	12
Maharashtra	1.89	9.31	7	1.94	11	57.91	4
Orissa	4.43	9.67	6	4.05	6	45.60	8
Punjab	14.30	2.11	13	2.21	10	32.01	13
Rajasthan	2.10	1.96	14	0.43	15	40.65	9
Tamil Nadu	6.27	17.11	2	3.85	7	61.41	2
Uttar Pradesh	3.20	2.98	12	0.58	14	38.82	10
West Bengal	23.86	9.91	5	7.08	2	50.58	7

Source: "Women's activities in rural India - a study based on NSS 32nd round (1977-78) survey results on employment and unemployment", Sarvekshana, January-April 1981, pp 42, 47, 51

1 - Usual status unemployment incidence (women)

2 - Current daily status unemployment incidence (women)

3 - % of women in domestic duties (by usual status) due to non-availability of work

4 - % of women casual agricultural labourers who are available for additional work.

Table VIII - Casual agricultural labour

	Women casual labourers / Women regular plus casual labourers (usual status)	
	%	rank
India	96.37	
Andhra Pradesh	99.33	2
Assam	34.25	15
Bihar	96.09	10
Gujarat	99.40	1
Haryana	95.86	11
Karnataka	97 .15	6
Kerala	90.95	13
Madhya Pradesh	96.32	9
Maharashtra	98.39	3
Orissa	97.55	5
Punjab	64.29	14
Rajasthan	96.86	7
Tamil Nadu	97.85	4
Uttar Pradesh	96.65	8
West Bengal	91.87	12

Source: Sarvekshana, ibid., p 17

Table IX - Days worked and earnings of women and men from agricultural labour households - all-India

	1	2	3	4	5	6
1964-65						
% of days worked in agriculture						
- women	4.88	2.45	7.69	15.03	30.46	32.18
- men	22.35	2.40	3.13	6.02	18.50	39.43
Average daily earnings (Rs.)						
- women	1.02	0.97	1.15	0.87	0.95	0.92
- men	1.39	1.51	1.86	1.42	1.43	NA
1974-75						
Average daily earnings (Rs.)						
- women	2.42	2.57	2.46	1.95	2.38	2.30
- men	3.35	3.74	3.34	3.07	3.41	3.11

Sources: Rural Labour Enquiry, 1964-65, and 1974-75

1 - ploughing

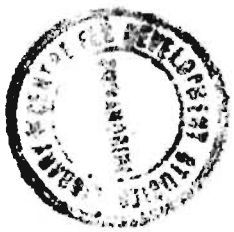
2 - sowing

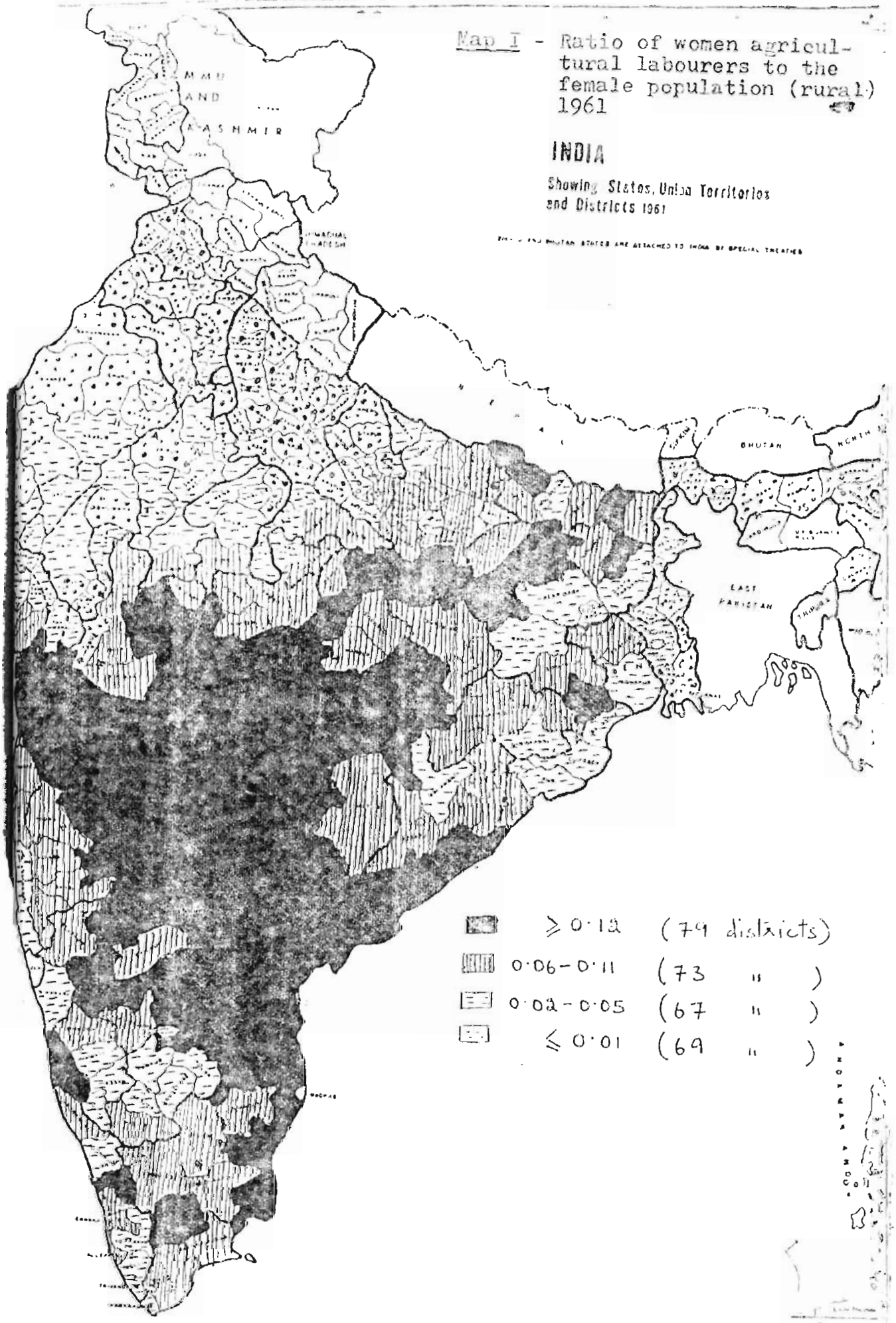
3 - transplanting

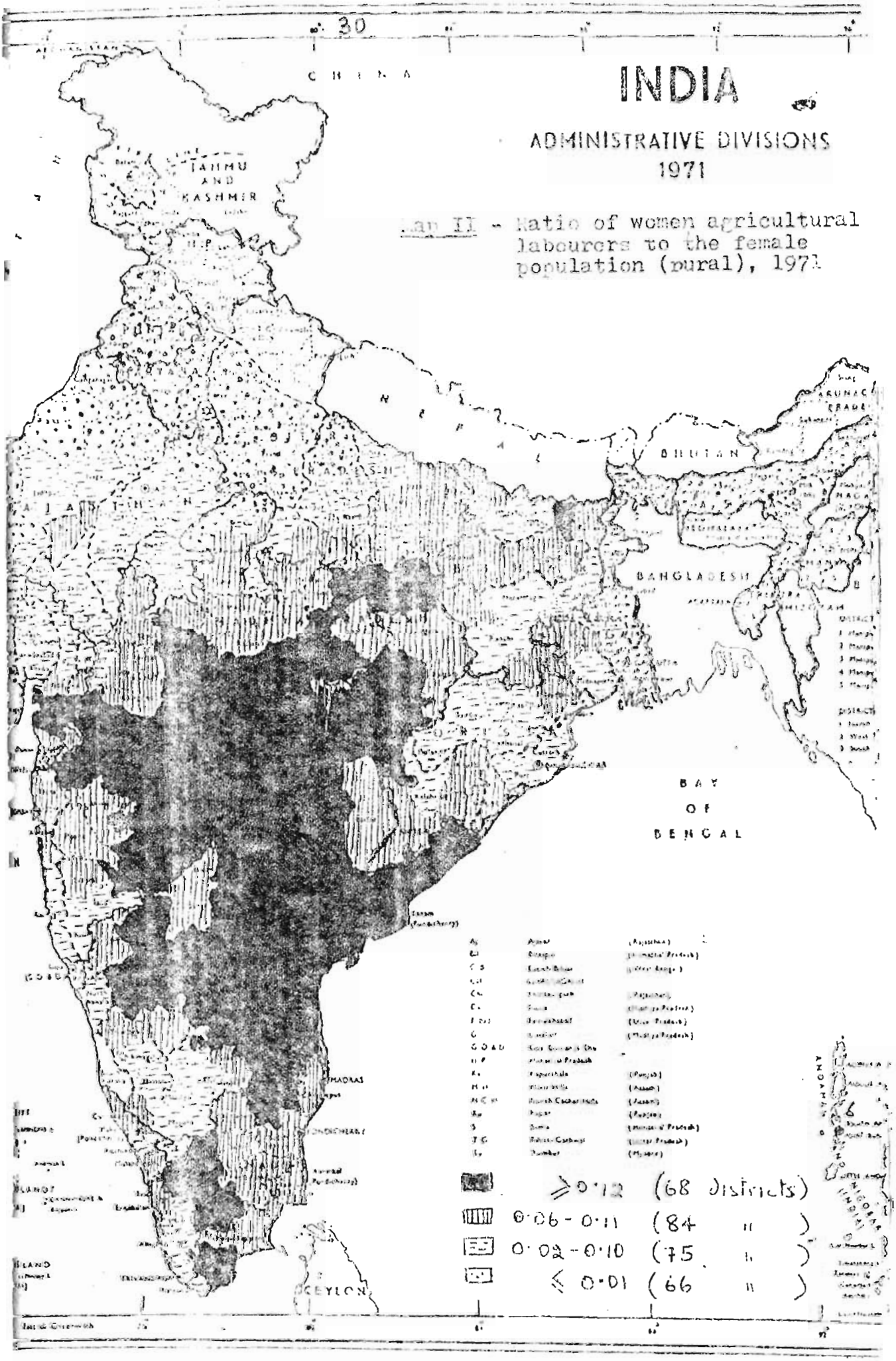
4 - weeding

5 - harvesting

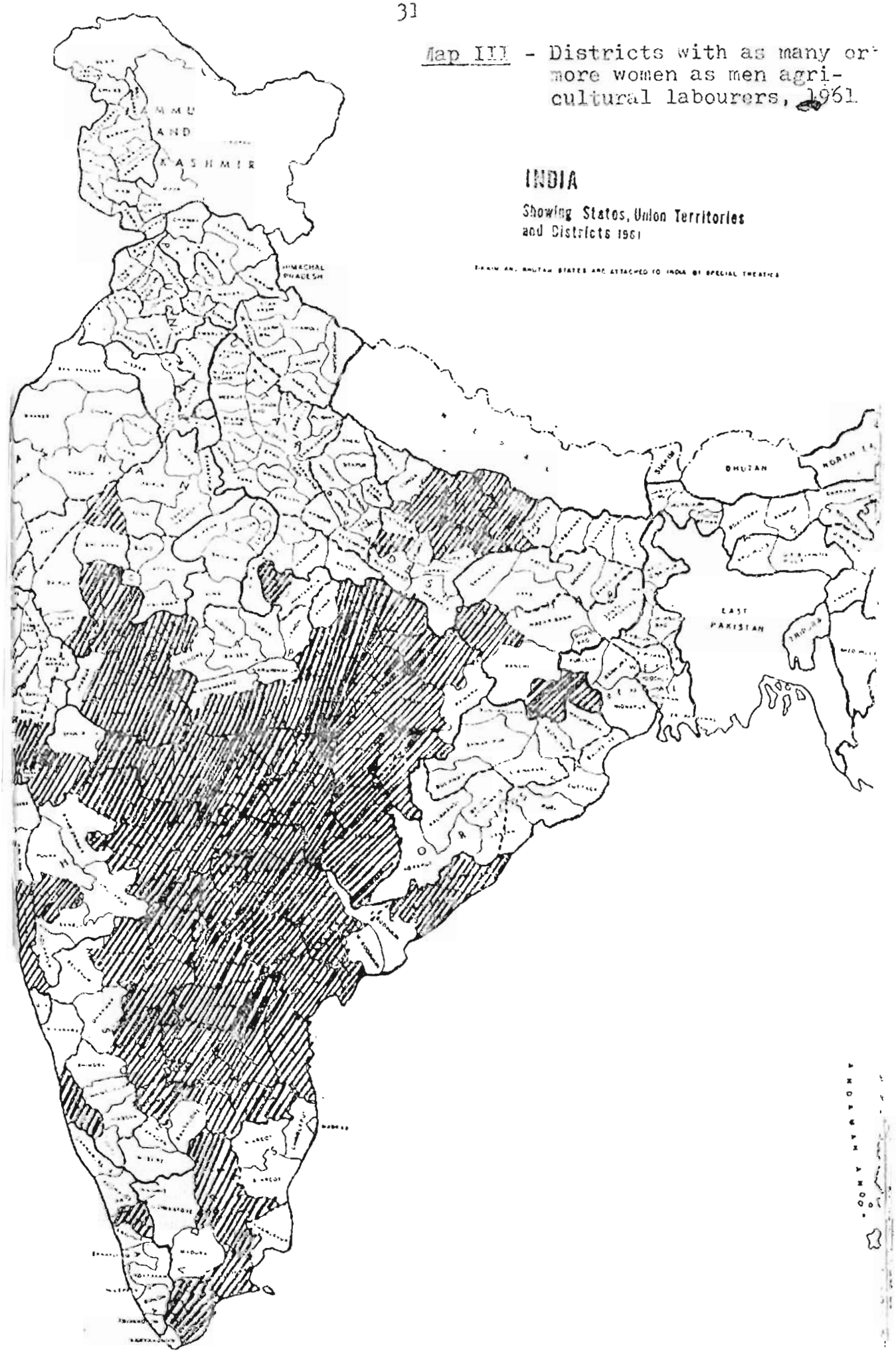
6 - others

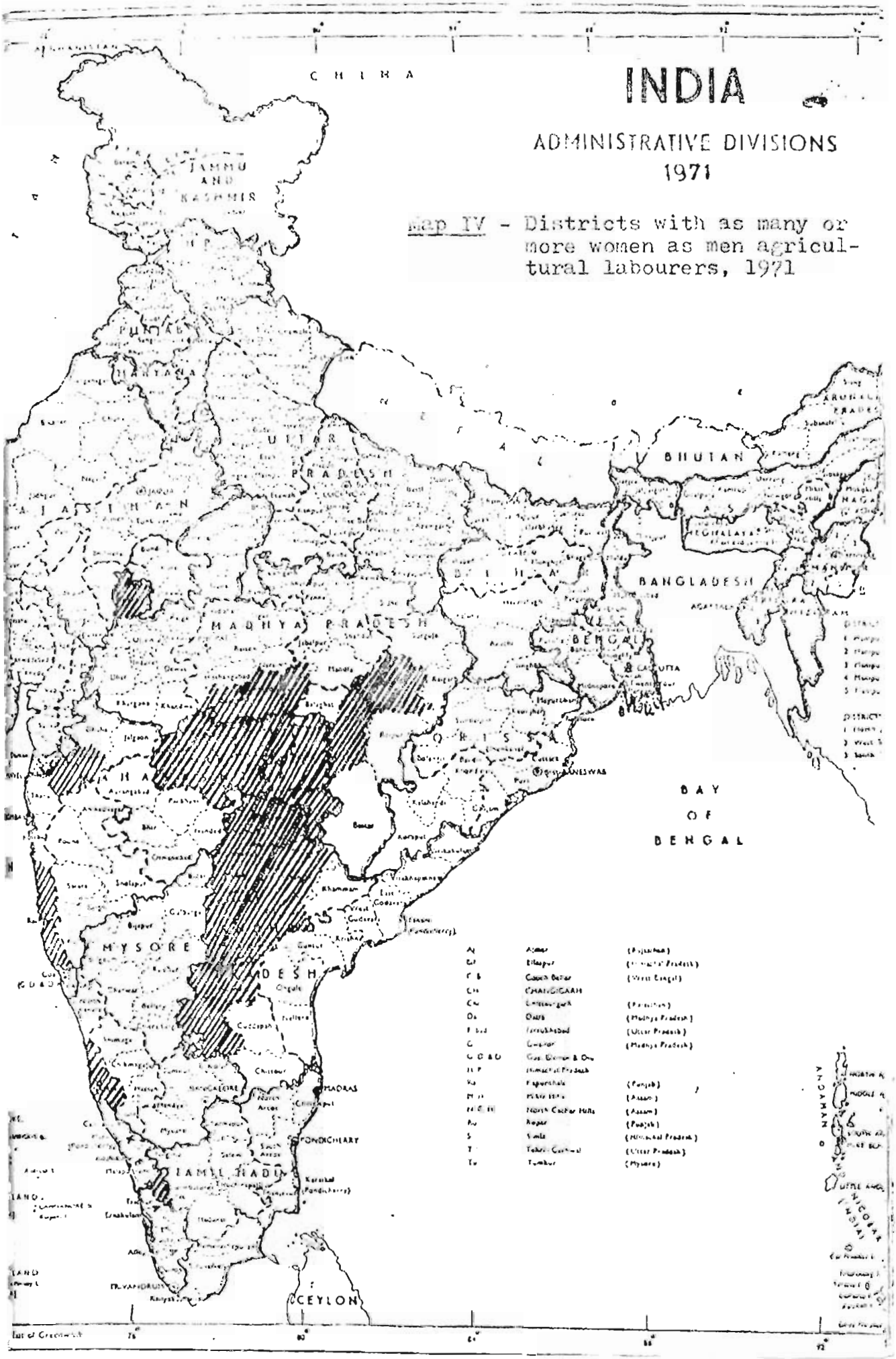


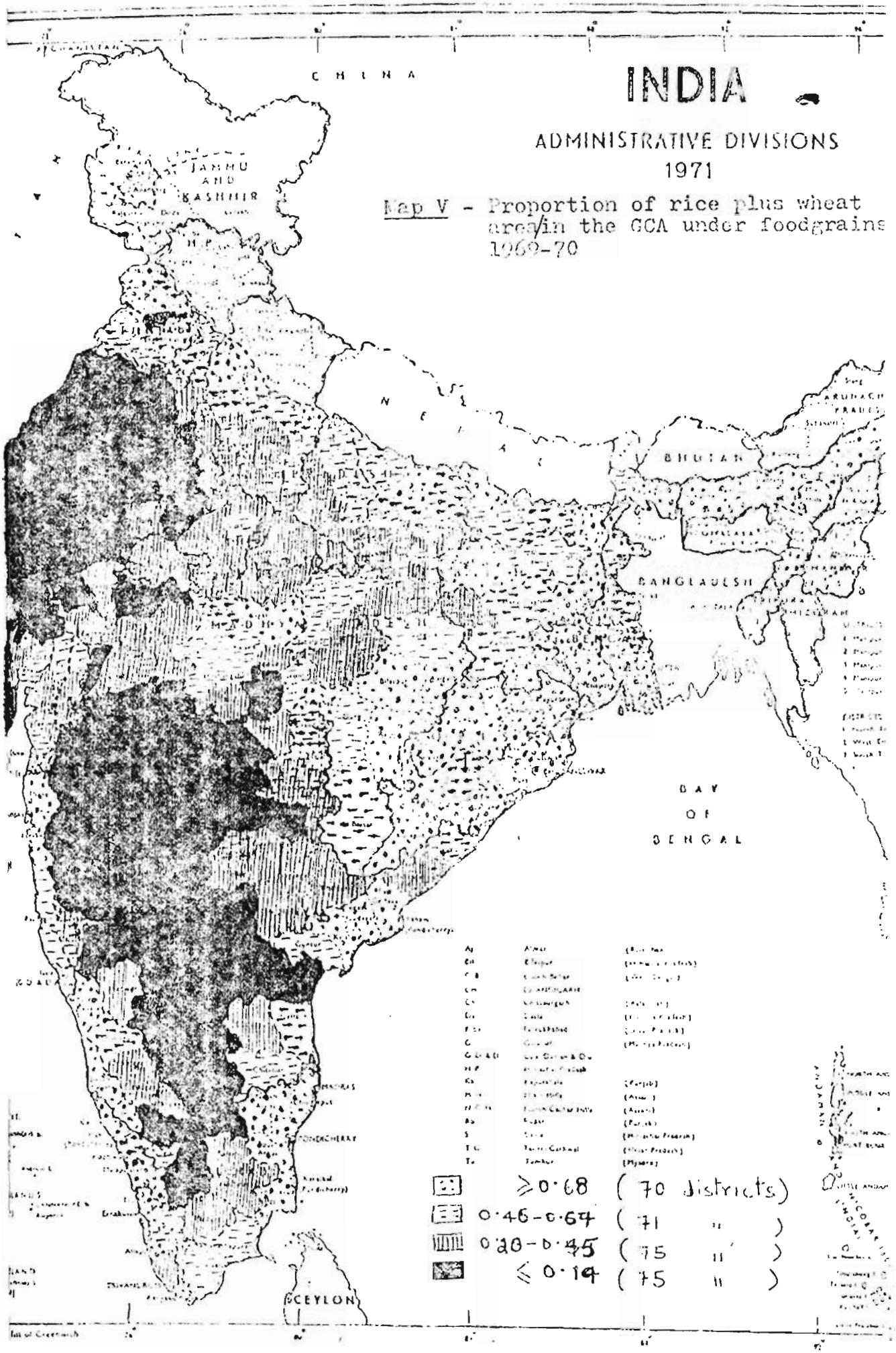

Map I - Ratio of women agricultural labourers to the female population (rural) 1961
INDIA
Showing States, Union Territories and Districts 1961
BHUTAN
EAST PAKISTAN
≥ 0·12 (79 districts)
0·06 - 0·11 (73 ")
0·02 - 0·05 (67 ")
≤ 0·01 (69 ")


INDIA
ADMINISTRATIVE DIVISIONS
1971
Map II - Ratio of women agricultural labourers to the female population (rural), 1971
30
CHINA
JAMMU AND KASHMIR
NEPAL
BHUTAN
BANGLADESH
BAY OF BENGAL
MADRAS
CEYLON
≥ 0·12 (68 districts)
0·06 - 0·11 (84 ")
0·02 - 0·10 (75 ")
≤ 0·01 (66 ")

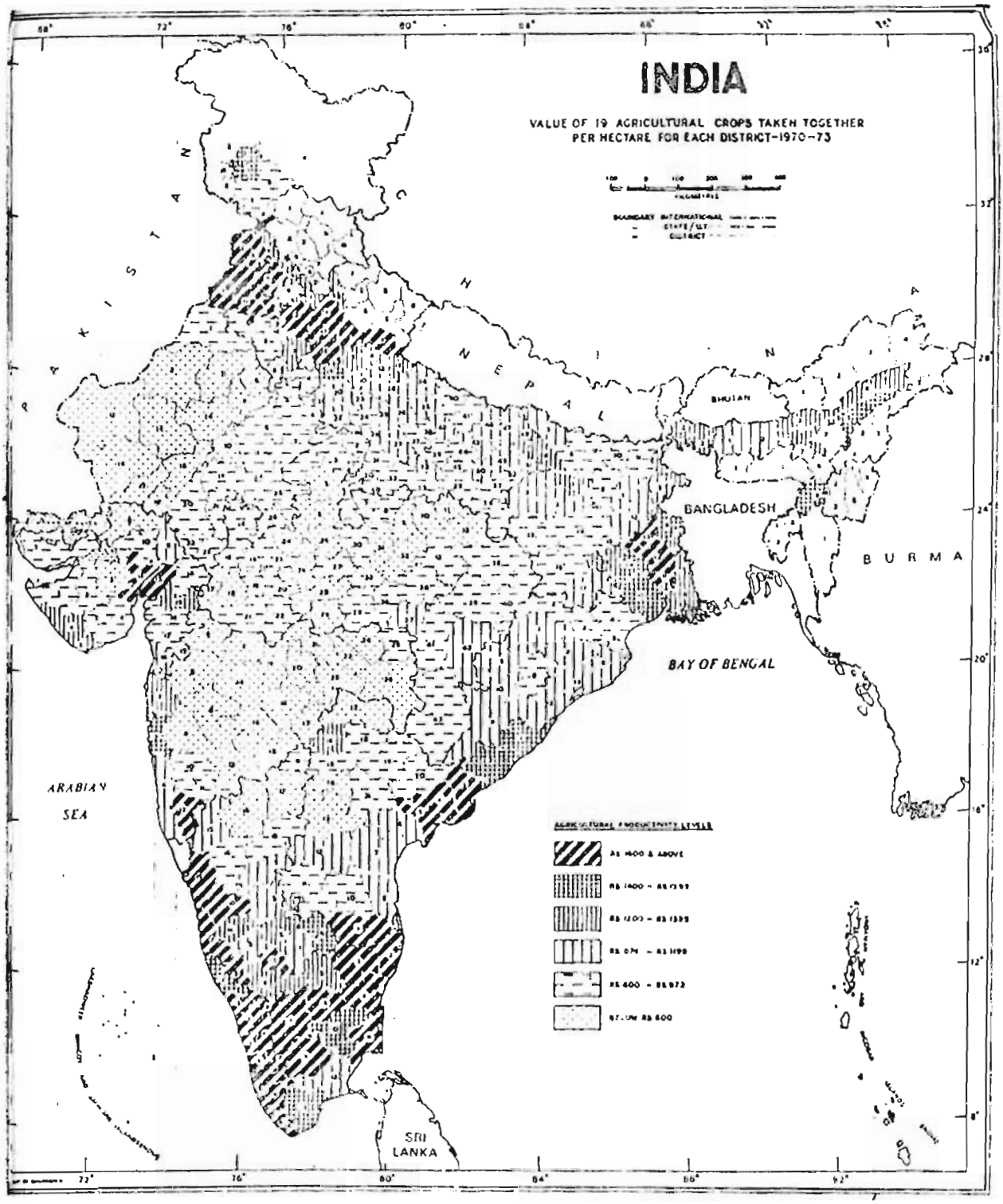
Map III - Districts with as many or more women as men agricultural labourers, 1961




INDIA
ADMINISTRATIVE DIVISIONS
1971
Map IV - Districts with as many or more women as men agricultural labourers, 1971
CHINA
JAMMU AND KASHMIR
PUNJAB
HARYANA
RAJASTHAN
UTTAR PRADESH
BHUTAN
BANGLADESH
MADHYA PRADESH
BIHAR
WEST BENGAL
CALCUTTA
ORISSA
BHUBANESWAR
BAY OF BENGAL
MAHARASHTRA
MYSORE
ANDHRA PRADESH
MADRAS
PONDICHERRY
TAMIL NADU
CEYLON
ANDAMAN
NICOBAR ISLANDS
Ajmer (Rajasthan)
Bilaspur (Himachal Pradesh)
Coach Behar (West Bengal)
CHANDIGARH
Dadra (Madhya Pradesh)
Himachal Pradesh
Goa, Daman & Diu
Manipur (Assam)
North Cachar Hills (Assam)
Simla (Himachal Pradesh)
Tehri-Garhwal (Uttar Pradesh)
Tumkur (Mysore)

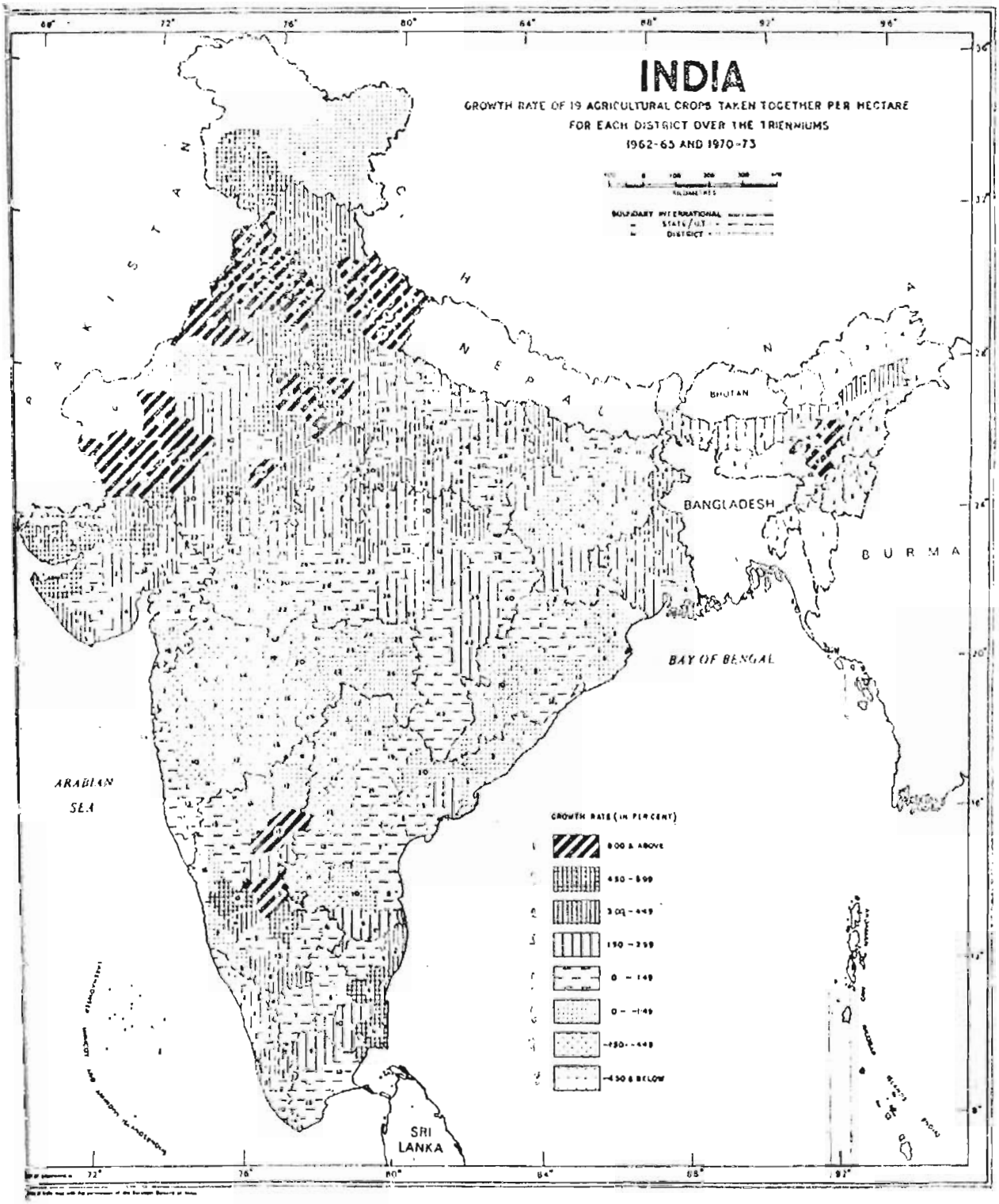

INDIA
ADMINISTRATIVE DIVISIONS
1971
Map V - Proportion of rice plus wheat area in the GCA under foodgrains 1969-70
CHINA
JAMMU AND KASHMIR
NEPAL
BHUTAN
BANGLADESH
BAY OF BENGAL
MADRAS
PONDICHERRY
CEYLON
≥ 0·68 (70 districts)
0·46-0·64 (71 ")
0·20-0·45 (75 ")
≤ 0·19 (75 ")

MAP #1



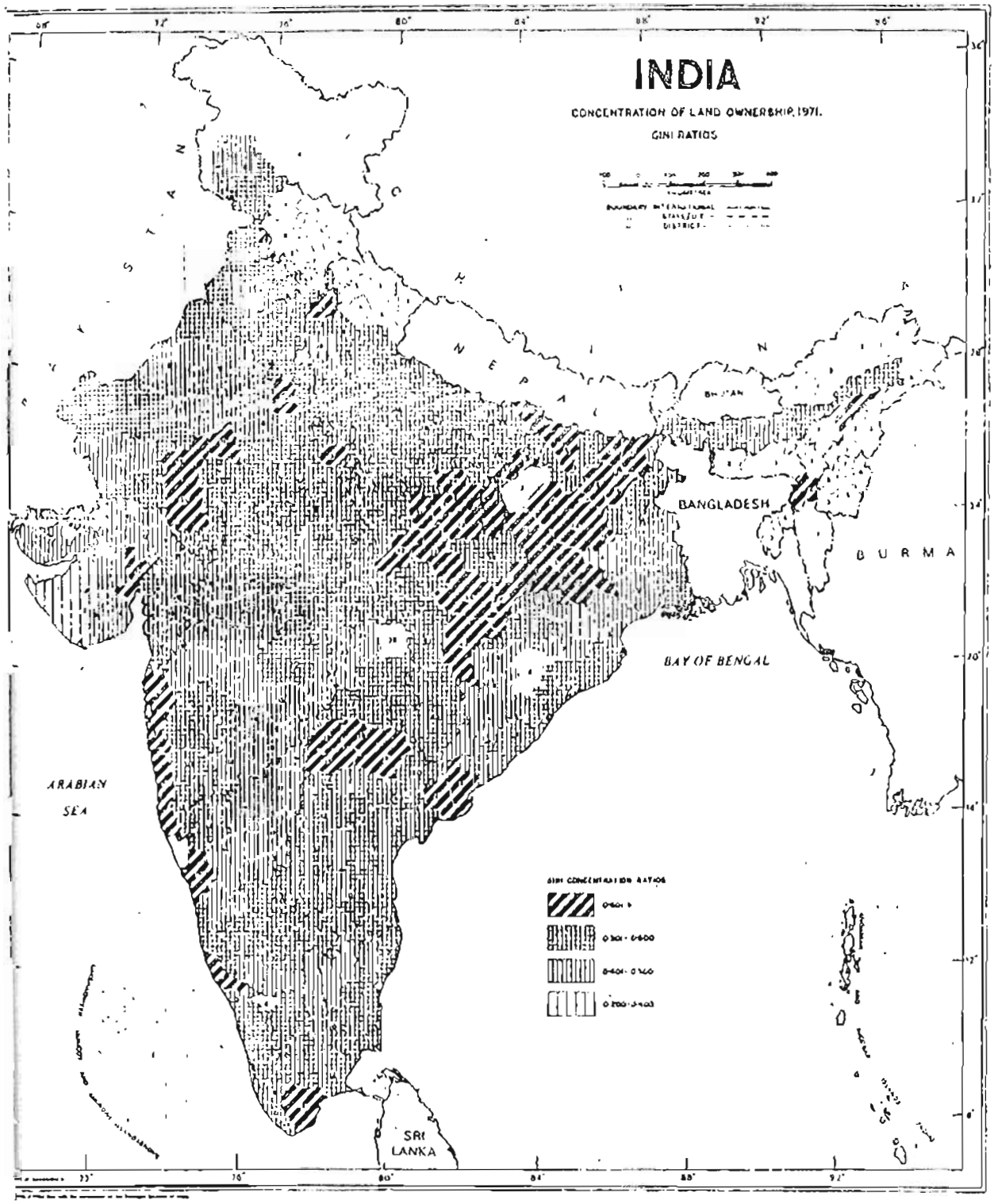
Source: Asok Mitra and Shekhar Mukherji, Population, Food and Land Inequality in India, 1971, Allied Publishers, 1980

MAP 2 VII

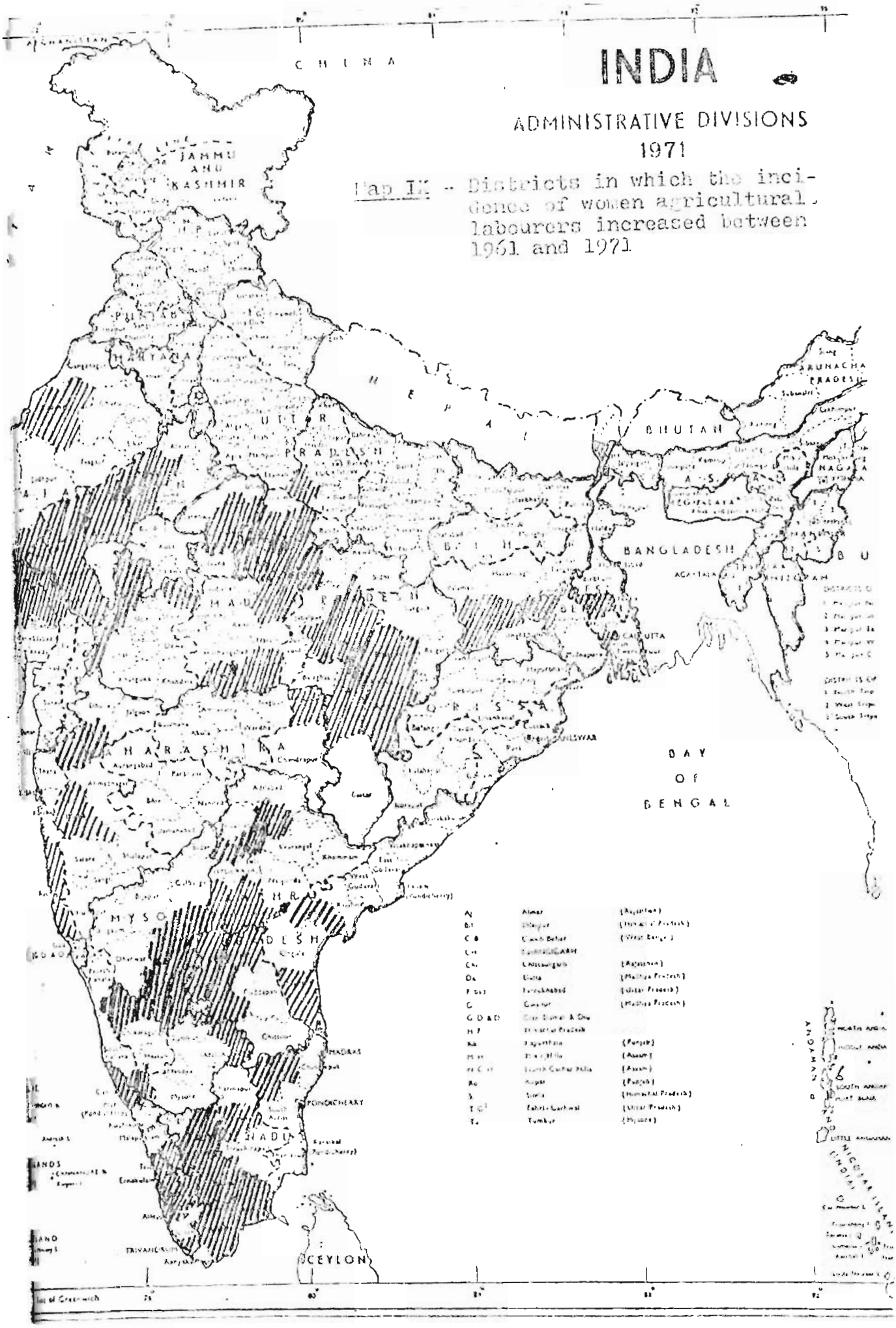


Source: A.Mitra and S.Mukherji, ibid.

MAP VIII



Source: A.Mitra and S.Mukherji, ibid.



Map IX - Districts in which the incidence of women agricultural labourers increased between 1961 and 1971