CASTE AND TRIBE-WISE FEMALE-MALE RATIOS, WEST BENGAL AND ERSTWHILE BIHAR, 1961-2001

AN ANALYSIS OF ISSUES WITH SECONDARY DATA

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`Most people, if you describe a train of events to them, will tell you what the result would be. They can put those events together in their minds and argue from them that something will come to pass. There are few people, however, who, if you told them a result, would be able to evolve from their own inner consciousness what the steps were which led up to that result. This power is what I mean when I talk of reasoning backwards, or analytically'

- Sherlock Holmes, in Sir Arthur Conan Doyle's `A Study in Scarlet'.[@]

`The fox knows many things but the hedgehog knows one big thing'

- Archilochus[@@]

@ Sir Arthur Conan Doyle. `A Study in Scarlet'. In *The Complete Sherlock Holmes*. Geddes and Gosset, David Dale House, New Lanark, ML 11 9DJ. Reprinted 2003. pg. 38.

@@ Deepak Lal. 1988. *Cultural Stability and Economic Stagnation : India c. 1500 BC – AD 1980.* Oxford : Clarendon Press. pg. 1., cited from Berlin, I. 1978. `The Hedgehog and the Fox'. *Russian Thinkers*. London.

CHAPTER 1

INTRODUCTION

Unbalanced Female-Male Ratios (FMRs), a distinctive feature of South Asian countries, have been much studied, but while much work has been done to identify the factors at work, the analyses have been confined to the macro level or have dealt with broad subsets of the population like Scheduled Castes and Scheduled Tribes. A more disaggregated analysis is needed to facilitate a better understanding of the complex mechanisms at work, as is suggested by the preliminary findings from caste-wise data presented here for two States – West Bengal and Erstwhile Bihar (now Bihar and Jharkhand). These data show that while FMRs grew more adverse in former Bihar, in West Bengal, in many instances, *the trend was in the opposite direction.* This study draws upon secondary data to study the factors at work, and, more particularly, investigate whether the castes whose FMRs grew more feminine were concentrated or clustered together in the more developed regions, where, increasingly, over time, some living-standards threshold had been crossed. The proposed project, it is expected, will not only inspire the compilation of a caste-wise FMR data base for the rest of the country, but also lead to a more nuanced empirical and theoretical understanding of issues pertaining to the FMR, and lead to the defining of the contours of new research horizons. These could also stimulate a study of the FMRs of other countries in the South Asian region, with either secondary or survey data.

CONCEPTUAL FRAMEWORK

The deficiency of females in the South Asian region, due to which the Female-Male Ratio (females per thousand males) is less than unity, has been attributed to the fatal deprivation of female children in a patriarchal society, in such vital spheres as food, health care, and even affection (Miller 1981). Evidence shows also that the FMR has been growing more and more unbalanced over time. Thus, data from the census of India

not only attest to female-deficit FMRs, they indicate also that since the beginning of the twentieth century, the FMR in India has grown increasingly masculine, except for the decade 1971-1981, when it grew more feminine (Premi 1991: 37). One explanatory factor is that due to population growth, the age structure had been growing increasingly younger, so that relatively, more girls have suffered the fatal consequences of neglect. However, if the effects of age structure are controlled for through the demographic technique of age-standardisation, it can be seen that age standardised FMRs for 1901 and 1981 very closely approximate the non-standardised ones, suggesting that the statistical effects of age structure on the FMR have been minimal. The FMR can grow more adverse for females also because the States with initially low FMRs witnessed higher population growth than the other States, but this explains only a small part of the overall trend of FMR decline (Dreze & Sen 1996: 147-153). Finally, the FMR is shaped by the `mortality decline effect', which stems from gender neutral mortality decline in an age group in which women have a survival advantage; as can be shown mathematically, this reduces the FMR in the subsequent age groups. In India, the decline in the FMR in the population aged 30+ (in which women have a survival advantage) is at least partly due to this factor. [1]

Overall, the trend of increasingly unbalanced FMRs are an outcome of not only the mortality decline effect in the older ages, but also, a failure to remove the anti female bias in the younger age groups; persisting gender bias has meant that improvements in living conditions and medical care benefited males more than females (Dreze & Sen 1996: 153-154). In recent times, gender bias, in conjunction with the modern pre-birth sex determination technology, is believed to have contributed to making the FMR more unbalanced, but there are indications also that the anti females bias has itself intensified. This has been linked to `sanskritisation', or the emulation of upper caste lifestyles by the lower castes, which involves a withdrawal of women from the labour force as material conditions improve and it is no longer necessary for them to work. The `effective co-operation' or partnership aspect of gender can, in this context, weaken

[1] In the older age groups, there could have been some adverse change in female relative to male survival chances, but since 1971, the trend has been in the opposite direction (Dreze and Sen 1996: 152-154).

(Dreze & Sen 1996: 155-159).[2] Nonetheless, the view that poverty reduction is likely to have been at the root of intensified female survival disadvantage is corroborated by cross sectional data for 296 districts, which show that higher levels of poverty go with more balanced FMRs, while, at the same time, female labour force participation makes the FMR more feminine (Dreze and Sen 1996: 157-163).

The `effective co-operation hypothesis' is, moreover, only *one* explanation for the link between women's work and the FMR. Secondary data showing that working mother households have lower gender differentials in child survival (and higher child mortality rates as well) have been explained in terms of the inability of working mothers to spend adequate time on child care, and hence, to discriminate fatally against children of one sex (Basu and Basu 1991; Basu 1992, cited in Krishnaji 1995: 2803, 2807-2808). It is argued also that working mothers come from households so poor that even if boys receive favoured treatment, it is not sufficient to given them a survival advantage over their sisters (Krishnaji 1995: 2808). Finally, more balanced FMRs can stem also from another women's agency variable, namely, female literacy. In cross sectional district level analysis, it was found to reduce female disadvantage in child survival, while modernisation and development related variables did not show a statistically significant effect (Murthi, Guio & Dreze 1995, cited in Dreze and Sen 1996: 161-167). Based on the evidence from that study, it appears that in India, in so far as development attenuates the gender bias in survival, it seems to do so via variables related to women's agency, such as female literacy and women's labour force participation (Dreze and Sen 1996: 161, 163).

Yet, it appears that improvements in the FMR *can* occur independently of factors related to women's agency. Thus, Dyson attributes the trend of decline in excess female mortality to a reduction of demographically determined risk rather than gender related factors; fertility decline makes possible a greater share of resources for females in smaller families, so that the survival chances of female children improves. Continued

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2 The picture is not all clear cut, though. Thus, in his study of the Jatavs of Agra, Lynch finds that while sanskritisation was seen a means of social mobility, political participation came to be looked upon as

discrimination against girls in terms of how well fed and cared for they are does not translate into higher mortality rates for female children, but it acts to increase their frailty and susceptibility to morbidity (cited in McNay 1995: WS 82, WS 85, WS 86). The number of `surplus daughters' who face discrimination can, in this context, be expected to increase (Jeffery & Jeffery 1983, cited in McNay 1995: WS-85).

The Dyson hypothesis is corroborated by McNay (1995), who finds evidence of persisting female frailty in the face of fertility decline. The author's data, from Gujarat, show that the *maternal mortality rate* (maternal deaths per 1000 women of reproductive age) declined significantly, as can be expected in a regime of declining fertility, where exposure to the risk of maternal mortality is reduced because the mother is susceptible to it less frequently. Risk per birth, which depends on a woman's health status, as shown by the *maternal mortality ratio* (maternal deaths per 1000 live births), did not however significantly fall. It appears, therefore, that `... a decline in the average number of children born to each woman may have been more important in reducing maternal mortality than a decline in risk per birth' (McNay 1995: WS83, WS85). Though demographically determined risk got significantly reduced, McNay argues, status determined risk factors did not. In this interpretative framework, fertility decline is *not* seen as an outcome of improvements in female status (McNay 1995: WS 86, footnote 4).[3] To argue the point somewhat differently, improvements in living conditions can, by itself act to make the FMR more balanced. This, in effect, implies the same causal mechanism implicit in the Dyson hypothesis.

We see therefore that while deterioration in the FMR is a cause for concern, feminisation of FMRs is not necessarily an unqualifiedly positive sign. We should keep this in mind while analysing changes in the FMR. As we shall see from the data presented here, the point is a salient one.

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an alternative route (Lynch 1968).

3 Evidence suggests that fertility decline can be associated with more balanced FMRs also because higher parity girl children are at greater risk of female survival disadvantage (Das Gupta 1987; Khan et. al. 1989). This could be part of the reason why high fertility is associated with low survival chances for female children (Dreze and Sen 1996: 163).

CHAPTER 2

CASTE AND TRIBE WISE FMRs PATTERNS AND TRENDS

In the light of the evidences presented, of the factors that could make the FMR more *balanced*, it is noteworthy that while the FMR for the population as a whole has been growing more adverse in the country over the past century, there is also evidence of factors conducive to feminine FMRs in States like West Bengal (Census of India 2001). The data presented here on caste-wise FMRs for two States – Erstwhile Bihar and West Bengal, shows, in many instances, that FMRs grew more feminine. These data, from the Census of India's *Special Tables on Scheduled Castes & Scheduled Tribes*, should aid a better understanding of poverty-related determinants of the FMR. The incidence of poverty is generally high among the Scheduled Castes, while, at the same time, the SCs display a considerable amount of heterogeneity with respect to the poverty criterion. Thus, differences between castes may be due to poverty-related factors. They could of course be related to women's agency related factors like female literacy or work force participation. Finally, overall spatial factors in the region as a whole could underlie the FMRs of castes found in these regions. A similar argument can be made in the case of the Scheduled Tribes. An attempt will be made here to disentangle spatial from caste / tribe specific factors, and to gauge roughly the types of mechanisms that have been in operation. Before this, let us look at the patterns and trends in caste and tribe wise FMRs for West Bengal and Erstwhile Bihar. We consider the data here for the years 1961, 1971, 1981 and 1991. The study was originally planned to extend also up to the year 2001, but the Special Tables on Scheduled Castes and Scheduled Tribes for 2001 has not yet been released by the Registrar General's office.

CASTE-WISE FMRs, ERSTWHILE BIHAR

In the base year (1961) itself, the data show a great deal of caste wise differences, ranging from a low of 899 for Pan to a high of 1147 for Chaupal. As many as nine out of seventeen castes (Bantar, Bhuiya, Chamar, Chaupal, Dhobi, Dosadh, Hari/Mehtar/Bhangi and Turi) had FMRs of over 1000 in 1961. By 1991, not a single caste had a greater than 1000 FMR. This is part of an overall trend of caste-wise FMR declines. (Table 1). However, there is a considerable amount of heterogeneity, with some castes showing very steep declines and others showing declines that are not so steep. Generally, the steeper declines occurred in the case of castes that had the more favourable FMRs in the base year (1961). We see also that, at the other end of the spectrum, of the castes that had among the worst FMRs in 1961, some actually showed a feminisation of their FMRs between 1961 and 1991 (Tables 1 and 2). The pattern can be seen also in urban areas (Table 3). The trends have been pictorially depicted in charts 1, 2 and 3.

TABLE 1

FMRs, CASTE WISE, ERSTWHILE BIHAR, SCHEDULED CASTES, ALL AREAS, 1961-1991

CASTE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	994	954	946	912	-40	-8	-33	-81
All Scheduled Castes	1031	981	966	914	-50	-15	-52	-117
Nat	899	945	1000	928	46	55	-72	29
Pan	935	975	976	924	40	1	-52	-11
Pasi	946	937	934	913	-9	-3	-21	-33
Ghasi	977	1040	973	984	63	-67	11	7
Rajwar	983	983	970	918	0	-13	-52	-65
Bauri	983	878	942	931	-105	64	-11	-52
Bhogta	993	952	988	943	-41	36	-45	-50
Musahar	998	959	966	916	-39	7	-50	-82
Dom	1000	945	927	895	-55	-18	-32	-105
Dhobi	1014	988	965	899	-26	-23	-66	-115
Turi	1016	995	976	956	-21	-19	-20	-60
Bhuiya	1021	990	972	935	-31	-18	-37	-86
H/M/B	1024	958	942	876	-66	-16	-66	-148
Dosadh	1024	961	954	898	-63	-7	-56	-126
Chamar	1073	1011	983	922	-62	-28	-61	-151
Bantar	1088	973	969	929	-115	-4	-40	-159
Chaupal	1147	966	970	879	-181	4	-91	-268

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

TABLE 2

FMRs, CASTE WISE, ERSTWHILE BIHAR, SCHEDULED CASTES, RURAL AREAS, 1961-1991

CASTE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	**1012**	**971**	**963**	**923**	**-41**	**-8**	**-40**	**-89**
All Scheduled Castes	1039	990	976	920	-50	-13	-57	-120
Nat	899	944	1009	935	45	65	-74	36
Pan	934	979	1004	944	45	25	-60	10
Pasi	962	961	947	922	-1	-14	-25	-40
Ghasi	967	1059	975	980	92	-84	5	13
Bauri	986	863	942	938	-123	79	-4	-48
Rajwar	986	992	977	916	6	-15	-61	-70
Bhogta	996	952	989	951	-44	37	-38	-45
Musahar	1001	962	968	918	-39	6	-50	-83
Dom	1002	954	931	907	-48	-23	-24	-95
Bhuiya	1018	992	981	942	-26	-11	-39	-76
Turi	1024	1002	985	972	-22	-17	-13	-52
Dhobi	1027	1005	985	921	-22	-20	-64	-106
Dosadh	1032	970	965	902	-62	-5	-63	-130
H/M/B	1036	969	958	882	-67	-11	-76	-154
Chamar	1082	1021	994	927	-61	-27	-67	-155
Bantar	1091	973	972	932	-118	-1	-40	-159
Chaupal	1146	962	971	882	-184	9	-89	-264

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

TABLE 3

FMRs , CASTE WISE, ERSTWHILE BIHAR, SCHEDULED CASTES, URBAN AREAS, 1961-1991

CASTE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	**811**	**807**	**832**	**846**	**-4**	**25**	**14**	**35**
All Scheduled Castes	**897**	**860**	**864**	**856**	**-37**	**4**	**-7**	**-41**
Pasi	851	814	881	873	-37	67	-8	22
Chamar	869	836	830	855	-33	-6	25	-14
Musahar	875	865	906	891	-10	41	-15	16
Dusadh	878	817	834	847	-61	17	13	-31
Dhobi	886	851	848	779	-35	-3	-69	-107
Dom	982	889	911	851	-93	22	-60	-131
H/M/M/B	993	932	917	864	-61	-15	-53	-129

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

CHART 1
CHANGES IN CASTE FMRs, ERSTWHILE BIHAR, ALL AREAS, 1961-1991

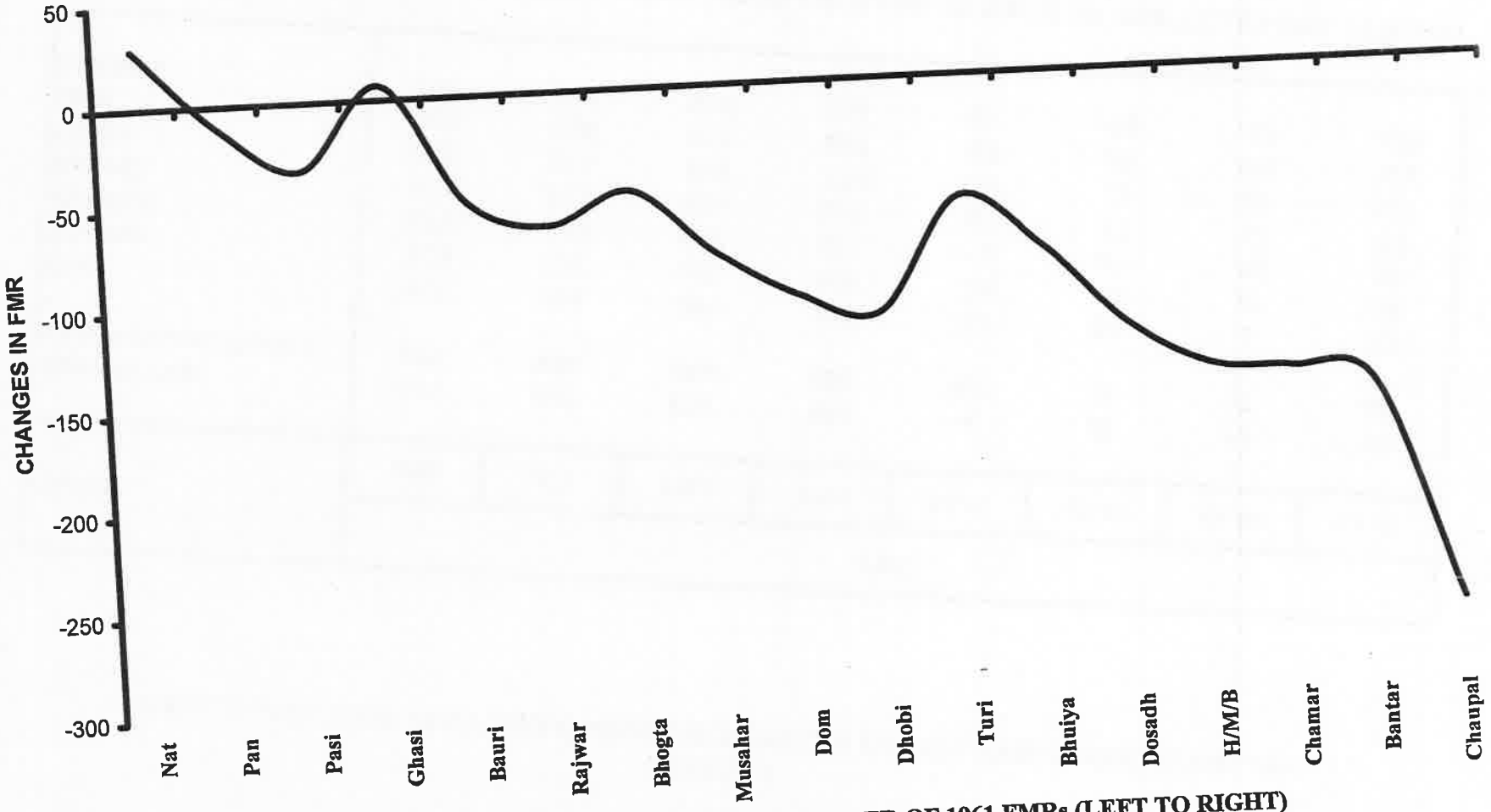


CHART 2
CHANGES IN CASTE FMRs, ERSTWHILE BIHAR, RURAL AREAS, 1961-1991

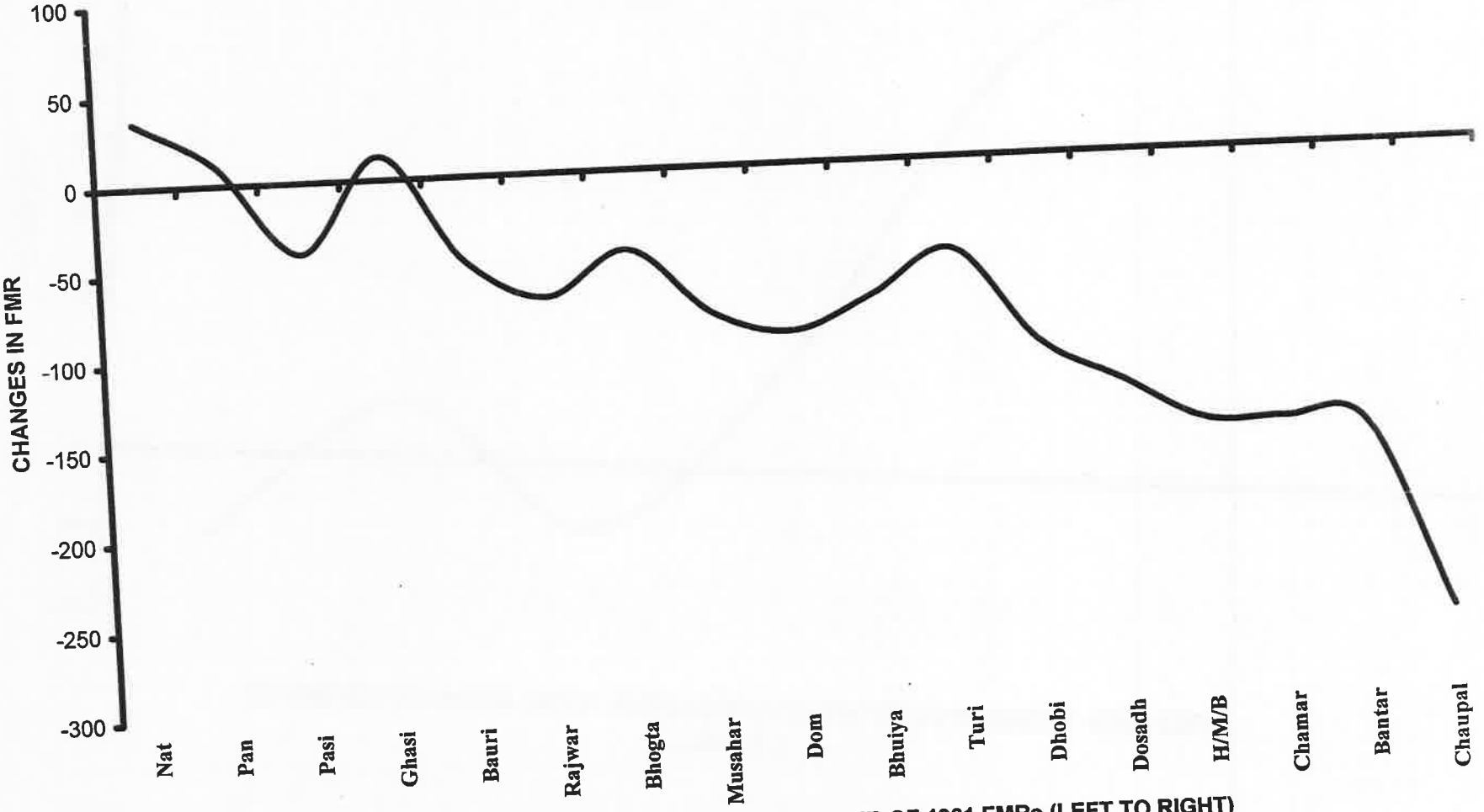
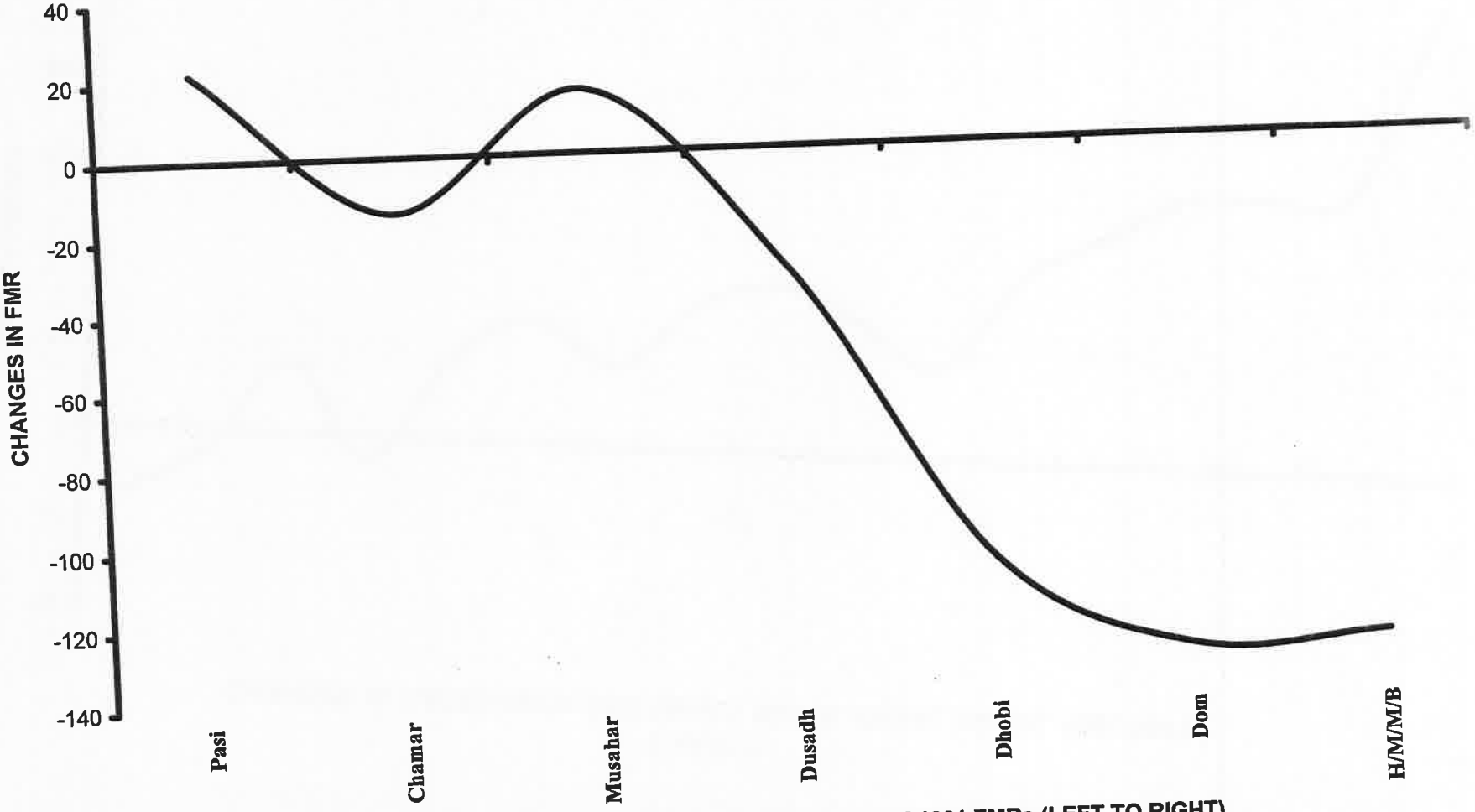


CHART 3
CHANGES IN CASTE FMRs, ERSTWHILE BIHAR, URBAN AREAS, 1961-1991



The data show also that FMRs for rural areas were distinctly more feminine than the corresponding FMRs for urban areas (table 4). This could reflect sex-selective rural to urban migration. That, however, is not the whole story, for, as we have seen, within both rural as well as urban areas, FMRs show a striking tendency to grow increasingly adverse for females. Thus, migration within the State cannot be implicated in the growing masculinity of FMRs for SCs.

Table 4.
FMR (Urban Areas) Minus FMR (Rural Areas), Scheduled Castes, Erstwhile Bihar, 1961-1991.

Caste	Year			
	1961	1971	1981	1991
Chamar	-213	-185	-164	-72
Dhobi	-141	-154	-137	-142
Dom	-20	-65	-20	-56
Dusadh	-154	-153	-131	-55
H/M/M/B	-43	-37	-41	-18
Musahar	-126	-97	-62	-27
Pasi	-111	-147	-66	-49

- Chamar includes Mochi; Dom includes Dhangad, Dusadh includes Dhari or Dharhi; Pan includes Swasi.
- H/M/B stands for 'Hari, Mehtar, Bhangi'.
- FMRs have been compiled only for castes with a population of 10,000+ in 1961, 1971, 1981 & 1991.

CASTE-WISE FMRs, WEST BENGAL

In the base year (1961), caste wise FMRs were overwhelmingly adverse for females; out of 37 castes, only 5 (Bhuiya, Damai, Ghasi, Karenga, and Tiyar) had FMRs greater than 1000. Inter caste differentials too were quite pronounced, ranging from 516 for Pasi to 1052 for Bhuiya. This picture of considerable diversity in caste wise FMRs is in evidence throughout the 1961 to 1991 period.

By 1991, only two castes (Gonhri and Karenga) had FMRs above 1000 (table 5). Yet, the picture of changes in the FMR in West Bengal is not one of predominant decline, as it

is in Bihar. Thus, the FMRs of as many as 25 out of 37 castes either did not deteriorate or grew increasingly feminine (table 5).

It is noteworthy also that, as in the case of Bihar, feminisation of caste FMRs took place among castes that had relatively masculine FMRs in the base year. Conversely, FMRs grew more masculine for castes that had relatively feminine FMRs in 1961 (table 5).

On account of male selective rural to urban migration, it could be expected that rural FMRs would tend to be more feminine than urban FMRs. This was found to be the case for Bihar, and also, for West Bengal (table 6). In both rural and urban areas, the data also show, there is a considerable diversity in the range of caste wise FMRs (tables 7 & 8). There is also another a strong underlying similarity, namely, *in both rural as well as urban areas, for many castes, FMRs either do not deteriorate, or they grow more feminine*. In rural areas, between 1961 and 1991, this happened in as many as 17 out of 33 cases, and in urban areas, for 10 castes out of 12. If rural to urban migration was an overwhelming cause of changes in the FMR, then feminisation of the rural FMR should have been counterbalanced by a growing masculinity of the urban FMRs, which is not the case.

We see also that, as in the case of Bihar, the feminisation of caste FMRs *tends to be to be more pronounced in castes that had adverse FMRs in the base year.* The difference between Bihar and West Bengal in this respect is that in West Bengal, a good number of the FMR changes are greater than zero, while in Bihar, the FMR changes are all above the zero line (charts 1-6).

TABLE 5
FMRs, CASTE WISE, WEST BENGAL, SCHEDULED CASTES, ALL AREAS, 1961-1991

CASTE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	878	891	911	917	13	20	6	39
All Scheduled Castes	916	927	926	931	11	-1	5	15
Pasi	516	776	668	727	260	-108	59	211
Keot	657	758	863	898	101	105	35	241
Dusadh	698	749	747	732	51	-2	-15	34
Nunia	703	844	779	769	141	-65	-10	66
Rajwar	718	767	860	856	49	93	-4	138
Mallah	800	912	860	912	112	-52	52	112
Chamar	803	850	846	880	47	-4	34	77
Kandra	843	888	951	956	45	63	5	113
Bhuimali	855	931	927	929	76	-4	2	74
Turi	872	838	911	916	-34	73	5	44
Rajbanshi	900	950	932	935	50	-18	3	35
Bauri	902	972	961	971	70	-11	10	69
Dom	902	928	928	934	26	0	6	32
Paliya	909	943	951	912	34	8	-39	3
Musahar	913	849	897	976	-64	48	79	63
Namasudra	915	882	912	922	-33	30	10	7
Pod	921	942	922	926	21	-20	4	5
Dhobi	922	904	904	934	-18	0	30	12
Lohar	932	930	950	938	-2	20	-12	6
Jalia K	936	889	942	899	-47	53	-43	-37
Malo	938	856	913	939	-82	57	26	1
Sunri	950	989	934	887	39	-55	-47	-63
H/M/M/B	954	886	928	908	-68	42	-20	-46
Kaora	956	911	918	962	-45	7	44	6
Bagdi	967	982	963	967	15	-19	4	0
Gonrhi	967	1008	902	1023	41	-106	121	56
Konai	979	937	929	935	-42	-8	6	-44
Bind	980	794	923	986	-186	129	63	6
Mal	980	959	958	943	-21	-1	-15	-37
Khaira	982	975	977	997	-7	2	20	15
Kami	987	847	990	979	-140	143	-11	-8
Korenga	1005	959	959	1108	-46	0	149	103
Tiyar	1015	994	923	988	-21	-71	65	-27
Ghasi	1030	1247	945	915	217	-302	-30	-115
Damai	1047	921	992	864	-126	71	-128	-183
Bhuiya	1052	839	911	880	-213	72	-31	-172

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

TABLE 6.
FMR (Urban Areas) Minus FMR (Rural Areas), Scheduled Castes, West Bengal, 1961-1991.

Caste	*Year*			
	1961	1971	1981	1991
Bagdi	-143	-79	-13	18
Bauri	39	-20	44	2
Chamar	-436	-375	-312	-267
Dhoba	-91	-85	-105	-86
Dom	57	-163	-76	-82
H/M/M/B	-181	-206	-61	10
Jalia K	-411	-116	-35	-31
Kaora	184	-52	-22	-88
Namasudra	-175	-3	9	42
Pod	-230	-83	-49	8
Rajbanshi	-187	-143	-25	-22
Sunri	-269	-167	-76	-62

- Chamar' = `Charmakar, Mochi, Muchi, Rabidas, Ruidas, Rishi'
- `Dhoba' = `Dhoba, Dhobi'
- `Dom' = `Dom, Dhangad'
- H/M/M/B = Hari, Mehtar, Methor, Bhangi
- Jalia K. = Jalia Kaibartta
- `Pod' stands for `Pod, Poundra'
- Sunri excludes Saha
- FMRs have been compiled only for castes with a population of 10,000+ in 1961, 1971, 1981 & 1991.

TABLE 7
FMRs, CASTE WISE, WEST BENGAL, SCHEDULED CASTES, RURAL AREAS, 1961-1991

CASTE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	**943**	**942**	**947**	**941**	**-1**	**5**	**-5**	**-2**
All Scheduled Castes	**938**	**940**	**937**	**938**	**2**	**-3**	**1**	**0**
Rajwar	756	800	927	879	44	127	-48	123
Nunia	764	901	880	830	137	-21	-50	66
Keot	765	807	918	943	42	111	25	178
Dusadh	836	752	855	821	-84	103	-34	-15
Kandra	842	891	955	958	49	64	3	116
Bhuimali	861	947	932	912	86	-15	-20	51
Dom	894	949	942	950	55	-7	8	56
Bauri	900	973	955	971	73	-18	16	71
Rajbanshi	906	954	934	936	48	-20	2	30
Paliya	908	948	953	920	40	5	-33	12
Chamar	912	931	925	949	19	-6	24	37
Malo	912	863	910	924	-49	47	14	12
Pod	926	945	926	926	19	-19	0	0
Namasudra	937	882	910	912	-55	28	2	-25
Kaora	941	915	921	976	-26	6	55	35
Dhobi	950	923	937	962	-27	14	25	12
Bagdi	975	985	964	966	10	-21	2	-9
Konai	978	945	931	948	-33	-14	17	-30
Sunri	978	1003	945	901	25	-58	-44	-77
Gonrhi	979	1020	961	1070	41	-59	109	91
Khaira	982	977	979	990	-5	2	11	8
Lohar	984	932	965	953	-52	33	-12	-31
Mal	989	961	960	949	-28	-1	-11	-40
H/M/M/B	999	930	943	905	-69	13	-38	-94
Turi	999	832	938	914	-167	106	-24	-85
Korenga	1001	963	963	1104	-38	0	141	103
Musahar	1013	923	915	971	-90	-8	56	-42
Bind	1029	849	953	945	-180	104	-8	-84
Tiyar	1033	1002	927	990	-31	-75	63	-43
Ghasi	1037	1250	942	905	213	-308	-37	-132
Jalia K	1054	907	951	907	-147	44	-44	-147
Bhuiya	1069	853	940	910	-216	87	-30	-159
Kami	1073	878	1005	987	-195	127	-18	-86

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

TABLE 8
FMRs, CASTE WISE, WEST BENGAL, SCHEDULED CASTES, URBAN AREAS, 1961-1991

CASTE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	**701**	**751**	**819**	**856**	**50**	**67**	**37**	**154**
All Scheduled Castes	**732**	**792**	**848**	**892**	**60**	**56**	**44**	**160**
Chamar	476	556	613	682	80	57	69	206
Jalia K	643	791	916	876	148	125	-40	233
Pod	696	862	877	934	166	15	57	238
Rajbanshi	719	811	909	914	92	98	5	195
Namasudra	762	879	919	954	117	40	35	192
H/M/M/B	818	724	882	915	-94	158	33	97
Bagdi	832	906	951	984	74	45	33	152
Dhoba	859	838	832	876	-21	-6	44	17
Bauri	939	953	999	973	14	46	-26	34
Dom	951	786	866	868	-165	80	2	-83

INTER DECADAL DIFFERENCES IN THE VARIABLES `FMR', `F-AGLAB' AND `FELIT' HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

CHART 4
CHANGES IN CASTE FMRs, WEST BENGAL, ALL AREAS, 1961-1991

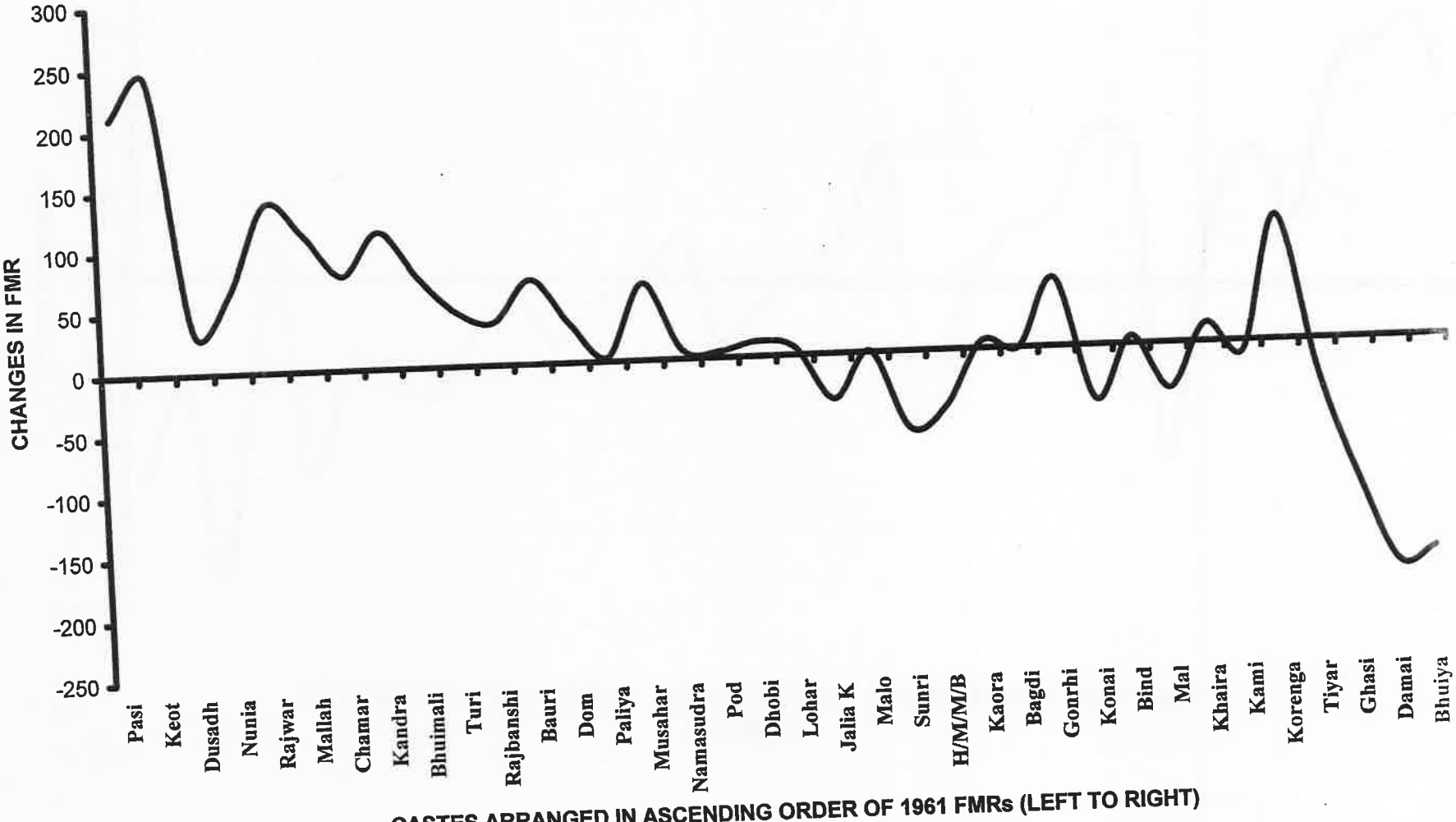


CHART 5
CHANGES IN CASTE FMRs, WEST BENGAL, RURAL AREAS, 1961-1991

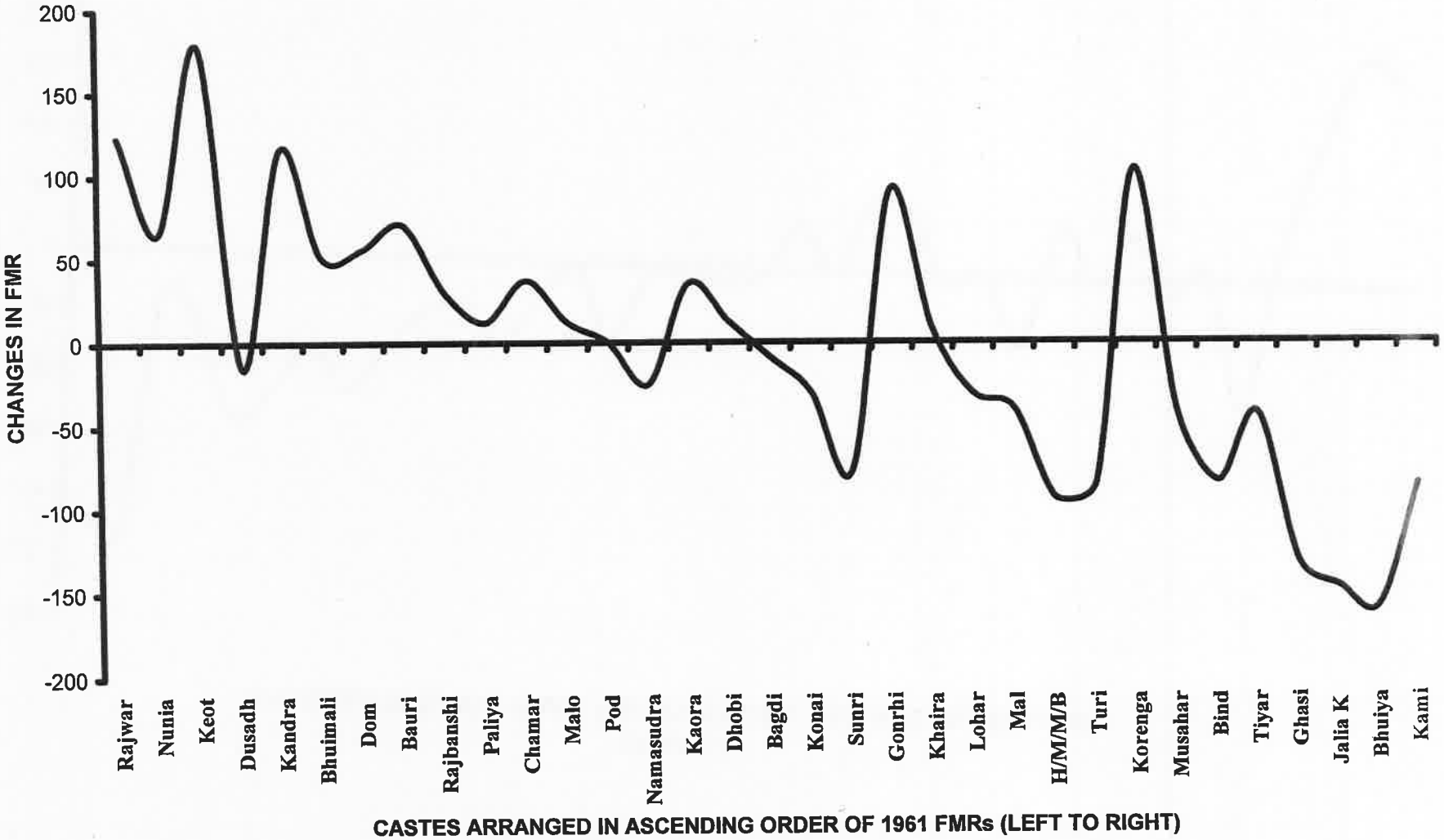
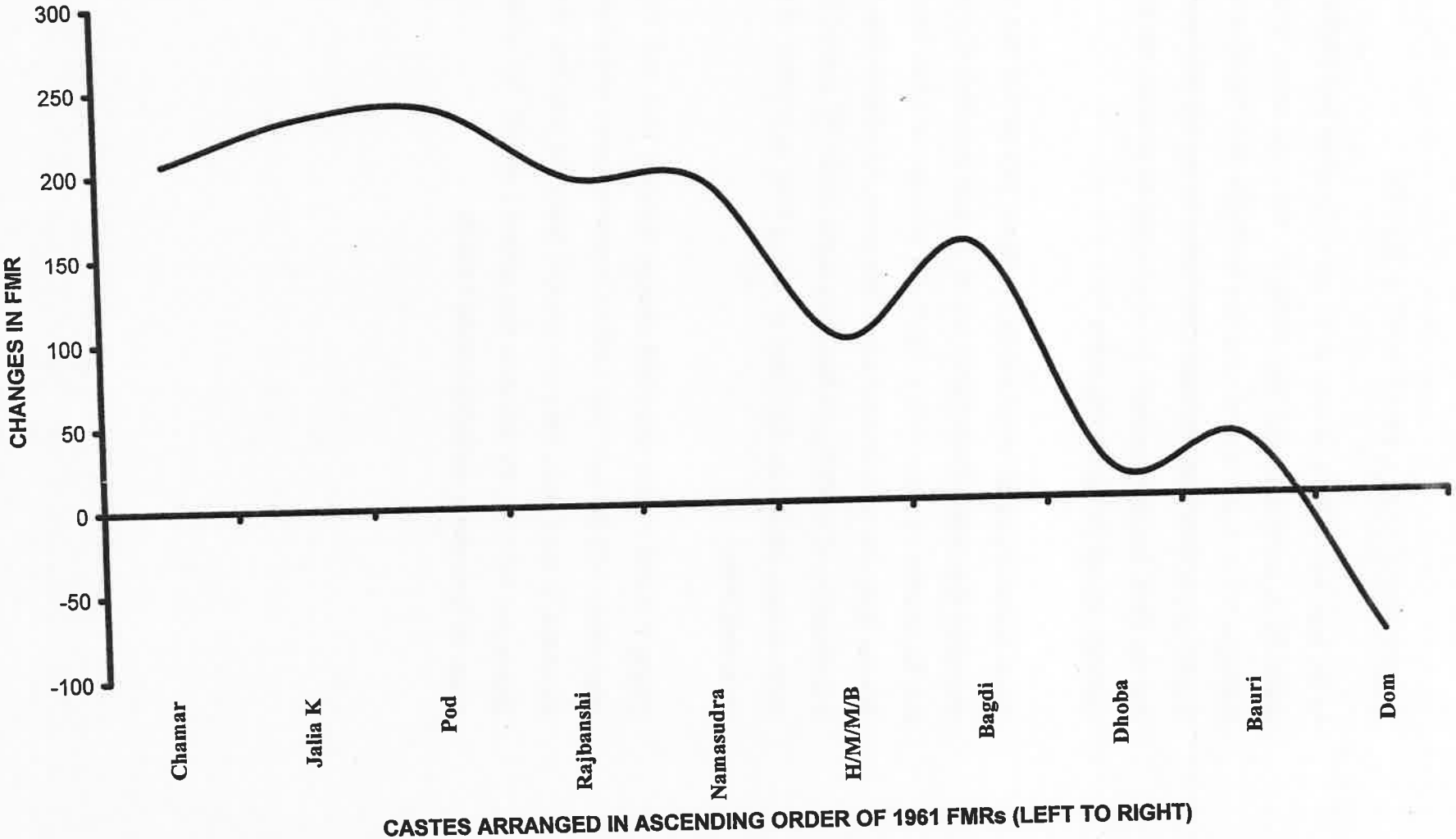


CHART 6
CHANGES IN CASTE FMRs, WEST BENGAL, URBAN AREAS, 1961-1991



TRIBE-WISE FMRs, ERSTWHILE BIHAR

In the base year (1961), as may as 14 out of 20 tribes had FMRs approximating 1000. (table 9). A comparison of tribe FMRs for rural and urban areas shows also that in Erstwhile Bihar, it was in rural areas that the FMRs were feminine in the base year, while in urban areas, they were less than 1000 (tables 10 and 11). However, it was in rural areas that the FMR declines occurred. In urban areas, by contrast, the tribe FMRs grew more feminine, except for the Munda (table 11).

These contrasting rural / urban trends, combined with the fact that rural FMRs were more masculine than urban FMRs (table 12), do suggest the effect of rural to urban migration, but the number of tribes with a significant presence in urban areas (10,000+) was only four (as compared to 20 in rural areas). Moreover, out of these four, one, Munda, showed a feminisation of its FMR in urban areas in the 1961-1991 period, hence even the Munda FMR changes cannot be dismissed as having been an artefact of urban ward migration from rural areas.

Charts 7, 8 and 9 show that FMR changes between 1961 and 1991 do not show much relationship with the base year FMRs. Comparing castes and tribes in Bihar, we see that for castes, in rural areas, the curve plunges below the zero line, while for tribes, the line lingers just below it, for the most part (charts 2 and 8). For urban areas, the plunge is steep, for both castes and tribes (charts 3 and 9).

TABLE 9
FMRs, TRIBE WISE, ERSTWHILE BIHAR, ALL AREAS, 1961-1991

TRIBE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	994	954	946	912	-40	-8	-33	-81
All Tribes	1014	1003	993	971	-10	-10	-22	-43
Korwa	954	953	995	902	-1	43	-93	-52
Mahil	966	966	967	956	-1	2	-12	-10
Lohara, lohra	967	955	963	954	-12	7	-9	-13
Parhaiya	976	905	960	974	-71	55	14	-1
Kora	981	1070	981	959	89	-89	-22	-22
Santal	988	1002	983	971	14	-19	-12	-17
Kharwar	996	958	963	945	-38	5	-18	-50
Mal paharia	997	991	993	907	-5	1	-85	-89
Chik baraik	999	1029	1003	975	31	-27	-28	-24
Bedia	1000	993	993	935	-7	0	-58	-65
Chero	1003	935	947	922	-68	12	-24	-80
Kisan	1009	1005	984	925	-3	-21	-59	-84
Kharia	1011	1068	1050	1011	57	-19	-38	0
Munda	1018	1010	1004	993	-8	-7	-11	-25
Sauria paharia	1020	910	980	943	-110	70	-37	-77
Oraon	1036	1008	1002	964	-28	-6	-38	-72
Bhumij	1053	1018	991	992	-34	-27	0	-61
Karmail	1059	961	961	955	-98	0	-7	-104
Ho	1073	1041	1026	990	-32	-15	-35	-83
Gond	1180	954	983	928	-225	28	-55	-252

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

TABLE 10

FMRs, TRIBE WISE, ERSTWHILE BIHAR, RURAL AREAS, 1961-1991

TRIBE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	1012	971	963	923	-41	-8	-40	-89
All Tribes	1018	1010	999	975	-7	-11	-24	-43
Korwa	953	937	1000	892	-17	64	-108	-61
Mahil	966	969	969	956	2	1	-13	-10
Lohara, lohra	970	957	964	947	-13	7	-18	-24
Parhaiya	979	894	971	991	-85	77	20	11
Santal	990	1004	987	975	14	-17	-12	-15
Chik baraik	994	1034	1009	988	40	-24	-21	-5
Kharwar	998	960	967	946	-38	7	-21	-51
Bedia	1000	992	999	942	-8	7	-57	-58
Mal paharia	1001	999	993	915	-2	-6	-78	-86
Chero	1005	939	951	925	-66	12	-26	-80
Kisan	1013	1007	991	916	-7	-15	-76	-98
Kora	1018	1079	987	971	62	-93	-15	-46
Munda	1022	1019	1011	1003	-3	-8	-8	-19
Sauria paharia	1022	912	981	940	-109	68	-40	-81
Kharia	1025	1073	1056	1011	47	-17	-44	-14
Oraon	1044	1024	1009	966	-19	-15	-43	-78
Bhumij	1052	1022	995	996	-30	-27	1	-56
Karmail	1069	955	972	967	-114	17	-5	-102
Ho	1081	1055	1041	998	-26	-14	-43	-83
Gond	1198	979	1001	929	-219	22	-72	-269

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

TABLE 11
FMRs, TRIBE WISE, ERSTWHILE BIHAR, URBAN AREAS, 1961-1991

GEN POP / TRIBE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
GENERAL POPULATION	**811**	**807**	**832**	**846**	**-4**	**25**	**14**	**35**
ALL TRIBES	**884**	**860**	**909**	**916**	**-25**	**49**	**8**	**32**
Santal	842	922	873	871	81	-50	-2	29
Ho	874	806	833	900	-68	26	68	26
Oraon	899	784	951	946	-114	167	-5	47
Munda	926	864	928	905	-62	64	-23	-21

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

TABLE 12

FMR (URBAN AREAS) MINUS FMR (RURAL AREAS), SCHEDULED TRIBES, BIHAR, 1961-1991

TRIBE	YEAR			
	1961	1971	1981	1991
GENERAL POPULATION	-201	-164	-132	-77
ALL TRIBES	-133	-150	-90	-59
HO	-207	-249	-209	-98
MUNDA	-96	-155	-83	-97
ORAON	-145	-240	-58	-20
SANTAL	-148	-82	-114	-104

CHART 7
CHANGES IN TRIBE FMRs, ERSTWHILE BIHAR, ALL AREAS, 1961-1991

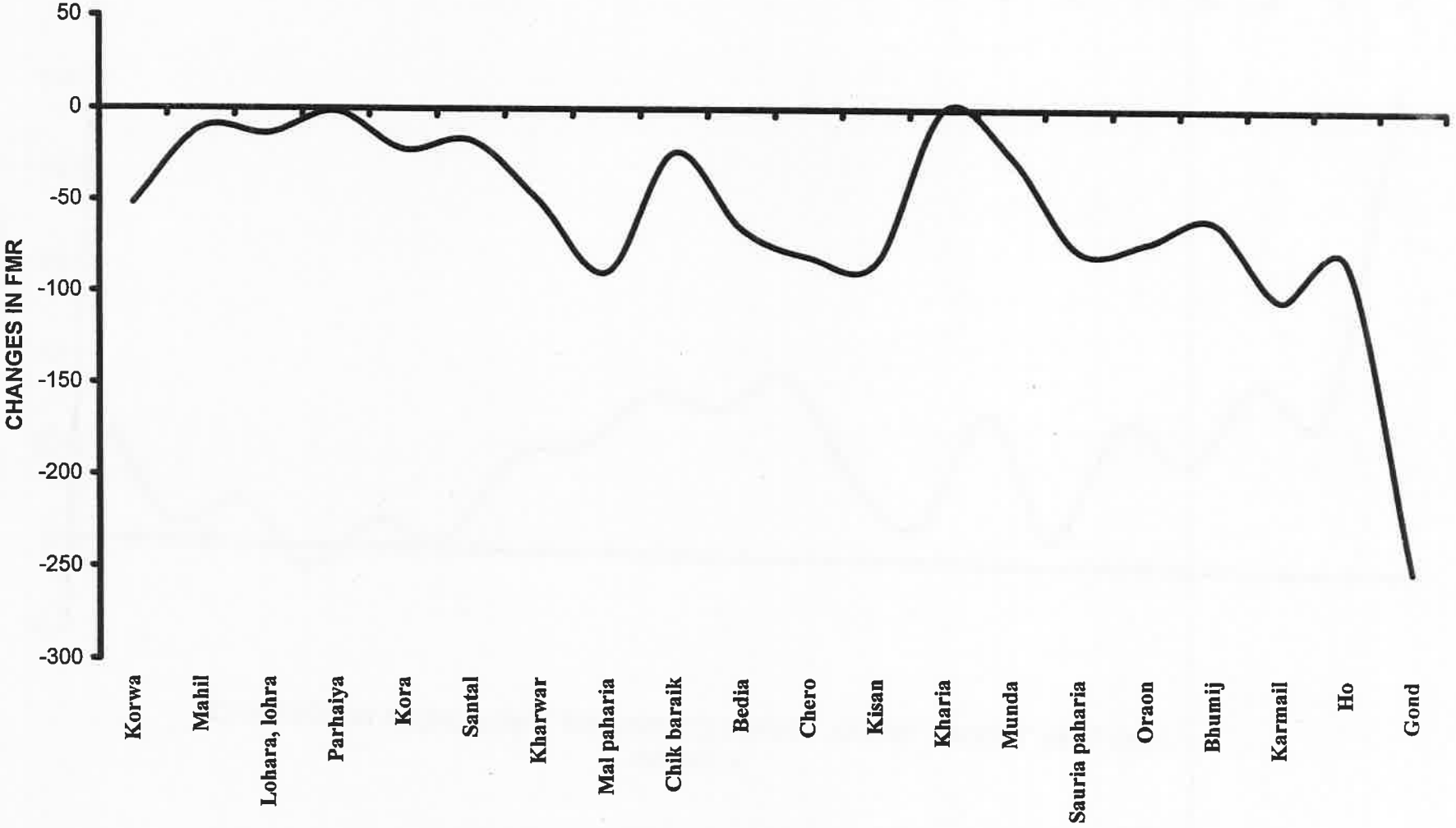


CHART 8
CHANGES IN TRIBE FMRs, ERSTWHILE BIHAR, RURAL AREAS, 1961-1991

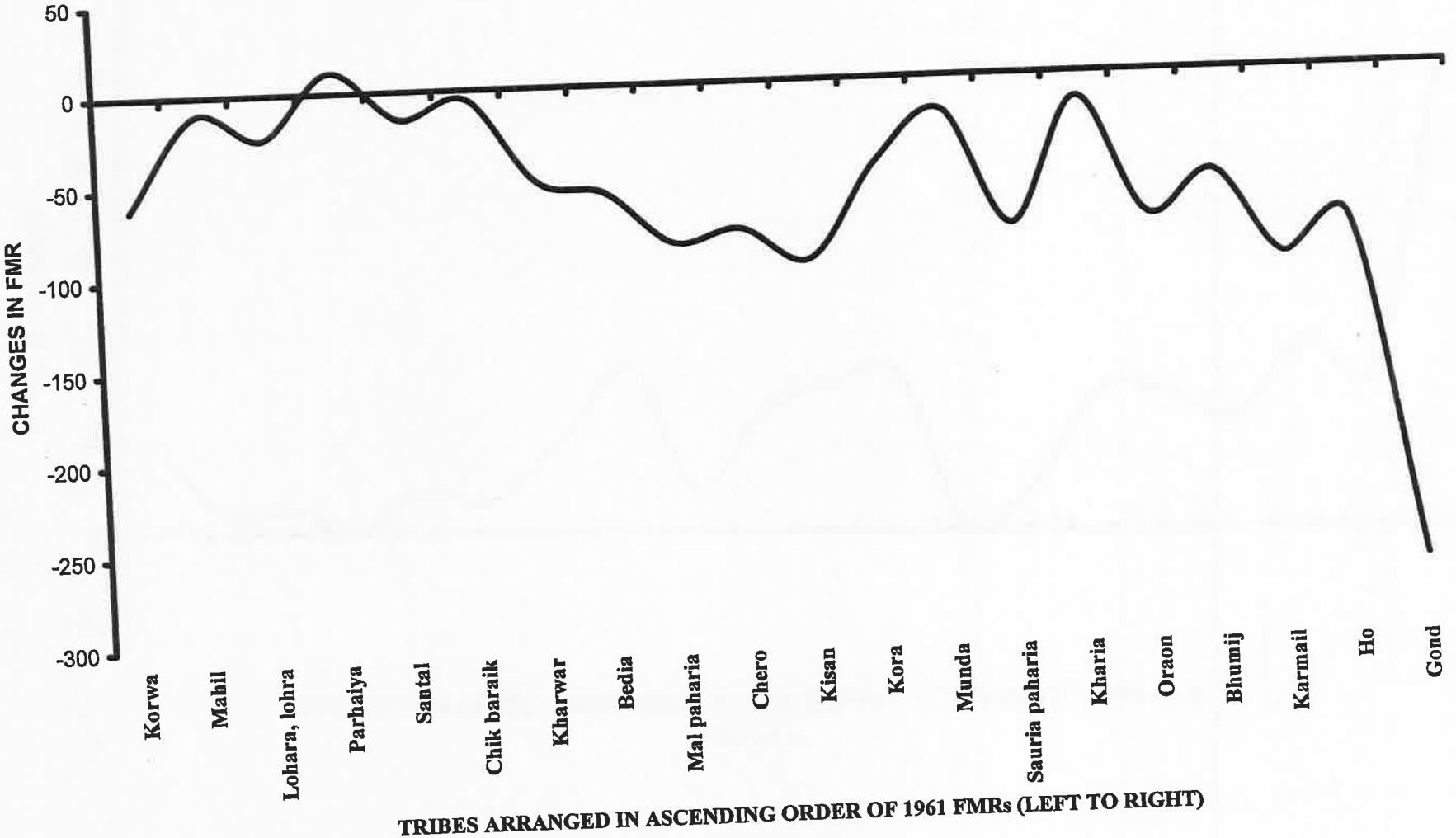
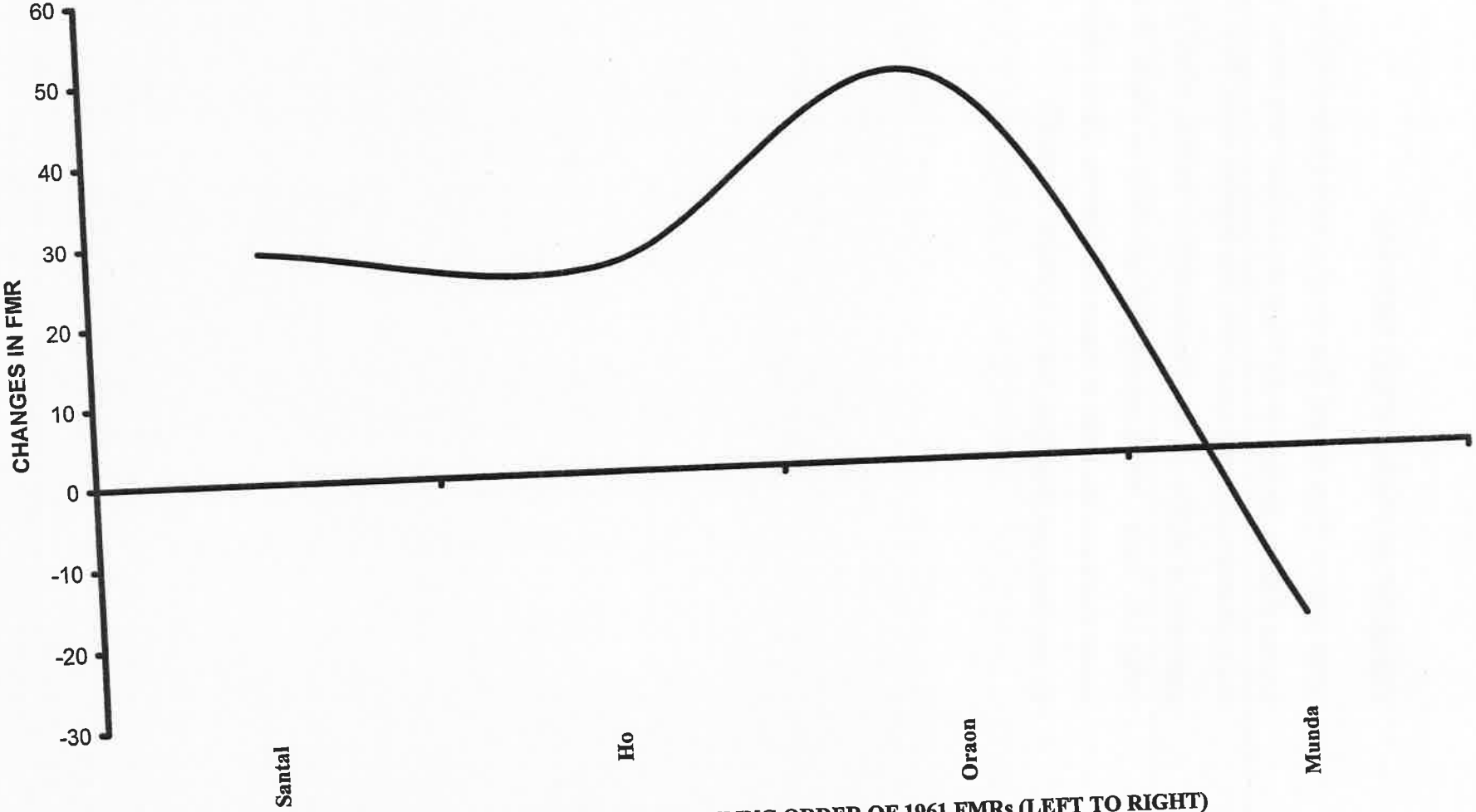


CHART 9
CHANGES IN TRIBE FMRs, ERSTWHILE BIHAR, URBAN AREAS, 1961-1991



TRIBE-WISE FMRs, WEST BENGAL

Of the tribes of West Bengal, four out of 11 have FMRs of 1000+ (Table 13). We see also that the sharpest declines in the FMR are for these very tribes. The pattern is somewhat more pronounced in rural areas (table 14). In urban areas, there was only one tribe with a population of 10,000+ in the reference period – Santhal, whose FMR grew more feminine (table 15). These trends are depicted pictorially in charts 10 and 11, which show an overall decline in the FMR at higher initial levels. Up to a point the declines are above the zero level, and thereafter, below it (charts 10 and 11)

TABLE 13
FMRs, TRIBE WISE, WEST BENGAL, ALL AREAS, 1961-1991

Tribe	Year							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	**878**	**891**	**911**	**917**	**13**	**20**	**6**	**39**
All Tribes	**969**	**955**	**969**	**964**	**-14**	**14**	**-5**	**-5**
Mal Pahariya	850	919	958	940	69	39	-18	90
Mech	881	869	914	857	-12	45	-58	-24
Oraon	903	941	949	956	38	8	7	53
Kora	923	940	978	937	17	37	-41	14
Bhutia, Sherpa, Toto, Dukpa, Kagatay, Tibetan, Yolmo	934	974	960	939	39	-14	-21	5
Bhumij	942	950	977	960	8	27	-17	18
Santal	981	975	978	978	-7	3	0	-4
Lodha, Kheria, Kharia	1014	945	936	963	-69	-9	28	-51
Lepcha	1020	754	949	880	-266	195	-69	-140
Mahali	1031	975	974	959	-56	0	-15	-72
Munda	1041	906	970	966	-135	64	-3	-74

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

TABLE 14
FMRs, TRIBE WISE, WEST BENGAL, RURAL AREAS, 1961-1991

TRIBE	FMR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	943	942	947	941	-1	5	-5	-2
All Tribes	975	959	974	968	-17	15	-6	-7
Mal Pahariya	845	917	965	934	73	47	-30	90
Mech	874	871	920	856	-3	49	-65	-18
Kora	921	944	984	937	22	40	-47	16
Oraon	922	944	953	958	22	9	6	36
Bhumij	947	952	978	969	5	26	-9	22
Santal	986	977	982	980	-9	5	-2	-6
Lepcha	991	777	939	877	-214	162	-62	-114
Lodha, Kheria, Kharia	1015	952	939	973	-63	-12	34	-41
Mahali	1040	980	979	963	-60	-1	-15	-76
Munda	1043	911	974	968	-132	64	-6	-75
Bhutia, Sherpa, Toto, Dukpa, Kagatay, Tibetan, Yolmo	1047	970	953	920	-77	-17	-33	-127

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

TABLE 15
FMRs, TRIBE WISE, WEST BENGAL, URBAN AREAS, 1961-1991

TRIBE	YEAR							
	1961	1971	1981	1991	61-71	71-81	81-91	61-91
General Pop.	701	751	819	856	50	67	37	154
All Tribes	746	811	863	899	65	52	35	153
Santal	732	843	870	928	110	28	58	196

INTER DECADAL DIFFERENCES IN THE FMR HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

CHART 10
CHANGES IN TRIBE FMRs, WEST BENGAL, ALL AREAS, 1961-1991

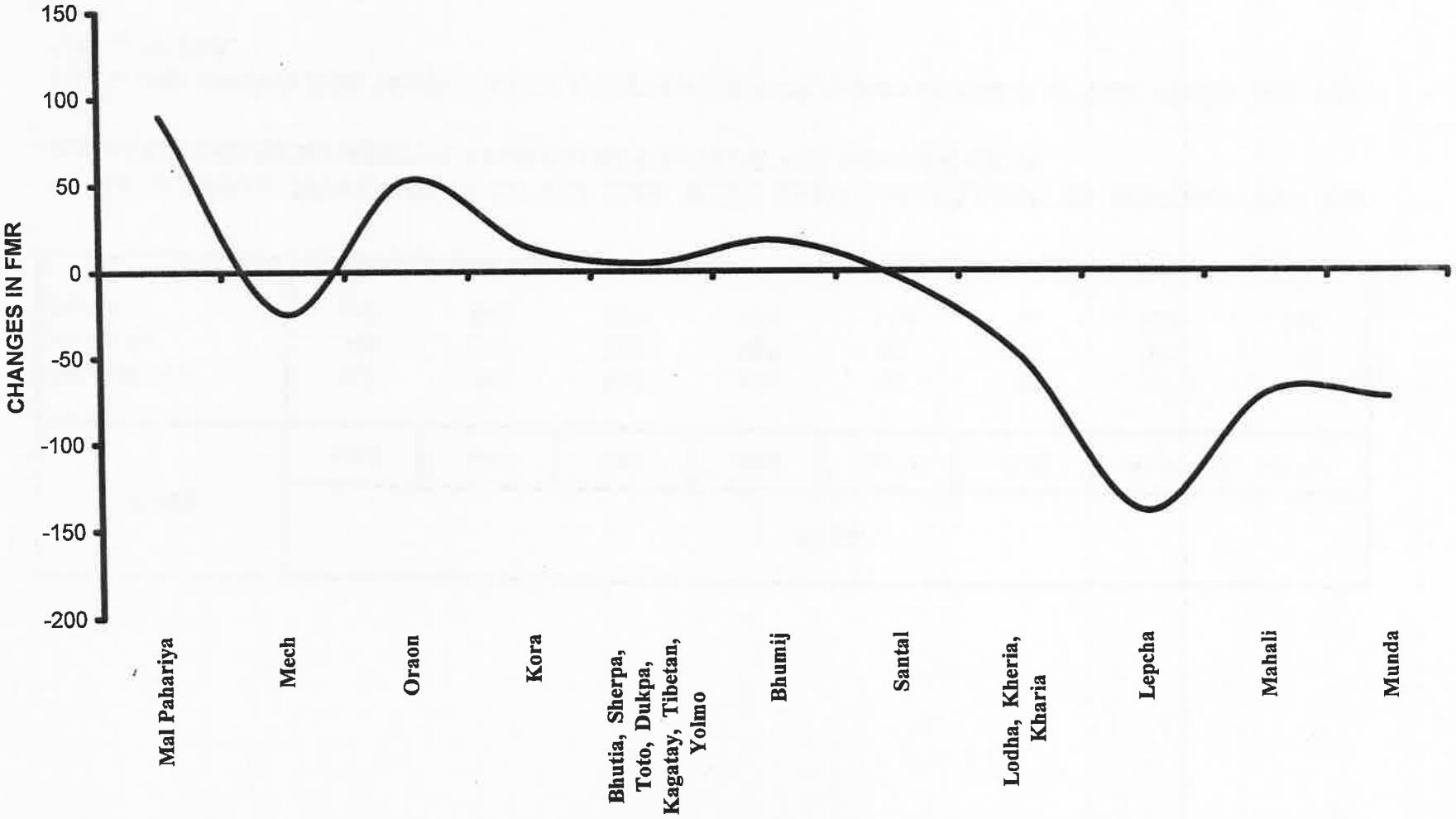
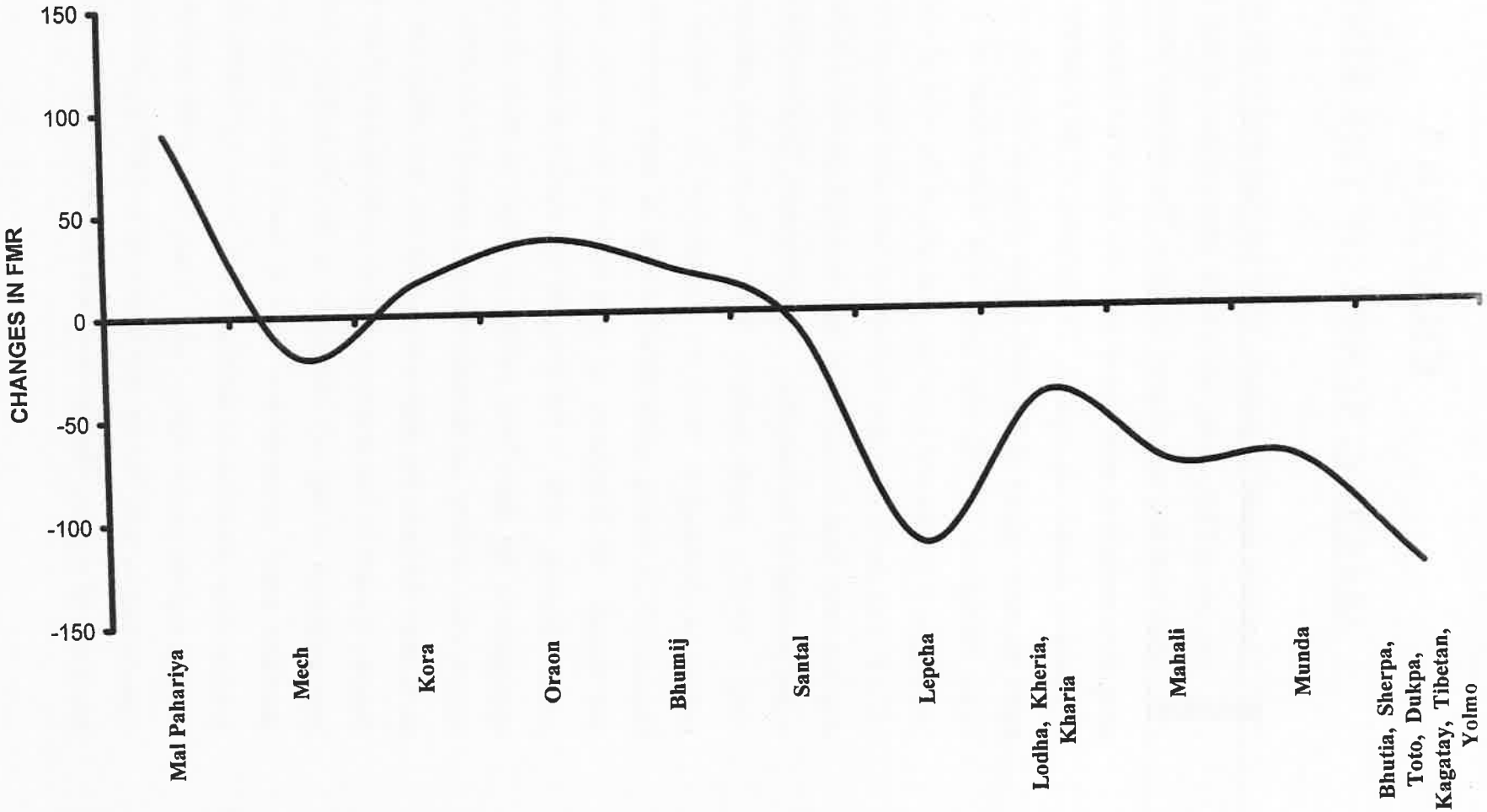


CHART 11
CHANGES IN TRIBE FMRs, WEST BENGAL, RURAL AREAS, 1961-1991



CHAPTER 3

MAKING SENSE OF THE FINDINGS

It has been argued (Agnihotri 2000) that State level FMRs for the SCs and STs are suspect, as FMRs at the below State (district) level display distinct patterns which State level data may obscure or distort. The argument however looses some of its sting when we look at *caste-wise* or *tribe-wise* data at the State level, for these are likely to pertain to distinct sub regions. To cite some of the evidence, Schwartzberg (1968) maps out caste regions of the north Indian plain; in his study of the Nadars of Tamil Nadu, Hardgrave (1973) says they were concentrated in a region south of the Tambrapani a century and a half ago, and also, at the time of writing (Hardgrave 1973: 105); Mahato shows how, due to pressures from other tribal groups, the Kudmi Mahatos migrated away from the territories they occupied, till they eventually settled down in a region bounded by the Damodar, Kangaswabati, Subarnarekha and Vaitarini (Mahato 1994 : 50-53); Bandyopadhyay (1999 : 13-14) cites evidence of tribal settlement patterns in Chotanagpur, which are characterised by a distinct territorial spread; and Dumont (1972), writing on the historical roots of caste territoriality, expresses the view that though the boundaries of caste territory might blur, caste regions tend to persist (Dumont 1972 : 198-200). If, to a significant extent, caste or tribe wise data aggregated at the State level pertain, in effect, to more disaggregated spatial units, identification of these can facilitate interpretation of FMR differentials. Thus, if FMRs grow more feminine for only some castes and not others (as was the case in West Bengal), it could be due to factors peculiar to the regions where they are found. We do have evidences of regional imbalances at the within-State level and how these can determine social characteristics. Thus, a recent study finds evidence of health and fertility-related disparities in Karnataka, and shows that fertility decline was faster in the southern and the coastal regions, while it was tardy in the northern districts, which were characterised by 'low literacy, low female age at marriage, poor health infrastructure and low status of women' (Sekher, Raju and Sivakumar 2001: 4742). The authors suggest

also that the concentration of OBCs and Muslims in the north helps explain this pattern (Sekher, Raju & Sivakumar 2001: 4751).

The broad contrast in FMR trends between West Bengal and Bihar does in fact suggest the play of regional factors, and, more particularly, the role of development-related survival chances. It will be recalled that it was only in West Bengal - among the SCs, that a feminisation of FMRs took place. In the 1980s, West Bengal's performance was superior to Bihar's in poverty reduction, the move towards a more egalitarian pattern of household consumption, and decline of infant mortality (Sengupta & Gazdar 1998: 170-173 & 186-187). Data for the 1990s also shows that on a number of poverty-related indicators, West Bengal's showing was far superior to that of Bihar and a number of other States as well (Cassen 2002: 2792). It is possible that this is reflected in the evidence of a feminisation of caste-wise Scheduled Caste FMRs in West Bengal. To carry the argument a step further, it can be hypothesised that the castes whose FMRs grew more feminine were concentrated in more developed regions of the State where increasingly, over time, some poverty-related threshold was crossed.[4] Of course, we would also try to correlate this with the spatial pattern of tribe settlement.

Hypotheses

It is hypothesised that the castes whose FMRs grew more feminine were concentrated in more developed regions of West Bengal, where increasingly, over time, some threshold of nutrition and health care had been crossed. This is the starting point of our investigation, and the main pivot around which the analyses and interpretations are made. From this, we are in due course led to investigate the possible effects of caste or tribe specific factors, i.e., we begin with spatial factors as our main frame of reference, and then move on to see whether and to what extent caste specific factors are involved.

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[4] The idea of a `threshold' is a strong point of Caldwell's (1986) analysis of the `breakthrough' health programmes of Sri Lanka, Kerala and Costa Rica. Some of `breakthrough' factors he identifies include the establishment of a `nutritional floor', immunisation programmes, and effective public health intervention.

Data

To study the effects of region, caste-wise district level data from the Census of India's *Special Tables on Scheduled Castes & Scheduled Tribes* are drawn upon to map out caste regions. The case for a spatial-regional analysis such as this is strengthened by evidence of the territoriality of caste. Region specific data are mapped out and compared with (i) maps of caste and tribe concentration and (ii) maps showing spatial patterns of caste and tribe FMRs.

There could of course be anomalous cases that do not fit into the regional paradigm, hence the need to investigate caste-specific factors. One such, identified in the literature, is fertility decline, due to which there were more resources to go around in the household. Or, the feminisation of the FMR could have taken place in pockets characterised by a rise in female literacy or women's work force participation, both women's agency variables thought to make the FMR more feminine. Data on these variables, available in the census of India, are drawn upon in this study.

Methodology

Investigation of Regional Effects. To filter out the effects of region, there is a need to identify areas of caste concentration. This can be done with caste-wise, district level data from the Census of India's Special *Tables on Scheduled Castes & Scheduled Tribes.* These are available or different census years, and will allow us to see whether and to what extent the regions of caste concentration have remained stable.[5] Once the caste territories are identified and mapped, we can investigate whether the castes whose FMRs grew more feminine are concentrated or clustered together in a particular region. If that is found to be the case, it will be investigated as to whether there is anything distinctive

5 The fluid tribe territories of Chotanagpur in the late colonial period, which Bandyopadhyay (1999) depicts, suggest the need for such an exercise. The author explains changes in tribe territories in terms of seasonal migrations of the tribes and also, migration stimulated by the incursion of outsiders as a result of development processes (Bandyopadhyay 1999: 37-39).

about these areas of caste concentration, in terms of poverty or development-related characteristics.

Caste Specific Factors. We may find anomalous cases that do not fit neatly into the regional paradigm. We can try to see whether there was anything peculiar about these castes. This will lead us to a more detailed study of caste-wise factors. For example, women's agency variables are not necessarily region specific, they may be caste specific within a region. Moreover, some of the castes are more depressed and at a lower rung of the hierarchy, and among them, the incidence of poverty is far higher. This can be a salient factor in our study.

CHAPTERISATION PLAN

In chapter 4, evidence on caste FMRs for Bihar and West Bengal is analysed with maps and tabulations on caste-related women's agency variables. Chapter 5 deals with the variations in tribe FMRs. Chapter 6 sums up, draws out policy implications, and concludes.

CHAPTER 4

CASTE WISE FMRS
PATTERNS, TRENDS AND CORRELATES

As we have seen in chapter 2, in both West Bengal and Bihar, caste wise FMRs showed substantial changes in the decades between 1961 and 1991. In Bihar, there was a steep deterioration in the FMRs. In West Bengal, some castes showed a tendency for FMRs to grow more adverse for females, but other castes showed a growing feminisation of the FMR. In fact, the FMRs of as many as 25 out of 37 castes either did not deteriorate or grew increasingly feminine. Still, we see a common feature between Bihar and West Bengal, namely, that the deterioration in the FMR occurred among castes that had relatively favourable FMRs in the base year (1961). More generally, there is evidence of a continuum, in both Bihar and West Bengal, in which changes ranged from low or positive to high and negative (charts 2 and 5). One of the underlying factors at work, it appears likely, is of course that beyond a point, daughter discrimination is unlikely to intensify. It is only when there is a comfortable 'surplus' of daughters that the girl child is gravely at risk. Thus, in castes that already have adverse FMRs, factors implicated in FMR imbalance are less likely to operate. For instance, there are indications that daughter intolerance acts at an intense level to fuel discrimination against a particular subset of daughters, comprising of higher *birth order* girls (Das Gupta 1981; Das Gupta and Mari Bhat 1997). Though there is discrimination against daughters, there is after all a place for them in the social order (Mandelbaum 1970). Thus, we could expect that below a FMR threshold, daughter discrimination is unlikely to intensify. This could be one reason why growing masculinity characterises FMR for castes that already had favourable ones to start with. However, there could also be other factors at work. We look into this issue, first focusing on caste wise FMRs in Bihar, and then on caste wise FMRs in West Bengal.

CASTE WISE FMRs, BIHAR

Table 16 shows caste wise FMRs and corresponding women's agency variables. Based on the data in table 16, women's agency variables are correlated with ascending order of 1961 FMRs in Chart 12. We see very little correspondence between women's agency variables on the one hand and caste FMRs on the other. As we have already seen, the deterioration of FMRs occurred in the case of FMRs that were relatively feminine in the base year. Hence, we would have expected castes arranged by ascending order of FMR in the base year to be correlated with either a higher incidence of women in agricultural labour or a higher female literacy rate. We find neither to be so. In the case of the literacy rate, as we have seen in chapter 1, there could be contradictory effects, i.e., it could be either positively or inversely related to the FMR. Hence it is possible that a more disaggregated analysis could show up literacy-related effects on the FMR. However, at the State level of data aggregation, as Chart 12 shows, we see no striking relationship.

If FMR changes over the decades between 1961 and 1991 cannot be accounted for by women's agency variables, we may have to seek the answer in poverty-related factors. We do not have caste-wise poverty data, but we do have spatial poverty data, and if we can show a corresponding spatial concentration of castes, we can look for indications that might help us unravel the factors at work.

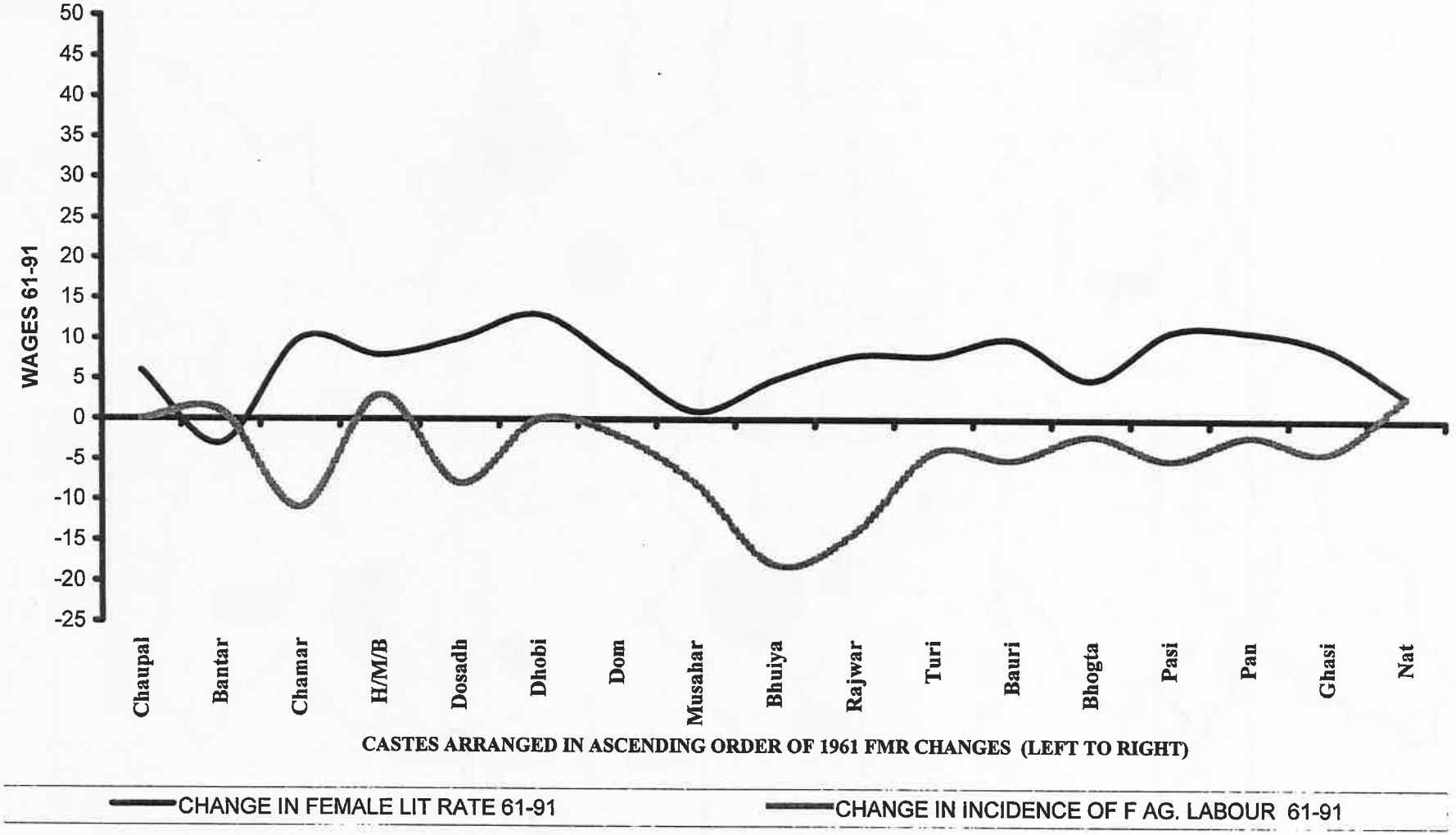
We find however that the picture is not as clear cut as we had supposed. In chapter 3, we had premised that caste populations are spatialised in pockets, so that caste data at the State level, are in fact data for smaller spatial units, falling within a specific districts. The mapping of caste distributions in Bihar however suggests the need for a revision of our premise. Let us take a look at Map 1. Two points are noteworthy in this map. Firstly, we do find some a very high spatial concentration of caste populations. For instance, practically the entire concentration of Pan is in the contiguous districts Ranchi and Singhbhum. To cite another case, the population of the Bhogta is in three contiguous districts, namely, Palamau, Haziribagh and Ranchi. Similarly, Bhuiya is concentrated in

TABLE 16
CASTE WISE FMRs AND WOMEN'S AGENCY VARIABLES, ERSTWHILE BIHAR, SCHEDULED CASTES, RURAL AREAS, 1961-1991

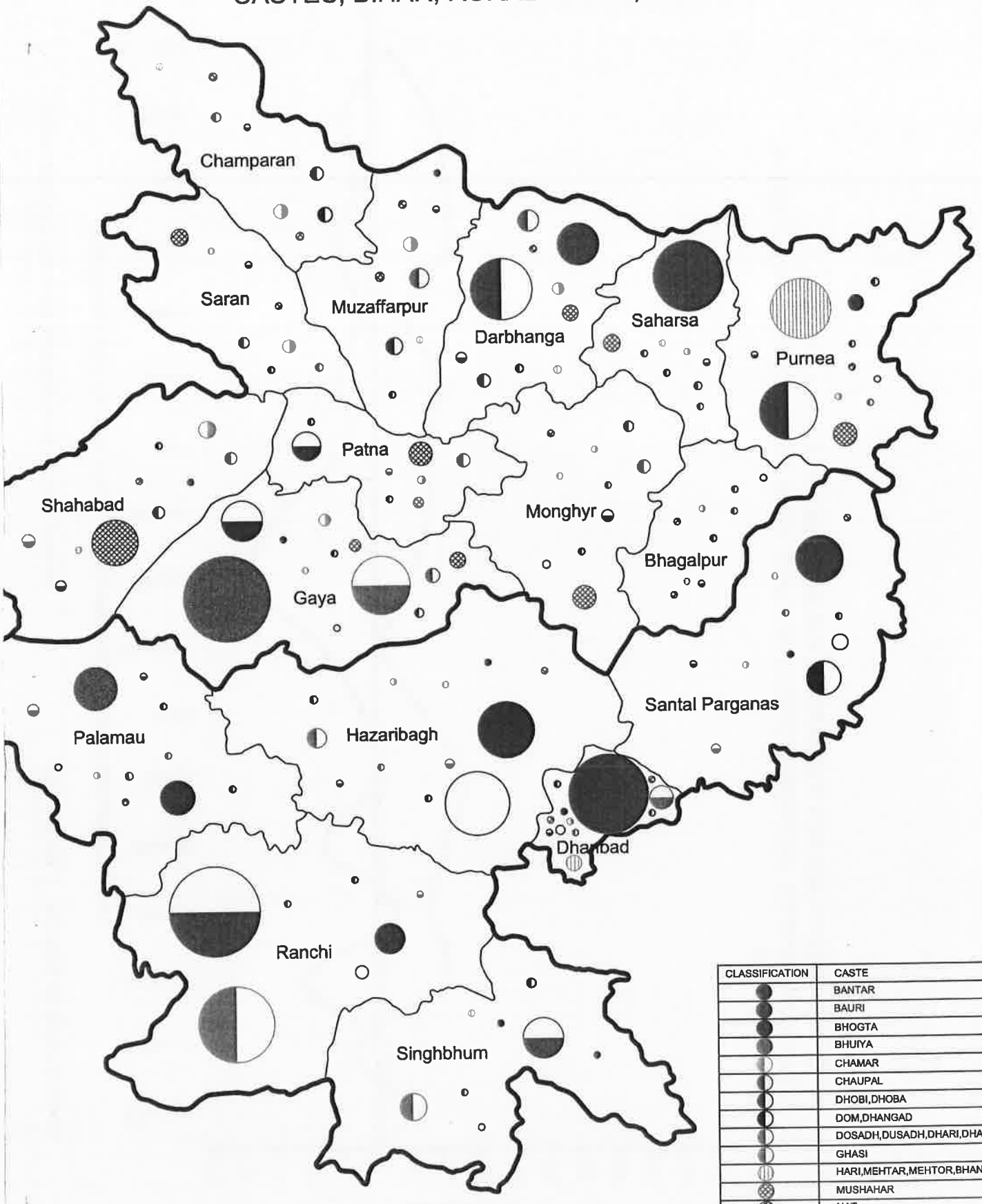
CASTE	FMR								FELIT 1991	FELIT 61-91	F-AGLAB 91	F-AGLAB 61-91
	1961	1971	1981	1991	61-71	71-81	81-91	61-91				
General Pop.	**1012**	**971**	**963**	**923**	**-41**	**-8**	**-40**	**-89**	**15**	**11**	**-**	**-**
All Scheduled Castes	**1039**	**990**	**976**	**920**	**-50**	**-13**	**-57**	**-120**	**4**	**8**	**17**	**-8**
Nat	899	944	1009	935	45	65	-74	36	3	3	13	3
Pan	934	979	1004	944	45	25	-60	10	11	11	11	-2
Pasi	962	961	947	922	-1	-14	-25	-40	7	11	10	-5
Ghasi	967	1059	975	980	92	-84	5	13	8	9	13	-4
Rajwar	986	992	977	916	6	-15	-61	-70	3	8	18	-14
Bauri	986	863	942	938	-123	79	-4	-48	5	10	7	-5
Bhogta	996	952	989	951	-44	37	-38	-45	3	5	8	-2
Musahar	1001	962	968	918	-39	6	-50	-83	1	1	32	-8
Dom	1002	954	931	907	-48	-23	-24	-95	4	7	9	-2
Bhuiya	1018	992	981	942	-26	-11	-39	-76	2	5	24	-18
Turi	1024	1002	985	972	-22	-17	-13	-52	4	8	8	-4
Dhobi	1027	1005	985	921	-22	-20	-64	-106	8	13	7	0
Dosadh	1032	970	965	902	-62	-5	-63	-130	5	10	14	-8
H/M/B	1036	969	958	882	-67	-11	-76	-154	7	8	11	3
Chamar	1082	1021	994	927	-61	-27	-67	-155	5	10	16	-11
Bantar	1091	973	972	932	-118	-1	-40	-159	3	-3	26	1
Chaupal	1146	962	971	882	-184	9	-89	-264	4	6	13	0

F-AGLAB STANDS FOR `INCIDENCE OF AGRICULTURAL LABOURERS IN FEMALE POPULATION'
`FELIT' STANDS FOR `FEMALE LITERACY RATE'
INTER DECADAL DIFFERENCES IN THE VARIABLES `FMR', `F-AGLAB' AND `FELIT' HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR
DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

CHART 12
WAGES (WOMEN'S AGENCY VARIABLES), CHANGES BETWEEN 1961 AND 1991, CORRELATED WITH ASCENDING ORDER OF CASTE WISE FMRs 1961, ERSTWHILE BIHAR, RURAL AREAS



P NO.1 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS, SCHEDULED CASTES, BIHAR, RURAL AREAS, 1961



CLASSIFICATION	CASTE
	BANTAR
	BAURI
	BHOGTA
	BHUIYA
	CHAMAR
	CHAUPAL
	DHOBI,DHOBA
	DOM,DHANGAD
	DOSADH,DUSADH,DHARI,DHARHI
	GHASI
	HARI,MEHTAR,MEHTOR,BHANGI
	MUSHAHAR
	NAT
	PAN,SAWASI
	PASI
	RAJWAR
	TURI

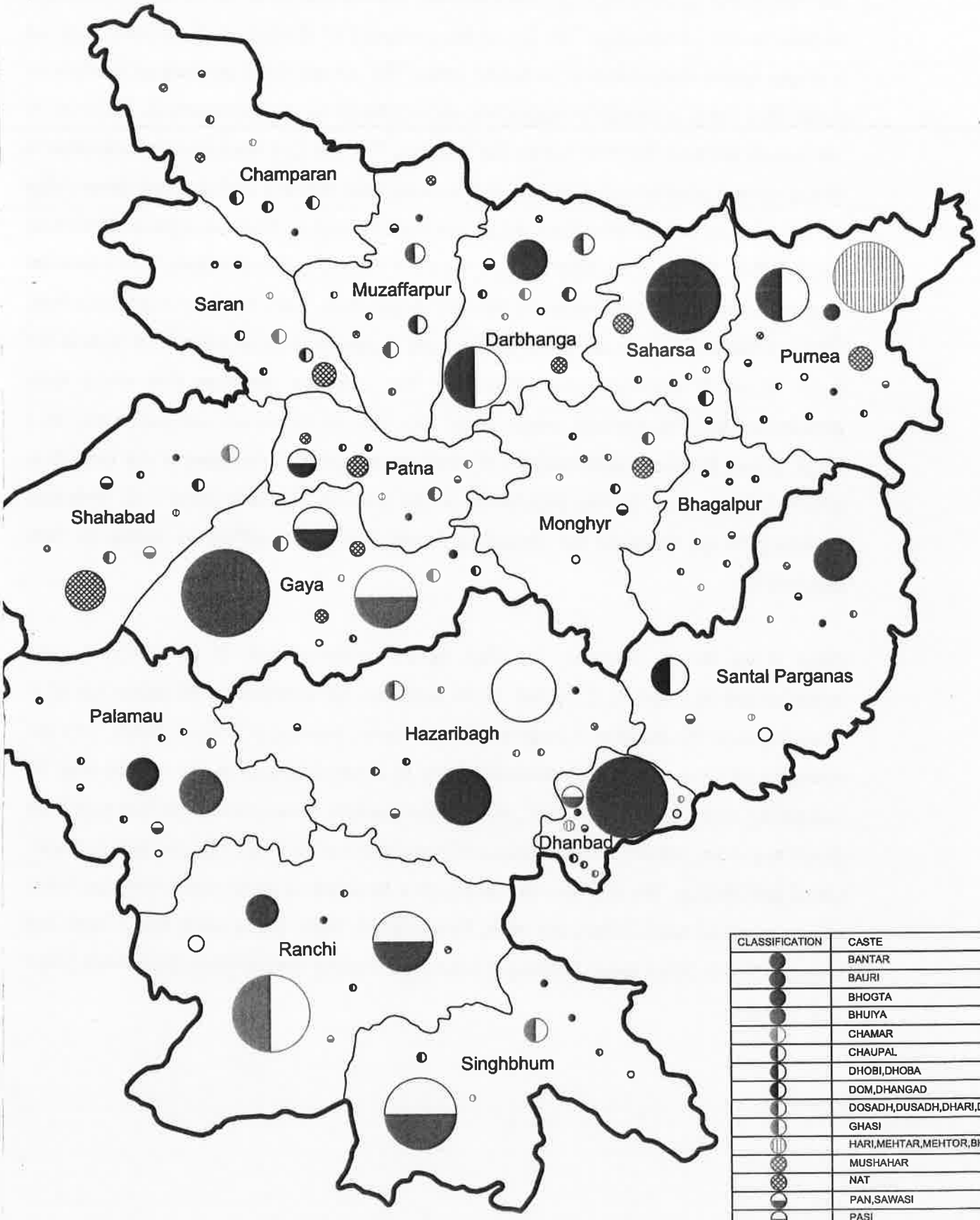
1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
DIMENSION INDIA NETWORKS PVT. LTD.

the contiguous districts of Gaya and Palamau, and the Bantar in the contiguous districts of Saharsa and Dharbhanga. The fact of the contiguity of districts in these cases suggests a single spatial concentration in border areas. We do not have the data to confirm or refute this, but it is certainly suggestive, and conforms to our expectations. However, if we look at some of the other castes, for instance, Nat, we find one large concentration in Shahabad and another concentration in the contiguous districts of Patna and Saran (Map 1). Or, take the case of the Ghasi, which are concentrated in three contiguous districts in South Bihar. These do not have a single common border, and hence there has to be some fragmentation of the distribution of the caste population. Then there are castes like Pasi, Dhobi, Chamar, Dosadh and Dom, whose caste populations are dispersed throughout the State, in small concentrations (Map 1). We conclude therefore that while caste populations may be spatially concentrated, the concentrations are not necessarily in a single place. For the spatial analysis of caste demography, it therefore is not enough to merely rely on data for the population of the caste at the State level – it becomes necessary to go down to the district or lower levels (depending of course on data availability).

Even if we do so, however, we find further complications. If we compare caste spatialisation in maps 1, 2, 3, and 4, we find that the distribution of castes has been *changing* over the decades. A large number of castes, especially in north Bihar, have got scattered all over the State, presumably due to internal migration, as can be seen by comparing map 1 with map 4. Still, some major pockets of caste concentration have been found to persist, notably concentrations of populations of the Pan, Bhogta, Bantar, Bauri, Ghasi and Bhuiya. We find also that although a dispersal of caste populations has taken place, castes in north Bihar have been, by and large, dispersed in north Bihar itself, and castes in South Bihar (now Jharkhand) have been mostly concentrated there itself (maps 1, 2, 3 and 4).

P NO.2 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS, SCHEDULED CASTES, BIHAR, RURAL AREAS, 1971

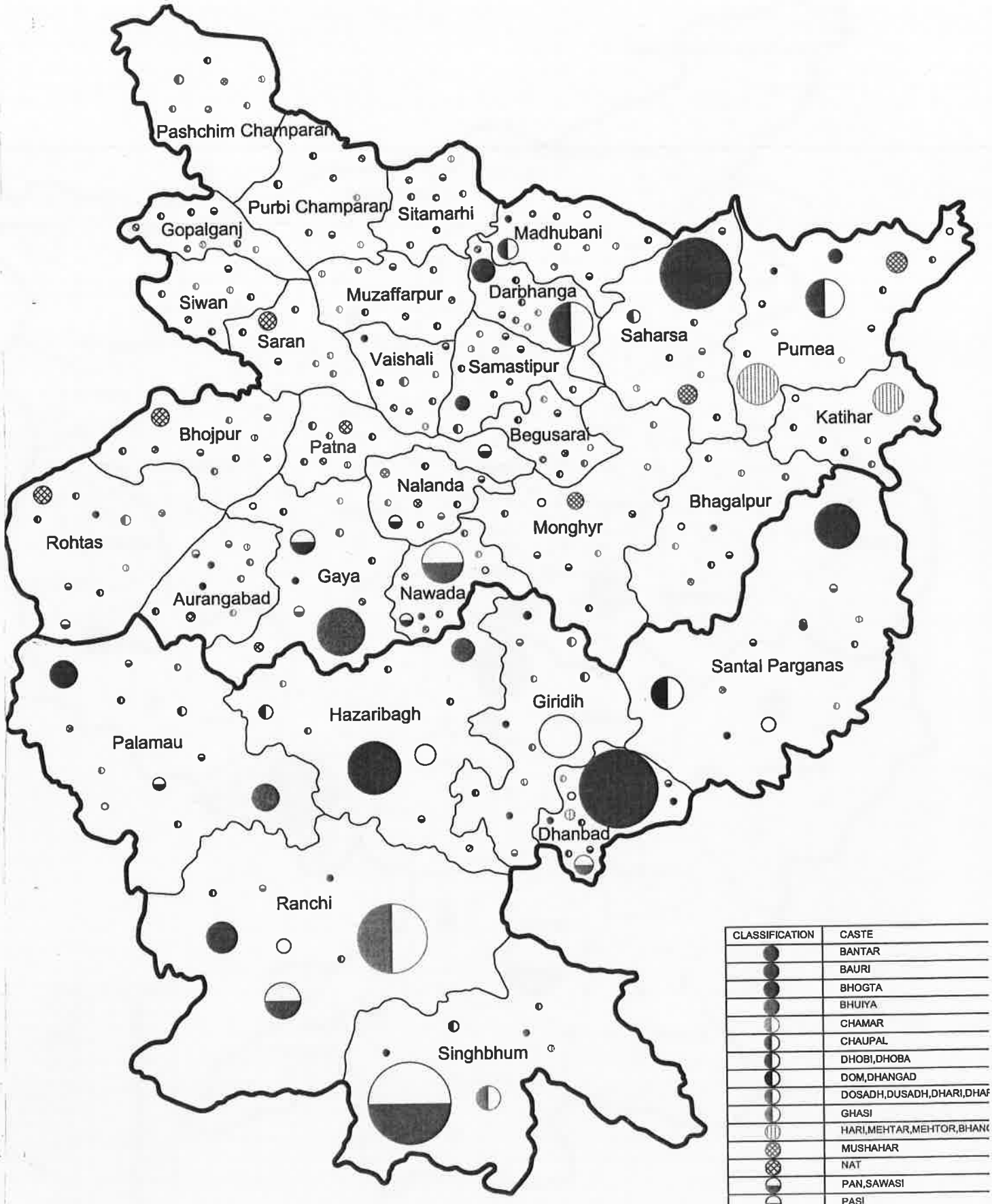


CLASSIFICATION	CASTE
	BANTAR
	BAURI
	BHOGTA
	BHUIYA
	CHAMAR
	CHAUPAL
	DHOBI,DHOBA
	DOM,DHANGAD
	DOSADH,DUSADH,DHARI,DHARHI
	GHASI
	HARI,MEHTAR,MEHTOR,BHANGI
	MUSHAHAR
	NAT
	PAN,SAWASI
	PASI
	RAJWAR
	TURI

1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
DIMENSION INDIA NETWORKS PVT. LTD.

AP NO.3 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS, SCHEDULED CASTES, BIHAR, RURAL AREAS, 1981

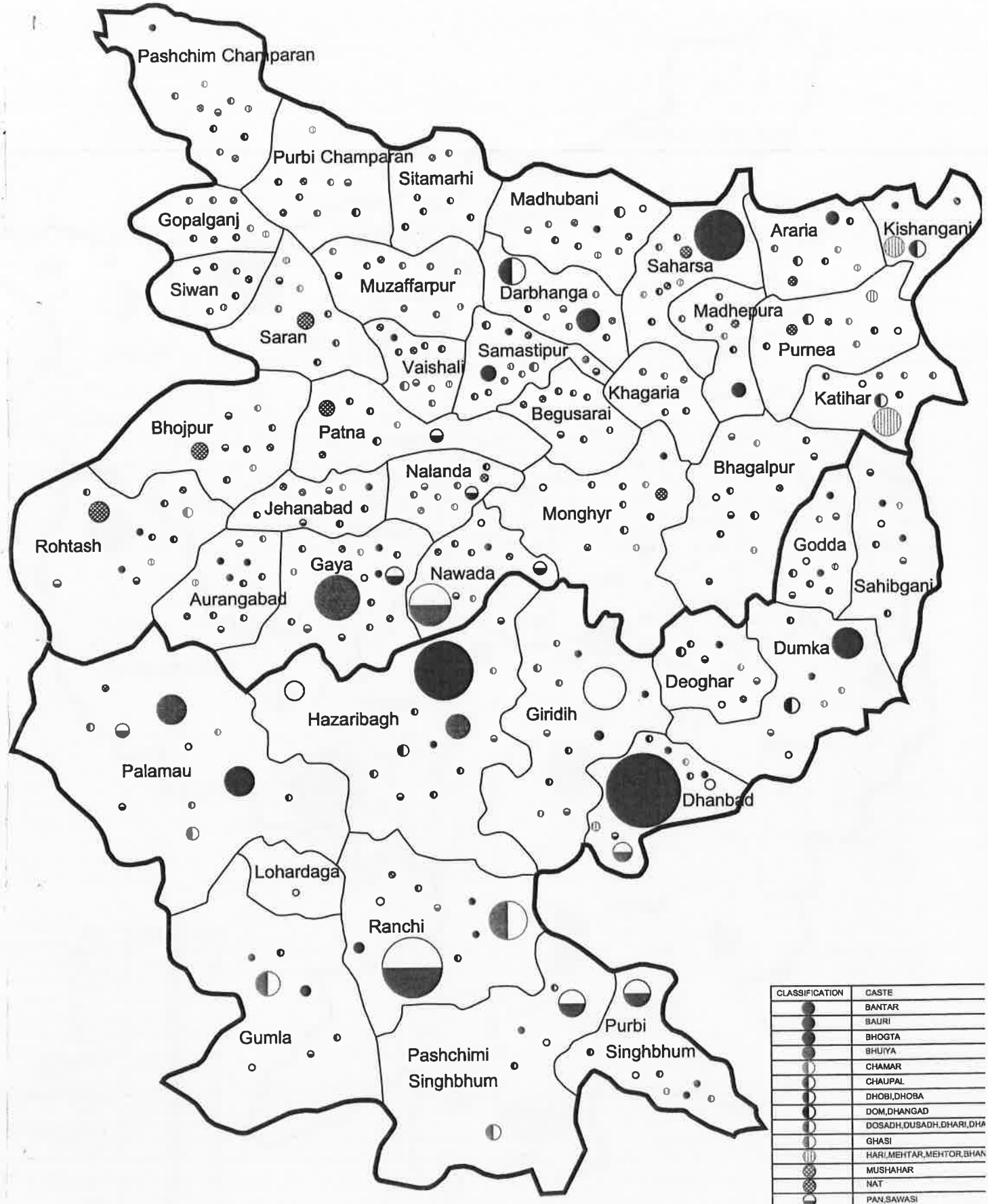


CLASSIFICATION	CASTE
	BANTAR
	BAURI
	BHOGTA
	BHUIYA
	CHAMAR
	CHAUPAL
	DHOBI,DHOBA
	DOM,DHANGAD
	DOSADH,DUSADH,DHARI,DHAI
	GHASI
	HARI,MEHTAR,MEHTOR,BHANG
	MUSHAHAR
	NAT
	PAN,SAWASI
	PASI
	RAJWAR
	TURI

ote: 1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
DIMENSION INDIA NETWORKS PVT. LTD.

AP NO.4 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS, SCHEDULED CASTES, BIHAR, RURAL AREAS, 1991



CLASSIFICATION	CASTE
	BANTAR
	BAURI
	BHOGTA
	BHUIYA
	CHAMAR
	CHAUPAL
	DHOBI,DHOBA
	DOM,DHANGAD
	DOSADH,DUSADH,DHARI,DHA
	GHASI
	HARI,MEHTAR,MEHTOR,BHAN
	MUSHAHAR
	NAT
	PAN,SAWASI
	PASI
	RAJWAR
	TURI

Note: 1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
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We know that South Bihar has been persistently lagging behind North Bihar on a number of development-related indicators - it was development deprived, and this in fact was the moving force behind the agitation for a separate Jharkhand State (Singh, A.K. 2004). Can the FMR differences be attributed to these spatial development-related differences? Since we do not have data on caste-wise poverty variables, let us begin by supposing that the castes of north Bihar have been more susceptible to poverty-related factors. We group the data for the castes of North Bihar in table 17, and those for South Bihar (later to become Jharkhand) in table 18. *We find that the castes which had a massive deterioration in their FMRs were mostly concentrated in north Bihar.* In South Bihar, the FMR deteriorations were relatively far less acute (tables 17 and 18).

Thus, massive FMR declines had taken place in the more developed regions of undivided Bihar. We argued in chapter 1 that, as a consequence of extreme poverty, gender discriminatory practices in food allocation and health care may not be sufficient to give male offspring a survival advantage over their sisters. Under these circumstances, gender bias does not translate into higher female mortality. In other words, below a threshold level of poverty, gender differences in infant and child mortality will disappear. It appears that conditions in Jharkhand (former South Bihar) have tended to approximate to this scenario, which should explain the relatively low declines in the FMRs of the castes here. By contrast, in former North Bihar, conditions seem to have been ripe for daughter discrimination to act to make the FMRs extensively more masculine.[6]

We also can think in terms of an alternative explanation. We saw in the introductory chapter how sanskritisation in a casteist regime can make FMRs more unbalanced. When living conditions improve, evidences show, women are withdrawn from the labour force,

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[6] Data compiled in the Jharkhand Development Report provide some gist to this type of causal pathways. The data show that in 1991, the FMR for Jharkhand (922) was more adverse for females than the national average of 927, but by 2001, Jharkhand's FMR, at 941, had *overtaken* the national average of 933 (Jharkhand Development Report, pages 259 & 260). This evidently was related to an increase in poverty in the region; the Jharkhand Development Report has data showing an increase in poverty there (JDR pages 339-340). A more recent data source (Debroy and Bhandari 2003 : 27), which shows that the proportion of people not getting two square meals a day is far higher in Jharkhand as compared to Bihar, is also amenable to similar conclusions.

and, in a casteist set up, this changes how women are valued, and results in an intensification of gender bias. Something of this sort could have been happening in north Bihar, which is in fact suggested also by the wide range of variation in caste FMRs even in the base year, what to speak of FMR deteriorations over time. South Bihar, by contrast, is a tribal dominated area, where caste distinctions and discriminations were historically muted (Singh, K.S. 1983).

We thus see that the facts can be interpreted in different ways. As Sir Doyle's detective of fiction might have said, `The question is not whether the data fits the facts, but whether it explains them'. We will come back to this point later.

TABLE 17
CASTE WISE FMRs AND WOMEN'S AGENCY VARIABLES, NORTH BIHAR, SCs, RURAL AREAS, 1961-1991

CASTE	FMR								FELIT 1991	FELIT 61-91	F-AGLAB 91	F-AGLAB 61-91
	1961	1971	1981	1991	61-71	71-81	81-91	61-91				
General Pop.	1012	971	963	923	-41	-8	-40	-89	15	11	-	-
All Scheduled Castes	1039	990	976	920	-50	-13	-57	-120	4	8	17	-8
Nat	899	944	1009	935	45	65	-74	36	3	3	13	3
Pasi	962	961	947	922	-1	-14	-25	-40	7	11	10	-5
Rajwar	986	992	977	916	6	-15	-61	-70	3	8	18	-14
Musahar	1001	962	968	918	-39	6	-50	-83	1	1	32	-8
Dhobi	1027	1005	985	921	-22	-20	-64	-106	8	13	7	0
Dosadh	1032	970	965	902	-62	-5	-63	-130	5	10	14	-8
H/M/B	1036	969	958	882	-67	-11	-76	-154	7	8	11	3
Chamar	1082	1021	994	927	-61	-27	-67	-155	5	10	16	-11
Bantar	1091	973	972	932	-118	-1	-40	-159	3	-3	26	1
Chaupal	1146	962	971	882	-184	9	-89	-264	4	6	13	0

INCLUDES ONLY ERSTWHILE BIHAR CASTES WHOSE POPULATIONS WERE MAINLY IN NORTH BIHAR
`F-AGLAB' STANDS FOR `INCIDENCE OF AGRICULTURAL LABOURERS IN FEMALE POPULATION'
`FELIT' STANDS FOR `FEMALE LITERACY RATE'
INTER DECADAL DIFFERENCES IN THE VARIABLES `FMR', `F-AGLAB' AND `FELIT' HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR
DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

TABLE 18
FMRs AND RELATED VARIABLES, CASTE WISE, JHARKHAND, SCHEDULED CASTES, RURAL AREAS, 1961-1991

CASTE	FMR								FELIT 1991	FELIT 61-91	F-AGLAB 91	F-AGLAB 61-91
	1961	1971	1981	1991	61-71	71-81	81-91	61-91				
General Pop.	1012	971	963	923	-41	-8	-40	-89	15	11	-	-
All Scheduled Castes	1039	990	976	920	-50	-13	-57	-120	4	8	17	-8
Pan	934	979	1004	944	45	25	-60	10	11	11	11	-2
Ghasi	967	1059	975	980	92	-84	5	13	8	9	13	-4
Bauri	986	863	942	938	-123	79	-4	-48	5	10	7	-5
Bhogta	996	952	989	951	-44	37	-38	-45	3	5	8	-2
Turi	1024	1002	985	972	-22	-17	-13	-52	4	8	8	-4

INCLUDES ONLY ERSTWHILE BIHAR CASTES WHOSE POPULATIONS WERE MAINLY IN SOUTH BIHAR
`F-AGLAB' STANDS FOR `INCIDENCE OF AGRICULTURAL LABOURERS IN FEMALE POPULATION'
`FELIT' STANDS FOR `FEMALE LITERACY RATE'
INTER DECADAL DIFFERENCES IN THE VARIABLES `FMR', `F-AGLAB' AND `FELIT' HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR
DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

Within both North Bihar and South Bihar, we find the typical pattern of FMR declines at higher levels of the base year (1961) FMRs. For South Bihar (now Jharkhand), chart 13 shows, FMR declines plateau at higher initial levels. In North Bihar, however, we see a steep decline (chart 14). To extend our spatial analysis, one possibility is that the castes with the higher FMRs in the base year were in the more developed regions *within* North Bihar, and that it is precisely in these regions - where resources made it possible to discriminate effectively against daughters in terms of nutrition, health care etc - that neglect of female children had fatal consequences. It is to these issues that we now turn.

CHART 13
FMR CHANGES 61-91 CORRELATED WITH ASCENDING ORDER OF CASTE WISE FMRs 1961, SOUTH BIHAR, RURAL AREAS

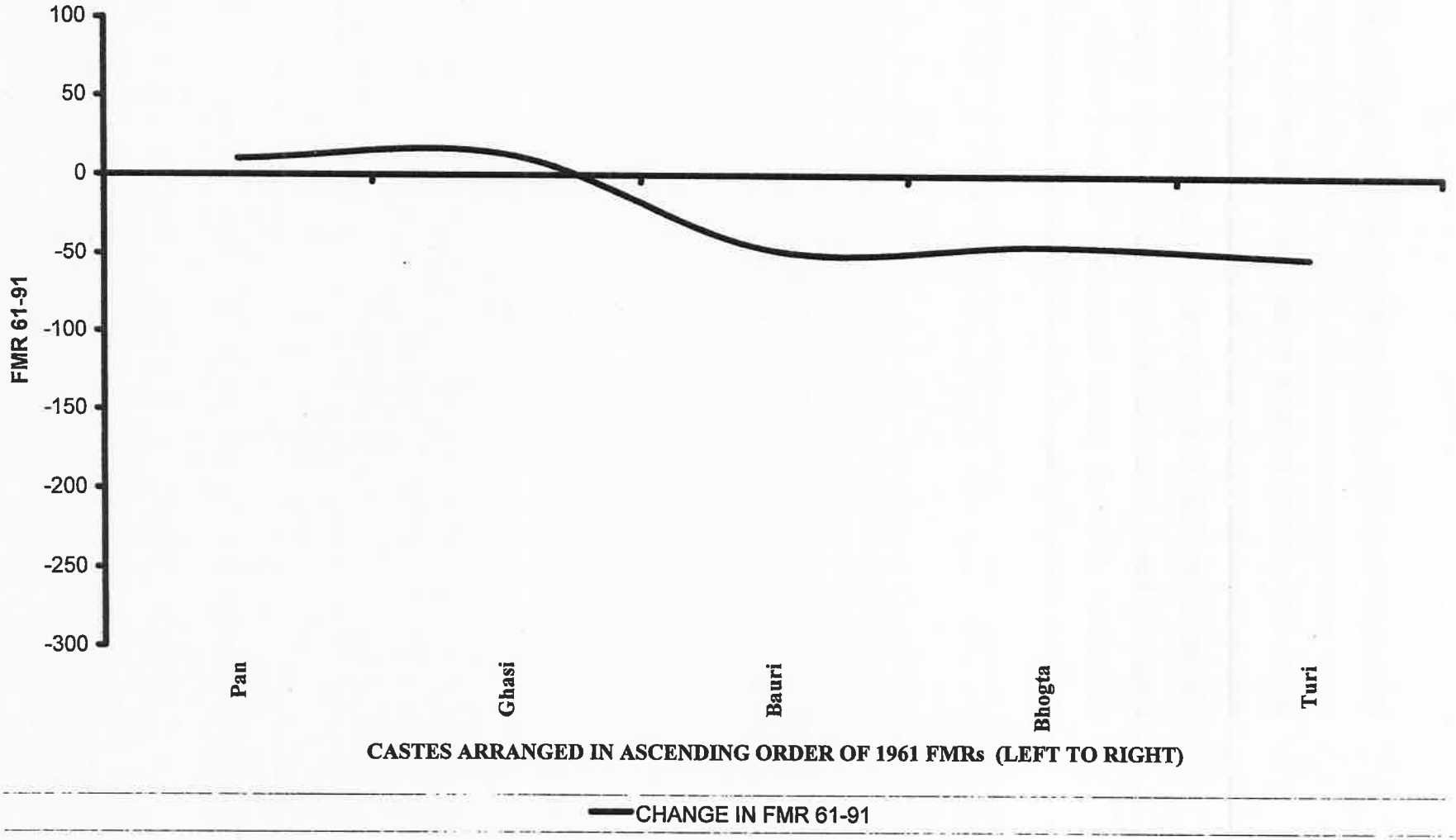
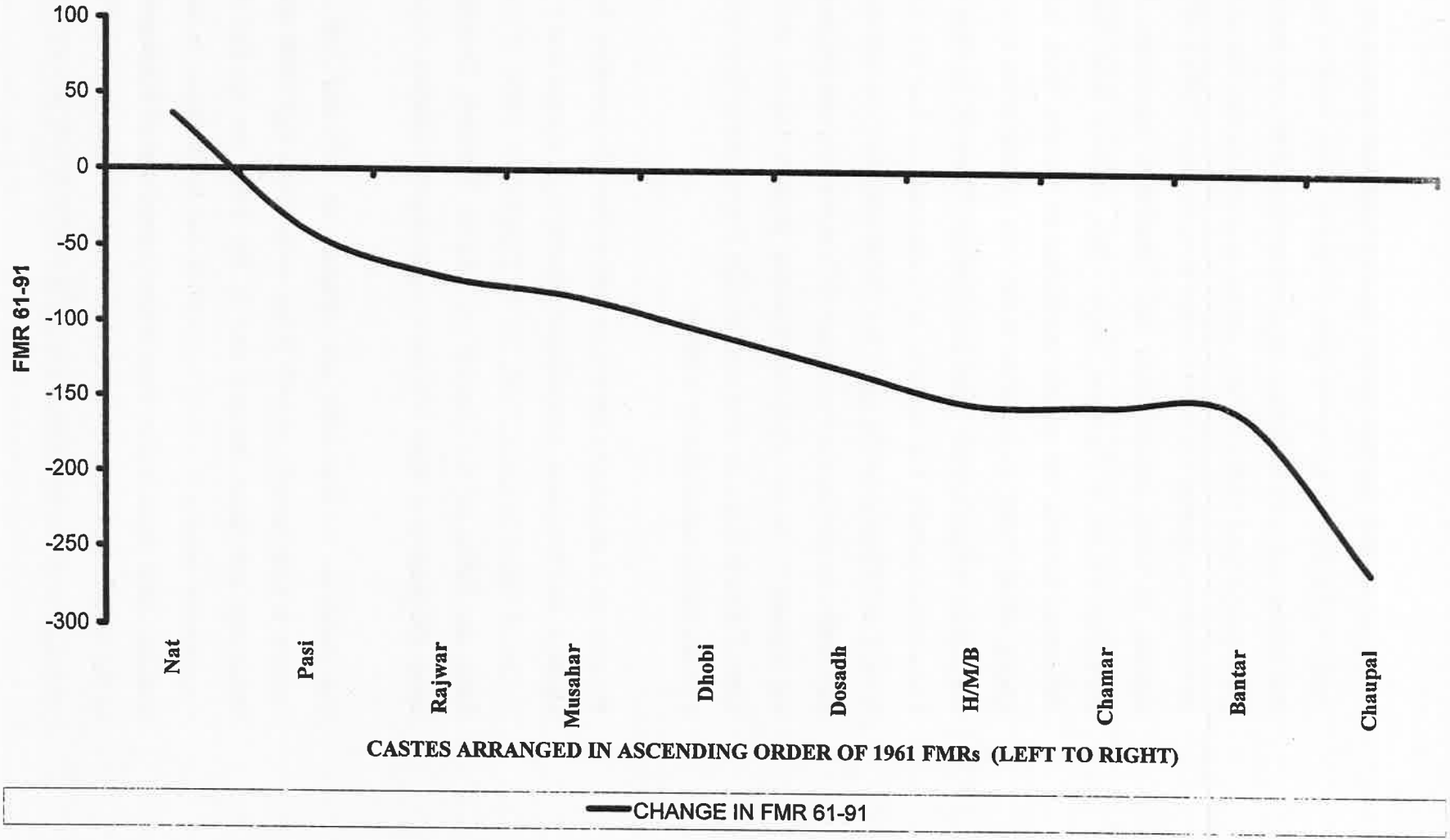


CHART 14
FMR CHANGES 61-91 CORRELATED WITH ASCENDING ORDER OF CASTE WISE FMRs, 1961, NORTH BIHAR, RURAL AREAS



To the extent that regional factors have an important bearing on FMR differences, we would expect them to act *across* caste categories. Thus, within a region, we should expect similarities, and such differences as are found should be cross-regional. Maps 5-8, which show district level FMRs for SCs, allows us to explore this line of thinking. One striking pattern shown by map 5 is that all castes have the same FMRs (1000+) in the North Bihar districts of Saran, Muzzaffarpur and Dharbanga. Moreover, FMRs for the entire population too are in the same range – thus, in these three districts, we do not find differences between the general population on the one hand, and, on the other, SCs, among whom FMRs are expected to be more egalitarian on account of greater poverty and higher women's work force participation. However, in other districts of Bihar, we find a mixed pattern. For instance, in Champaran, we find that FMRs for the Musahar, Dosadh and Chamar are the same, but Dobhi and Dom have adverse FMRs. In Gaya, we find FMRs for the General Population, SCs as a whole, and for castes like Bhuiya, Dhobi and Chamar to be the same, but Musahar, Dosadh, Rajwar, and especially Pasi, have lower FMRs in Gaya. In other districts like Purnea, Bhagalpur and Saharsa, we find that the intra district heterogeneity is more.

We also see a remarkable caste-wise uniformities, for instance, for the poverty stricken Musahar. In Champaran, Muzaffarpur, Dharbhanga, Munger and even in the South Bihar district of Santal Parganas, FMRs for the Musahar are 1000+. However, in parts of north Bihar, the FMRs for the Musahar are adverse. Similarly, Dusadh has feminine FMRs across the districts of Bihar with the exceptions of the districts of Purnea and Shahabad.

The variations are thus wide and complex. In 1971 and 1981, however, we see an increase in heterogeneity in north Bihar, even within high FMR districts of Muzaffarpur, Dharbanga and Saran (maps 6 and 7). By 1991, we see that the heterogeneity has considerably increased in both north Bihar and South Bihar. In north Bihar's swathe of feminine FMR districts also, there is now a good deal of heterogeneity, though, a pocket in the north-west continues to have relatively favourable caste FMRs (map 8). In this pocket, poverty-related indices also show relatively low poverty. (The data are for 2000,

but it is the closest district level data on poverty that we have). In the north-east of North Bihar also, poverty is low, but we do not see relatively adverse FMRs there (maps 9 and 10).[7] In south Bihar, too, we find a good deal of intra district heterogeneity by 1991, even in Ranchi, where poverty is considerably lower than in the surrounding regions, as per data for 2000 (maps 9 and 10).

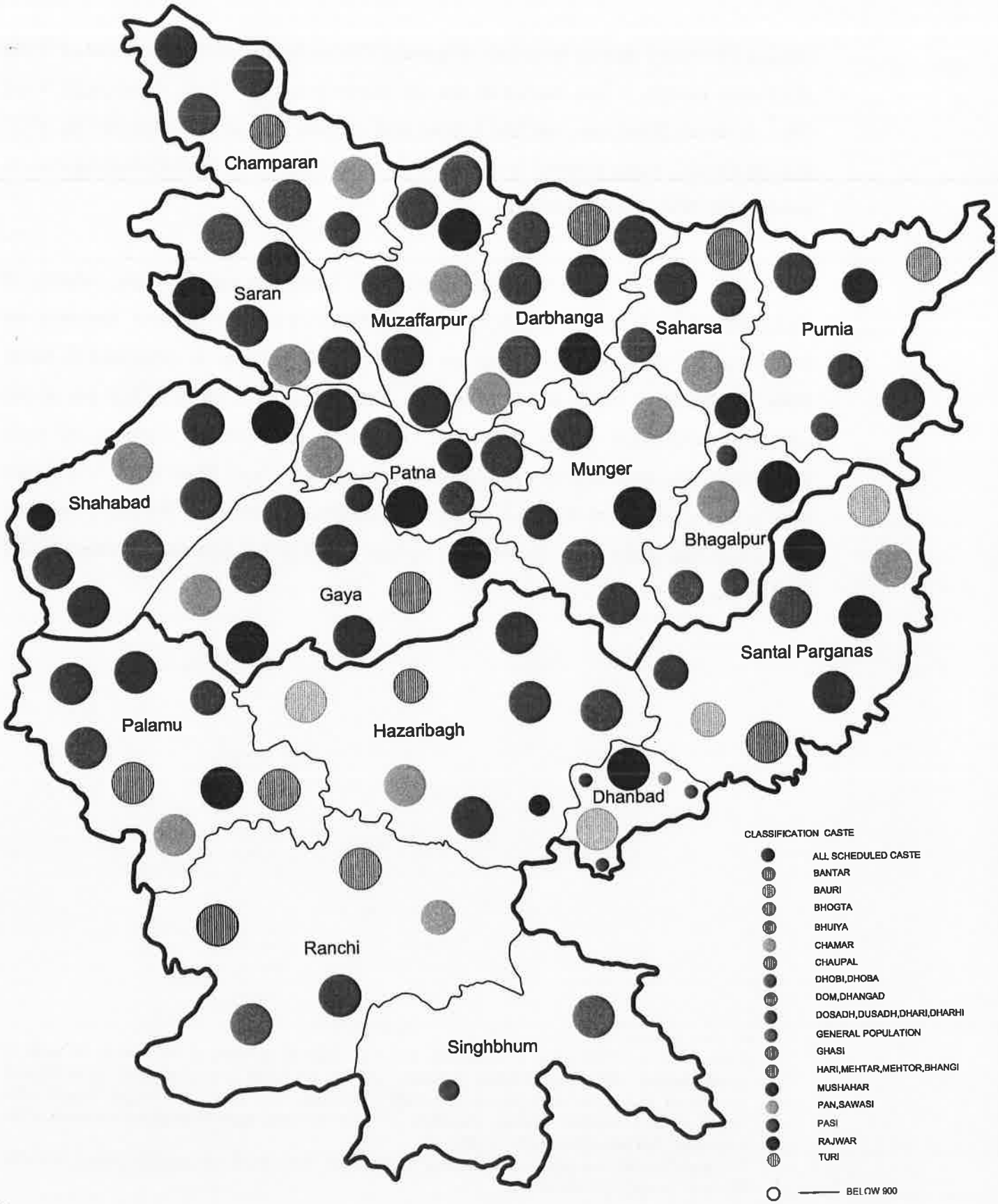
Thus, there are indications that that caste-related factors do operate independently of spatial factors.[8] To sustain our hypothesis of differences in caste regimes, however, we would need to whether caste factors are stronger in north Bihar as compared to South Bihar. At the State level, as we have seen, caste based data on WAGES are poorly correlated with caste FMRs. However, we see a considerable dispersal of caste populations, and district level data could be very different from State level data. Hence there is a need to explore the issue deeper with district level analysis. We will come back to this important point later. Before that, we take a look at the data on caste-wise FMRs in West Bengal.

---

7 Thus, as far as north Bihar is concerned, it is very difficult to make interpretations in terms of spatial factors. Still, the persistence of caste FMRs in the North West pocket of North Bihar is noteworthy. It may be worth looking into whether the castes here have any distinguishing features, say, in terms of women's agency variables. We have analysed women's agency variables at the State level, but not at the district level.

8 It is possible that our spatial units are too large, but relevant data from secondary sources are for this level of aggregation only.

MAP No. 05 DISTRICT FMRS, CASTE WISE, BIHAR, SCS. RURAL AREAS,1961

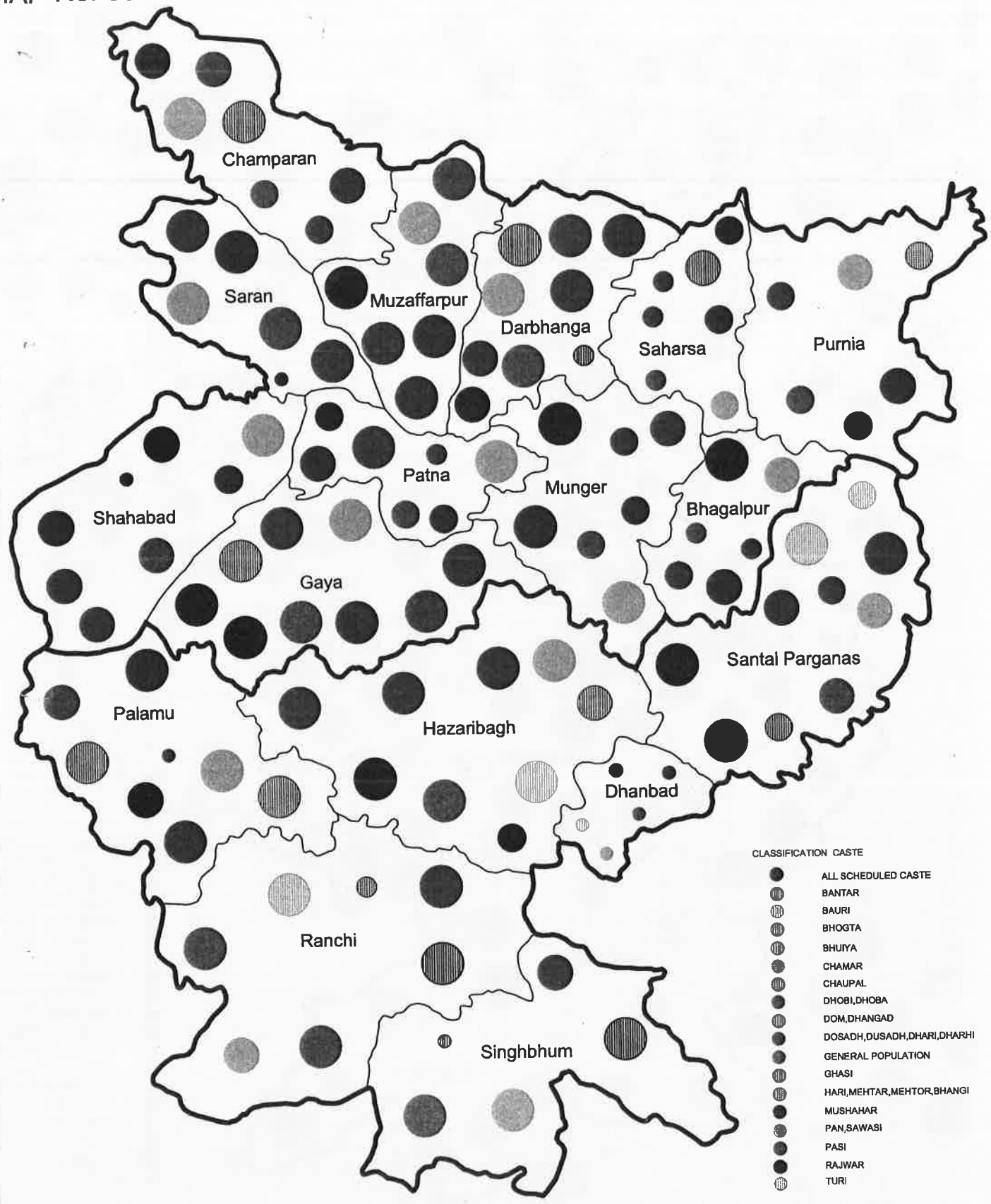


Note: 1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP No. 06 DISTRICT FMRS, CASTE WISE, BIHAR, SCS. RURAL AREAS,1971

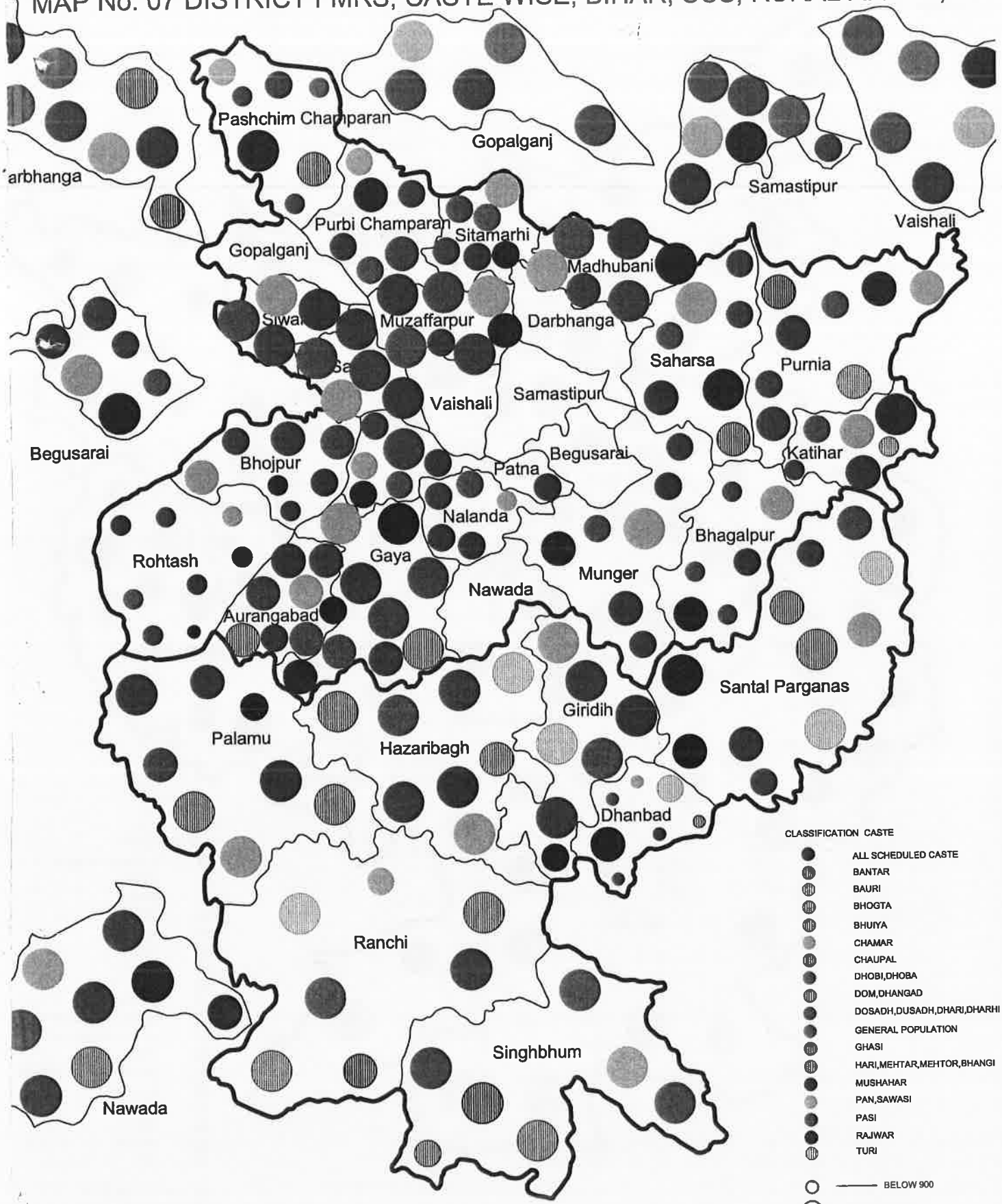


Note:1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP No. 07 DISTRICT FMRS, CASTE WISE, BIHAR, SCS, RURAL AREAS, 198

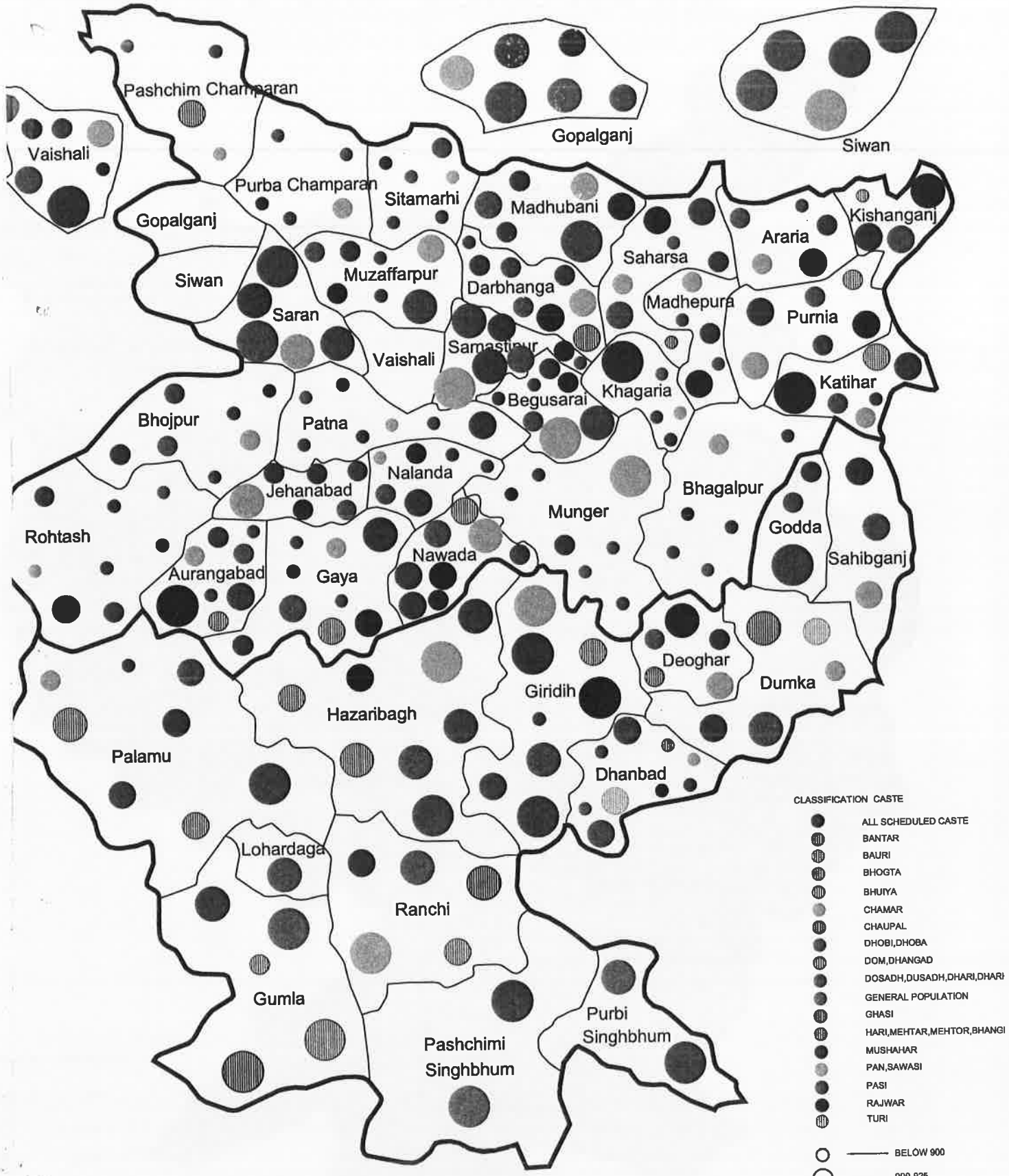


Note: 1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP No. 08 DISTRICT FMRS, CASTE WISE, BIHAR, SCS. RURAL AREAS,199

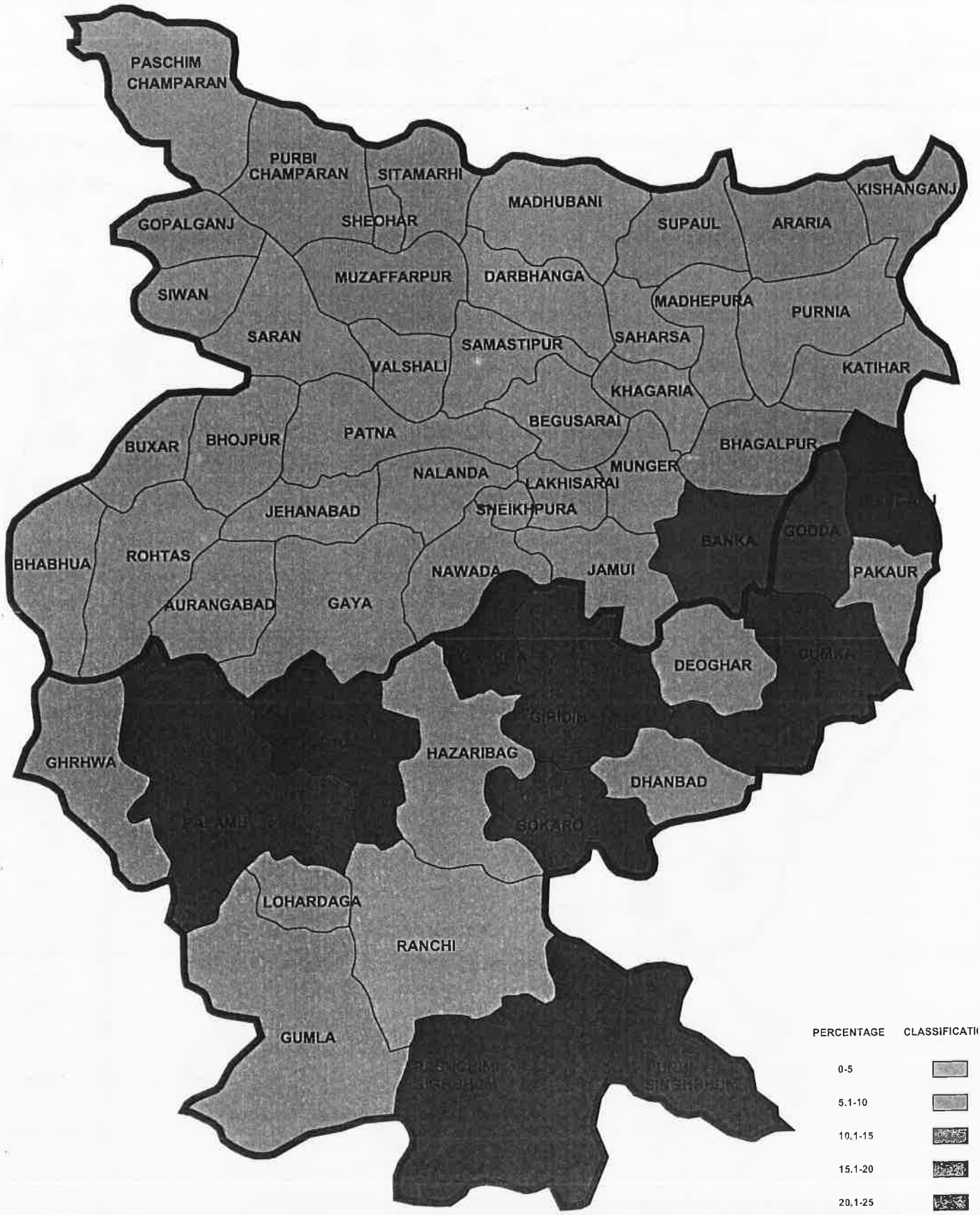


Note: 1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

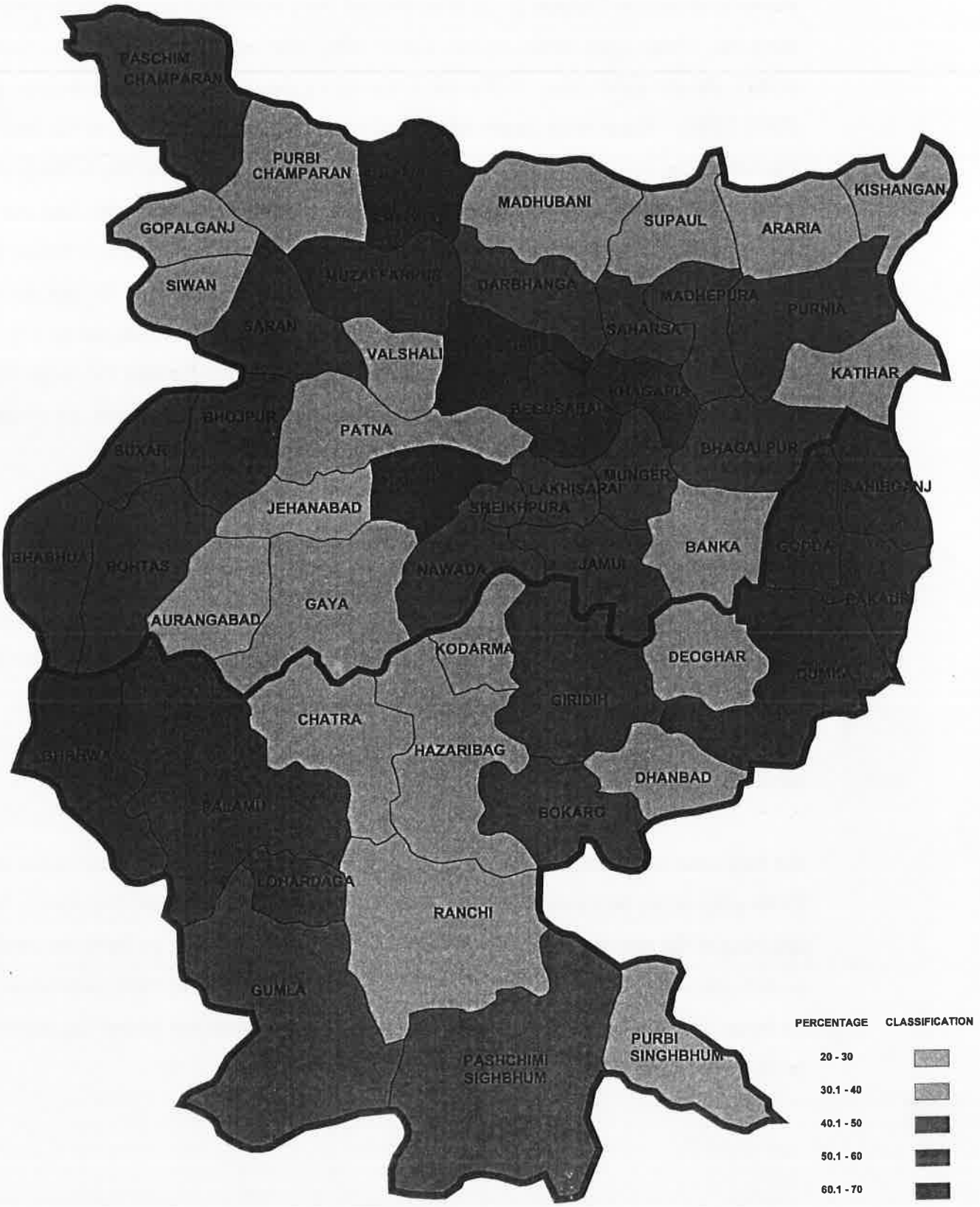
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 9 %OF HOUSEHOLDS GOING HUNGRY IN THE NEW MILLENNIUM - BIHAR & JHARKHAND



ata Source: Bibek Debroy and Laveesh Bhandari eds. District
evel Deprivation in the New Millinneum. Delhi: Konark Publishers
ARTOGRAPHY BY : DIMENSION INDIA NETWORK PVT. LTD.

AP NO. 10 %POPULATION BELOW THE POVERTY LINE IN THE NEW MILLENNIUM - BIHAR & JHARKHAND



Source: Bibek Debroy and Laveesh Bhandari eds. District
el Deprivation in the New Millinneum. Delhi: Konark Publishers
RTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

CASTE WISE FMRs, WEST BENGAL

As we have seen in Chapter 2, in West Bengal, for a number of castes, FMRs grew more feminine. These were castes whose FMRs were relatively masculine in the base year (1961). At the same time, FMRs for *some* castes deteriorated in the reference period (1961-1991). These were castes which had relatively feminine FMRs in the base year. The trends can be seen in chart 15. The chart shows also that the pattern holds *generally*, but not entirely. Thus, the castes whose FMRs grew more feminine had the *most* masculine FMRs in the base year, but one of these castes (Hari) showed a further (albeit modest) deterioration in its FMR. At the other end of the spectrum, we can see castes with relatively feminine FMRs in 1961 having become more feminine (chart 15). Thus, the explanation we advanced, i.e., that when the FMR is feminine that the scope for fatal daughter discrimination is more, can only provide part of the explanation. As in the case of Bihar, we are led to consider caste-related factors.

We have caste-wise data on WAGES (Women's Agency Variables), so let us see if these can account for the changes that have taken place in West Bengal's FMRs. Table 19 shows 1961 caste FMRs for West Bengal arranged in ascending order, along with the corresponding values of WAGES. We can see that the correlation between caste FMRs and WAGES at the State level is very poor. Chart 16 shows further that State level changes in WAGES is poorly correlated with the corresponding FMR changes over the reference period.

We now turn to investigate spatial factors. We had hypothesised that the castes whose FMRs grew more feminine were concentrated in specific regions, and that spatial factors operating at the regional level could explain the FMR changes that we have observed. Let us first see whether there is evidence of spatial concentration of caste populations that we have hypothesised. Maps 11 to 14 show caste distributions across the districts of West Bengal for 1961, 1971, 1981 and 1991.

CHART 15
CHANGES IN CASTE FMRs, WEST BENGAL, RURAL AREAS, 1961-1991

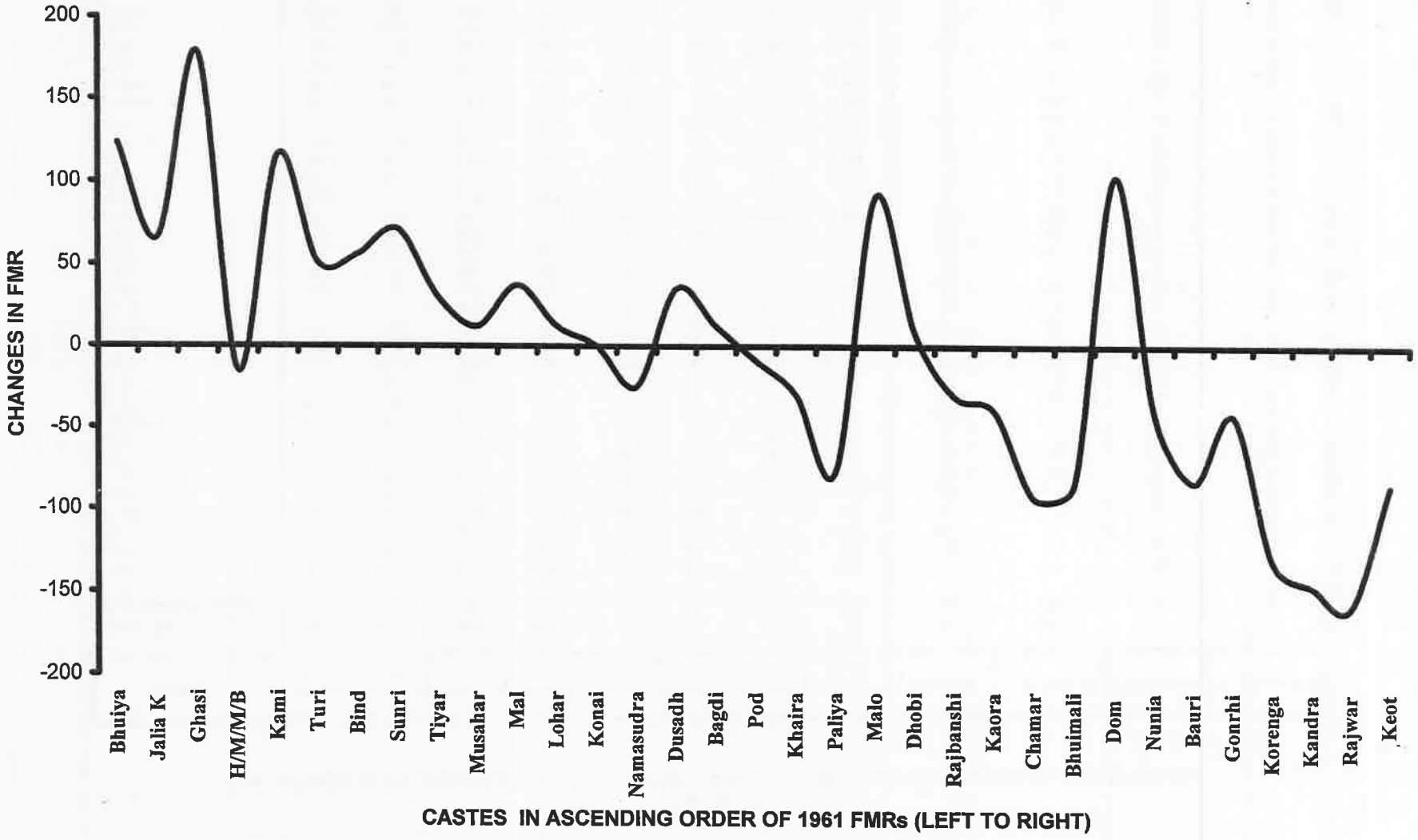


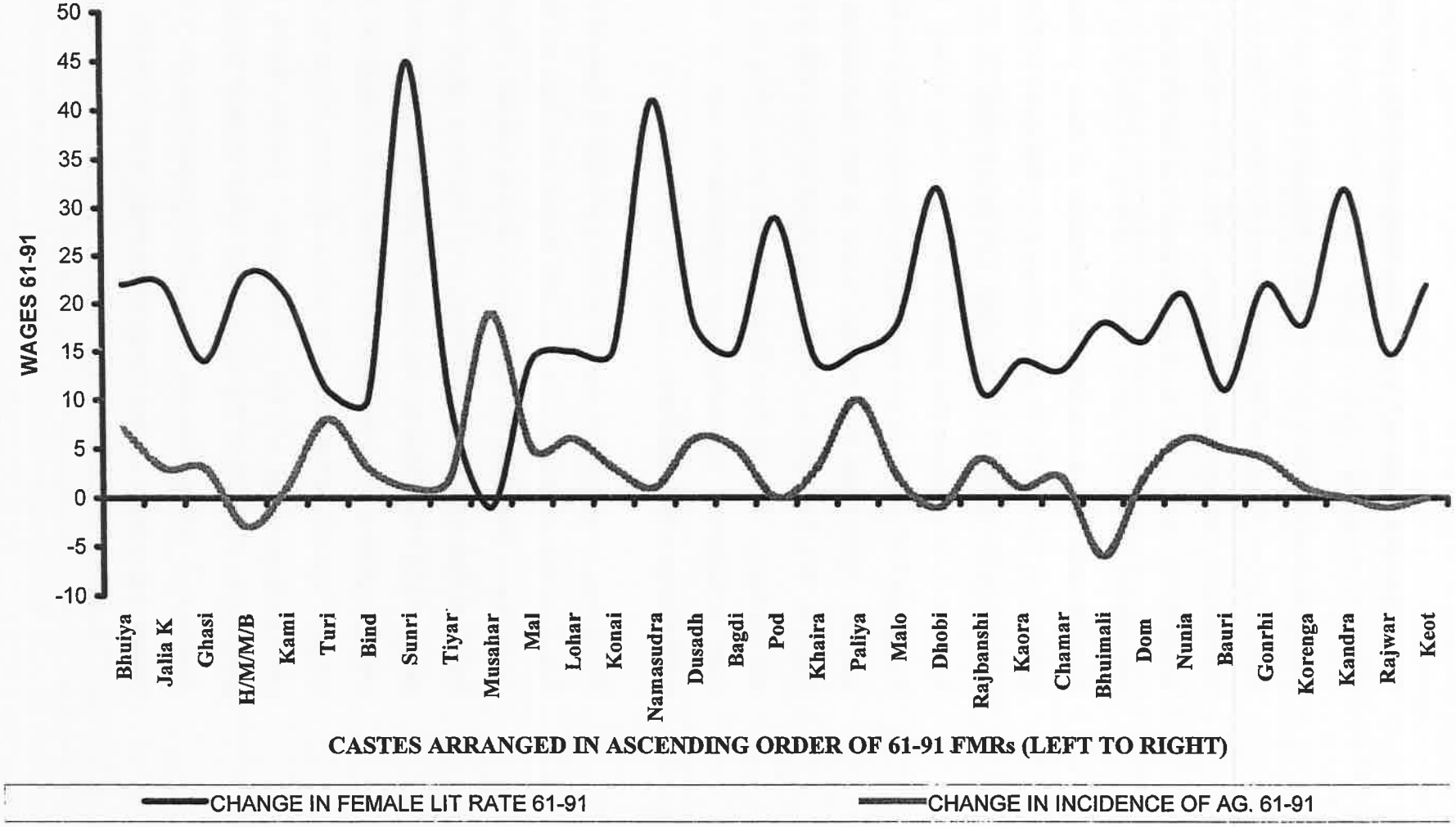
TABLE 19
FMRs AND RELATED VARIABLES, CASTE WISE, WEST BENGAL, SCHEDULED CASTES, RURAL AREAS, 1961-1991

CASTE	FMR								FELIT 91	FELIT 61-91	F-AGLAB 91	F-AGLAB 61-91
	1961	1971	1981	1991	61-71	71-81	81-91	61-91				
General Pop.	**943**	**942**	**947**	**941**	**-1**	**5**	**-5**	**-2**	**31**	**20**	**-**	**-**
All Scheduled Castes	**938**	**940**	**937**	**938**	**2**	**-3**	**1**	**0**	**21**	**20**	**6**	**2**
Rajwar	756	800	927	879	44	127	-48	123	15	15	10	-1
Nunia	764	901	880	830	137	-21	-50	66	15	21	9	6
Keot	765	807	918	943	42	111	25	178	20	22	2	0
Dusadh	836	752	855	821	-84	103	-34	-15	14	18	8	6
Kandra	842	891	955	958	49	64	3	116	37	32	1	0
Bhuimali	861	947	932	912	86	-15	-20	51	19	18	5	-6
Dom	894	949	942	950	55	-7	8	56	12	16	10	2
Bauri	900	973	955	971	73	-18	16	71	6	11	25	5
Rajbanshi	906	954	934	936	48	-20	2	30	20	11	5	4
Paliya	908	948	953	920	40	5	-33	12	12	15	10	10
Chamar	912	931	925	949	19	-6	24	37	10	13	6	2
Malo	912	863	910	924	-49	47	14	12	24	18	2	2
Pod	926	945	926	926	19	-19	0	0	31	29	1	0
Namasudra	937	882	910	912	-55	28	2	-25	33	41	1	1
Kaora	941	915	921	976	-26	6	55	35	13	14	2	1
Dhobi	950	923	937	962	-27	14	25	12	38	32	3	-1
Bagdi	975	985	964	966	10	-21	2	-9	13	15	8	5
Konai	978	945	931	948	-33	-14	17	-30	13	15	5	3
Sunri	978	1003	945	901	25	-58	-44	-77	43	45	3	1
Gonrhi	979	1020	961	1070	41	-59	109	91	23	22	4	4
Khaira	982	977	979	990	-5	2	11	8	8	14	24	3
Lohar	984	932	965	953	-52	33	-12	-31	11	15	18	6
Mal	989	961	960	949	-28	-1	-11	-40	10	14	16	5
H/M/M/B	999	930	943	905	-69	13	-38	-94	20	23	7	-3
Turi	999	832	938	914	-167	106	-24	-85	10	11	17	8
Korenga	1001	963	963	1104	-38	0	141	103	18	18	2	1
Musahar	1013	923	915	971	-90	-8	56	-42	3	-1	36	19
Bind	1029	849	953	945	-180	104	-8	-84	7	10	9	3
Tiyar	1033	1002	927	990	-31	-75	63	-43	25	10	4	2
Ghasi	1037	1250	942	905	213	-308	-37	-132	10	14	15	3
Jalia K	1054	907	951	907	-147	44	-44	-147	27	22	4	3
Bhuiya	1069	853	940	910	-216	87	-30	-159	16	22	18	7
Kami	1073	878	1005	987	-195	127	-18	-86	26	21	2	1

`F-AGLAB' STANDS FOR `INCIDENCE OF AGRICULTURAL LABOURERS IN FEMALE POPULATION'
`FELIT' STANDS FOR `FEMALE LITERACY RATE'
INTER DECADAL DIFFERENCES IN THE VARIABLES `FMR', `F-AGLAB' AND `FELIT' HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.
DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

CHART 16

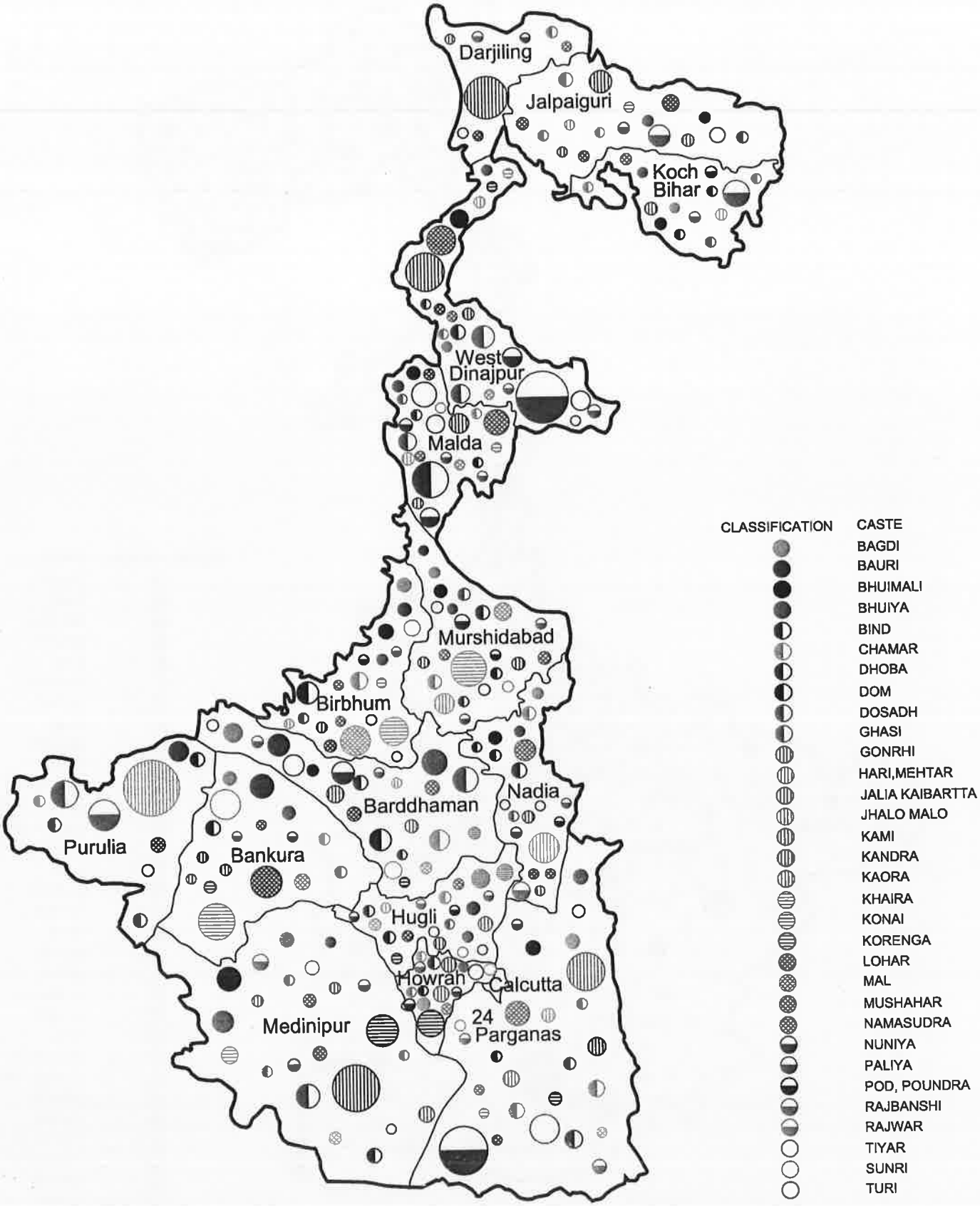
WAGES (WOMEN'S AGENCY VARIABLES), CHANGES BETWEEN 1961 AND 1991, CORRELATED WITH ASCENDING ORDER OF CASTE WISE FMR CHANGES, 61-91, WEST BENGAL, RURAL AREAS



Let us first take a look at Map 11. Two things about this map are striking. One is that we *do* find a substantial degree of spatial concentration of caste populations. Thus, the Pod are found almost entirely in 24 Parganas, Kandra in Mednipur, Hari in Purulia, Konai in the contiguous districts of Murshidabad and Birbhum, Korenga in the contiguous districts of Mednipur, Howrah and 24 Parganas, J.Malo in the adjoining districts of Murshidabad and Birbhum, Bind in Malda, West Dijnapaur and Murshirabad, Paliya in West Dijnapur, and Gonhri in the contiguous northern districts of Darjiling and West Dijnapur. We however also find a considerable dispersion of caste populations (map 11), which indicates, as the data for West Bengal suggests, that caste territories can be dispersed and not necessarily confined to one place. Comparing maps 11, 12, 13 and 14, we see that there has been a substantial persistence of the 1961 pattern. Thus, Kandra, Korenga, Kaora and Pod persist in the southernmost districts, Bagdi in the contiguous districts of Bankura, Purulia and Barddhaman, Konai in the Murshirabad and Birbhum districts, Paliya in West Dijnapur and Malda, and Gonhri in the northernmost districts of Darjiling and Jalpaiguri. Thus, in West Bengal, in contrast to Bihar, we find a greater stability of caste populations, suggesting that migration is not so important in population redistribution within the State.

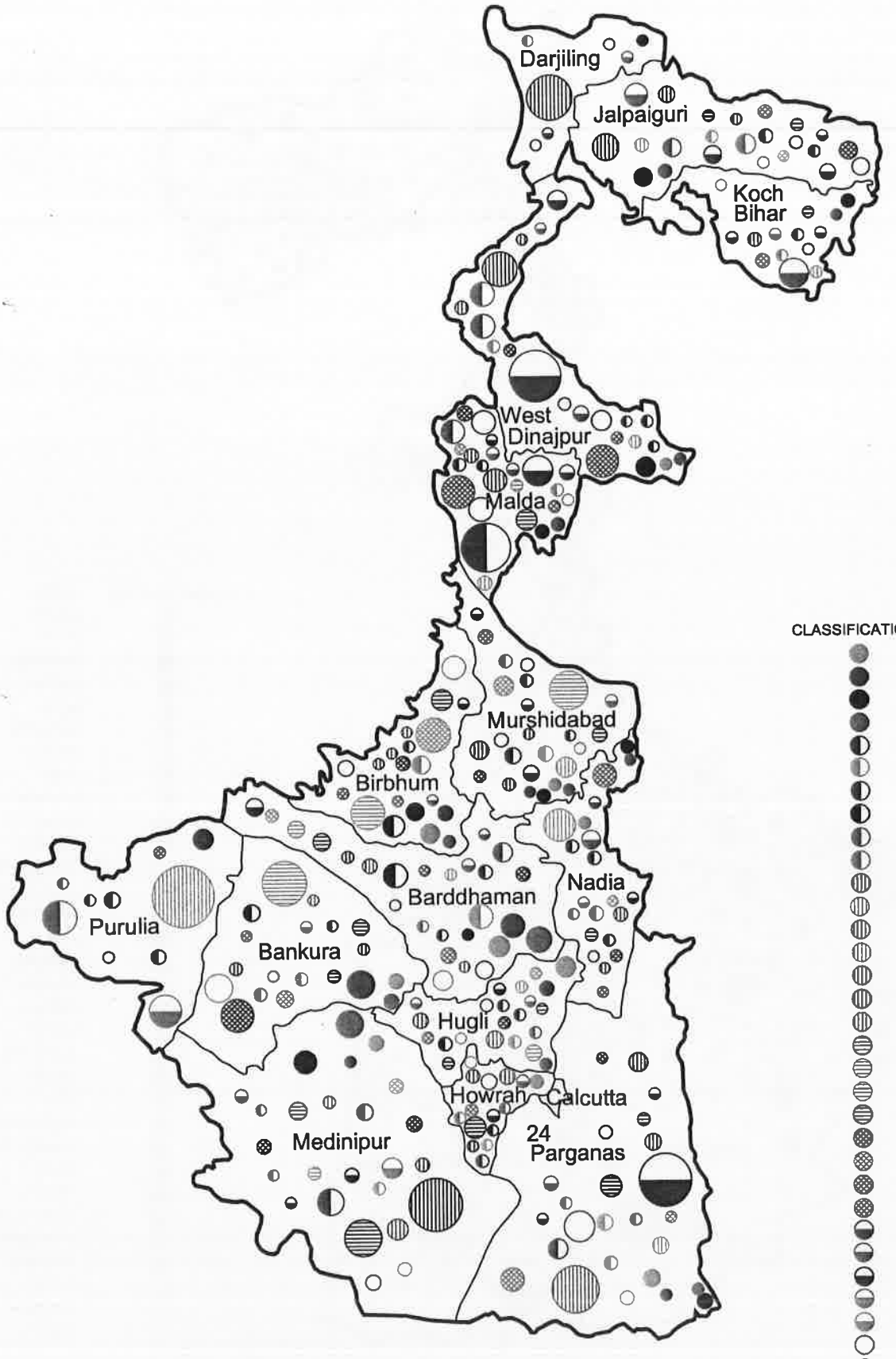
We now try to see whether there is anything peculiar in these district clusters. Let us look first at poverty-related criteria. The only district level data we have on this are for 2000. According to these data, the districts surrounding Kolkata – North 24 Parganas, South 24 Parganas, Howrah, Hugli, Bardhman and Mednipur compromise a low poverty zone (maps 15 and 16). These are also regions where the infant mortality rate is relatively low and the incidence of women receiving skilled medical attention during pregnancy is high (maps 17 and 18). We see also that some of the castes in our list for which the FMR grew more feminine (chart 17) are in this region – Kandra, Kaora, Korenga (maps 11-14). However, in the case of the *other* castes which showed feminisation of the FMR, the distribution is not so clear cut, some of their populations are within the more developed regions, and some in the less developed regions (maps 11 to 14).

MAP NO.11 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS, SCHEDULED CASTES, WEST BENGAL, RURAL AREAS,1961



Note: 1. Only West Bengal castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

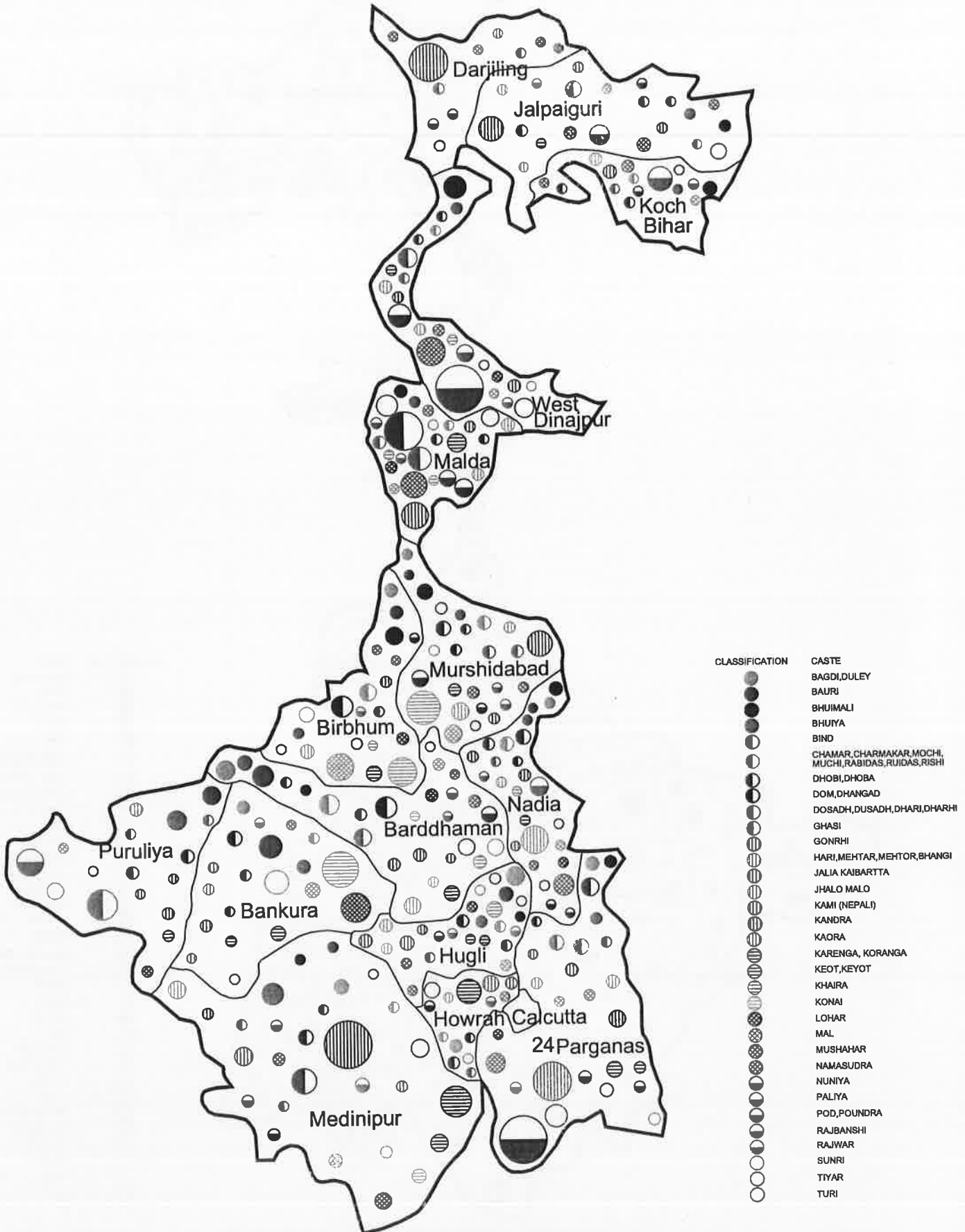
MAP NO. 12 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS, SCHEDULED CASTES, WEST BENGAL, RURAL AREAS,1971



CLASSIFICATION	CASTE
	BAGDI
	BAURI
	BHUIMALI
	BHUIYA
	BIND
	CHAMAR
	DHOBA
	DOM
	DOSADH
	GHASI
	GONRHI
	HARI,MEHTAR,MEHTOR
	JALIA KAIBARTTA
	JHALO MALO
	KAMI
	KANDRA
	KAORA
	KEOT
	KHAIRA
	KONAI
	KORENGA
	LOHAR
	MAL
	MUSHAHAR
	NAMASUDRA
	NUNIYA
	PALIYA
	POD OR POUNDRA
	RAJBANSHI
	RAJWAR
	TIYAR
	SUNRI
	TURI

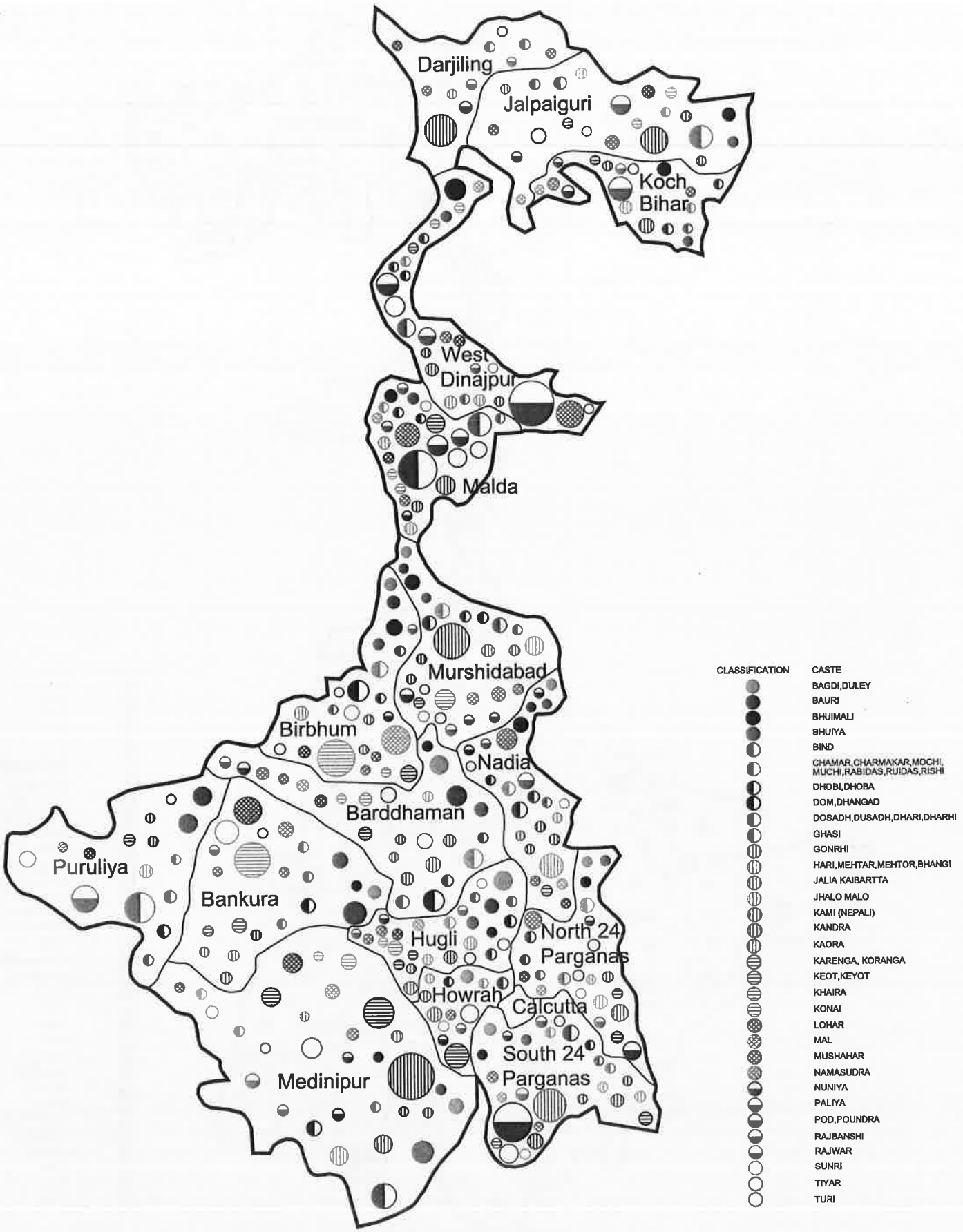
ote: 1. Only West Bengal castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO.13 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS,SCHEDULED CASTES,WEST BENGAL,RURAL AREAS,1981



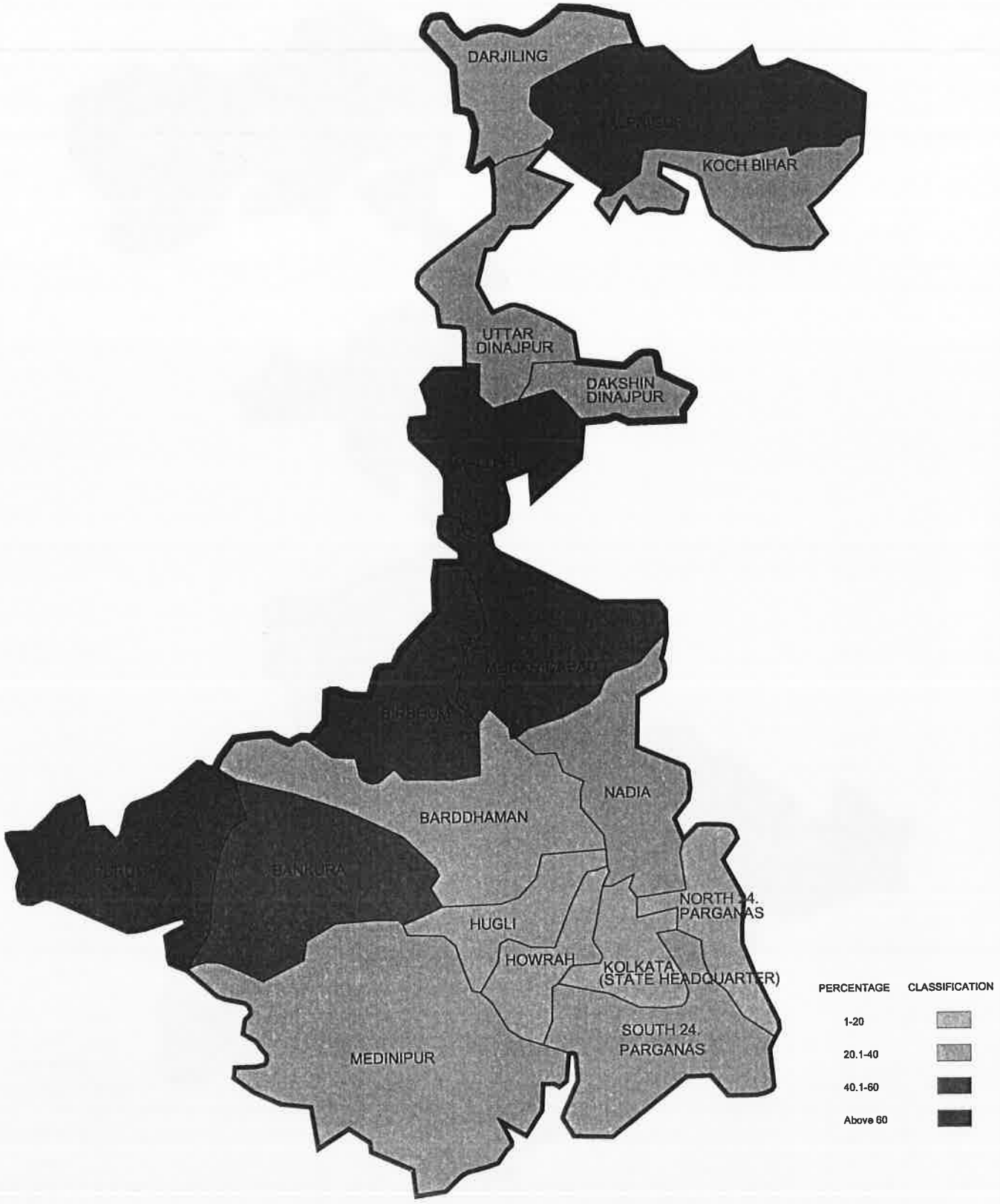
ote: 1. Only West Bengal castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO.14 % DISTRICT DISTRIBUTION OF CASTE POPULATIONS,SCHEDULED CASTES,WEST BENGAL,RURAL AREAS,1991



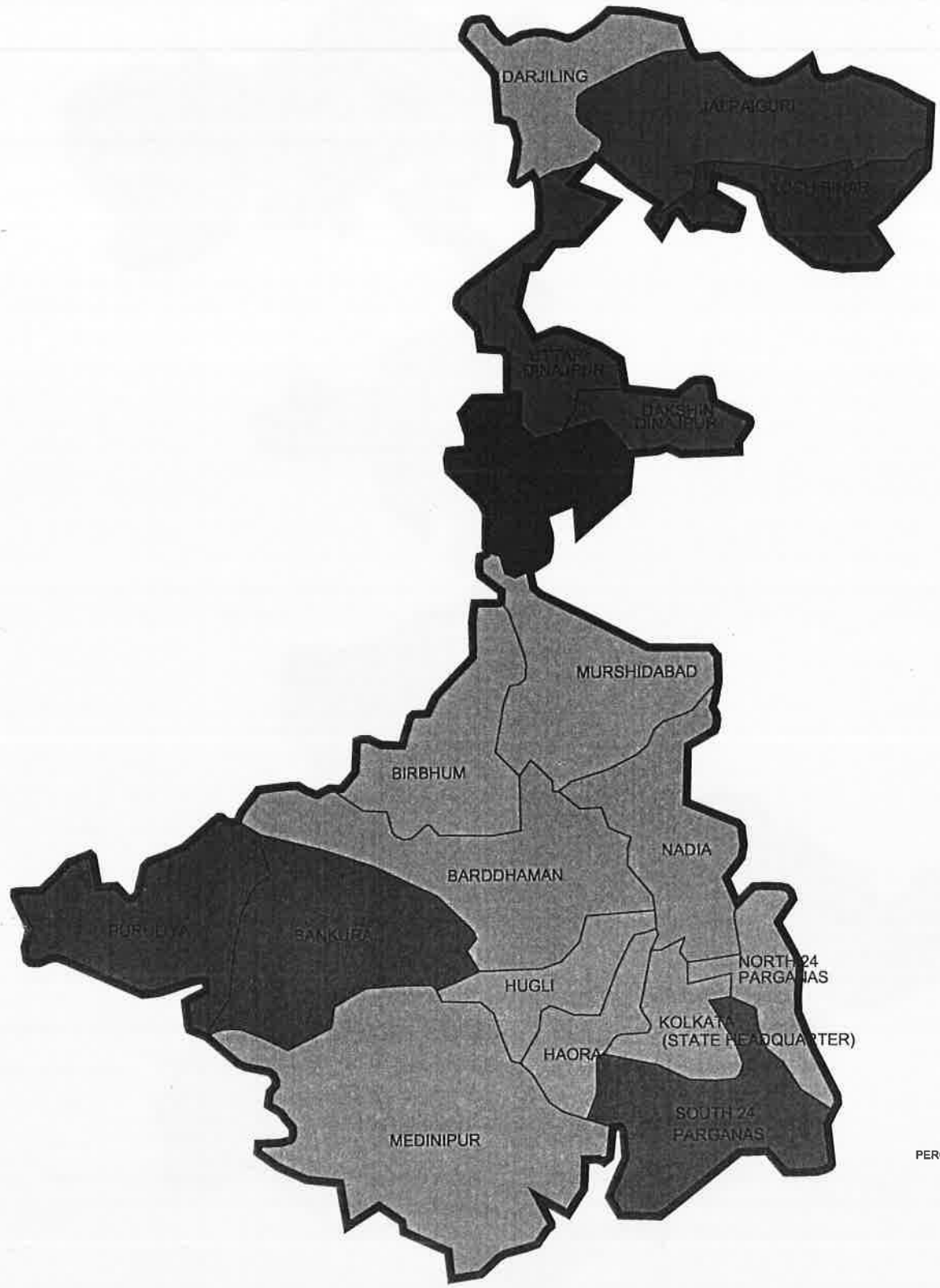
1. Only West Bengal castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP 15 POPULATION BELOW THE POVERTY LINE IN THE NEW MILLENNIUM - WEST BENGAL



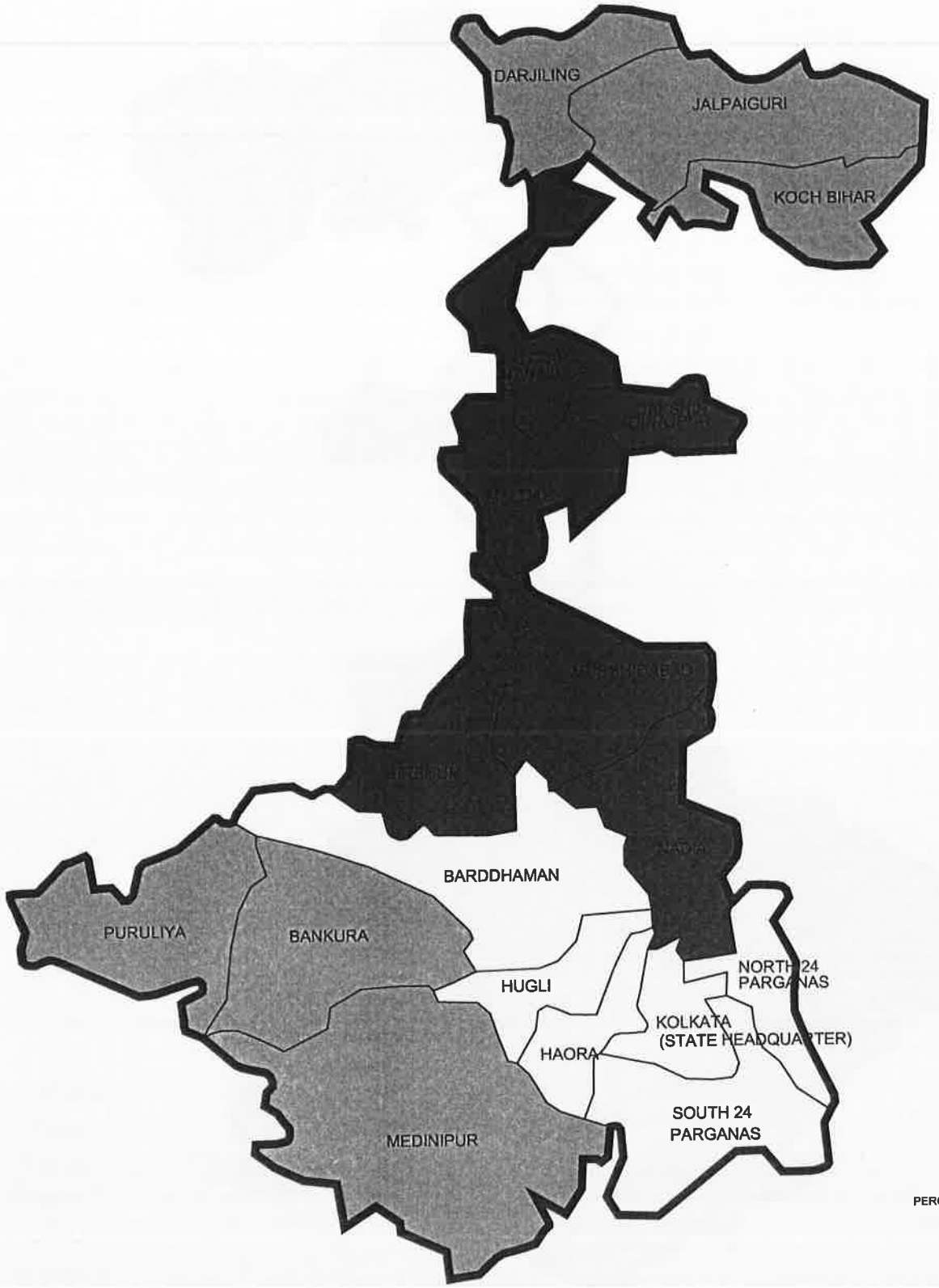
ata Source: Bibek Debroy and Laveesh Bhandari eds. District
evel Deprivation in the New Millinneum. Delhi: Konark Publishers
ARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP 16 % OF HOUSEHOLDS GOING HUNGRY IN THE NEW MILLENNIUM - WEST BENGAL



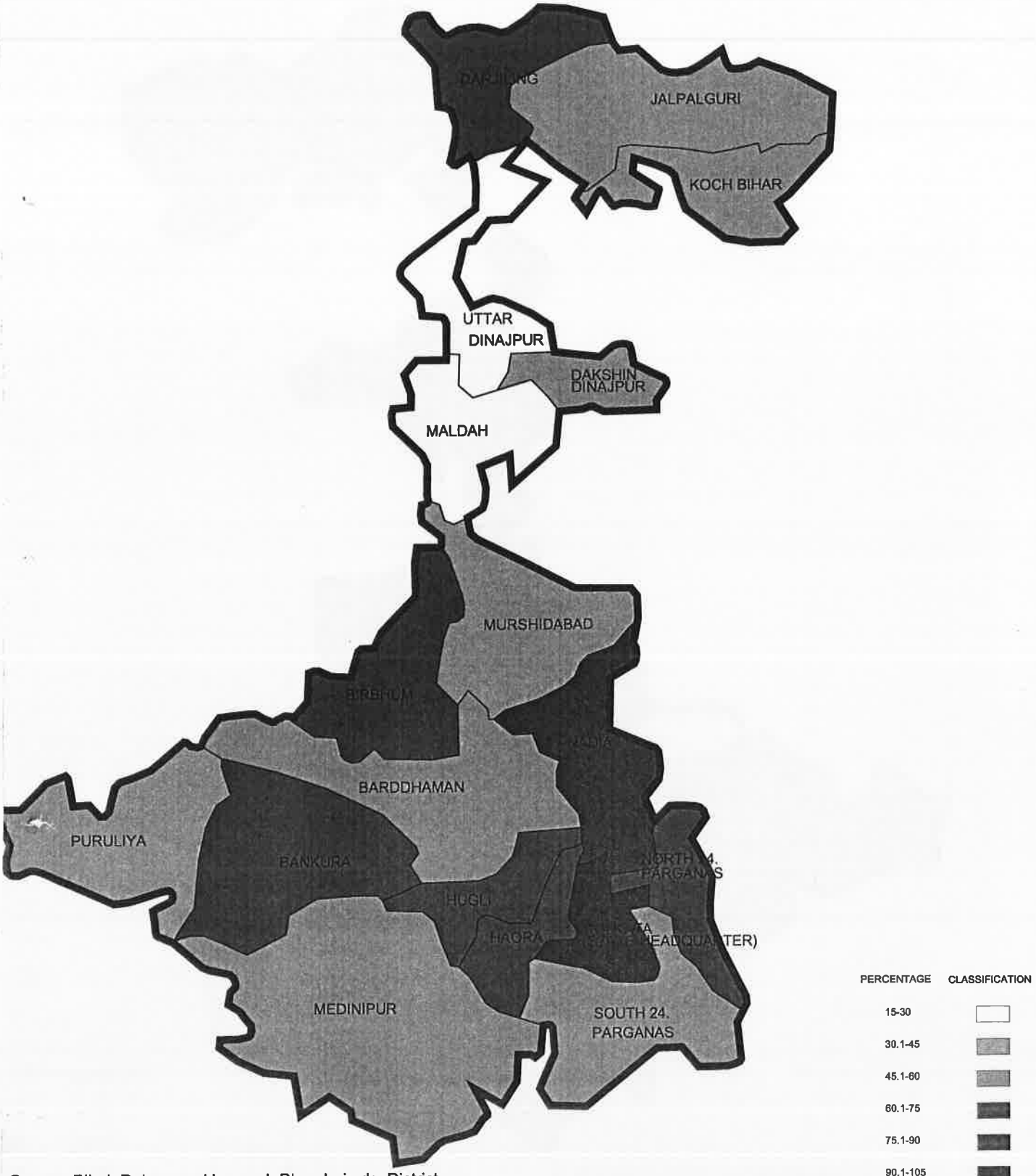
ı Source: Bibek Debroy and Laveesh Bhandari eds. District
ɜl Deprivation in the New Millinneum. Delhi: Konark Publishers
ʀTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP 17 INFANT MORTALITY RATE IN THE NEW MILLENNIUM - WEST BENGAL



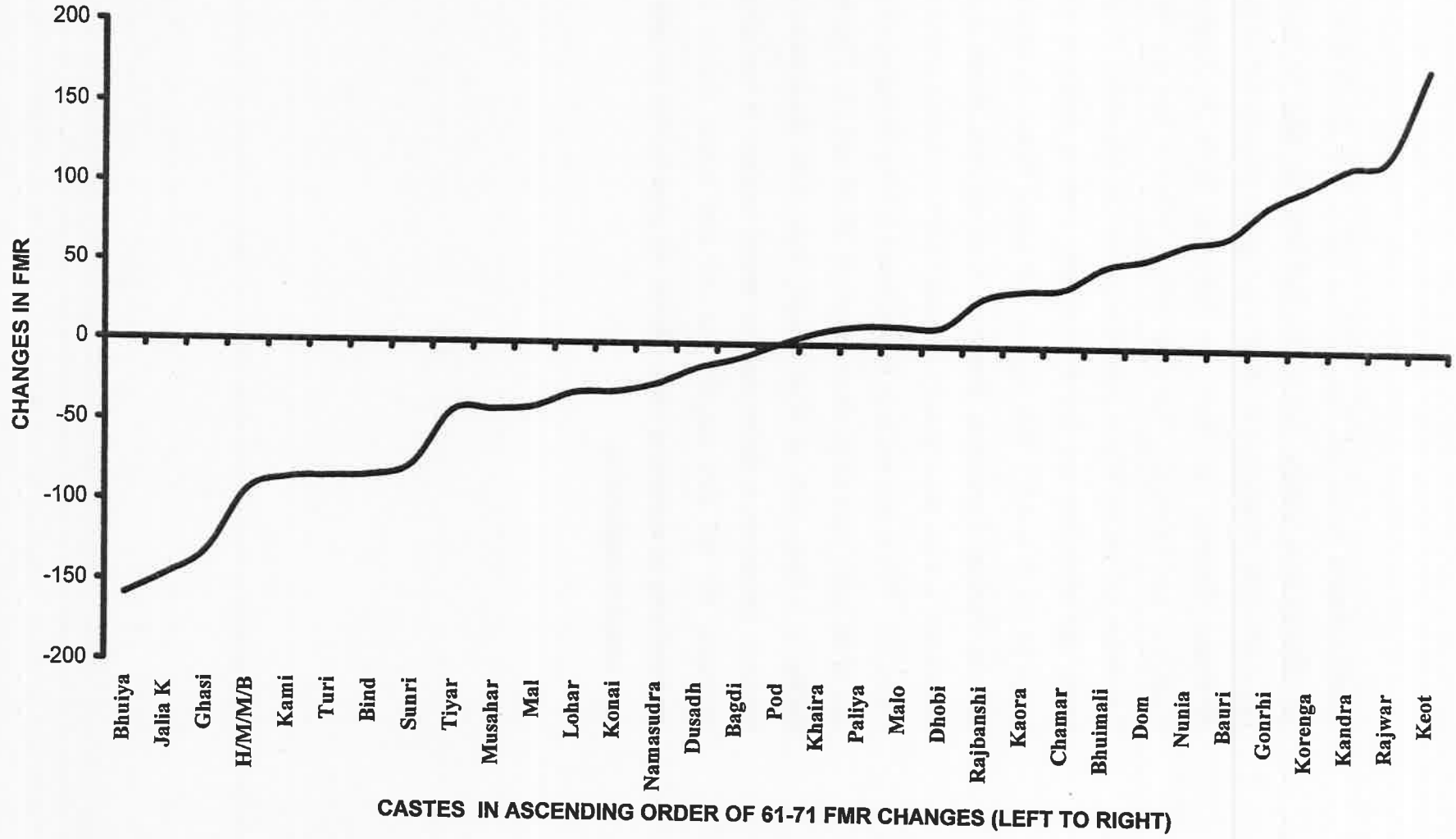
ata Source: Bibek Debroy and Laveesh Bhandari eds. District
vel Deprivation in the New Millinneum. Delhi: Konark Publishers
ARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

AP 18 % OF WOMEN RECEIVING SKILLED ATTENTION DURING PREGNANCY IN THE NEW MILLENNIUM - WEST BENGAL



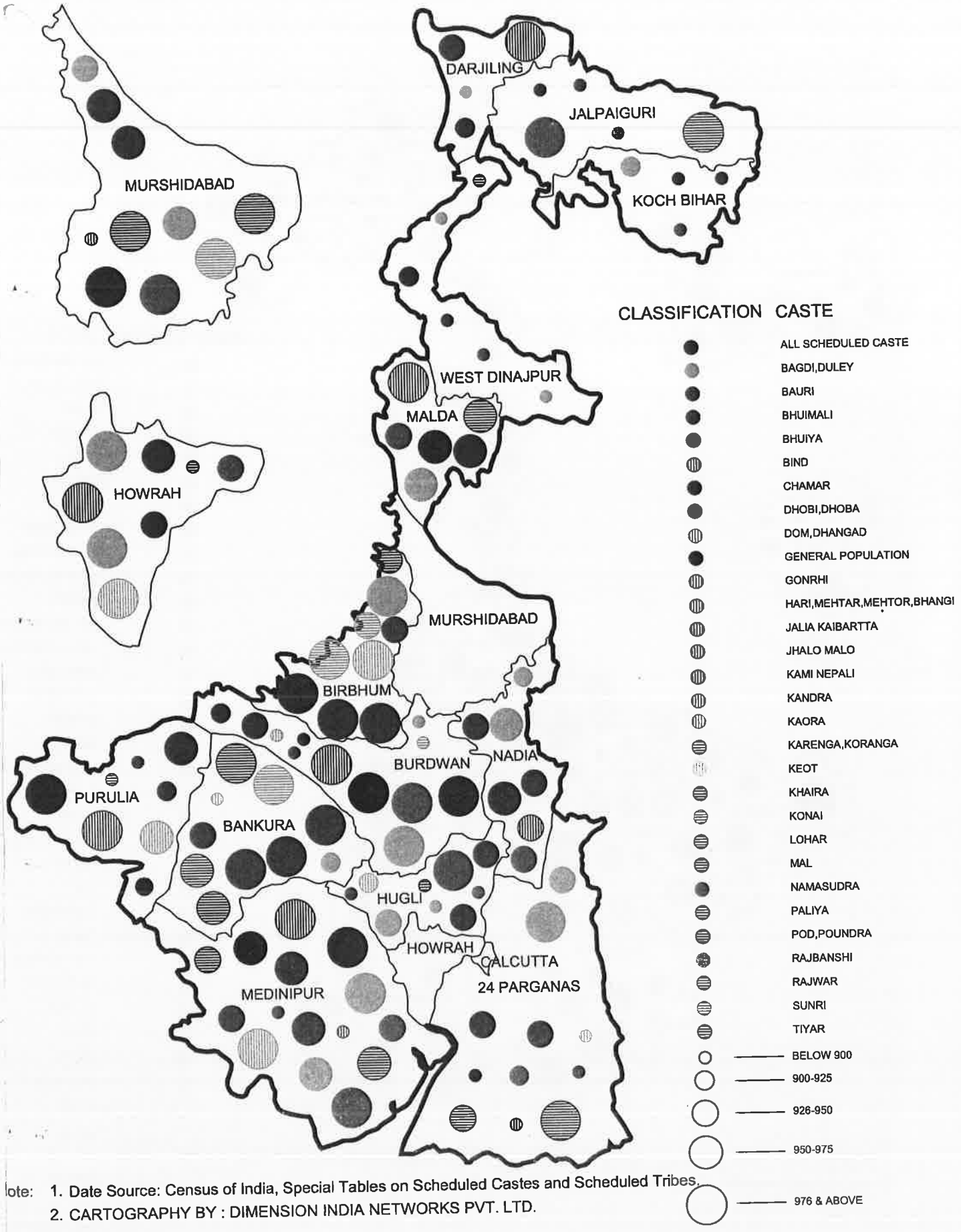
Source: Bibek Debroy and Laveesh Bhandari eds. District
Deprivation in the New Millinneum. Delhi: Konark Publishers
RTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

CHART 17
CASTES ARRANGED BY ASCENDING ORDER OF 61-91 FMR CHANGES, WEST BENGAL, SCs, RURAL AREAS,



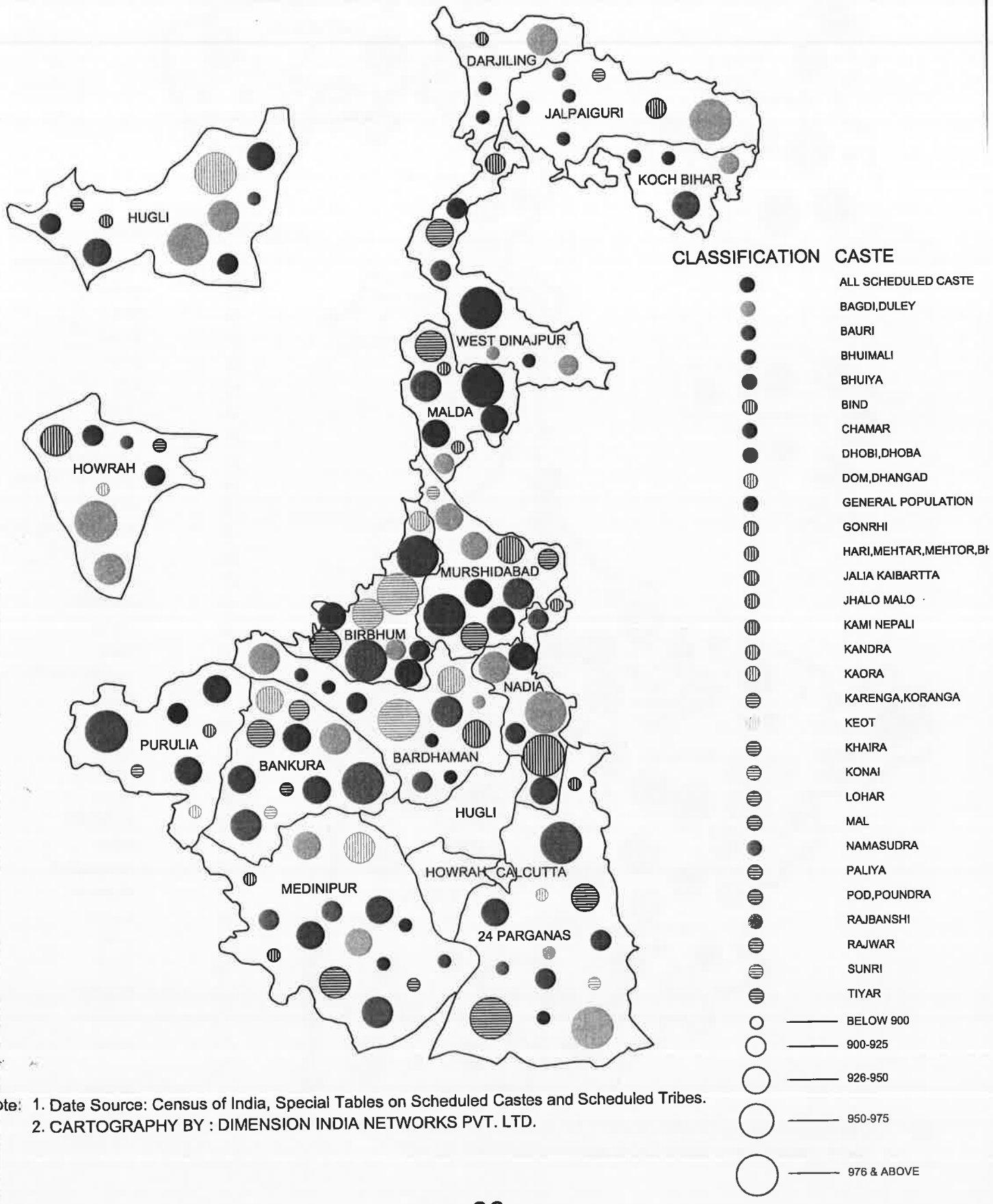
If spatial factors are critical, then, within a region, they should exert a similar influence of the different caste groups. Let us now look into this. Map 19 shows district level FMRs (for castes with populations of 10000+ in a given district). Let us focus on our relatively developed districts, i.e., North 24 Parganas, South 24 Parganas, Howrah, Hugli, Bardhman and Mednipur. The first striking point is that the FMRs for the General Population and for the SCs in particular are very similar within districts like 24 Parganas, Hugli, and Mednipur, and that the similarity tends to persist to some extent over time (maps 19, 20, 21 and 22). This suggests that spatial factors are equally affecting both SCs and the General Population. However, a closer look shows a wide range of caste differences, a wide heterogeneity in caste FMRs extending across the decades between 1961-1991. This is true not only for the better developed region we have considered, but also of the other parts of the State (maps 19, 20, 21 and 22). This by itself a noteworthy finding in a State such as West Bengal, were caste distinctions are claimed to have vanished. Moreover, it shows that our spatial analysis is inadequate in explaining the variations, for the data suggest that our key spatial factors are NOT critical or overwhelming in explaining them. Hence, we need to turn to caste related factors for a more complete explanation.

MAP NO. 19 DISTRICT FMRS, CASTE WISE, WEST BENGAL, SCS, RURAL AREAS, 1961



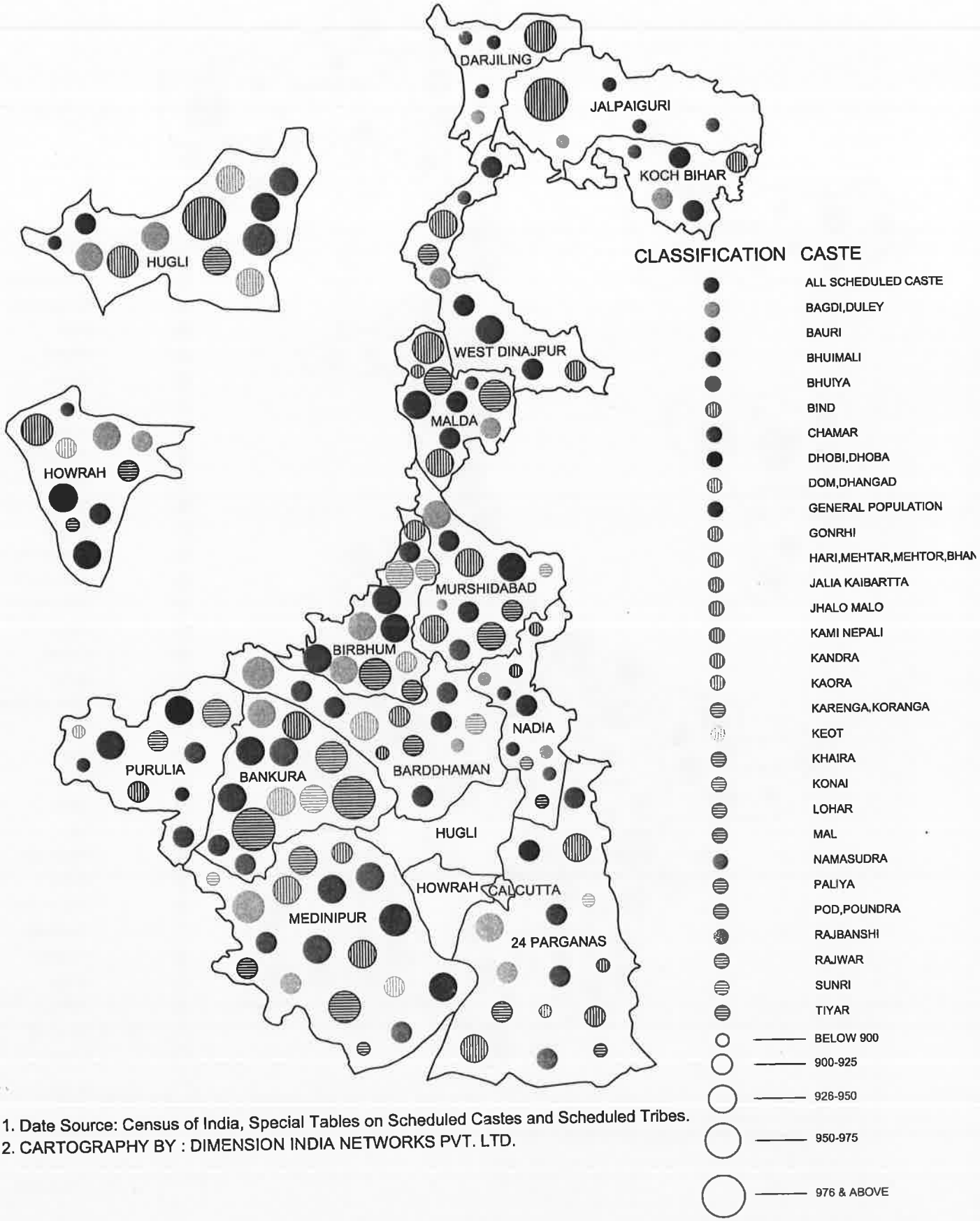
lote: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 20 DISTRICT FMRS, CASTE WISE, WEST BENGAL, SCS, RURAL AREAS, 1971



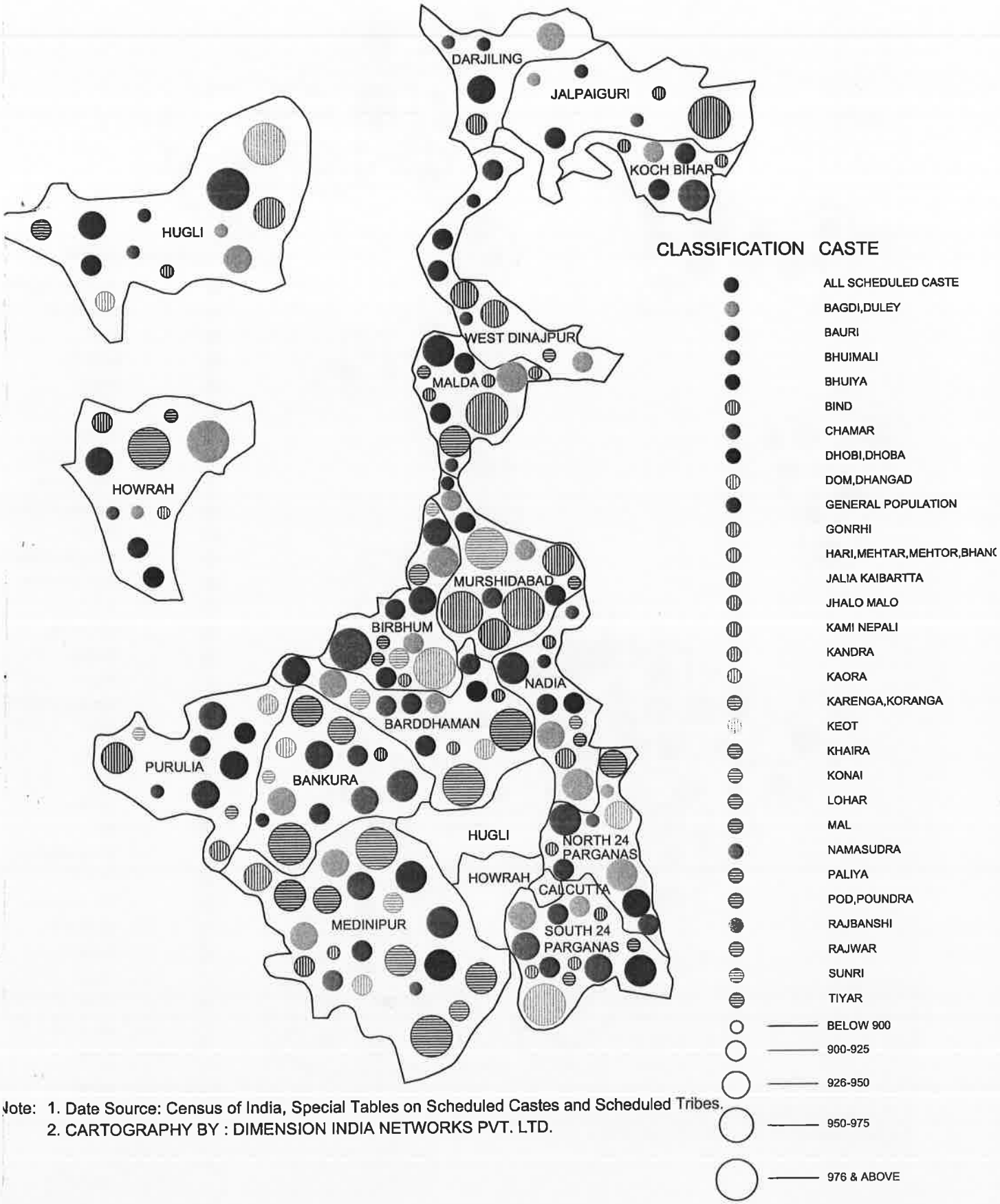
ote: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 21 DISTRICT FMRS, CASTE WISE, WEST BENGAL, SCS, RURAL AREAS, 1981



ote: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 22 DISTRICT FMRS, CASTE WISE, WEST BENGAL, SCS, RURAL AREAS, 1991



Note: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

CHAPTER 5

TRIBE WISE FMRS PATTERNS, TRENDS AND CORRELATES

We have seen how, for castes, the decline in femininity of the FMR tended to occur in the case of castes that already had a relatively favourable FMR in the base year, and we argued that it is only when this criterion is met that FMR deterioration takes place. We saw also that this was only a partial explanation, and that we have to turn to spatial and caste factors for a more complete understanding. In the case for tribes too, deteriorations in FMRs have taken place, in both Bihar as well as West Bengal. We now take a closer look at the patterns, trends and correlates. First, we study the FMRs for the tribes of Bihar, and then we turn to the FMRs of the tribes of West Bengal.

TRIBE WISE FMRs, BIHAR

We saw in Chapter 2 that FMRs for a large number of tribes in undivided Bihar had become unbalanced over the reference period (1961-1991). However, we see from the data for Bihar, this is not related to the initial FMR levels, as in the case of castes, as chart 8 (chapter 2) has shown. We go on to see how well (or badly) tribe FMRs for Bihar are correlated with WAGES. Table 20 shows tribe FMRs for Bihar for 1961, arranged in ascending order, along with corresponding FMR and WAGES data. In chart 18, changes in the FMR have been correlated with changes in WAGES. We find that the correlation is very poor.

Map 23 shows that most of the tribe populations were in the Jharkhand region of undivided Bihar, and further, that a high degree of spatialisation of tribe populations obtains. Thus, the Mal and S. Paharia are entirely concentrated in Santal Parganas, the Ho and the Bedia are entirely concentrated in Singhbhum, the Chik Baraik and Kharia are largely concentrated in Ranchi, and the Parhaiya and the Chero in Palamau. Some of the other tribes that show large concentrations in a single district include the Munda, Lohra

and Kharmail (Hazaribagh) Kharwar and Kisan (Palamau), the Oraon (Ranchi), and the Santal (Santal Parganas). We see also that the Bedia, the Kora and Kisan are almost entirely concentrated in two contiguous districts (map 23). We see also, by comparing the maps for 1961 with those for 1971, 1981 and 1991 (maps 23, 24, 25 and 26), that the tribe territories have remained strikingly stable. Due to a splitting up of districts, some changes in distribution can be noticed (maps 23-26), but overall the distribution shows a high degree of persistence over the decade. To some extent, there has been a splintering of caste distribution, as can be seen by comparing the map for 1961 (map 23) with the map for 1991 (map 26), suggesting that internal migration too has served to redistribute tribe populations, but to a far less extent than we have seen for castes. From this pattern, we may infer that the data for WAGES are in fact not at the State level, but at the district level, or at the level of district clusters within the State. Still, we find that the correlation between the changes in FMR and WAGES has been poor.

Let us now look for regional effects. First, let us take a look at Map 27. We see that a large number of tribes have balanced FMRs. In Singhbhum, this is true of practically all the tribes, with the exception of the Mahil. In Ranchi, the Bedia, the Lohra and the Mahil have somewhat adverse FMRs, while for all the other tribes, the FMRs are balanced. Similarly, for other tribes. Thus, we see, at the district level, some similarity and some difference. We see that this continues in all the four years – 1961, 1971, 1981 and 1991. Moreover, as Map 9 suggests, Ranchi and Singhbhum are poles apart with respect to poverty related criteria, but we don't find any strong difference in the FMRs of these regions (Map 30). In sum, we are not able to get any indication of regional factors, at least taking the district as the small spatial unit. Given this limitation, our purview of the patterns shown by the data suggest that tribe wise factors are likely to be critical. This, despite the fact that the women's agency variables we have considered are very poorly correlated with the tribe FMRs. This is a conundrum. It may be that there are tribe-specific poverty-related factors at work. Or, it may be that we need to have more refined women's agency measures, which can come out of a field survey. Finally, we also need to consider the effects of male-selective out migration, which could affect the FMRs, but this point we will discuss further in the concluding chapter.

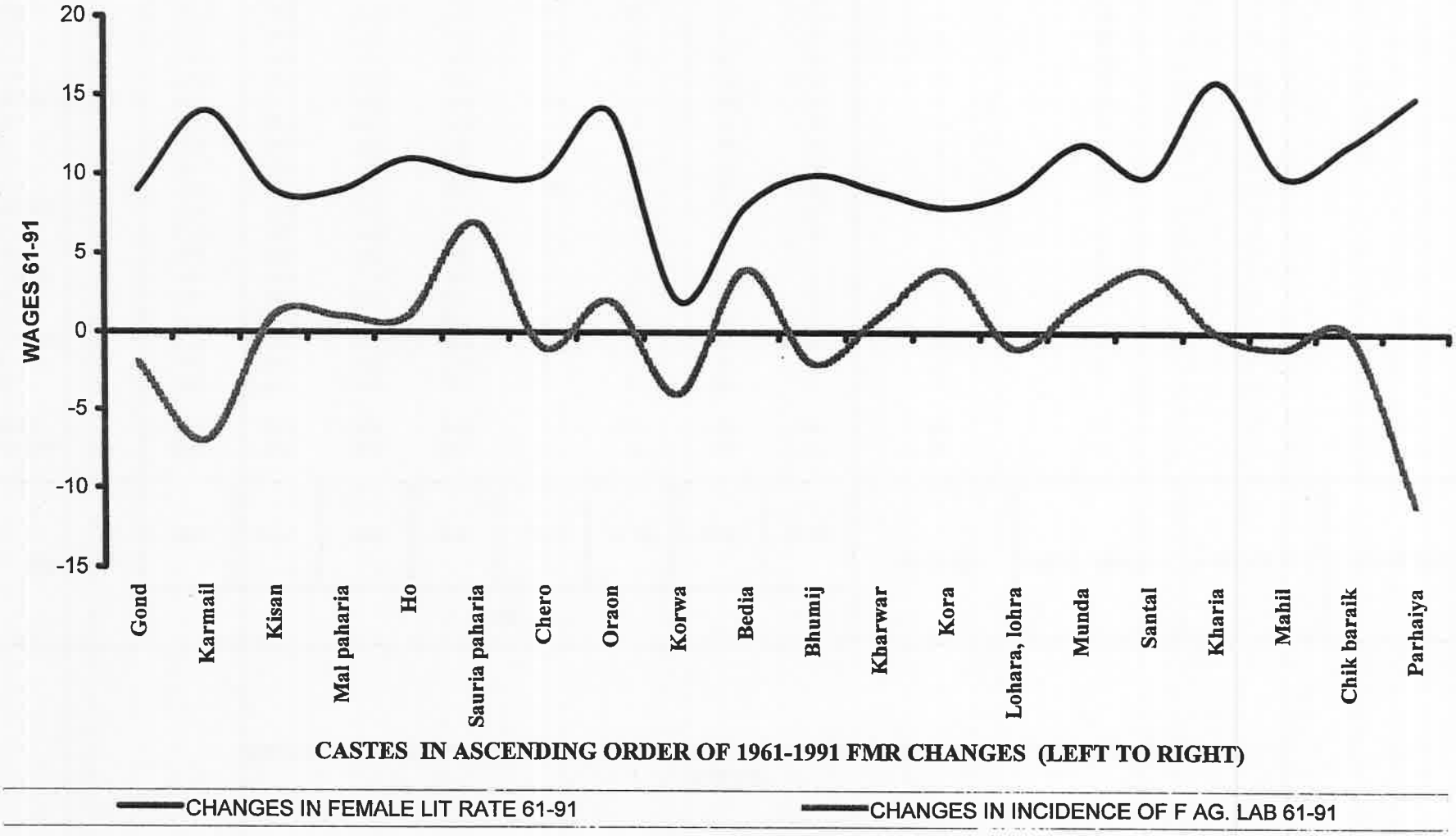
TABLE 20
FMRs AND RELATED VARIABLES, TRIBE WISE, ERSTWHILE BIHAR, RURAL AREAS, 1961-1991

TRIBE	FMR								FELIT 1991	FELIT 1961-1991	F-AGLAB 1991	F-AGLAB 1961-1991
	1961	1971	1981	1991	61-71	71-81	81-91	61-91				
General Pop.	**1012**	**971**	**963**	**923**	**-41**	**-8**	**-40**	**-89**	**15**	**11**	**-**	**-**
All Tribes	**1018**	**1010**	**999**	**975**	**-7**	**-11**	**-24**	**-43**	**10**	**11**	**8**	**2**
Korwa	953	937	1000	892	-17	64	-108	-61	3	2	14	-4
Mahil	966	969	969	956	2	1	-13	-10	6	10	6	-1
Lohara, lohra	970	957	964	947	-13	7	-18	-24	7	9	10	-1
Parhaiya	979	894	971	991	-85	77	20	11	9	15	8	-11
Santal	990	1004	987	975	14	-17	-12	-15	7	10	10	4
Chik baraik	994	1034	1009	988	40	-24	-21	-5	12	12	6	0
Kharwar	998	960	967	946	-38	7	-21	-51	5	9	8	1
Bedia	1000	992	999	942	-8	7	-57	-58	4	8	6	4
Mal paharia	1001	999	993	915	-2	-6	-78	-86	6	9	10	1
Chero	1005	939	951	925	-56	12	-26	-80	7	10	9	-1
Kisan	1013	1007	991	916	-7	-15	-76	-98	6	9	6	1
Kora	1018	1079	987	971	62	-93	-15	-46	4	8	13	4
Munda	1022	1019	1011	1003	-3	-8	-8	-19	15	12	6	2
Sauria paharia	1022	912	981	940	-109	68	-40	-81	6	10	8	7
Kharia	1025	1073	1056	1011	47	-17	-44	-14	21	16	8	0
Oraon	1044	1024	1009	966	-19	-15	-43	-78	17	14	6	2
Bhumij	1052	1022	995	996	-30	-27	1	-56	9	10	13	-2
Karmali	1069	955	972	967	-114	17	-5	-102	7	14	5	-7
Ho	1081	1055	1041	998	-26	-14	-43	-83	9	11	10	1
Gond	1198	979	1001	929	-219	22	-72	-269	8	9	8	-2

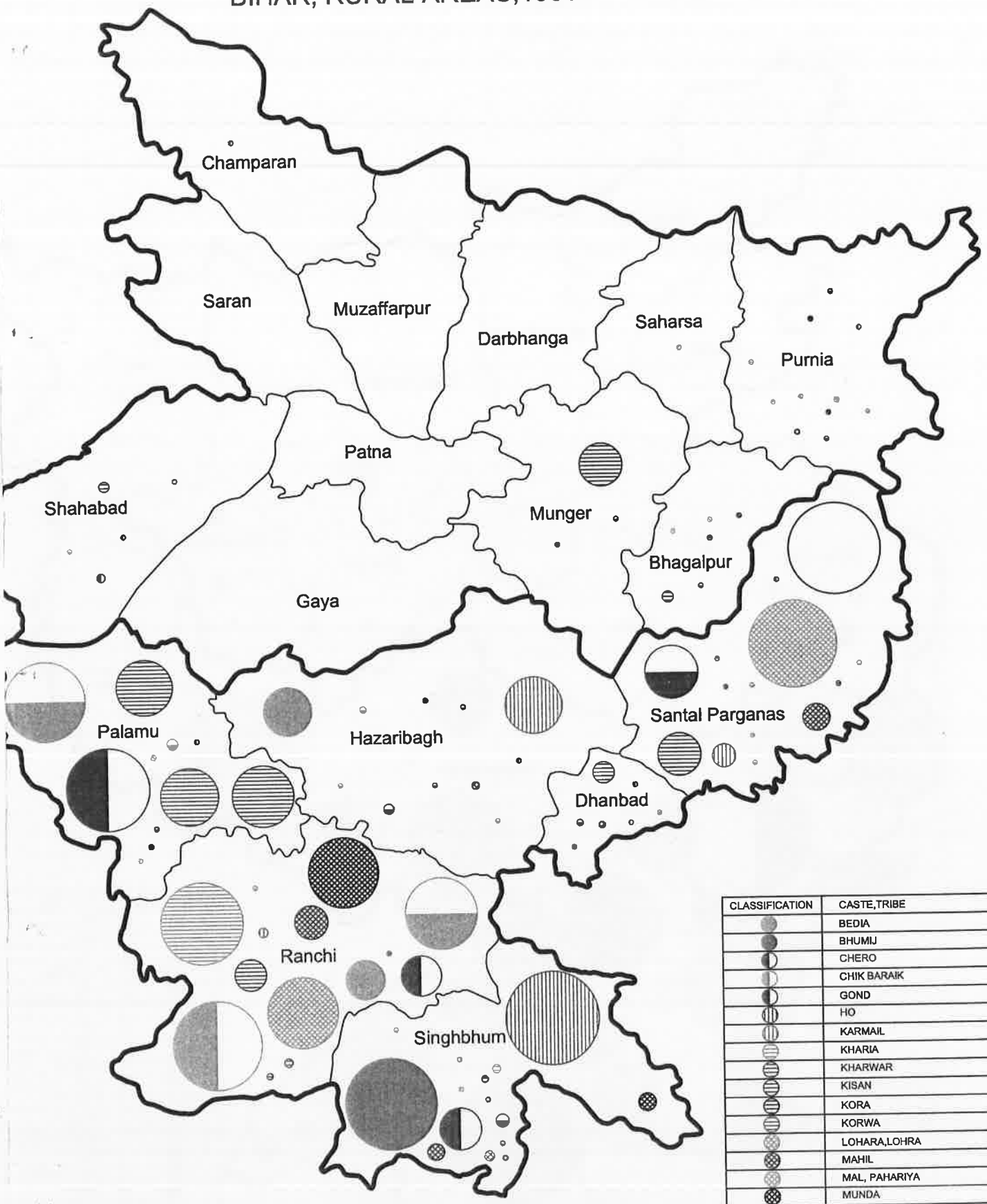
`F-AGLAB' STANDS FOR `INCIDENCE OF AGRICULTURAL LABOURERS IN FEMALE POPULATION'
`FELIT' STANDS FOR `FEMALE LITERACY RATE'
INTER DECADAL DIFFERENCES IN THE VARIABLES `FMR', `F-AGLAB' AND `FELIT' HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR
DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1991

CHART 18

WAGES (WOMEN'S AGENCY VARIABLES) CORRELATED WITH ASCENDING ORDER OF TRIBE WISE FMR CHANGES 61-91, BIHAR RURAL AREAS



MAP NO.23 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, BIHAR, RURAL AREAS,1961

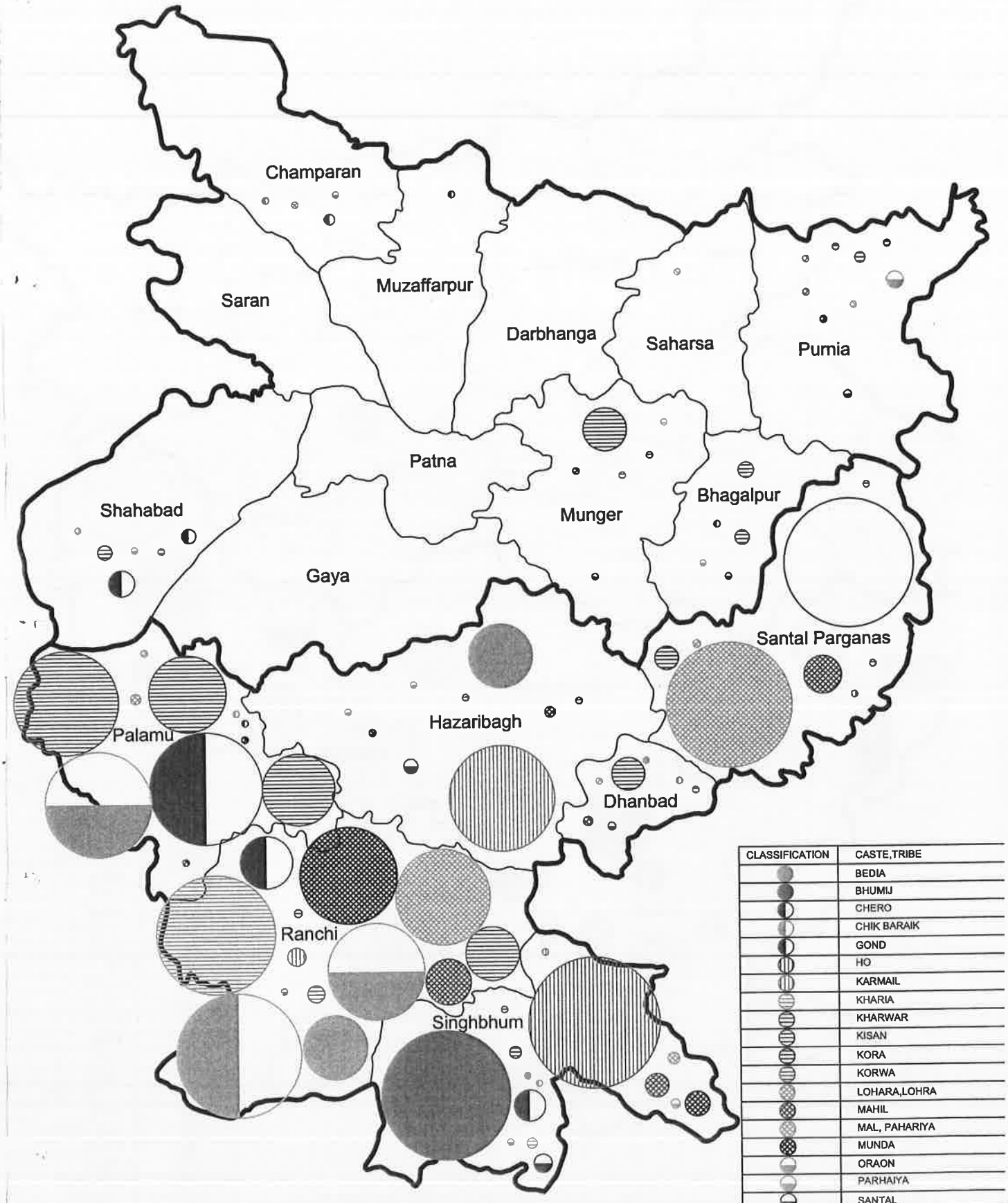


CLASSIFICATION	CASTE,TRIBE
	BEDIA
	BHUMIJ
	CHERO
	CHIK BARAIK
	GOND
	HO
	KARMAIL
	KHARIA
	KHARWAR
	KISAN
	KORA
	KORWA
	LOHARA,LOHRA
	MAHIL
	MAL, PAHARIYA
	MUNDA
	ORAON
	PARHAIYA
	SANTAL
	SAURIA PAHARIA

: 1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
DIMENSION INDIA NETWORKS PVT. LTD.

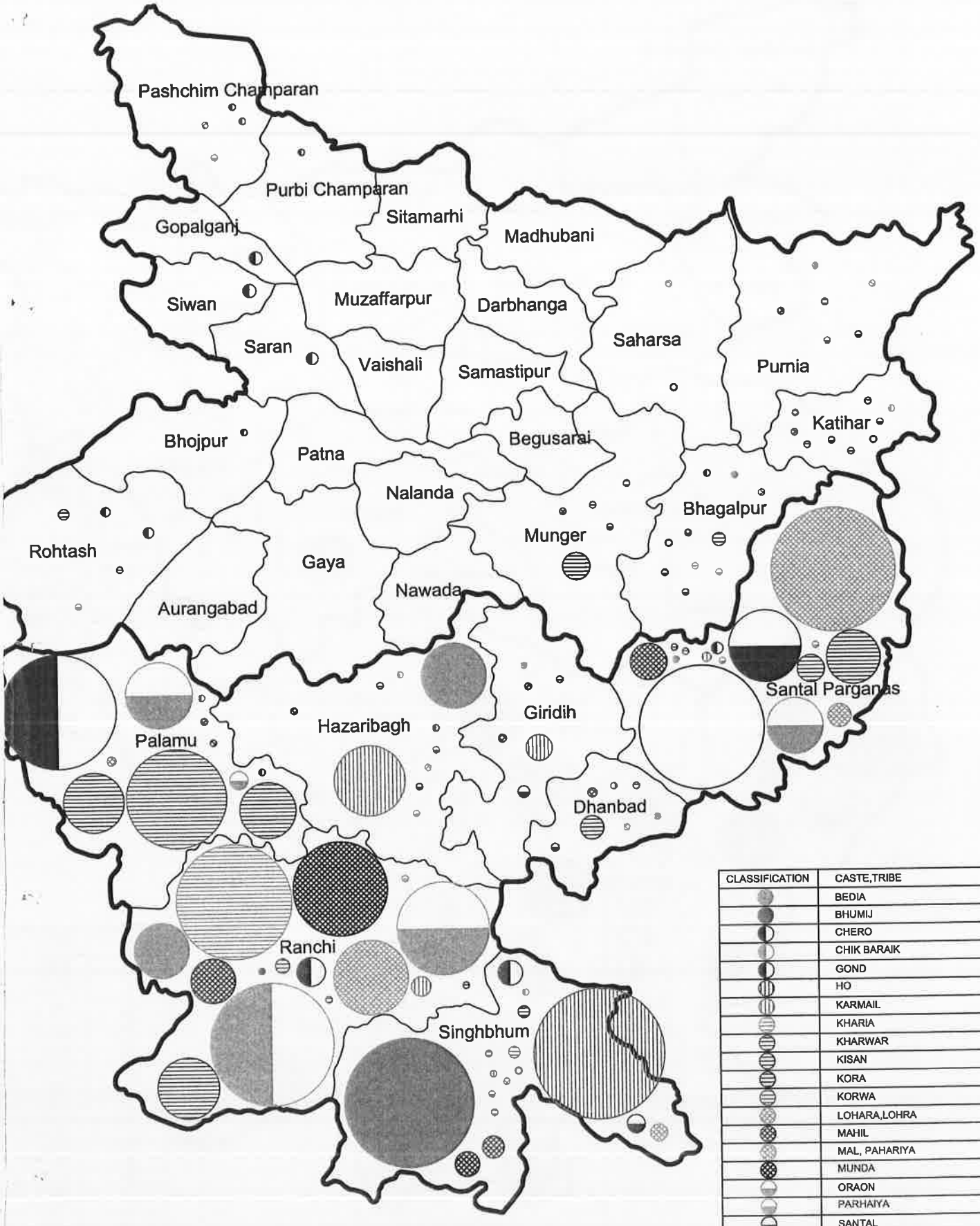
MAP NO.24 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, BIHAR, RURAL AREAS,1971



Note: 1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
DIMENSION INDIA NETWORKS PVT. LTD

MAP NO.25 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, BIHAR, RURAL AREAS, 1981

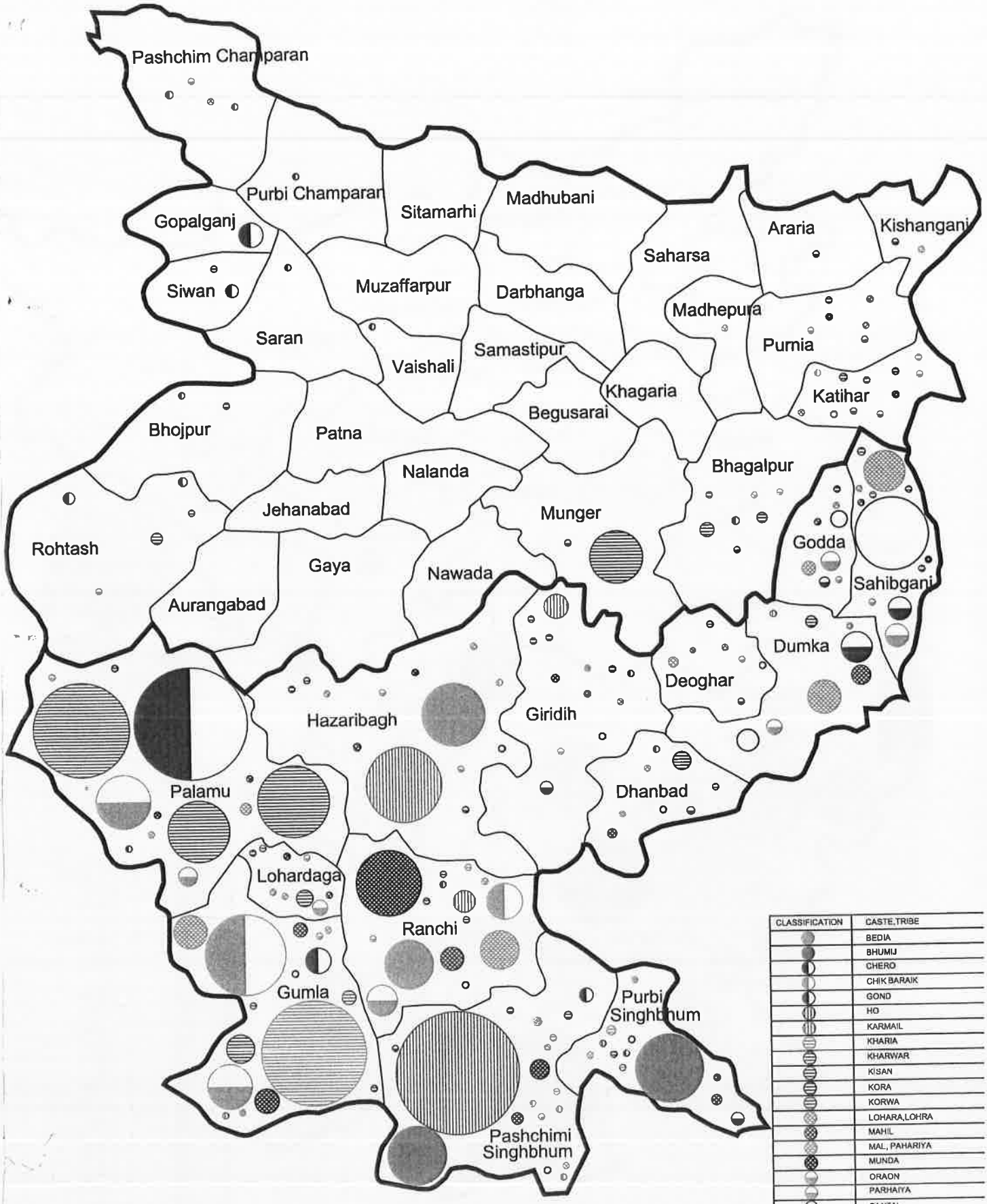


CLASSIFICATION	CASTE,TRIBE
	BEDIA
	BHUMIJ
	CHERO
	CHIK BARAIK
	GOND
	HO
	KARMAIL
	KHARIA
	KHARWAR
	KISAN
	KORA
	KORWA
	LOHARA,LOHRA
	MAHIL
	MAL, PAHARIYA
	MUNDA
	ORAON
	PARHAIYA
	SANTAL
	SAURIA PAHARIA

1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO.26 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, BIHAR, RURAL AREAS, 1991

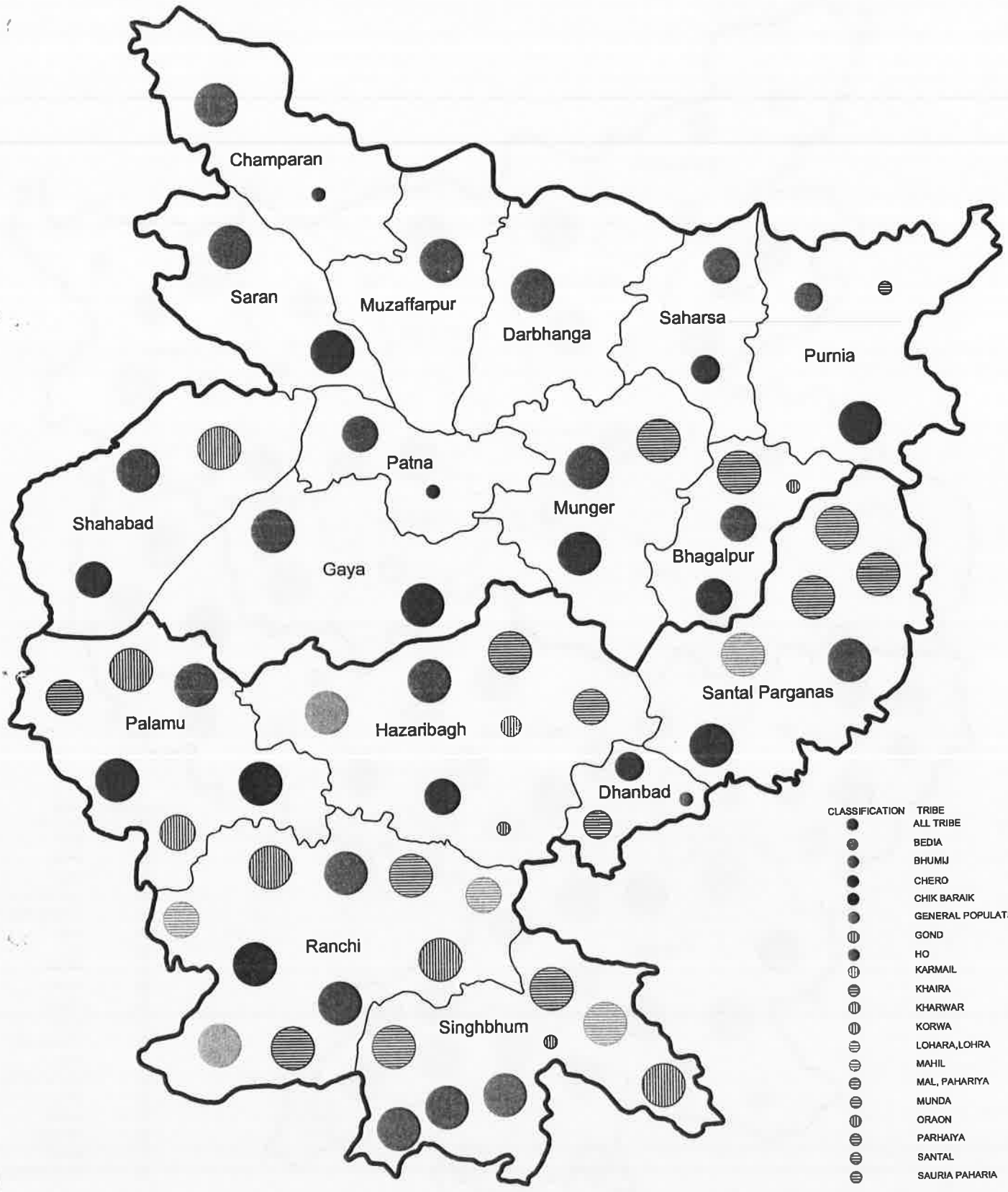


CLASSIFICATION	CASTE,TRIBE
	BEDIA
	BHUMIJ
	CHERO
	CHIK BARAIK
	GOND
	HO
	KARMAIL
	KHARIA
	KHARWAR
	KISAN
	KORA
	KORWA
	LOHARA,LOHRA
	MAHIL
	MAL, PAHARIYA
	MUNDA
	ORAON
	PARHAIYA
	SANTAL
	SAURIA PAHARIA

Note: 1. Only Bihar castes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.
3. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

CARTOGRAPHY BY: -
DIMENSION INDIA NETWORKS PVT. LTD

MAP No. 27 DISTRICT FMR, TRIBE WISE, BIHAR, RURAL AREAS, 1961

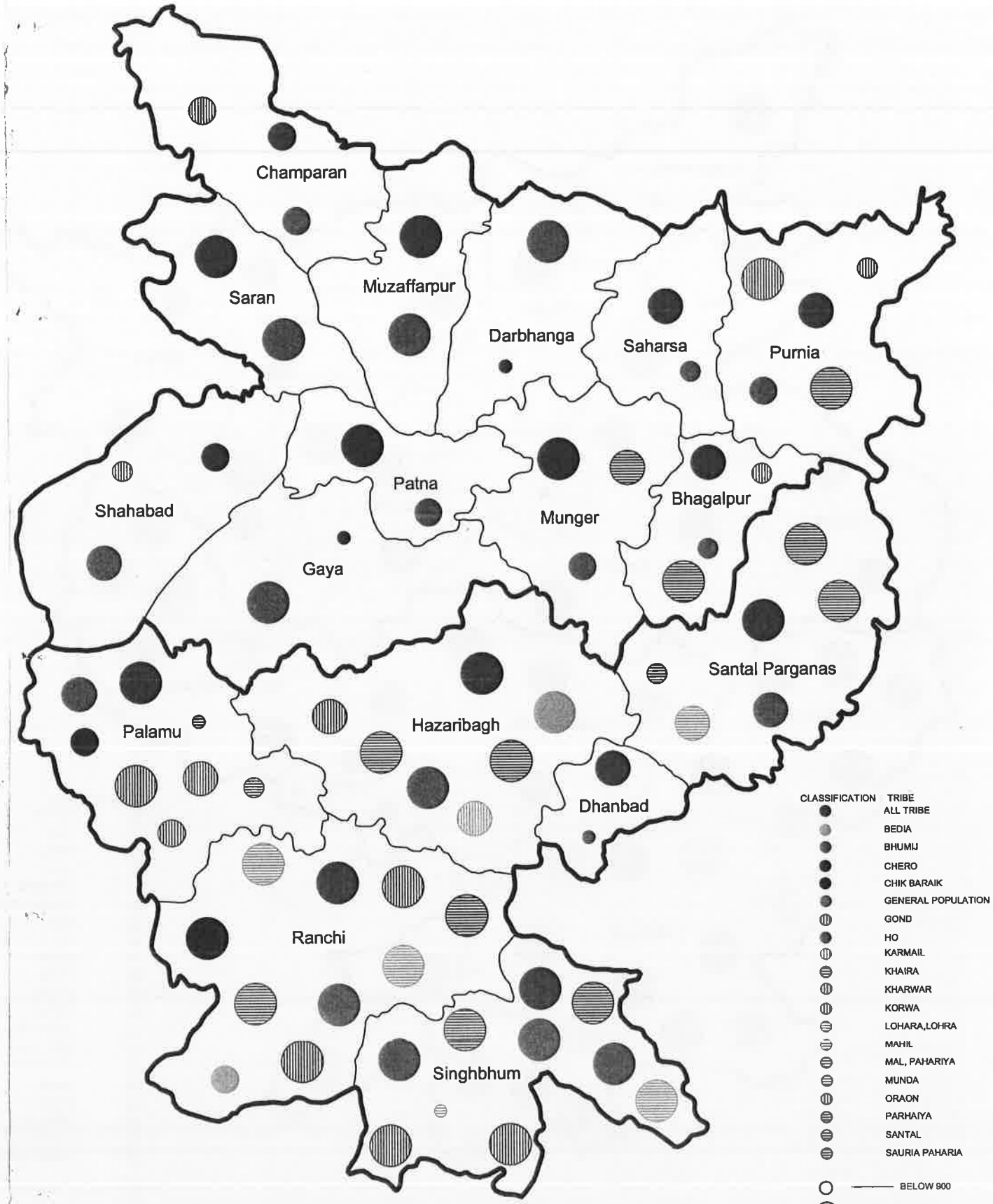


Note: 1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP No. 28 DISTRICT FMR, TRIBE WISE, BIHAR, RURAL AREAS, 1971

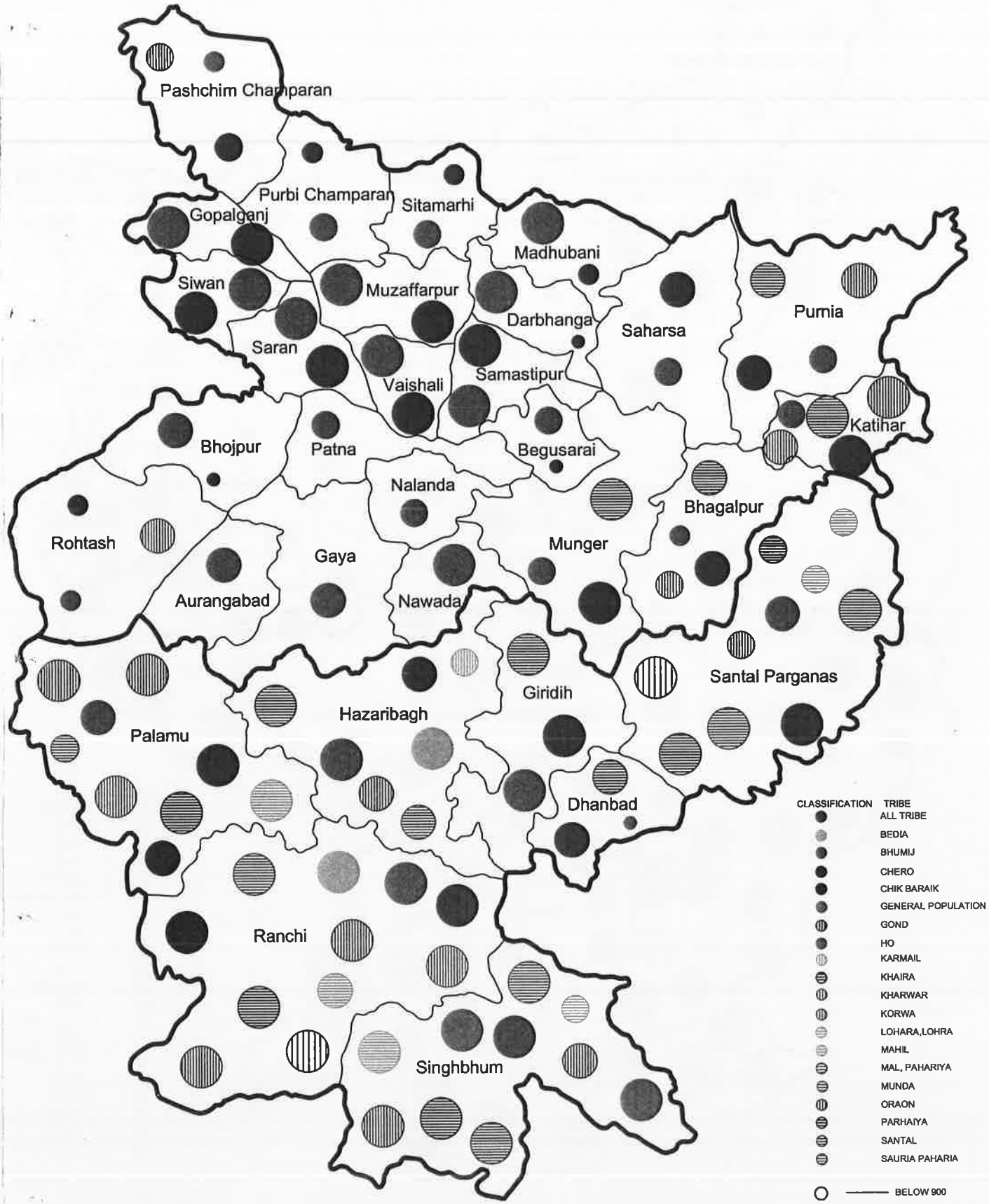


Note: 1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP No. 29 DISTRICT FMR, TRIBE WISE, BIHAR, RURAL AREAS, 1981

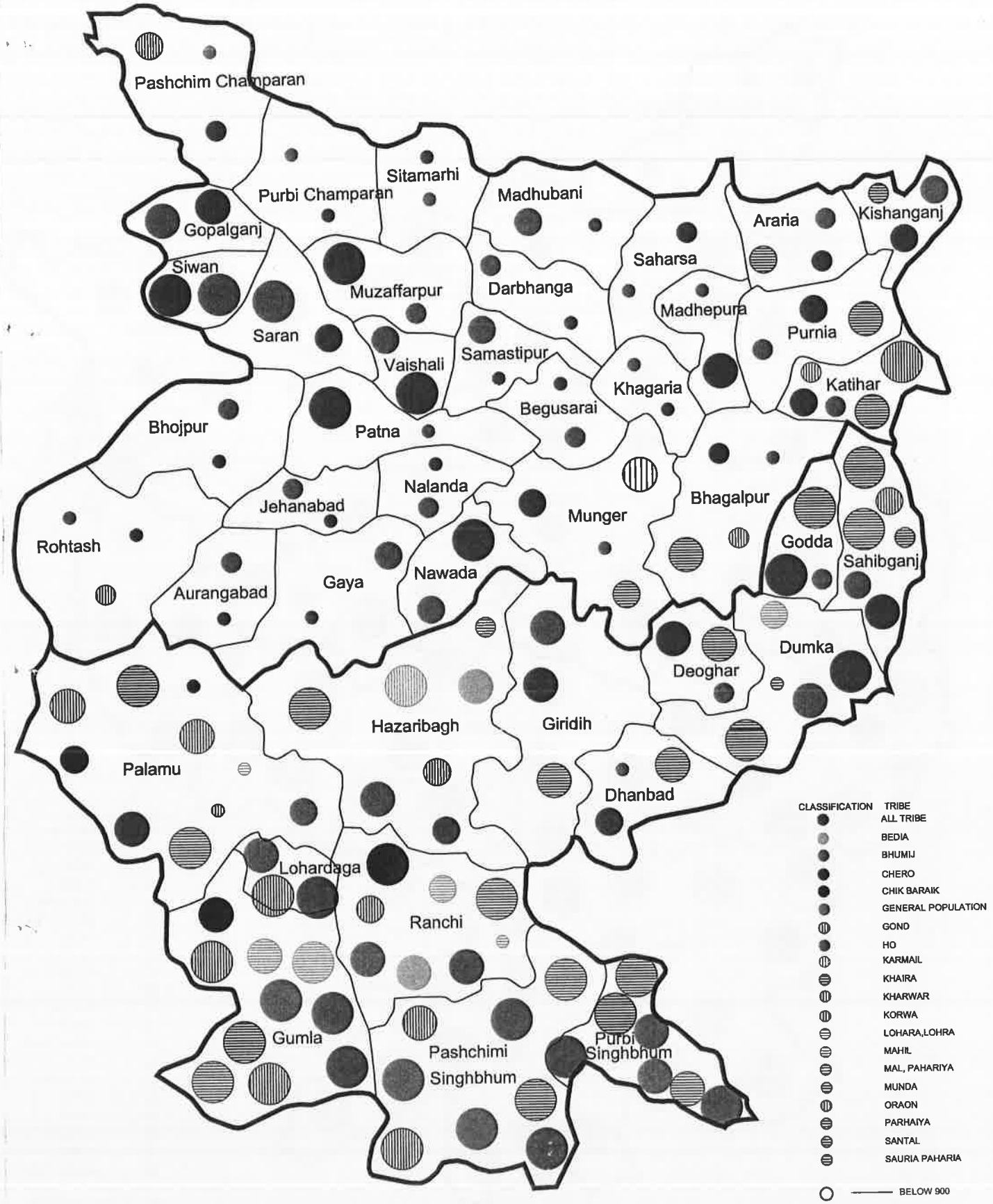


Note: 1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP No. 30 DISTRICT FMR, TRIBE WISE, BIHAR, RURAL AREAS, 1991



Note: 1. The nascent State of Jharkhand was carved out of the districts of South Bihar, shown here below the Blue line.

2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.

3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

TRIBE WISE FMRs, WEST BENGAL

We have seen in chart 10 that West Bengal's caste FMRs that deteriorated the most were relatively balanced to begin with. The familiar pattern can be seen for WB tribes also, but again there are differences in the extent to which the deterioration has taken place. There are indications also that women's agency variables might have had an impact. At least, there is a suggestive correlation. FMRs and corresponding WAGES are shown in Table 21, while the trends are plotted in chart 19. We see that the worst FMR declines (for Bhutia and Lepcha) were correlated with the highest levels of female literacy increases Correspondingly, the female literacy rate increases are smaller for the Lepcha and Mahali (Chart 19). This is an astonishing finding, which suggests that educated mothers are more adept at killing their girl children. This effect, as we have seen in Chapter 1, has been suggested in the literature.

We now look for regional patterns. Maps 31 to 34 show a clustering of tribes in the northernmost districts of the State. What strikes one is that both Bhutia and Lepcha, which had the worst FMR declines, are in the low-poverty district of Darjeeling. Again, it is difficult to unequivocally make spatial interpretations, as within Darjeeling, FMRs vary considerably (maps 31-34).

TABLE 21
FMRs AND RELATED VARIABLES, TRIBE WISE, WEST BENGAL, RURAL AREAS, 1961-1991

TRIBE	FMR								LITERACY RATE 1991	LITERACY RATE 1961-1991	F-AGLAB 1991	F-AGLAB 1961-91
	1961	1971	1981	1991	61-71	71-81	81-91	61-91				
General Pop.	**943**	**942**	**947**	**941**	**-1**	**5**	**-5**	**-2**	**31**	**20**	**-**	**-**
All Tribes	975	959	974	968	-17	15	-6	-7	11	15	21	7
Mal Pahariya	845	917	965	934	73	47	-30	90	2	3	28	15
Mech	874	871	920	856	-3	49	-65	-18	29	18	4	3
Kora	921	944	984	937	22	40	-47	16	11	17	27	12
Oraon	922	944	953	958	22	9	6	36	10	11	8	5
Bhumij	947	952	978	969	5	26	-9	22	12	18	23	5
Santal	986	977	982	980	-9	5	-2	-6	11	16	27	9
Lepcha	991	777	939	877	-214	162	-62	-114	43	25	2	1
Lodha, Kheria, Kharia	1015	952	939	973	-63	-12	34	-41	14	16	15	4
Mahali	1040	980	979	963	-60	-1	-15	-76	10	12	10	5
Munda	1043	911	974	968	-132	64	-6	-75	10	13	17	8
Bhutia, Sherpa, Toto, Dukpa, Kagatay, Tibetan, Yolmo	1047	970	953	920	-77	-17	-33	-127	37	26	3	1

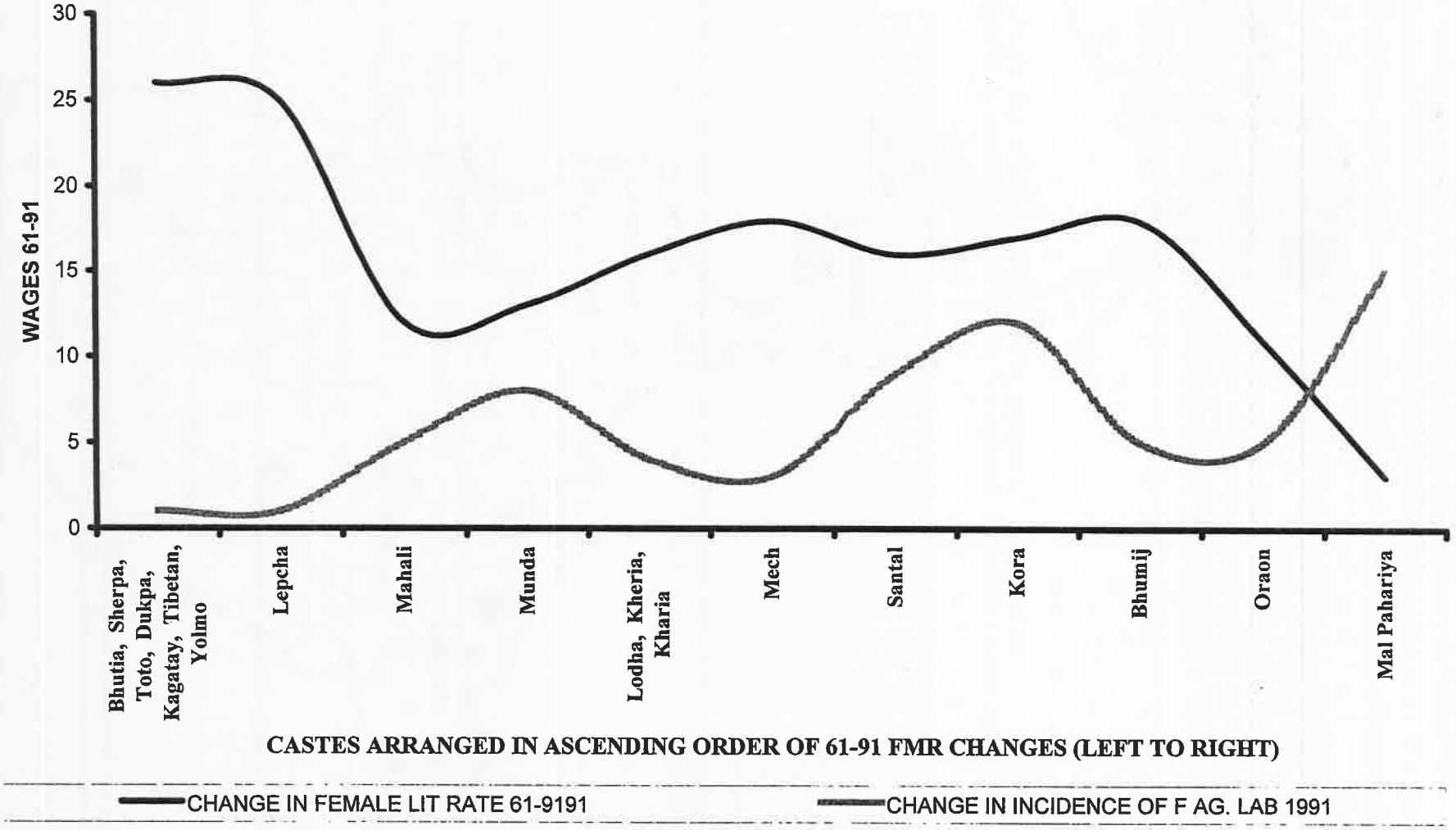
`F-AGLAB' STANDS FOR `INCIDENCE OF AGRICULTURAL LABOURERS IN FEMALE POPULATION'

`FELIT' STANDS FOR `FEMALE LITERACY RATE'

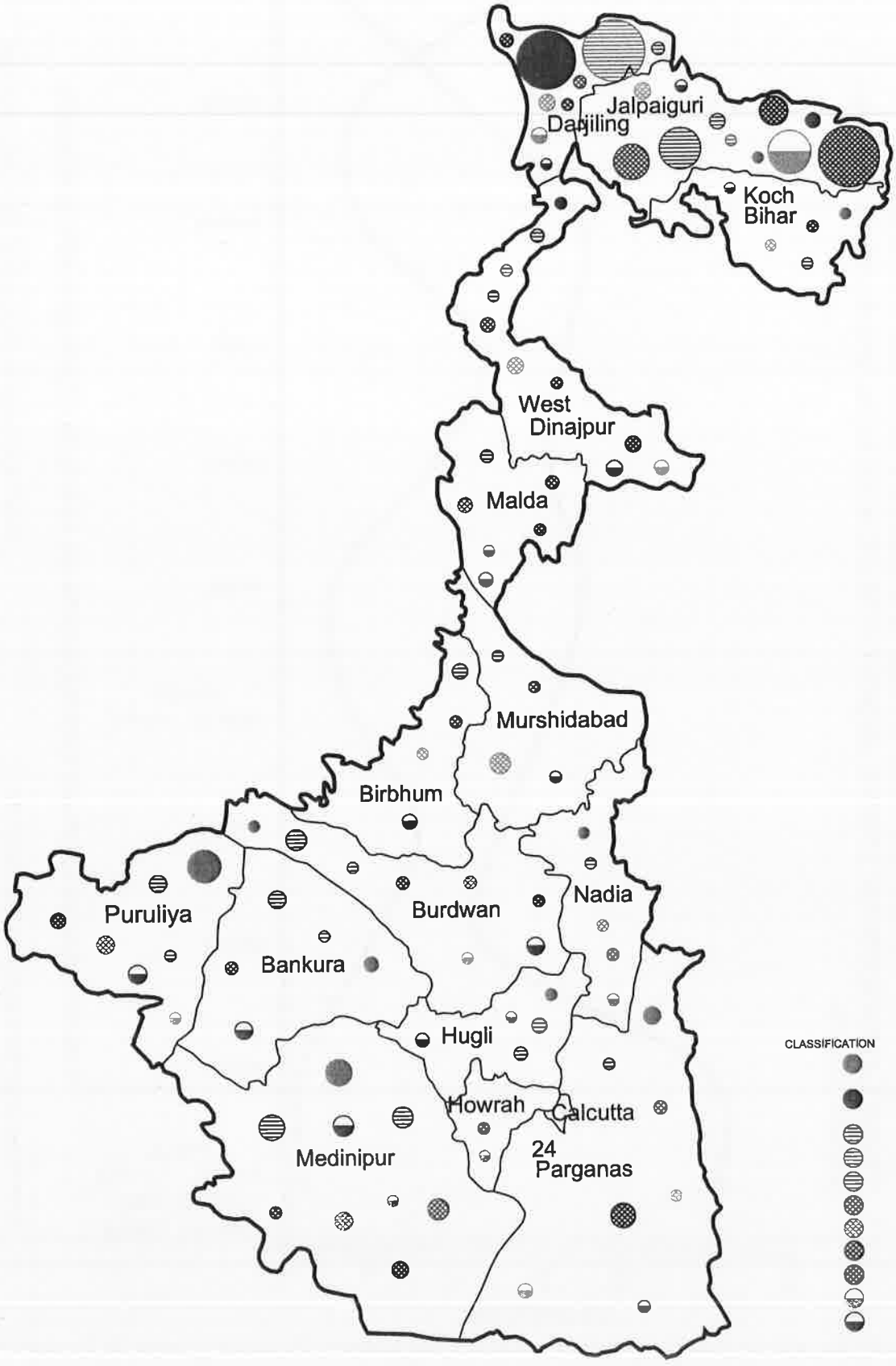
INTER DECADAL DIFFERENCES IN THE VARIABLES `FMR', `F-AGLAB' AND `FELIT' HAVE BEEN CALCULATED BY SUBTRACTING THE RATE FOR THE MORE RECENT YEAR FROM THAT FOR THE EARLIER YEAR.

DATA ARE SHOWN FOR TRIBES WITH A POPULATION OF 10,000+ IN EACH OF THE YEARS 1961, 1971, 1981 AND 1992

CHART 19
WAGES (WOMEN'S AGENCY VARIABLES), CHANGES BETWEEN 1961 AND 1991, CORRELATED WITH ASCENDING ORDER OF TRIBE WISE FMRs, 1961-91, WEST BENGAL, RURAL AREAS

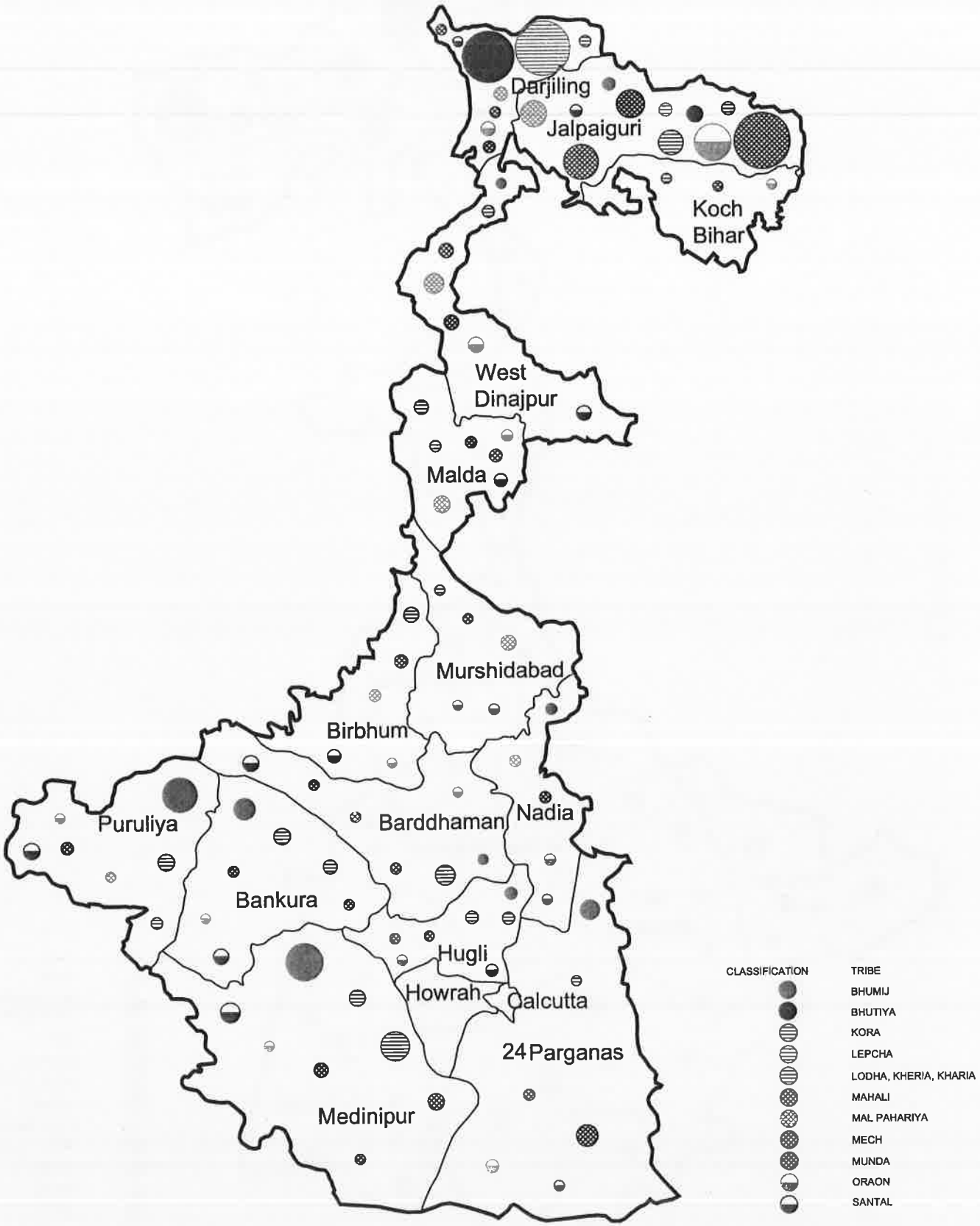


MAP NO.31 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, WEST BENGAL,RURAL AREAS,1961



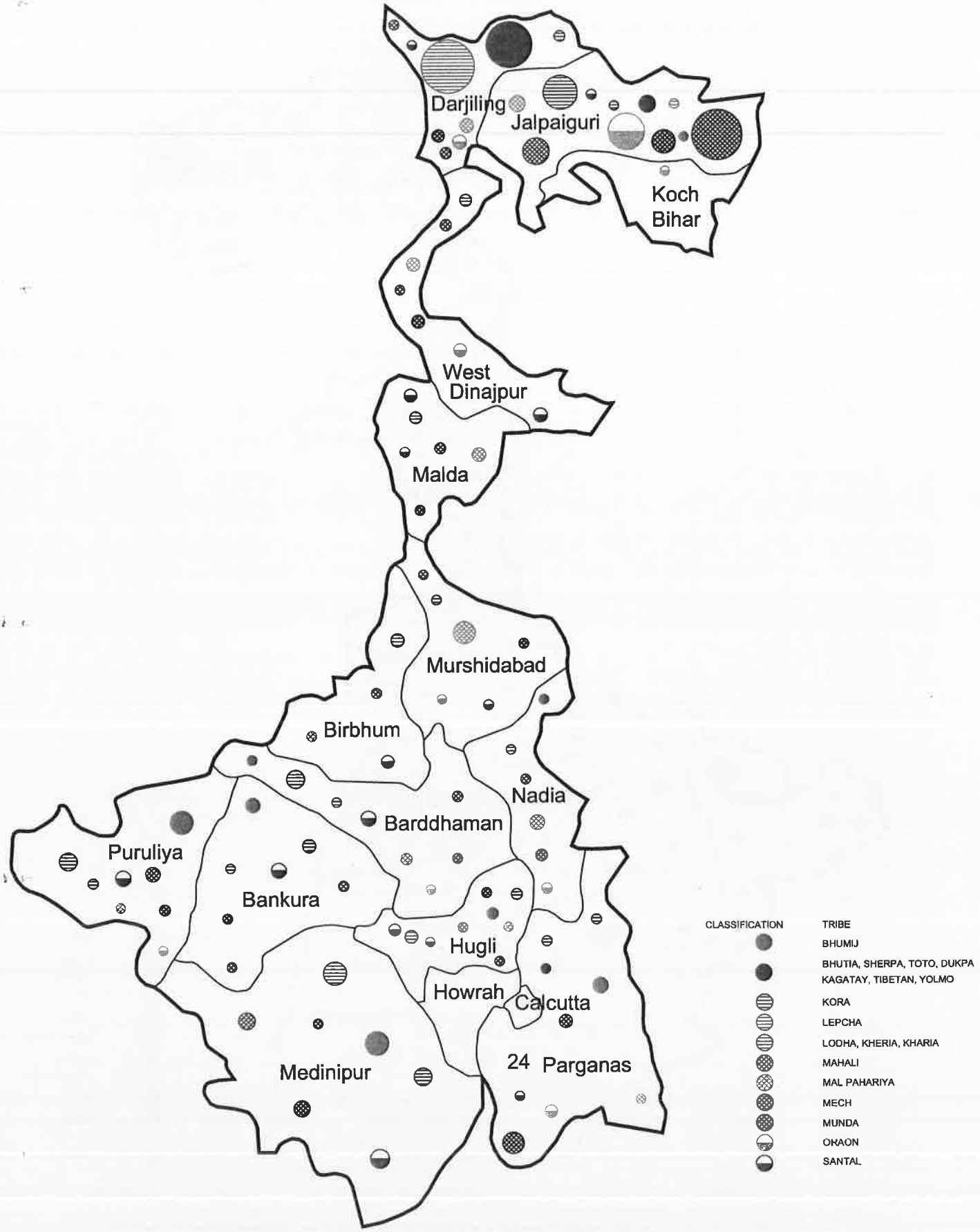
Note: 1. Only West Bengal tribes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO.32 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, WEST BENGAL,RURAL AREAS,1971



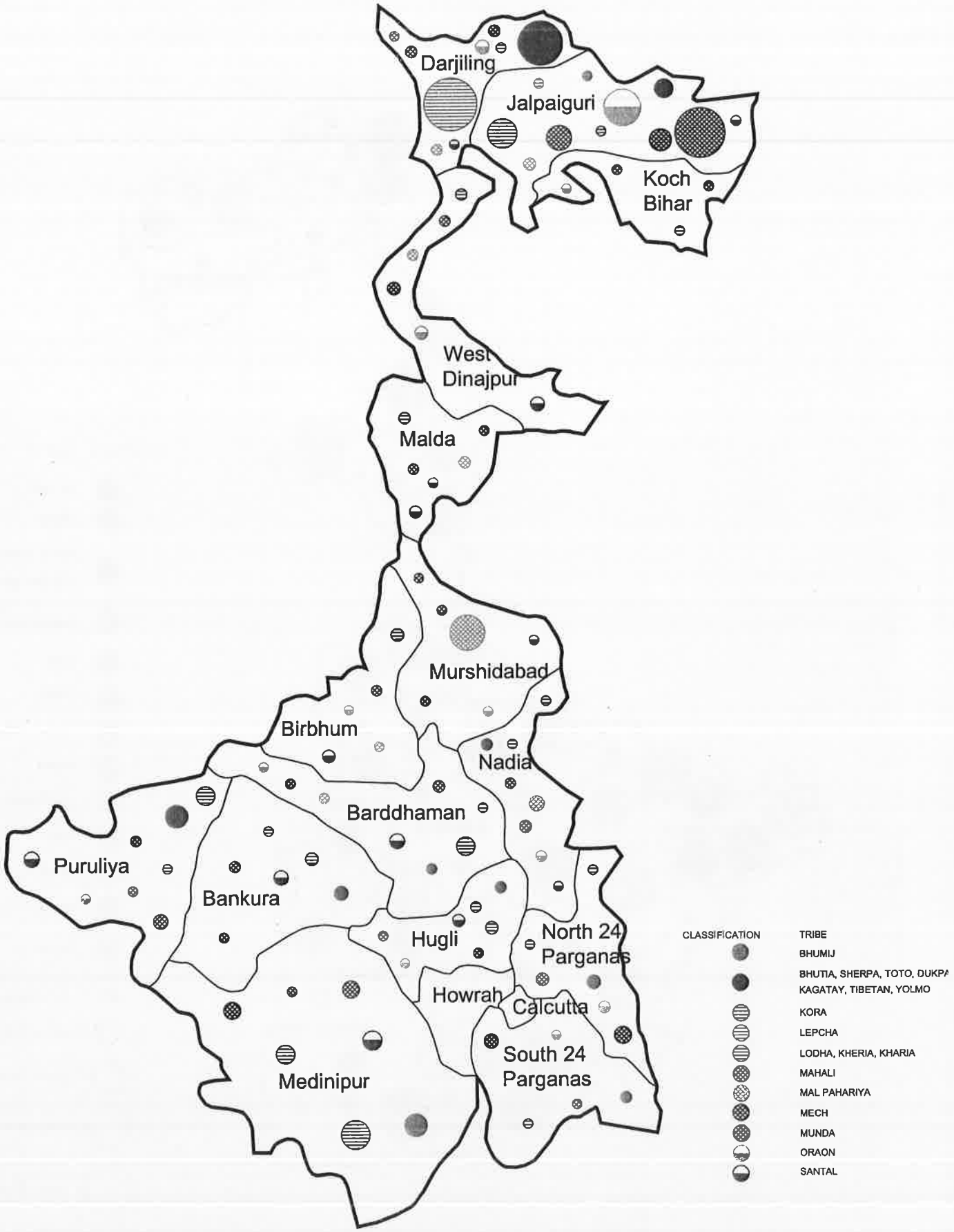
Note: 1. Only West Bengal tribes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO.33 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, WEST BENGAL,RURAL AREAS,1981



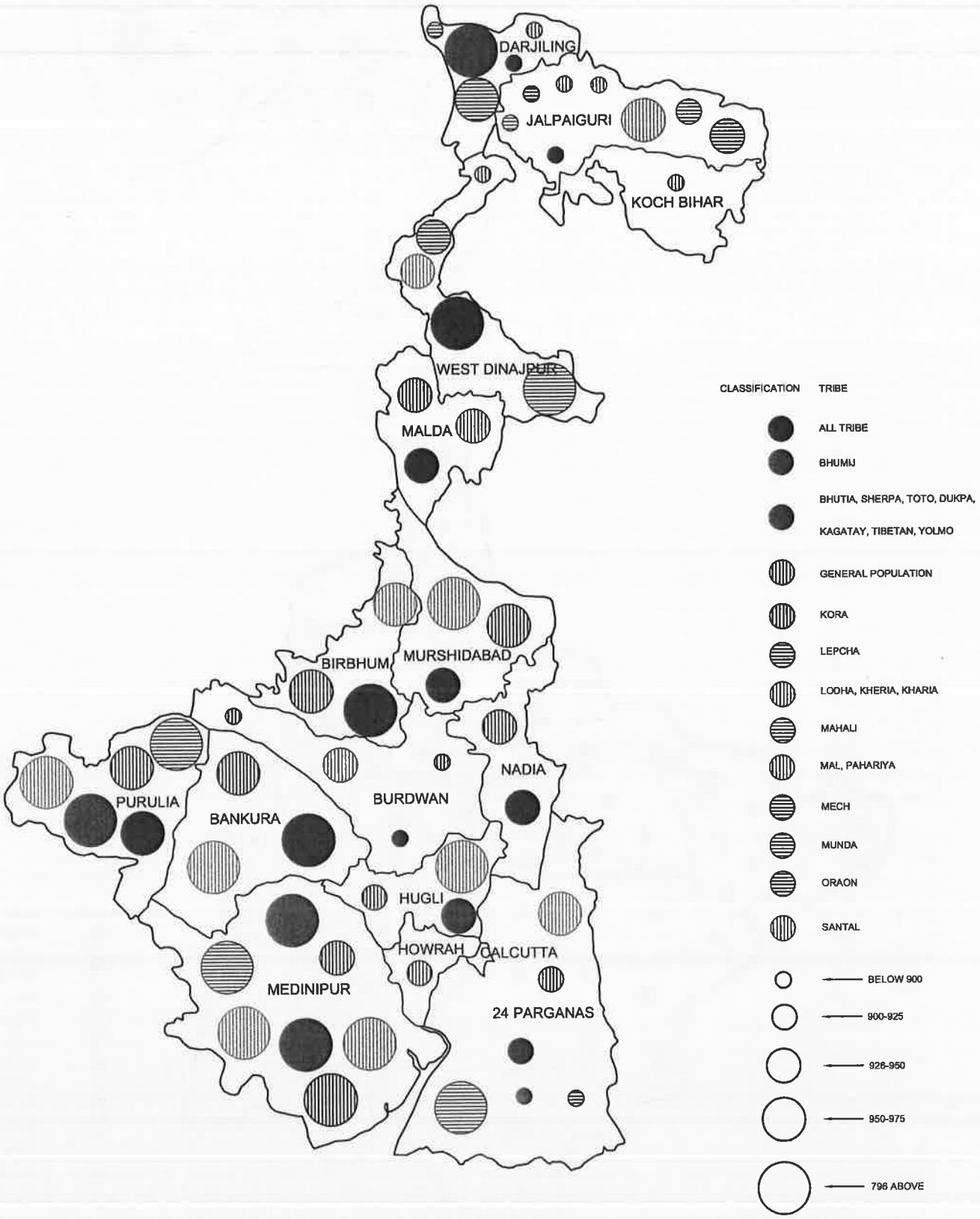
1. Only West Bengal tribes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO.34 % DISTRICT DISTRIBUTION OF TRIBE POPULATIONS, WEST BENGAL,RURAL AREAS,1991



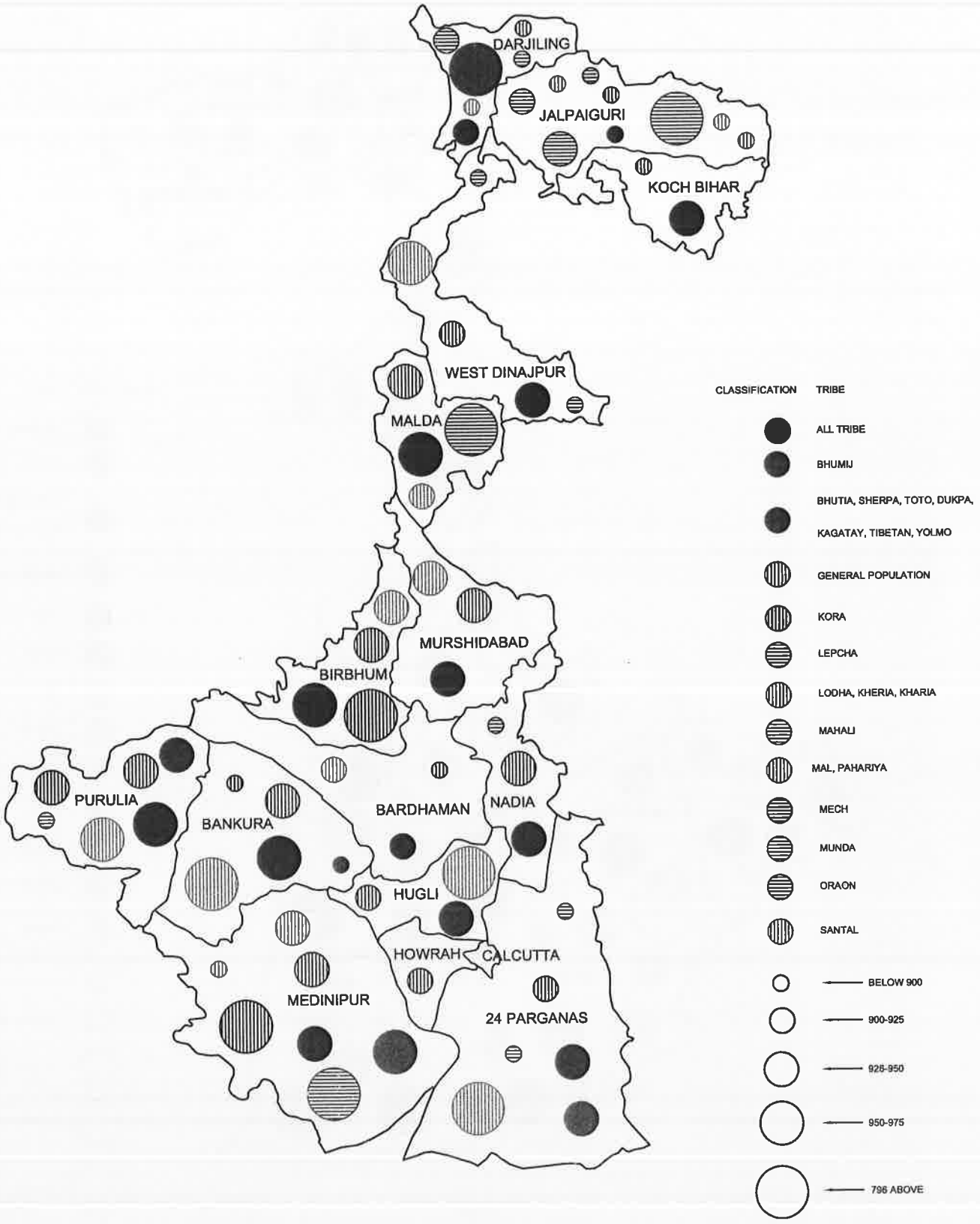
Note: 1. Only West Bengal tribes with a population of 10,000 + in 1961,1971,1981 and 1991 have been shown.
2. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
3. CARTOGRAPHY BY: DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 35 DISTRICT FMRS, TRIBE WISE, WEST BENGAL, RURAL AREAS, 1961



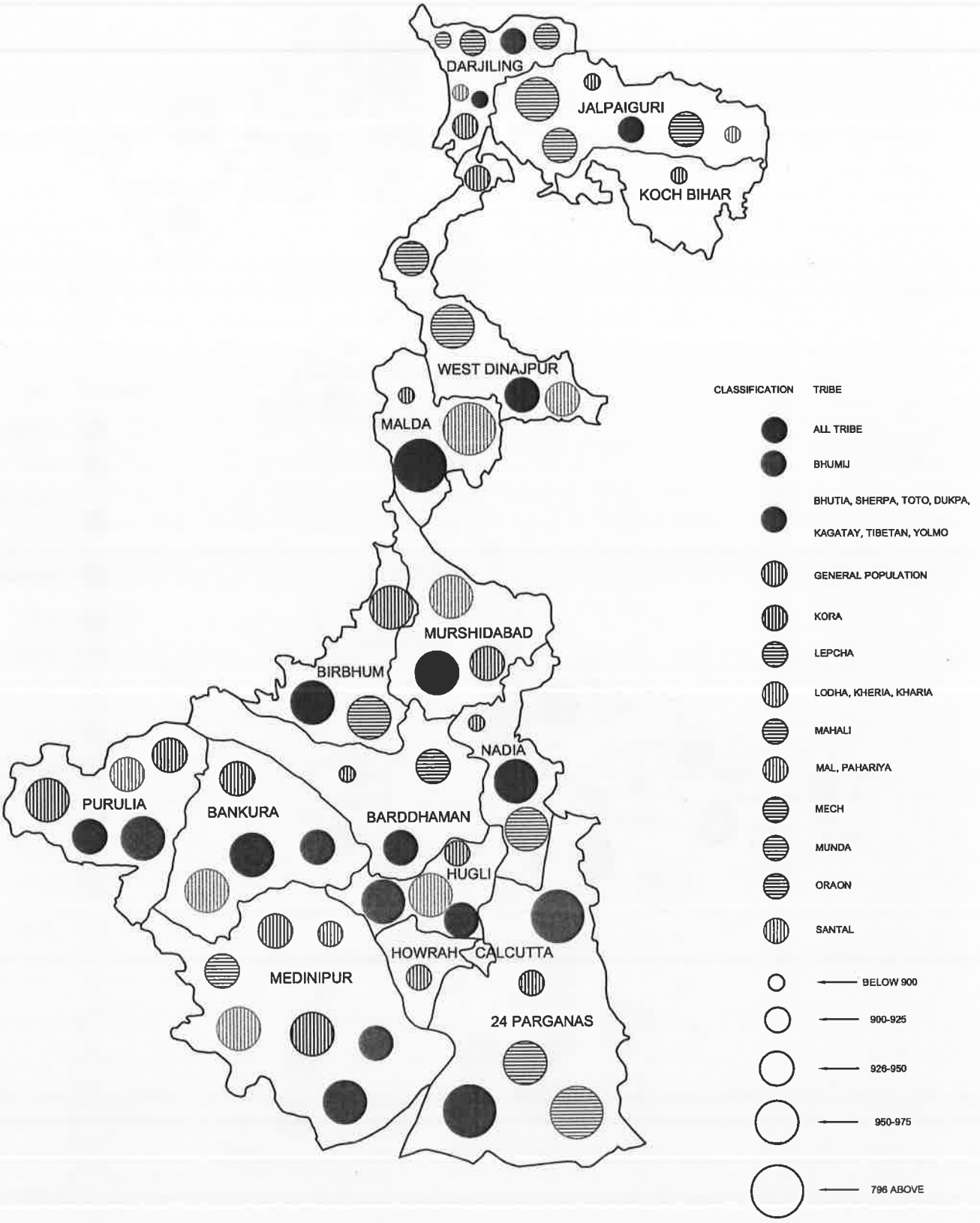
Note: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 36 DISTRICT FMRS, TRIBE WISE, WEST BENGAL, RURAL AREAS, 1971



Note: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 37 DISTRICT FMRS, TRIBE WISE, WEST BENGAL, RURAL AREAS, 1981



Note: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

MAP NO. 38 DISTRICT FMRS, TRIBE WISE, WEST BENGAL, RURAL AREAS, 1991

Note: 1. Date Source: Census of India, Special Tables on Scheduled Castes and Scheduled Tribes.
2. CARTOGRAPHY BY : DIMENSION INDIA NETWORKS PVT. LTD.

CHAPTER 6

SUMMARY AND CONCLUSIONS

We started our enquiry with a preliminary analysis of data from the Census of India which showed vast caste wise FMR differences in both undivided Bihar and West Bengal. Analysis of tribe data too showed a similar pattern. Further, we found evidence of changes in both caste and tribe FMRs over the decades from 1961-1991. In order to look for a pattern, an organising principle, we hypothesised that castes and tribes are spatially localised and what we perceive to be caste and tribe wise FMRs are in fact a reflection of spatial FMR differences, due to differences in local conditions. To substantiate the point, we cited the literature showing that caste territories are concentrated in specific regions. There are indications too that tribe territories are localised, as the history of Chottanagpur shows, and the data we have mapped confirms.

Apart from heterogeneity of caste and tribe FMRs, other patterns and trends could also be discerned from the data. To start with, we arranged the castes in ascending order of 1961 FMRs. The variation in caste FMRs was wide, ranging from 900 to 1000+. We found also that the castes of Bihar that witnessed the worst FMR declines had relatively favourable FMRs to begin with. We argued also that, beyond a point, daughter discrimination is unlikely to intensify. It is only when there is a comfortable `surplus' of daughters that the girl child is gravely at risk. To some extent, this can explain the trend of relatively feminine FMRs growing more masculine. A closer look showed us that *the castes that had a massive deterioration in their FMRs were mostly concentrated in North Bihar. By contrast, in South Bihar (now Jharkhand), FMR deteriorations were relatively far less acute.*

In interpreting this pattern, we formulated two explanations. The first was that the Jharkhand region of undivided Bihar has been relatively backward, and poverty related factors may have operated here to keep the FMR from growing more adverse, as a high

level of poverty prevents discrimination against daughters in f ıealth care etc. from assuming fatal dimensions. Thus, this view posits that resource. . not been sufficient to ensure that daughter discrimination results in worsening of the FMR in South Bihar. This is one explanation. The other explanation we advanced is that the Jharkhand region of undivided Bihar was a distinct cultural area, where caste like practices were not as onerous as elsewhere in the country. In this region, essentially a tribal zone into which historically, other communities in-migrated, daughter discrimination may not have been as severe as in north Bihar. Moreover, the fact that the deterioration of caste FMRs in north Bihar have been concentrated in some castes suggests sanskritisation processes, in which upward caste moblility translates into removal of women from the work force, and, with a corresponding reduction in the economic value of women to the household, gender discrimination intensifies. The fact that the political climate in Bihar has been favourable towards the lower castes jells with an interpretation along these lines.

If this line of thinking is correct, we should find a strong correlation between caste FMRs and a women's agency variable like female participation in agricultural labour. The fact that the State level data do not show such a correlation does not mean that it does not exist. Our maps show that the caste populations of Bihar have been widely dispersed spatially across the districts of Bihar, and district level data may tell another tale. We find that the data tell a similar story in West Bengal. Certainly, there are indications of an independent role for caste factors, even in a `progressive' State like West Bengal, as has been pointed elsewhere as well (Sengupta). Moreover, as in the case of Bihar, in West Bengal too, women's agency variables are not strongly correlated with caste FMRs, but again, there is a considerable district distribution of castes. To investigate the above line of thinking, we need to carry the investigation further down to the district level. We expect that caste factors will be more important in North Bihar and spatial factors will be more important in West Bengal. A multivariate analysis can be carried out, and spatial factors integrated into it.

At the same time, we need to recognise the limitations of secondary data. In the introductory chapter, we had seen how the FMR is shaped by women's agency variables and also, by poverty related factors. However, the incidence female agricultural labourers, one of our women's agency variables, is also a poverty-related variable (the literature shows that the incidence of poverty is high in households where women work as agricultural labour). To extricate women's agency from poverty effects, a micro survey would be needed. Secondary data can only take us thus far.

A micro survey should also enable us to control for male-selective migration, which interferes with our measurement of the FMR. By collecting data on Children Ever Born and Children Surviving, more accurate FMRs can be calculated. The census of India, it is true, has data which would allow us to compute juvenile FMRs (FMRs for children), which are far less susceptible to migration-induced distortions. However, the corresponding data on Women's Agency (female literacy, incidence of female agricultural labourers) are for the population as a whole, and not for the mothers of the juveniles. Thus, if we use juvenile FMR data, we won't have matching WAGES data. The other way out is to compute caste FMRs for the entire region in which they are found, for example, FMRs for the Musahar, wherever they are found – West Bengal, Bihar, or elsewhere. That, however, becomes problematic, for we have made out a case here for the need for analysis at the disaggregated level of the district and even lower.

What we need to note here is that the issue is not one of whether migration induces distortions in the FMRs of this caste or that one. The issue is one of whether, *on the whole,* male-selective migration seriously compromises our interpretations. A multivariate analysis, using district level data, may give some indication of whether our data are telling a story that fits into the broader canvas. We have seen already how the findings fit into two alternative explanations we have advanced for why differences between North and South Bihar can be expected. This too is suggestive that migration may not have been a source of significant statistical 'noise'.

Added to this, we may try to match our interpretations with the findings of other studies. The point may be illustrated with a few examples. As we saw, in Bihar, in the base year, a number of castes had adverse FMRs and others had more balanced ones. If our caste-based interpretation of FMRs is correct, and our caste FMRs are not just artifacts of male-selective migration, then, it needs to be seen if the castes whose FMRs are relatively adverse are the ones who have been upward mobile. (This would fit into our sanskritisation hypothesis). As we have seen, our study also has shown a process at work, of FMRs growing more adverse for some castes. Were these castes the ones which were mobile relatively late in the day? Ethnographic sources, for instances, ethnographic material from the Anthropological Survey of India, or qualitative studies on dalits, etc. could perhaps throw some light on this. This should to some extent, help corroborate - or cast doubts upon - our study.

As pointed out also, a micro survey could also be useful. Based on our study, a case can be made out for a micro survey of multi caste villages in Bihar and Jharkhand. We may extend the study to West Bengal also. We had expected spatial factors to be more important than caste factors in a progressive State like West Bengal, but find that it is not so. Maybe our spatial units were at too high a level of aggregation. In any case, it would be worth exploring the issue further in a micro survey. We should try to select areas that are roughly at the same poverty level, so that poverty's confounding effects can be reduced or eliminated. Apart from helping corroborate our interpretations, it can make possible more detailed probings as well. For example, the role of fertility decline in either making the FMR more balanced or more unbalanced. The former occurs when higher parity high risk female births are averted, and the latter happens when desired family size is so small that the demand for a minimum number of sons puts daughters at risk. A micro study also would allow us to investigate marriage squeeze effects. [9]

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[9] Due to population growth, every cohort is larger than the one preceding it. Therefore, since boys marry girls younger than themselves, there is a glut of brides, which fuels dowry and leads to increase in daughter discrimination. The causal pattern was uncovered first uncovered by Caldwell et al (1983) and shown to operate at a sub regional level by Rao (1993).

So far we have discussed caste FMRs. Now we turn to our findings on tribe FMRs. Unlike in the case of castes, the tribe territories of Bihar (mostly concentrated in South Bihar) are spatially quite localised, with large tribe populations concentrated in a single district. So, unlike in the case of castes, State level data are in effect for sub State levels. Despite this, we find little correlation between WAGES and tribe FMRs. We suggested that the answer to the conundrum may lie in spatial factors at the below district level. Again, we need a micro survey to probe deeper.

Finally, we come to the tribe FMRs of West Bengal. We find here that there is a spatial of tribes in the northernmost part of the State. The data also show a suggestive correlation, n namely, that of female literacy having an adverse effect on the FMR. There were indications of such an effect in the literature, and our data for West Bengal suggest that such a mechanism may have been at work in the case of tribes like the Bhutia and Lepcha.

To conclude, our study of caste and tribe wise FMRs showed that the differences could not be explained away in terms of spatial effects. There certainly are indications of tribe and caste wise factors operating in both Bihar and West Bengal. We found also that the spatial effects on caste FMRs appear to be stronger in North as compared to South Bihar, and attributed it the differences in social and cultural milieu. In this context, we made out a case for a district level analysis of caste FMRs, using a tool like multivariate analysis. We also suggested the outlines of a micro survey to carry the study further, which was in fact one of the objectives of the study.[10] Given the limitations of secondary data, our study has been largely indicative. Still, it has highlighted the importance of caste and tribe specific factors. The aggregate FMRs for a region, as this suggests, need to be interpreted with caution, as they are likely to cloak a good deal of diversity, and also, need not provide an indication of what lies in the future.

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10 'To investigate the hypotheses further, a field survey would be necessary. Based on the groundwork done in the Report, the parameters of the survey would be worked out (sampling

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design, sample area etc.). This would be built into a fresh project proposal flowing out of the secondary-data based report' – Project Proposal.

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