

**DEWAS : SELECTED ASPECTS OF URBAN GROWTH**

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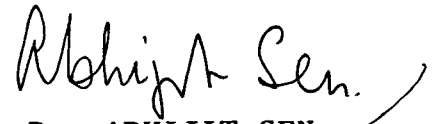
CERTIFICATE

This is to certify that this dissertation entitled 'Dewas : Selected Aspects of Urban Growth' submitted by Srinivasan Iyer in partial fulfilment of the requirements for the award of Master of Philosophy (M.Phil) degree of this University, has not been previously submitted for any degree of this or any other university and that this is his own work.

We recommend this dissertation be placed before the examiners for evaluation.



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## ACKNOWLEDGEMENT

More than a year ago, when I was confronted with the task of writing a dissertation, the prospect was very daunting. On the one hand, there was the consideration that I had to work on something that would be worth the while to me, apart from it fulfilling the requirements of an M.Phil degree. On the other hand was the sombre warning that I had too short a period at hand to be able to treat something that I would get involved in to a degree far in excess of prudence. But it was that or nothing. A field trip was called for which would hopefully take me out of the confines of the library and familiar theory. The choice of the subject was made regardless of how difficult it might be to put things into a respectable shape acceptable to mainstream academia. And one plunged in, accompanied by friends. One came out of this largely unstructured and risky venture with one's mind storming with ideas, whatever they may be worth. At the back of one's mind was lurking the feeling of gross incompleteness. And then came the brass tacks. The feverish penning down of things. The presiding over or rather the causing of one's work and taking a shape somewhat removed from what one had envisaged. And the fear, that trapped in a short span and the what seemed somewhat stringent requirements of academia, that one's work will be both false to oneself and fail at the sounding board of academia, if for nothing else, then at least the denial of a full flowering.

And my guide was showered with manuscripts in a crabby hand, with the syntax all convoluted and with a vocabulary that threatened exhaustion. Dr. Abhijit Sen bore with all this and tempers did wear thin at times. But his exemplary patience and considerateness saw us through.

Then there were the others. Some could not be regarded as the other and cannot be acknowledged. Some, officials and residents of Dewas, bore up with persistent and pointed enquiries, despite it being a venture that would



for no ostensible reason serve their individual or collective self - interest. Many went far beyond the realms of duty and ordinary courtesy. Many others, through small gestures, prodded me along this arduous path. Sanjay and Preetam of the Type-O-Graphic Centre were faced with the stupendous task of converting piles of manuscript and typed material into a presentable form. The typographic errors are owed to the sheer paucity of time and not too their failing in their task. I hope the efforts of all of the above are not in vain. I willingly accept responsibility for what has been written but the credit should go where it is due, to all of the above. Lastly, my own efforts became lighter whenever I considered them a tribute, however measly, to human kindness, which has been surviving the assaults of oppression and narrow self-interest for centuries into the present, where the assault seems particularly strong.

New Delhi

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(SRINIVASAN IYER)

## INTRODUCTION

Urban population in India has been growing quite rapidly, atleast in absolute terms. This growth has been accounted for largely by existing urban entities. Though the contribution of the larger among the urban areas has been dominant in absolute terms, medium sized towns ( e.g. Class II towns and the smaller Class I towns) have not been lagging in terms of the rates of growth. The 'burgeoning' of large cities and the concomitant problems have of late been coming in for increased public and state attention. The need emerged, as a corrective, to 'deflect' growth to smaller urban areas. Also much industrial activity (especially in some large units) too was experiencing 'diseconomies' of urbanisation<sup>1</sup>. -- the problem of increasing labour militancy, costly intra-urban transport, the strain on urban infrastructure ( for which in many instances, only those remedies which envisaged a rehauling of the entire urban system seemed adequate) etc.

Policies and programs emerged to create new modes of industrial activity and employment and thereby i) deflect urbanward migration to such areas and ii) enable industrial

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1. We are not thereby asserting that such diseconomies had assumed a significant scale for all such industrial activity. Further large urban areas did continue to offer significant advantages to many manufacturing firms.

activity to be prompted away from the 'diseconomies' of large scale urban entities, through state incentives, towards a number of medium sized towns or even smaller concentrations of population . Many of these areas that underwent (or rather, are undergoing) such upheavals were earlier merely administrative towns or market towns with little to display by way of large scale manufacturing activity. A number of these were favourably located either near an existing large concentration of population/industry or on a rail/ road trunk route.

More than a decade has passed since the initiation of such a thrust, time enough for the effects of such a thrust to have significantly changed the target areas. And yet, the period is short enough for one to be able to observe the adjustment ( and to rely on popular 'recall') as the towns accommodate manufacturing activity and population, and as manufacturing activity adjusts to the peculiar circumstances of what was till the late 60s, the somewhat unfamiliar environs of medium towns. We are interested in this adjustment process, a process that is more than a decade old and quite perceptible in many of its major contours, and yet is working itself out -- its initial effects still fresh. Specifically, we are interested in i) the nature of industrial activity attracted to such largely state - promoted sites and the relative advantages/ disadvantages conferred upon such activity by virtue of

location. In case of a wide spatial dispersal of markets (produce and raw material), the locational effects boiled down to the possibility of forging advantageous local relations -- with labour and other manufacturing units linked vertically or horizontally and ii) the changes in the life of the towns' (increasing ) population. This however is too broad a canvas and we realise the need to narrow it down . We will be choosing the housing and the water sectors, both of them being 'crucial' sectors. Housing is a field left largely to private initiative while water is dominated by state presence.

In each of these fields, the crucial aspects that need to be brought to light are that of the dominant logic -- which in contemporary India is that of privatised accumulation -- and its specific forms in each of these fields and of the nature and extent of state intervention (which in essence and even in superficial sense does not seem to contradict this dominant logic). But both the forms of initiative are exercised in a context that is spatial and temporal. Whereas a broad historical understanding or the working out of the space element in a general sense, is beyond the means of our effort, these two 'elements' of a context do work themselves into our study, though in a somewhat narrow, dessicated form. Therefore, we will be mindful of the urban context of the

exercise of private and state initiative (and will consider, some of the interrelatedness and 'externalities' that arise on account of proximity) and that this initiative works upon an antecedent urban context: a pre-existing industrial base (local and regional) and labour pool, etc.

Policies and programs to redress regional imbalance and to release the accumulation process from the 'diseconomies' of location in burgeoning cities are part of a larger process of development. We believe that the aspect of equity should be integral to any development process. In each of the sectors that we will be studying, some attention will be devoted specifically to the aspect of equity or to its watered-down version --satisfaction of minimum needs of the most disadvantaged sections of the population. Further, the dichotomy that seems to exist between development and ecological balance needs to be abolished. We will be taking up at least one field where the development process and ecological imbalance can be easily related.

The object of our study is Dewas town, Madhya Pradesh. Most of the studies of contemporary Indian towns have been restricted to drawing conclusions from an essentially quantitative information base, such information itself being obtained i) from published reports such as censuses and statistical abstracts or ii) through a formally

structured survey. We have used conventional published information on Dewas to introduce the reader to Dewas' growth and the pre-eminence of its manufacturing sector. But the major portion of our study was formulated during and after a six-month long field trip to Dewas which commenced in September 1987. We have used quantitative information from i) somewhat unconventional local sources little of which gets published and most of which is difficult to use given the state of record 'maintenance' and official cooperation and ii) limited, loosely structured surveys. The only formal survey that was conducted was of a few factories. For this formal survey as well as the loosely structured ones (of neighbourhoods, colonizers, households, traders, etc.), our samples could not be considered 'representative' in any precise sense. However, the selection was not entirely random. We had considerations of diversity and the relative significance of forms/phenomena in mind while conducting the surveys.

We have also used non-quantitative information from published and unpublished records. Further, numerous rewarding discussions with people of all walks of life breathed life and depth into our 'information base'. Our own observation of the spatial order and the routine as well as exceptional goings-on served as the bases for much of our inquiry and formulation.

Few studies of towns in India or similar countries are devoted to the aspects that we have looked at. Among these few, many have a narrower focus on either manufacturing activity or housing (we did not come across any devoted to water supply) or more narrowly on squatter settlements or the rental markets or the 'spread' effects of manufacturing activity or the 'informal' sector. There are some notable exceptions: Sarin, 1982; Qadeer, 1983 etc. Sarin's Chandigarh and Qadeer's Lahore are however very different from our Dewas, the former being an administrative centre planned out ab initio, and Lahore in general and its manufacturing sector in particular being of a much larger size and tracing its significance to much before the 1960s which is when Dewas burst into dynamism.

Within a short span of time, Dewas was transformed from a sedate administrative-cum-minor-marketing town into a booming industrial town. Three sectors<sup>2</sup> of this rapidly growing urban unit will be studied. One is industrial activity -- the 'base' of the Dewas urban economy in this period. Another is the housing sector. The housing supply had to respond to the increasing numbers seeking accommodation and to those with altered budgets for housing. An increasing population and growing industrial activity

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2. By 'sector' we mean a field of public and private initiative, the field being internally closely integrated.

meant an increasing consumption of water -- the conditions governing the supply of water are presumably quite different from those governing the supply of housing. Water is the third sector in our study.

Our study has been divided into four chapters. The first chapter introduces the town and its remarkable growth performance. This chapter is divided into two discrete segments. The first of these reviews the growth of urban areas in India and M P, places Dewas against this review and undertakes a more detailed study of Dewas district, and 17 other districts in M P, which had a similar urban population in 1961. It examines the extent to which the strong association between urban population growth and growth of the non-household manufacturing sector that obtains in Dewas in the decade 1971-81, can be generalised across these districts. The second of the discrete segments highlights certain aspects of Dewas' history: it being the capital of princely states, the resources of these states, claims on the surplus gathered by the state, the urban economy, caste stratification and the spatial form of Dewas town. This segment will lead the reader into the 60s, when the first major industrial influx occurred.

The second chapter, on manufacturing activity in Dewas, starts with enlisting the major features of Dewas which could be expected to have influenced the location



decisions of firms and the economic fortunes of those firms which have commenced production in Dewas. State assistance comes in for a lengthy discussion. We then move onto present information on the nature of industrial activity: size and industry composition, firm level characteristics, local linkages e.g. with local markets or local primary activities and local labour. This partial presentation of the nature of industrial activity could serve several purposes: the size and industry composition and the rest could be related to industrial location theory. Local linkage is one specific instance of the strategy of privatised accumulation and sheds light on what this logic leads to in specific circumstances. Firm-level characteristics and local linkages could give an idea of the likelihood of future investment in Dewas by resident units. A section is devoted to the condition under which small units struggle for existence, with an emphasis on the use of location in the strategy for survival.

The third chapter is on housing. The context is one of rapid population growth (mainly by way of migration -- the entry of those who had no previous claim on residential space within the town) and of increasing incomes for some sections of the population. We will be looking at government regulation on the housing sector, investment in the housing sector, the rental market and the geographical expansion of the town. We will be dividing the town into

three broad areas on the basis of the nature of response to the demand for housing. Running through this chapter will be an analysis of the predicament of the less affluent sections: the poorer among the suppliers of housing space and the poorer among those who demand housing space. We will be looking at specific features in the housing market (such as the phenomena of 'staggered investment in housing', 'partitioning of houses', 'shared services', etc. and squatter settlements).

The fourth chapter is on water supply. We begin this chapter with a statement of the crisis. We present our understanding of the processes that lead to this critical situation. This is followed by a look at the responses to this crisis from the various categories of agents. The chapter is wound up with a brief look at the options that Dewas faces, mindful of the ideological bases of such options (each of which would value differently the tradeoffs involved in these options) and of the feasibility of the implementation of these options.

## CHAPTER 1 : DEWAS : CONTEXT, GROWTH AND HISTORY

### 1.0 INTRODUCTION

The central focus of this study is the town of Dewas in Western Madhya Pradesh and its rapid growth after 1970. Later chapters will deal with the specifics of the growth of the town-particularly the impetus provided by industry and the consequences in terms of housing and water supply. However, it is useful, at the outset, to put the developments in context: both comparatively (vis-a-vis urban growth elsewhere in India) and historically (vis-a-vis growth of Dewas town itself prior to 1970). Table 1.1 gives a snap-shot picture by providing, comparatively, the long period population growth rates in Dewas town, urban Madhya Pradesh, and urban All-India.

In this chapter, these comparative and historical themes are elaborated further. In Sec. 2.0 we compare certain census indicators pertaining to Dewas, for the period 1961-81 rapid growth, with corresponding indicators for India and Madhya Pradesh. The purpose, besides presenting comparative magnitudes, is to identify the major determinations of cross-section variations in growth of urban population and assess to what extent Dewas conforms to or differs from the general pattern. In Sec.3.0, the attempt will be to present a brief history of the development of

Dewas town in the period prior to its rapid growth. This is in order to provide a background the major concern of this study the analysis of the processes that caused and accompanied the acceleration in the growth of Dewas.

**Table 1.1 :** Population growth in Dewas town, urban Madhya Pradesh and urban India.

Census Year	Population Dewas town*	Annual inter-censal population growth rates		
		Dewas town	Urban M.P.	Urban India
1901	15403			
1911	15285	-0.08	-1.15	0.00
1921	14970	-0.21	1.04	0.67
1931	16810	1.17	2.09	1.75
1941	22949	3.16	2.88	2.79
1951	27879	1.97	2.91	3.46
1961	34577	2.18	3.98	2.31
1971	51866	4.14	3.90	3.26
1981	83465	4.88	4.55	3.86

**Note\*** : In 1951 census, the following towns were merged to form Dewas Municipal town:

	Towns	Population	
		1941	1901
1.	Dewas Sr.	12987	8783
2.	Dewas Jr.	9962	6620

Source : Census of India.

## 2.0 URBAN GROWTH IN 1961-81: A COMPARATIVE ANALYSIS OF DEWAS, MADHYA PRADESH AND INDIA

The 60's and 70's were decades of rapid urban growth not only for Dewas but also generally for India and Madhya Pradesh and furthermore, the pace of urbanisation accelerated in the 60s as compared to the 70s. Analysts of urbanization of India have identified a number of underlying patterns, but, not unsurprisingly, have also found that these do not apply uniformly in all states or regions.<sup>1</sup> In this section we shall review some of the generalisations found in the literature and identify whether these are applicable to the growth of Dewas or whether the latter is a deviant in some sense.

### 2.1 TOWN SIZE, LEVEL OF URBANISATION AND URBAN GROWTH

In table 1.2 are presented some data at the All India level, disaggregated by town size, and table 1.3 gives similar data for Madhya Pradesh. Both India and M.P. show increasing urbanisation over the period, and in both the proportion of urban population in larger (Class I & II) towns has been increasing by that in lower size class of towns has been declining. This aspect of urban growth

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1. These regression analyses of urban growth e.g. by Mills and Becker (1985), frequently find that fits are significantly improved by inclusion of regional dummies.

**TABLE 1.2 : ALL INDIA : URBAN GROWTH BY SIZE CLASSES**

Size Class	Percentage of total population in urban size class <sup>1</sup>			Annual growth rate <sup>2</sup>		Annual growth rate <sup>3</sup>
	1961	1971	1981	1961-71	1971-81	1971-81
Class I (100,000+)	50.8 (102)	56.2 (145)	60.4 (216)	4.32	4.6	3.62
Class II (50,000-100,000)	11.0 (129)	11.2 (178)	11.6 (270)	3.49	4.22	3.44
Class III (20,000-50,000)	17.4 (449)	16.3 (570)	14.4 (739)	2.60	2.53	3.28
Classes IV to VI ( 20000)	20.8 (1650)	16.3 (1523)	13.6 (2020)	0.64	2.06	3.45
All	18.3 <sup>@</sup> (2330)	20.2 <sup>@</sup> (2531)	23.7 <sup>@</sup> (3245)	3.26	3.86	3.52

**Source :** Mohan and Pant, 1982.

**Note :** 1- Figures in brackets are the number of towns in each size class.  
2- The number of towns vary across the censuses.  
3- The number of towns in each case is held constant at 1971 levels.  
@ These figures are the levels of urbanisation, i.e urban/total population

**Table 1.3 :** Madhya Pradesh : Urban Growth by size class.

Size Class	Percentage of total population <sub>1</sub> in urban size class			Annual growth rate <sub>2</sub>		Constant Composition growth rate <sub>3</sub>	
	1961	1971	1981	1961-71	1971-81	1971-81	1971-81
Class I	39.1 (6)	45.1 (11)	46.8 (14)	5.42	4.93	4.42	4.16
Class II	8.2 (6)	11.1 (13)	18.0 (28)	7.05	9.76	3.52	3.67
Class III	20.6 (34)	19.4 (42)	12.2 (41)	3.26	- 0.13	3.62	4.38
Class IV to V	32.1	24.4	22.9	1.09	3.89	-	-
All	14.3 <sup>@</sup>	18.3 <sup>@</sup>	20.3 <sup>@</sup>	3.90 (5.02)	4.55 (4.75)	- (3.79)	- (4.03)

**Source :** Census of India 1981, and Mills and Becker(1985).

**For notes :** see table 1.2, growth rates in brackets in last row of last four columns are growth rates for towns of classes I to III

has been much commented upon, for example by Bose (1978) and Mills and Becker (1985). These authors note that, at the All-India level, there appears to be positive relation between the size class of towns and growth of population in towns of these size classes. This relationship is however, somewhat muted in the case of Madhya Pradesh where class II (rather than class I) shows the highest growth rate. And, more importantly, the positive relationship disappears, as noted by Mohan and Pant(1982), if towns in

a particular size class are kept fixed rather than allowed to change from census to census. In other words, the relationship is a result of the mobility of towns to higher size classes (particularly to class I which unlike other size classes is not upper-truncated) as a result of population growth rather than any intrinsic positive correlation between initial size and growth rate at the level of individual towns<sup>2</sup>. Moreover, as may be noted from the tables above, the Census estimates of the All India or Madhya Pradesh urban population growth rates are somewhat higher than those obtained when a fixed set of towns (in this case only the towns as existing in 1961) are considered. This effect, that of the creation of new towns, is small in the case of India (where as noted by Mohan and Pant, 1982 there is a relatively 'stable structure of settlements' or, in other words, a low growth of the number of urban settlements relative to the growth of urban population) but larger in the case of Madhya Pradesh where new towns have contributed significantly to recent inter-censal growth of urban population<sup>3</sup>.

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2. Mills and Becker (1985) who attempted such correlations found uniformly poor fits.
  3. The exception of Madhya Pradesh to the All-India pattern is noted also by Mohan and Pant (1982)



In the two most recent Census decades 1961-81, the population of Dewas Town increased at a rate faster than the growth rate of urban population in either India or Madhya Pradesh. Moreover, with a population of about 1.5 lakhs in 1988,<sup>4</sup> its post 1981 growth rate (at about 8% per annum) has been more impressive. Indeed, following the

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4. An important reason for the rapid growth of Dewas town post 1981 was the extension in 1982 of Dewas municipal limits so as to include several outlying villages. The 1981 Census enumerated 83,465 persons in the then town limits and 18,500 persons in the villages which were added to the town's municipal limits in 1982. A first crude estimate of the town's population in 1988 can be made by assuming that the 1971-81 intercensal annual population growth for Dewas town can be applied (4.88%) to the 1981 population. On this basis the estimate for the population of Dewas town in 1988 works out to 1.17 lakhs if 1981 city limits are considered and 1.42 lakhs if the current city limits are used. These however, are likely to be underestimates since, by all accounts, population growth is likely to have accelerated post 1981. A more accurate estimate to possible on the basis of Municipal records on the number of registered residential dwellings and the average number of households residing per registered dwelling. This data, discussed more fully in chapter 4, indicate that the number of households in Dewas town (as per the then town limits) was 14016 in 1980-81 (note that the comparable figure from the 1981 census was 14086), and increased in 1986-87 to 19620 if 1981 city units are used or to 23,292 if current town limits are considered. Assuming constant average household size would permit extrapolation of the 1988 population from the 1981 Census estimate on the basis of the observed rate of growth of households. This yields estimates of Dewas town's population in 1988 of either 1.24 lakhs or 1.51 lakhs depending on whether 1981 or current town limits are used. Even these might be underestimates because the Municipal Records do not capture squatter dwellings adequately and as discussed in Chapter 4. The squatter population may have increased faster than total population in Dewas Town.

census categories conventionally used, Dewas town has moved from being a class III town in 1961 to a class I town today - a performance matched by only few other towns in India. However, this rapid growth is a recent phenomenon and the population growth rate of Dewas town prior to 1961 was quite unspectacular in comparison both with the more recent trend in Dewas town (population only doubled in the 60 years between 1901 and 1961 as against a quadrupling in the next 27 years) and with urban population growth generally in India or Madhya Pradesh (during 1901-61 population of Dewas town grew only 124% as against 217% for urban MP and 203% for urban India).

For these reasons, Dewas' superior growth performance is even more striking when this is compared to growth of individual towns rather than the All-India or MP urban aggregates. In 1961-71, only 73 out of the 331 class I and II towns in India (identified by Bose 1978) had a higher growth than Dewas, and in 1971-81 the corresponding numbers were only 36 of the 323 class I and II towns (identified by Mohan and Pant, 1982). Within MP, of the 42 class I and II towns as per the 1981 Census, only 14 and 9 outperformed Dewas in 1961-71 and 1971-81 respectively (Census of India, MP, 1981, Part X 4, statement I). Furthermore, the population growth of Dewas town was significantly higher in both periods (particularly so in 1971-81) than that expected on the basis of regressions'

explaining' cross-section variations in growth rates of class I, II and III towns in M.P. on the basis of initial town size and distance consideration<sup>5</sup>.

Another regularity noted in post independence Indian Census studies is that across cross-sections urban growth rates appear to be correlated negatively with the level of urbanization. This is reported by Mohan and Pant(1982) at the state level, eg, the rate of urban growth in MP which is less urbanised than India as a whole is higher than in All-India. Within MP too, such a pattern is evident. It is (see table 4) that although regions with higher levels of urbanisation have a higher growth rate of total population, their growth rate of urban population is lower. It appears that there is greater migration to the

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5. Mills and Becker(1985) report the following regressions for class I,II and III towns in M.P.

For 1961-71:

$$G = 42.57 + 0.195 P - 0.000473 P^2 - 0.229d + 0.00102d^2 \quad (R^2 = 0.16)$$

(1.56)            (-1.39)            (-1.72)            (2.08)

Where G is decadal growth rate, P. initial population size and d distance nearest class I town.

For 1971-81:

$$G_{71-81} = 16.8 + 0.643 G_{61-71} \quad (R^2 = 0.48)$$

(7.45)

On the basis of these regressions, the expected decadal growth rates for Dewas town are 46.1 and 53.8 for 1961-71 and 1971=81. The actual achieved were 50.0 and 60.7.

more urbanised regions but, nonetheless, urban growth is greater in less urbanised regions but nonetheless, urban growth is greater in less urbanised regions, partly because the growth of new towns is greater in the latter. Dewas district however, had a rate of urban growth much higher than of Western MP, to which it belongs, and comparable to that of MP. (Dewas district urban population growth was somewhat lower at 3.48% p.a. against MP's 3.90 in 1961-71 and somewhat higher at 4.60% p.a. against MP's 4.55 in 1971-81) although it started with a somewhat higher level of urbanisation. Further, since only a single new town emerged (the number of towns in Dewas district increased from 7 to 8 between 1971 and 1981 and the new town contributed to only 10% of the increase in urban population in the district), Dewas district was one of the few cases where the growth rate of the principal town, Dewas town, was higher than the growth rate of the district urban population.

Thus, Dewas' urban growth was clearly higher than that of MP which in turn was higher than of India as a whole. Associated with this were certain demographic changes which are documented in Table 5. First, the sex ratio (lower for urban than rural areas in India) was declining for Dewas while it increased in M.P. Second, among males, the proportion of young adults (who are most likely to migrate and whose percentage is greater in urban areas) was increasing in Dewas while it remained constant for M.P.

**TABLE 1.4 :** REGIONWISE GROWTH OF URBANISATION IN MADHYA PRADESH

Region within MP	Levels of Urbanisation 1971	Rate of growth of urban popn. converted* unconverted		Annual rate of growth of total population
Eastern	10.1	4.92	5.40	1.84
Inland(Eastern)	15.0	3.75	4.80	2.35
Inland(Western)	19.9	4.06	4.66	2.45
Western	23.0	3.20	3.64	2.53
Northern	16.7	3.11	4.82	2.45
Dewas District	18.7	4.88	4.60	2.95

**Note:\*** = Growth in urban areas excluding new towns of 1981.

**Source:** Table A-4. Table 13, Mohan and Pant, 1982.

**Table 1.5 :** Some characteristics of urban areas of Dewas district.

Census Year	Sex Ratio(females/1000 Males)		Males 15-39as		% of male born outside place of enumeration	
	Urban MP	Urban Dewas	% of all Urban MP	Urban Dewas	Urban MP	Urban Dewas
1961	856	907	36	31	44	32
1971	868	899	34	31	39	28
1981	884	899	37	37	36	32

**Source :** Census of India, M.P.

And finally, as against M.P's declining ratio of males born outside place of enumeration, the ratio was constant in Dewas. This latter ratio is not necessarily a good direct measure of in migration<sup>6</sup> but nonetheless it is important to note that 37% and 56% of the increase of male and female population in urban Dewas during 1971-81 was as a result of the increase of those born outside their place of enumeration in 1981. The corresponding percentages for MP were only 29 and 44. Overall, for all these indicators Dewas moved towards the MP urban averages beginning at levels which were intermediate between MP rural and MP urban- a symptom of the fact that urban Dewas was coming into its own.

## 2.2 THE ROLE OF MANUFACTURING IN URBANISATION : DEWAS, M.P. AND ALL INDIA

In the previous section we observed that, in 1961-81, Dewas town had more rapid population growth than in the urban areas of MP or India and that this relatively higher growth rate was even more prominent if account was taken of town size and of the fact of emergence of new towns. In this section we examine the role of particular economic sectors in urban growth and attempt to put the growth of Dewas in perspective.

6. The correct measure for in-migration should be place of last residence rather than place of birth. Moreover the 1961 and 1971 figures here are not fully comparable because of definitional changes.



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That urbanisation accompanies economic development is an assertion often made. And underlying this is the stylised fact that development involves a shift of employment from predominantly rural agriculture to predominantly urban industrial and service sectors. However, such an association is somewhat problematic in the case of India. This is because of the simple fact that while the urban share of population ( 11.0, 17.6, 18.3, 20.2, 23.2, in 1901, 1951, 1961, 1971, and 1981 respectively) increased steadily, this has not been accompanied either by steady decline in agriculture's share of the labour force (71.7,72.1,71.8,72.1, 68.8) or by any steady increase in the share of manufacturing (11.7,9.0, 10.6, 9.5, 11.3) or of services (15.7, 17.2, 16.0, 16.7, 17.7). While the decade 1971-81 may just fit the expected pattern, this is simply not true of either the pre-independence period or the period 1951-71. An alternative explanation of urbanisation, which still maintains its link with development, has been put forward by Mills and Becker (1985). They note that before 1971 the majorities of manufacturing and construction workers were resident in rural areas, and argue that modernisation increased the urbanisation of these (and of the service) sectors and this rather than sectoral shifts from agriculture was responsible for the increased urbanisation overall. Table 6 gives the percentage that urban workers formed of total

workers by sector for all. India in 1961-81, and this does bring out the increasing urbanisation of most non-agriculture sectors, the exception being non-household manufacturing which is by far the most urban of all sectors. The implication of this is that, in India although urbanisation would increase with growth in non-household manufacturing, increased urbanisation of the services or household manufacturing sectors could turn to be the more important factors.

**Table 1.6 :** India : Urban workers as %age of all workers by sector.

	Agri- culture	Mining quarrying	Household manufacture	Non-household Manufacture	Const- ruction	Services
1961	2.0	12.7	17.4	69.5	46.8	48.0
1971	2.8	16.5	25.0	64.8	50.5	58.2
1981	3.9	38.5	29.9	65.5	50.0	61.0

**Source :** Census of India

An exercise carried out by Asok Mitra et.al. (Asok Mitra et al , 1980) supports this expectation of a relation between urbanisation and manufacturing employment. They calculated cross section regression co-efficients for eight industrial categories of male workers in relation to the growth of urban male population in various decade of the 20th century (till 1971). This yielded results wherein the co-efficient for each of the industrial categories varied



widely across the decades. The variability in the explanatory significance of employment in the manufacturing (including household manufacture) industry was quite high, especially in the exercise carried out with respect to the growth of experience of a varying number of class-I towns (and less so with respect to the growth experience 38 class-I cities across the decades). However, both they and Mills and Becker (1985) found that in 1961-71 there was a significant positive correlation between population growth and growth of manufacturing employment in cross sections of Indian towns<sup>7</sup>. Unfortunately the exercise cannot be repeated for 1971-81 because, as yet the census authorities have not released the detailed occupational tables at the town level (although these are available for urban areas by district). However, since both the rate of growth of urbanisation and of manufacturing employment (and even more so that of urban manufacturing employment) has been higher in 1971-81 than in 1961-71, it may be conjectured that a similar positive correlation would for 1971-81.

As compared to India, MP had a lower growth rate of manufacturing employment but a higher growth of urban population in 1961-71. In 1971-81, both growth rates were higher for MP. After being a laggard in manufacturing until 1971 (in terms of the percentage of workers and incomes in this sector and also in terms of their rate of growth), MP

has since shown higher growth, than India, in manufacturing output and employment. Since the really rapid growth of Dewas town is a post-1971 phenomenon and is based on manufacturing, it is tempting to link this with MP's industrial fortunes.

To study the occupational basis of urbanisation in areas comparable to Dewas, we have chosen a sample of 18 districts (including Dewas) in MP for a more detailed study of urban growth in the 60s and the 70s. The basis of selection was that the absolute levels of urban population in these districts was similar in 1961, but the level of urbanisation varied. Dewas was the most urbanised in 1961 and continued to be so even in 1981. The range in terms of the level of urbanisation was wide in 1961, from 15.08 percent in Dewas to 4.22 percent in Surguja. The range narrowed by 1981 to between 18.71% (in Dewas) and 8.39% (in

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7. Mills and Becker (1985) find the following relationship for 1961 - 71

$$G = 20.251 + 0.287 G_m + 1.329 P - 0.0745 P^2 - 10.294 N - 0.283 S + 0.947 E + 4.733 W + 0.0217 SDP - 0.00813 P_c / D$$

$$R^2 = 0.416$$

Where G is the %age growth of town's population,  $G_m$  %age growth of town's manufacturing employment, P town's initial size, SDP the 1961 per capita state domestic product in the State where the town is located, P the size of the nearest class I town and D the distance from the nearest class I town. N, S, E and W are regional dummies. Dewas turns out to be a positive outlier on this basis also.

Dewas district and the data for the latter understates Dewas district and the data for the latter understate Dewas town's relative performance. Nonetheless, we use this data because of the non-availability of detailed sectoral breakdown of employment for principal towns since the District Census Handbooks have yet to be issued.

The first thing to be noted about our sample of 18 districts is that, in 1961-71, the principal towns in the districts became, on the whole, less dependent on manufacturing. Using Asok Mitra et al's (1981) functional classification of towns, it is observed (see Table 7) that the number of towns classified as 'manufacturing' actually declined over the period.

**TABLE 1.7 :** FUNCTIONAL CLASSIFICATIONS OF THE 18 PRINCIPAL TOWNS OF SAMPLE DISTRICTS : FREQUENCY DISTRIBUTION

Classification of towns		Frequency distribution	
		1961	1971
Class II	M	-	1
	T	-	-
	S	-	3
Class III	M	4(2)*	-
	T	2	3
	S	6	10
Class IV	M	1(1)	-
	T	-	-
	S	5	1

\* The number of towns which specialised in non-household manufacturing activity.

**Key** M: Manufacturing town; T: Trading town; S : Service town.

**Source** : Main tables, Asok Mitra et al, 1981.

This fits in well with the poor performance of almost all these districts in the decade 1961-71 in terms of growth of urban employment in non-household manufacturing. In 1961 Dewas was a class III service town and in 1971, a class II service town. However, the spectacular growth in the non-household manufacturing sector made Dewas a class II manufacturing (non-household) town in 1981<sup>8</sup>. During this latter decade, 47.8% of Dewas district's urban growth can be explained by the primary effect of growth in manufacturing employment<sup>9</sup>. This overshadows MP's corresponding percentage (25%) and is the highest of all the 18 districts.

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8. For Dewas town the partial sectoral breakdown available was broken down further, using the proportion reflected by the data for urban areas of Dewas district for 1981.

9. Calculated from Table 1.8 by dividing cols 1 and 3 by cols 2 and 4. If one assumes that the participation rate is constant at the initial year level and same across sectors, this gives the growth in population dependent on non-household manufacturing employment as a percentage of total population growth.

**TABLE 1.8: SAMPLE 18 DISTRICTS:POPULATION AND MANUFACTURING**

District	Growth in Non-household sector in 1961-71 as % of total main workers in 1961	% Decadal urban growth rate 1961-71	Growth in non-household sector in 1971-81 as %of total main workers in 1971	% Decadal urban growth rate 1971-81
Balaghat	2.1	46.7	6.3	46.9
Betul	3.1	43.7	12.2	109.5
Bhind	3.4	54.0	5.0	126.5
Chattarpur	2.6	42.1	8.0	72.5
Damoh	3.1	41.6	5.9	31.7
Dhar	-0.1	28.8	6.7	55.3
Dewas	2.7	40.1	27.2	56.8
Guna	0.7	39.4	3.1	41.4
Morena	4.0	53.4	13.2	73.1
Narsimhapur	2.1	37.4	4.6	30.9
Raigarh	-0.5	26.8	12.8	59.5
Rajgarh	0.5	26.0	9.0	69.8
Rewa	7.7	60.7	9.2	127.9
Satna	8.8	49.2	16.9	97.2
Shahdol	15.0	111.0	6.1	96.7
Shajapur	-0.2	46.7	11.2	60.4
Surguja	3.8	103.3	5.1	59.4
Vidisha	0.1	44.5	12.9	43.1
All M.P.	4.4	46.6	14.0	56.0

**Source :** Censuses : 1961, 1971, 1981, M.P. State.

Pooling the growth rates for 1961-71 and 1971-81 gave the following results in regressions carried out by us; at the level of urban growth by district.

$$(1) \ G = 2.020 + 0.275 G_n - 0.406 U - 0.013 M - 0.198 T + 0.019 S$$

$$(3.161) \ (1.845) \quad (3.865) \ (0.154) \ (1.661) \quad (0.127)$$

$$+ 0.105 D + 0.241 D71 \quad R^2 = 0.38$$

$$(1.724) \quad (4.565)$$

$$(1') \ G = 2.071 + 0.279 G_n - 0.397 U - 0.189 T + 0.101 D$$

$$(5.281) \ (1.947) \quad (4.175) \quad (1.776) \quad (1.750)$$

$$+ 0.238 D71 \quad R^2 = 0.41$$

$$(4.731)$$

$$(2) \ G = 0.428 + 0.016 G_n - 0.113 U + 0.070 G_m + 0.497 G_t$$

$$(1.345) \ (0.137) \quad (1.360) \quad (1.499) \quad (3.967)$$

$$+ 0.503 G_s + 0.060 D - 0.162 D71 \quad R^2 = 0.70$$

$$(3.891) \quad (1.560) \quad (2.164)$$

$$(2') \ G = 0.187 + 0.083 G_m + 0.519 G_t + 0.545 G_s$$

$$(5.073) \ (1.804) \quad (4.785) \quad (4.477)$$

$$- 0.203 D71 \quad R^2 = 0.71$$

$$(4.071)$$

Where G : urban population growth in district  
 $G_n$  : total population growth in district  
 U : urbanisation rate in initial year in district

- M,T,S : %age of workers in non-household manufacturing, trade and services respectively in urban areas of district (initial year)
- D : a dummy taking value 1 if district contiguous to either Bhopal, Gwalior, Indore or Jabalpur, 0 otherwise.
- D71 : a dummy taking value 0 for 1961-71 and 1 for 1971-81
- $G_m, G_t, G_s$  : growth of district urban employment in manufacture, trade and services.
- Figures in bracket are t-values.

These regressions, particularly (2) and (2') explain quite well the variations in urban population growth in the districts, and bring out the earlier noted fact of a negative correlation of such growth with initial level of urbanisation. However, they reveal only a very weak correlation of urban growth with either the share or growth of manufacturing employment. The former is statistically insignificant and the latter has a very low regression coefficient. Growth of trade and services has a much better explanatory power. Clearly, for the period 1961-81 as a whole manufacturing was not the dominant impetus for urban growth. For 1971-81 fitted separately, there was some evidence that the initial share of manufacturing employment was positively correlated (though

again with a very low coefficient) to urban population growth but the rate of growth of such employment was not a significant explanatory variable<sup>10</sup>. Moreover, for 1961-71 in the pooled equations and for the 1971-81 fit, Dewas district was a significant outlier having actual urban population growth higher than that expected from the regression results<sup>11</sup>

Regressions were also run for the growth rate of population in principal towns as the dependent variable but district level explanatory variables. The results showed that only the growth rate of urban population in the district and the contribution of new towns were significant-the former positively and the latter negatively-and not occupational shares or growth in sector specific employment. However, Dewas again emerged as an outlier, particularly in 1971-81.

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10. The preferred fit for 1971-81 was

$$G = 0.709 + 0.063 G_m - 0.087 G_s + 0.615 NT \quad R^2 = 0.933$$

(5.171)    (2.303)<sup>m</sup>            (1.743)            (14.589)

Where NT is %age of urban population growth explained by growth of new towns and other variables are the same as above. Fits with M,T,S and NT did not show up the significance of any of the sectoral shares.

11. Somewhat strangely this is not true of 1971-81 with the pooled regressions. This is probably due to the greater importance of new towns in explaining urban growth in this period. The pooled regressions did not include this variable.



Thus our regressions suggest that for these 18 districts of MP at least, manufacturing was not the dominant impetus for urban growth. However, this was clearly the case for Dewas in 1971-81. Dewas in this period was thus an outlier not simply in terms of its growth of urban population but also in terms of the fact that here manufacturing was the dominant impetus. It is this specificity of Dewas' growth that we focus on in the rest of this thesis.

### **3.0 HISTORY**

Dewas town in 1901 had a population of 15403 and it was formally divided into two towns, Dewas Senior and Dewas Junior respectively. Table 1.1 above presents information on the growth of the town.

We first present a brief history of Dewas town in the pre-independence period. This will be followed by some of the significant changes that Dewas underwent in the period 1947 to 1971. The story after this is taken up in the next chapters.

#### **3.1 THE STATE AND DEWAS AS THE CAPITAL**

The state of Dewas was formed in the early 18th century and during the reign of the generation succeeding the founder, split into two. The initial bifurcation was a formal one, with the state apparatus being a unity. Over the centuries the bifurcation prevailed over the entire

gamut with, by the mid 20th century, perhaps only the cremation ground in Dewas town being shared between the two states. The founding family was granted most of its territory by the Peshwas in recognition of loyalty proven, time and again, in the various military campaigns conducted by the Peshwas. (For detailed accounts of the loyal alliance, see Joshi, 1974). The territories were not contiguous, scattered in four pockets over what is now west Madhya Pradesh. The pockets were surrounded by two large Maratha princely states- the Holkars of Indore and the Scindias of Gwalior, and a number of smaller princely states. The extent to which the 'Puars of Dewas' were dwarfed by the Holkars is apparent from the table below.

**TABLE 1.9 :** INFORMATION ON DEWAS AND NEIGHBOURING PRINCELY STATES

	Gross Revenue of the State( 1824)	Military establishment(No. of persons)
Puars of Dewas Sr.&Jr.	6,00,000	340
Scindias	1,43,20,227	29,606
Holkars	27,41,739	4,665

**Source:** Appendix Nos. XII & XIII, Malcolm, 1970.

The territories of Dewas states were subject to frequent plundering and annexation throughout the first

century and a half of its existence. "With territories situated in the most distracted part of central India and unable to maintain any force, they have alternately been plundered and oppressed not only by the governments of Scindia and Holkar, but by the Pindarry chiefs, and indeed every free booter of the day"(Malcolm, 1970:pp.113). Yet a precarious existence was maintained, throughout the turbulent times prior to the Pax Britannica in that part of India in the latter half of the nineteenth century.

Till the decline of the Peshwas, it was through loyalty to the Peshwas, then the most powerful among chieftains in central India, that the Dewas states could ensure continued existence. With the eclipse of the Peshwas by the British, the Dewas states entered into an 'engagement' with East India Company (A copy of the treaty appears in Appendix-A, Gazetteer, 1907): "..... but for the timely appearance of the British, on the scene at this juncture, the states would have been absorbed into either Holkars' or Scindias' dominions(p.10, Gazetteer, 1907). After the mid 18th century, political instability ceased to take the form of military engagements or plundering.

Within the states, by the beginning of the 20th century, the upper rungs of the 'nobility', those with claims on surplus such as the jagirdars and the sardars had acquired stable equilibrium positions. The only source of

political instability existed within the palaces , among rival claimants to the thrones(the Gazetteer gives a couple of instances of rival claims). Forster provides us with a detailed account of such insecurity preying upon the palace and limitedness of the effect of such instability on life outside the palace(Forster,1983). The nationalist struggle for independence had a minor covert presence in the Dewas states(Joshi, 1974,pp. 290-91).

The sources of revenue for the State were mainly dependent on(to the extent of 80% if one includes the income of land alienated in jagirs) land revenue, with income from customs and excise contributing a mere 6%. The measly contribution of the latter arises from Dewas not being an important enough trading centre/transshipment point. The total revenues of the Dewas state amounted to Rs. 8.5 lakhs(including the incomes from land alienated in jagirs). The relatively small absolute size of revenue(c.f. Table 11 on gross revenue of Holkar and Scindia states in 1824) is more due to the size of the states than the productivity of land. ('The soil of Malwa is celebrated for its fertility', Malcolm, 1970,p.8). The revenues were susceptible to fluctuations due to natural calamity affecting agricultural production. In 1899, a drought affected agricultural production. In 1899, a drought year, the states were obliged to borrow loans to the extent of Rs 6.8 lakhs mainly

from the British, Holkar and Scindia governments. This year seem to have been more of an exception (See p.32, Gazetteer).

The major 'heads of expenditure' for the State were the claims on the income from land alienated in jagirs (19.6%)<sup>12</sup> the expenditure on the 'rajas' establishment (18%) and expenditure on collection of revenue (16%). The distinction between the State funds and the rajas' personal funds is thin, despite efforts by British officials to separate the two. Thus, since the mid nineteenth century, there have been instances of profligacy on the part of rajas, creating huge debt burdens for the States. The Gazetteer mentions one of these instances( p .7, Gazetteer, 1907). Forster describes the other: how Tukoji abdicated the throne amongst rumours of his having caused the State to go bankrupt. ( Forster, 1983, pp. 107-113 ). The public works department did create some social infrastructure in the form of piped water supply system for Dewas town and medical and educational facilities. EXpenditure by the State to facilitate trading activity was restricted to matters such as land provided by the municipal agency to mandis and the maintenance of an important road or two. The only attempt by the state to encourage manufacturing

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4. Figures in brackets indicate the budget allocation under each expenditure head as a percentage of total income of Dewas Senior State in 1901.

activity came in the forties. The then Dewas (Jr) raja earmarked some land, a kilometre to the south of Dewas as sites for factories. Further, he solicited investment (in the form of factories) from merchant-industrial families in Indore and Bombay. As a consequence, six factories were set up, of which four were in the consumer goods sector.

We will now consider what implications the above features had in Dewas town:

Dewas town was the capital of the state and thereby the locus of much of the state expenditure. Dewas town had among its residents the entire contingent of secondary powers of the State—the ones who by virtue of their contribution to State power, stability and functioning claimed a part of the State's revenues in the form of jagir lands, salaries or other grants. The rajas' presence implied the presence of a personal entourage and expenditure on royal 'events' (such as town-level festivals and durbars. Forster describes the festivals in which the raja participated. These involved expenditure which was not strictly out of the rajas' 'personal' funds) occurring locally. Dewas town housed almost all the administrative apparatus of the State (except for village-level functionaries) and all its military strength. Almost all the public works carried out here was concentrated in Dewas

town. Almost all the elite of the state had to maintain a preserve in the proximity of the 'absolute' ruler- the raja.

All the traders who had an interest in the kingdom depended on the favour of the rajas. Inter-State trade required permits. Supply to the raja and the influential, affluent families of the State was possible with the approval of the raja. Ensuring that the raja would keep in check the power to exact funds from any of his subjects, meant an effort at not falling out of favour and maintaining a relationship which would make infrequent such events of exaction. For exploiting the resources of the State (such as forests), for expecting one's bid in an auction of these resources to be selected, the raja's favour had to be sought. Thus, Dewas town by virtue of being the biggest concentration of consumption, especially affluent consumption and being the locus of the fount of permits and favours, hosted all the important traders of the kingdom.

### 3.2 THE DEWAS URBAN ECONOMY.

One major element in the economy of Dewas town in the period 1901-1947 was state expenditure (which includes expenditure by those deriving income from jagir lands). State expenditure can be divided broadly into three components. One is the appropriation of resources by the elite via the State machinery. Among the elite would be the rajas, the jagirdars, and those who were granted honorary

payments(regular or irregular). Another is the wages and salaries paid to those employed by the State. The employees would include the higher officials and lower level employees concerned with the administration of the state, the police, the military forces and the staff which provides services, the supply of which is the responsibility of the state. The third component is the expenditure on public works and relief. A part of the expenditure of the State was on the employment of people to provide services. This includes the palace retinue and those providing personal services to the elite.

The mandi in Dewas attracted agricultural produce from the neighbouring countryside. The Gazetteer delineates a hinterland of a radius of 40 miles around Dewas.(See p.29, Gazetteer 1907). The principal exports of Dewas State in the early twentieth century were grains, cotton, oil seeds, poppy, crude opium and tobacco.(ibid.). Much of this export found its way out through the Dewas mandi . A system prevailed in Dewas State whereby exports(except of insignificant volumes crossing borders in the countryside) would be made only against permits issued to leading grain (and other agricultural produce) traders. Most of these traders operated in Dewas mandi. In 1900, a ginning factory and cotton press were set up in Dewas town employing 10 permanent hands and 142 temporary hands(ibid.). The



agricultural economy of the neighbouring countryside affected the urban economy by being the source of most of the revenue of the State, by bringing produce to the mandi and by patronising Dewas qua market town- not merely its periodic markets(where minor artisanal and agricultural produce was traded in or minor quantities of staple produce could be traded in) but its regular markets too. Thus , there was a secondary rung of moneylenders, jewellers, metal workers, grocers, and traders in cloth etc., who catered to cultivators and labourers from the countryside and the relatively less affluent in Dewas itself. There was another layer of the same(the two were not entirely disjointed) catering to the elite. In some of the trades, it was possible for some traders to accumulate wealth. These dealt in moneylending-cum-jewellery, cloth and utensils.

Dewas town had its complement of service and artisan castes. At the turn of the century, for some of these castes in Dewas town, the relationship with the clientele was not merely an exchange relationship. The rendering of services/supply of produce and the payment for these were merely one moment of a wider social relationship. In contemporary Dewas town, there are no traces of any tradition of the kind of skilled craftsmanship that could cater to demand for products involving skilled workmanship. Forster's account of Dewas town in the early twentieth century does not mention the existence of highly skilled

artisans working upon textiles or wood or metal. One could hypothesize that the demand from the elite in Dewas town then, was inadequate to support resident elite artisan groups. Whatever demand there was for luxury products was met by imports from Indore which was both a transshipment point as well as the source of artisanal production of some luxury goods.

Apart from these artisanal and service caste based specialisations, there were labourers belonging to diverse castes who hoisted diverse carrying loads etc. Dewas town then also hosted agriculturists and herdspeople, the agriculturists tending to land on the outskirts of the town and the herdspeople, grazing herds on pastures at the outskirts or on the hillocks nearby.

The proximity to Indore and the presence of the Agra-Bombay road linking Dewas and Indore facilitated the export of agricultural produce from Dewas town. It also generated competition for traders/entrepreneurs in Dewas. The first few timber merchants to set up establishment in Dewas town, thereby availing of opportunities to exploit forest resources of Dewas state, came from Indore. In the 1930s the Dewas Jr. State announced the issue of a permit to ply passenger vehicles between Indore-Dewas for motorised passenger transport and took over the sole vehicle that was till then being operated by the Dewas(Jr.) State. As has

been mentioned above, Indore absorbed much of the demand for luxury goods by the Dewas elite.

Dewas town till independence had a relatively static economy. The surplus that accrued to the state supported a large number of people mainly through direct employment or employment in petty commodity production. Some of this surplus leaked out through trade (especially in luxury commodities and piece goods, manufactured either by highly skilled artisans or in factories elsewhere). The surplus that accrued to traders (those in the elite trades of moneylending-jewellery, utensils or clothes) was either reinvested in trade or invested in unproductive avenues such as moneylending, jewellery and immovable property. There were severe restrictions on entry into trade, these restrictions being partly an outcome of caste based specialisation and partly converted of action by incumbents. An indication of community specialisation within trading activity is the following observation: 'Banias are opium merchants, corn dealers, cloth merchants or sarafs; Bohras are general merchants and dealers in timber, oil and hardware; Malwi Brahmins mostly sahu-kars' (pp. 29-30, Gazetteer, 1907). That there were a number of occupational specialisations which were caste based should not convey an impression of these specialisations being of an equivalent nature. The occupations differed not only in terms of ritual

status but in terms of the opportunities to accumulate wealth too.

### 3.3 HOUSING AND LAND USE PATTERNS

There were four major influences on housing and land use patterns in Dewas: (a) the state and political hierarchy; (b) caste and religious affiliations and caste based hierarchies; (c) agriculture and allied pursuits; (d) trading activity.<sup>13</sup> All had to contend with a pre-existing pattern which was in the form of commitment of land to a certain use/community and the relative positions of different internally homogenous blocks. There is mention of the existence of Dewas town prior to the formation of the Dewas princely states.

i) The State and political hierarchy: From this viewpoint the palace or the durbar was the focal point of the town.

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13. Each tries to reproduce in spatial terms the affiliations and hierarchies and in each, locations and patterns have some significance. But each, especially the first three in their attempts to order within the town have had to contend with the others, with the pre-existing 'commitment' of land to pattern of users and with the ecology of the place.

The State had the raja as its focus and its own hierarchy which for narrow purposes could be restricted to a hierarchy within the elite of the town. (It mattered less to the State as to whether the distinctions between Chamars and say, traders or Brahmins were strictly observed. This assertion is by way of an abstraction; for the state, well embedded in Indian society, does to a lesser or greater extent take into cognisance caste identities and their hierarchies.

The town had to include besides the palace, the mansions of the secondary powers of the State. There would therefore be the Rajbada, and several badas belonging to the jagirdars, sardars and a few important traders on whom the raja depended for loans. None of the badas could rival the Rajbada in splendor or size.

The 'State' had its own way of asserting itself on housing and land use patterns. The palace became the focus of attention and resources, given the power wielded by its occupant. The rajas gave grants of plots of land in the town to the nobility and to important officials. There are instances of entire neighbourhoods (such as Krishnapura, Moti Bungalow and Radhaganj) being formed as a consequence. There is one instance of large scale alteration to the existing pattern. In the 1930s, the Dewas (Sr) raja evicted two communities, one belonging to an inferior caste, another comprising petty landowners to make way for what was planned as a prime commercial street. Relatively prominent new comers intending to settle in Dewas town petitioned the raja for plots of land within the town. Discretionary powers to commit land within the town to any use or user or to alter a pre-existing commitment were vested in the raja. The latter prerogative was used in the rare instance. The imposition of the former was lax enough to permit new comers, who were of little consequence (generally belonging to inferior castes or

entering inferior occupation) to settle in the town without a formal grant of a plot.

ii) Caste affiliations too prescribed the pattern of settlement of new comers<sup>14</sup>. There was thus a tendency prompting the formation of neighbourhoods marked by a caste based/religion based homogeneity. Further, social distance implicit in caste hierarchies would attempt to translate themselves into physical distances. The relative positions of various caste based communities would be an expression of relative ritual status as well as an influence on the incidence and nature of casual social intercourse. This tendency influenced the formation of spatial patterns not by way of explicit fiat (as in the case of tendencies of the political hierarchy by way of social sanction).

Tendencies originating from the social order implicit in State affiliated hierarchies and the social order prescribed by the caste systems did not entirely prevail over the spatial order in the town. One could

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14. The influence of the caste system (whatever the definition of the system may be) on the spatial ordering of towns has been ~~by~~ noted by many. E.g. 'It (caste) comprehends with its notion of purity, pollution and hierarchy, a system of social space which partially accounts for physical spatial form of the city' (A.D.King, 1980, p.9).

visualise scenarios where these do prevail<sup>15</sup>.

i) The raja could re-order the entire town, altering 'preexisting' commitment at will to make the town conform to the order emanating from his presence.

ii) Social sanctions could cause a periodic re-ordering of the town in line with changes in demographic features and in relative caste superiority. Firstly, the social processes underlying both of the above tendencies are not absolutist enough to be able to continually re-order space. Thus the tendencies have to contend with antecedent spatial orders. Secondly, the two tendencies are not always complementary. (We cite two instances in Dewas: (a) The Puar dynasty would never acknowledge the claims of the Brahmins above that of the royalty.<sup>16</sup> (b) Among those granted equivalent status by

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15. It will be evident from these scenarios that we are not reifying either the caste system or the political order. These translate themselves into influence on the spatial ordering of the towns through 'live' forces such as the raja issuing directives or the desire in people to express status differences (i.e., status superiority) and group affiliation (the group would be a religion / caste based group or a group of say jagirdars and sardars or high level officials) in the ordering of space. This 'desire' is not to be confused with 'preference' as in neo-classical economics. Here the desire when fulfilled is an assertion of affiliations and superiority in status or power which may yield satisfaction but which is more significant in its effect in reinforcing hierarchies.

16. Forster (1983, p.23, pp.353-54) describes how the rajas of Dewas have been traditionally antagonistic to the ritual superiority of the Brahmin caste. This tradition is merely to assert the rajas' own supremacy in all spheres (including in ritual terms) and cannot be regarded as antithetical to the caste system. It is however a deviation from the classic caste hierarchy.

the state such as the jagirdars—these are persons belonging to diverse castes and therefore are those who are not regarded on an equivalent basis as per the caste hierarchy.

Thirdly, there are compulsions arising out of occupations which prompt deviations from others e.g. along some of the streets which acquired prime commercial status, one would have encountered establishments engaged in diverse trades and belonging to diverse communities. The agricultural castes formed neighbourhoods along the edge of the town, regardless of which communities occupied the contiguous neighbourhoods.

The following then was encountered in the town in the first half of the twentieth century: There were several neighbourhoods which displayed caste or religion-based homogeneity—Pathankuan (Muslims), Kumhar Gali (potters), Todi (agriculturists), Goya (cowherds), Joshipura (brahmins). Rewabaug (harijans). There were others which were heterogeneous in this regard: Krishnapura, Sutar Bakhhal, Jail Road, etc. There were neighbourhoods whose residents occupied equivalent status in the state hierarchy. Thus, Krishnapura had badas of the jagirdars and sardars, Mukarba housed important officials, Joshipura some lesser officials. And yet, badas of some important persons were scattered over several non-homogeneous localities. In terms of the relative spatial position, there was some conformity to



the above orders and some deviation. Radhaganj and Moti Bungalow honoring the nobility and high-level officials were adjacent to the palaces of the rajas, Senior and Junior, respectively. Adjacent to the Junior palace within the town were Mukarba and Joshipura. However, Pathankuan (a neighbourhood of poor Muslims, which antedates the coming of the Puars to Dewas) neighbours Bada Bazar which housed some of the leading trading families of Dewas Senior. A community of cowherds live next to Krishnapura.

The town had some prime commercial streets. Some of these specialized in specific trades(both elite and inferior trades). Kumhar Gali specialized in earthenware; Churi Bakhal in bangles; Nayapura, Subhash Chowk, Bada Bazar and some sections of what is now Mahatma Gandhi Road were concentrations of elite trades(jewellery, utensils, moneylenders, cloth). Pitha Road housed godowns of traders and adjacent to that was a street which concentrated in the hardware and construction material trade. There were open spaces serving as mandis and those were mainly along the Agra- Bombay road. Some areas such as what is now Mahatama Gandhi Road housed diverse trades. It is not as if the role of these streets was unchanging. In Dewas(Sr), Bada Bazar, the prime commercial street even in the early twentieth centuries, was overshadowed by Nayapura and Shalini Road in the 1930s. Accompanying this was the decline in the fortunes of some of the trading families on Bada Bazar and

the shifts out of Bada Bazar of a few other trading families. Almost all the shops along commercial streets were extensions of houses occupied by the traders. This phenomenon is not entirely unrelated to the following :

i) In that period, exchange transactions (relations) were not independent of a wider social relationship that bound traders among themselves and with non-trader clients. (ii) The commercial activity was not merely a source of livelihood. There was little distinction among trading communities between the household and the commercial establishments, between time devoted to work- 'the source of livelihood'- and time devoted to other forms of social intercourse.

The town did not expand much geographically in the '30s and the '40s despite registering a positive population growth. The increased population was accommodated mainly by filling up spaces and by increased occupancy ratios. Thee Agra-Bombay Road and the 'Tekri' to the north, a swampy stretch to the south and the Meetha Talab to the east ruled out any such expansion taking shape through individuals or a few households acting on their own. The settlers would have found these locations extremely disadvantageous. The centripetal force of caste-homogeneity-oriented-neighbourhoods further slowed down any process of geographical expansion by way of individuals

or households settling in 'new' areas. State impelled geographical expansion did take place as the town spilled over the Agra-Bombay Road. Among the first to form across the road were the places of the Sr. Raja and the Jr. Rani. The Sr. Raja's palace was located such as to open the way for the town around the 'Tekri'.

### 3.5 THE PROVISION OF WATER

The town in the pre-independence period required water mainly for domestic purposes and for minor artisanal production. The town drew all that it required from shallow open wells. Since the late nineteenth century in both Dewas(Sr.) and Dewas(Jr), a piped water supply system was in operation. The system in both cases fed on one shallow well each, with the water being drawn out by motorized means. The coverage was restricted to houses of a few of the privileged and to some public water taps. For the rest of its requirements, the town's citizenry turned to manually operated shallow wells. Some 'private' small wells were situated within houses, other wells were accessible to the public. Some of these wells were very elaborate. Some 'bavdis' were large step wells. Others had elaborate embellishments. Some were the property of a community(usually caste-affiliated) and the responsibility for their upkeep was vested in the community. Other public wells were maintained in a usable conditions by the State.

The reigning concern then was about the quality of water. As late as in the 1950s, this concern persisted in its significance (see the Municipal Corporation's 1957 pamphlet wherein the implications for quality of water of a proposed new sources of water- the Kshipra River, are discussed).

### 3.6 CHANGES, THE 40s ONWARDS

The 1940s saw the town gripped by major changes. In the mid 40s, the then Dewas Jr. Raja floated an industrial estate in Balgadh village just a kilometre away from Dewas town. On this estate, six factories were set up. One was a cotton yarn spinning unit which was taken over by the Mafatlals in the 1950s. Apart from this, there was a soap factory, an ice factory, a leather tanning unit, a flour mill and a distillery. In 1961, there were 1764 workers in the non-household manufacturing sector resident in Dewas and 189 in Balgadh.

Independence and the partition brought a number of refugee families to Dewas town. Some of these moved on and several stayed back. Most of these families were soon engaged in trade; the Sindhi merchants displaced the Bohras from the trade in general merchandise; Sikh traders dominated the timber trade. Many of these families were aided in the initial setting up of trading activity by the state. In 1948 the princely states were abolished. With this vanished what was formerly the major impetus to the Dewas urban

economy. However the ex-rajās continued to live in Dewas,<sup>17</sup> and spend a part of their privy purses in the town. Further, the jagirdars and istimraridars had converted some of the land granted to them into absolute personal property and continued to derive income from such land. Dewas became the headquarters of the newly formed Dewas district<sup>18</sup> and many of those employed by the erstwhile princely States were retained by the District Administration. These developments prevented the urban economy of Dewas town from having to undergo a contraction consequent upon the abolition of the princely states. The erstwhile elite<sup>19</sup> - the rich traders, the jagirdars, the sardars and the rajās- continued to be considered among the influential citizens of the town, though the powers that were earlier assumed by the rajās and the nobility had been formally abolished.

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17. One of them, the ex-Raja of Dewas(Jr.) left Dewas town in the 1960s and the family had started selling all its real estate in the 1970s. The successor of the Dewas(Sr.) counterpart continues to live in Dewas town.
  18. The boundaries of the newly formed districts, containing contiguous areas, did not coincide with that of the erstwhile princely states.
  19. Over time some of the prominent families emigrated from Dewas. A majority of these were families which had little material interest in Dewas or its neighbouring areas. These families had been associated with the princely states not so much through being recipients of jagirdari or istimirari grants but by being involved in the administration of the states.

By virtue of being the headquarters of the District Administration, Dewas hosted a large number of government employees. Employment in the 'other services' sector which would include those employed in offices of the District Administration dominated the other non-agricultural sectors in Dewas. Asok Mitra et al (1981) have classified Dewas town in both 1961 and 1971 as a service town. Initially, the offices were housed in the secretariat complex and some other offices of Dewas(Jr.). Over time, buildings were added onto the secretariat complex, which, in its expanded form, housed most of the District Administration even in the 1980s. In the late 1950s and the early 1960s, the 'Civil Lines' were constructed in a new direction towards the north east of the town. The 'Civil Lines' accommodated all the top officials of the District Administration and some of the lower employees too.

In 1959, a broad gauge railway line was laid connecting Ujjain and Indore via Dewas. Ujjain was connected by broad gauge to Ratlam and Bhopal, both on trunk routes. Initially, the rail link mainly facilitated commuters between Dewas and Indore- office goers and petty traders. In the 1960s, however, four factories were set up around the station at the northern edge of the town(one of these factories became operational in 1971, the rest commenced production in the 1960s).

In the late 1950s and 1960s three new localities were 'colonized'- all beyond the Agra-Bombay Road to the north of the town, two between the station and the town and one near Radhaganj beyond the Tekri. Two of these were 'middle class' localities on which there were less than half a dozen houses even in the mid sixties. The third was a poorer locality, accommodating a number of families shifting out of the old town (For details see chapter-3, 'The Intermediate Town' of this dissertation).

It was this Dewas town that underwent a high rate of growth in 1971-81, a growth of population accompanied by a spectacular growth in employment in the non-household manufacturing sector.

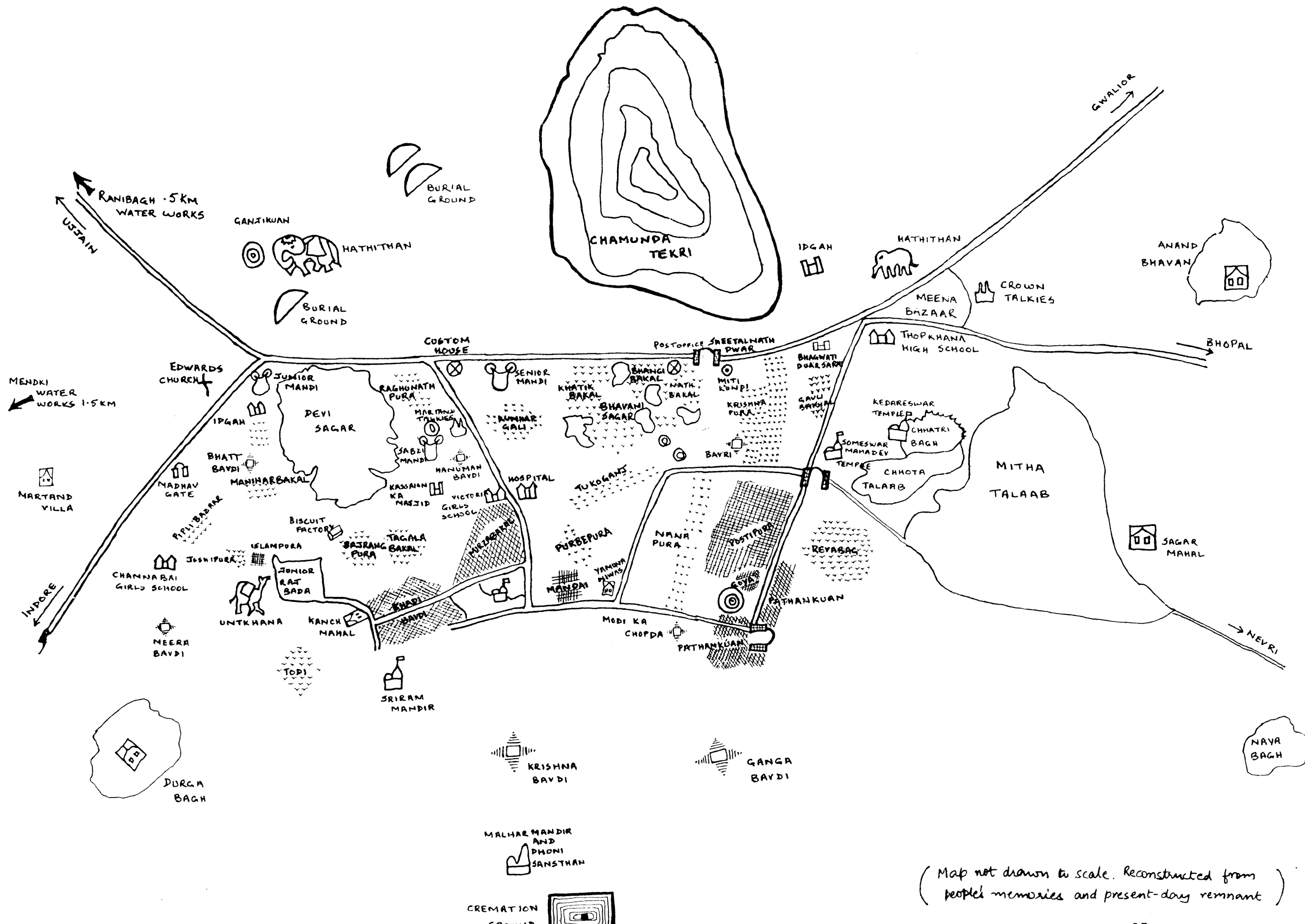
#### **4.0 A CARTOGRAPHIC REPRESENTATION OF CHANGES**

The three maps attached alongside provide an introduction to Dewas of a different kind. The first of these maps is a representation of Dewas as it was in the pre-independence twentieth century. The map is drawn to inexact proportions, on purpose, somewhat in keeping with those times. This map indicates localities, socially segregated, and prominent landmarks, largely to do with the manifestations of the state and with public life (the important sources of water-the bavdis, the cremation ground, etc). The next map is a representation of Dewas as in the 60s, the town showing some significant changes, with the

induction of some major 'modern' elements, heralding a new age. The town was growing out of the bounds of the 'old town' (see chapter 4 for details). The third map takes us to the 80s , the town showing two prominent concentrations, the new one being the Industrial Areas along Indore Road. The town is growing in this direction. The Indore Road has been transformed from being merely a define of the town boundaries to the major artery of inter-urban as well as intra-urban transport. The phenomenal expansion in areas become immediately apparent and so thus the rise to prominence of industrial activity.

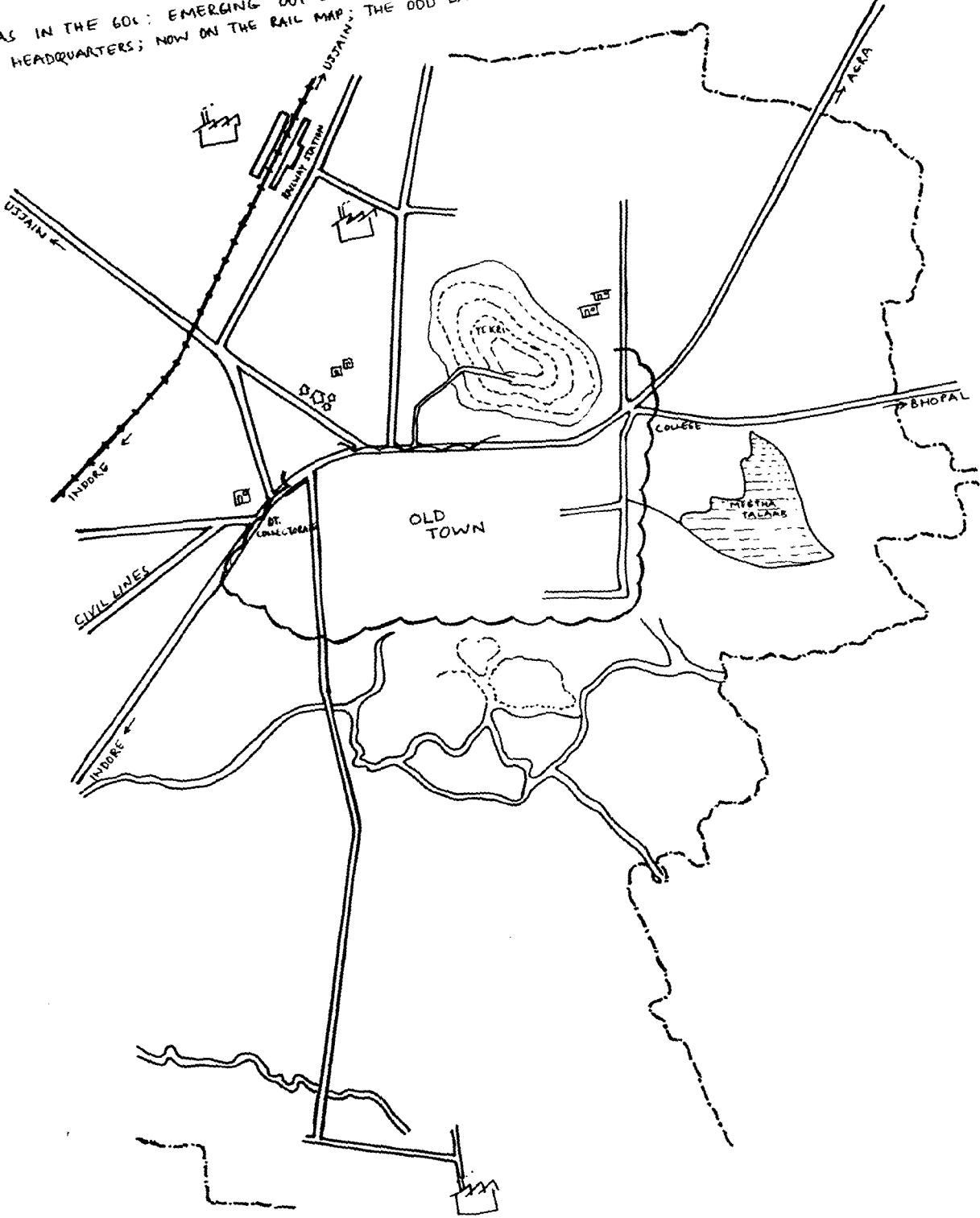


DEWAS IN THE PRE-INDEPENDENCE PERIOD : THE PRINCELY STATES, THE TRAPPINGS OF ROYAL PRESENCE; SOME SEGREGATED NEIGHBOURHOODS; PROMINENT WATER SOURCES - THE BAYDIS; THE SAGARS WHICH COLLECTED WATER RUNOFF FROM THE TEKRI; FACILITIES FOR TRADE

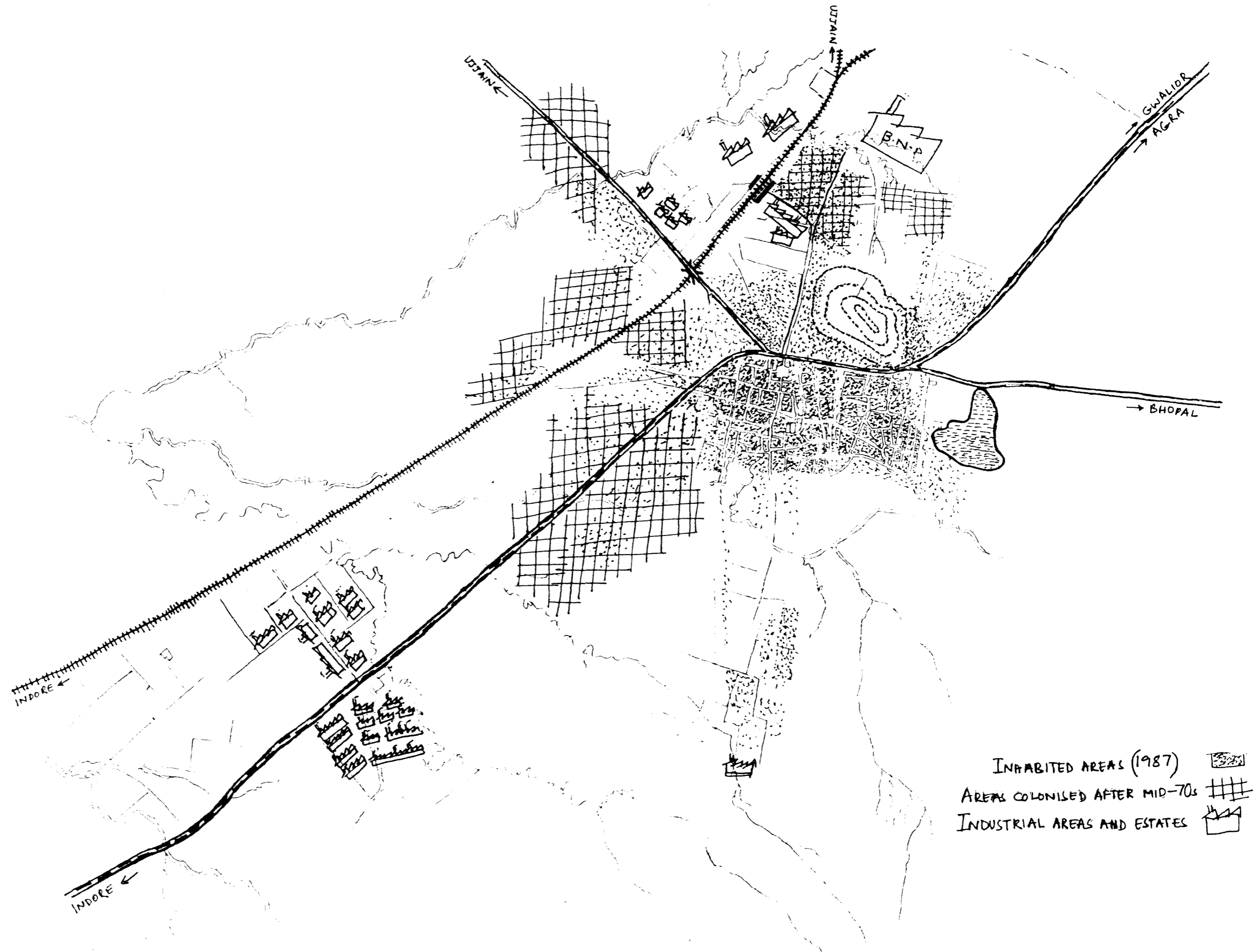


(Map not drawn to scale. Reconstructed from people's memories and present-day remnant)

DEWAS IN THE 60s: EMERGING OUT OF THE OLD TOWN; MODERATE EXPANSION; DISTRICT ADMINISTRATIVE HEADQUARTERS; NOW ON THE RAIL MAP; THE ODD LARGE FACTORY



DEWAS IN THE MID 80s : AN INDUSTRIAL TOWNSHIP ; SPRAWLING OUTWARDS BUT THINLY SO ; TOWARDS INDORE AND ALONG MAIN ROADS ; RAPID GROWTH OF POPULATION



## CHAPTER 2 : INDUSTRY

### 1.0 INTRODUCTION

In the preceding chapter, it has been noted that growth in the population of Dewas town was accompanied by a phenomenal growth in the non-household manufacturing sector. It is this sector, the base<sup>1</sup> of the Dewas economy that is

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1. We would like to qualify our use of the 'base' concept. Blumenfeld discusses in detail the confusing use of this concept (Blumenfeld 1967, especially pp 331-333 which contains a summary of the confusion) arising out of a failure to clarify the concept. In the absence of this clarity, 'the attempts to "refine" the basic -- non-basic concept have destroyed its usefulness for the identification of "critical" industries.....' (p.349, ibid). The 'base' evidently belongs to those genre of concepts, the definition of which flows from the use envisaged. The concept is put to a variety of uses: in calculating the balance of payments of a community, in identifying sectors which are most vulnerable to 'outside' forces or which are most capable of expansion relatively independent of local conditions. We use this concept to identify the sector which was primarily responsible for the growth process.

In Dewas, as we shall see, manufacturing activity arrived relatively independent of what the Dewas economy offered in terms of trading, transportation, industrial and urban services, etc. The growth in these latter activities was predicated upon a growth in the manufacturing sector. The scope for expansion in this sector was not limited by the size of the domestic market and it was this impulse (of the export sector) that set off the growth impulse within Dewas. We might even hazard an empirically more identifiable definition of the 'base'. In analyzing the growth of small towns -- a growth performance that is a discrete departure from past performance -- which have a limited domestic market, it is the export industry that should be considered the 'basic' sector. This is because such growth as in towns like Dewas is relatively independent

the focus of this chapter. The following issues will be addressed :

- i) What are the features of Dewas which would have influenced the initial location decision and the fortunes of the units located in Dewas ?
- ii) What is the size-wise and industry wise composition of the large and medium and the small factory sectors?

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of the antecedent size and nature of the domestic urban economy.

A further question as to what caused the export industry to be located in the urban area could lead us to what resembles a chicken and egg problem. Blumenfeld resolves it for metropolises through the 'ability to substitute' criterion (p.365, *ibid*): if metropolises attract the export sector due to the local consumer and business services and local markets, the decline of one industry is likely to be substituted by the growth of another and thus, the metropolitan economy is relatively independent of the fluctuations in the specific components of the export sector -- it is the 'base' of services that keeps the economy going. In Dewas however, it will be evident that there is no such relationship between the export sector and the services sector.

There are problems in the identification of the export sector. Would it exclude local backward linkages of the actual exporters? The exclusion might depend on a somewhat flimsy issue as to whether the linkage is a mere intra-firm transfer or a sale from one firm to another. By identifying the factory sector as the 'base', we are not attempting an industry wise identification. In Dewas, such incidence of local cross-firm backward linkages is of limited import. We have included all of the factory sector as the 'base' and despite all of the above problems, stick by this uneasy but intuitively appealing concept of the 'base'.

- iii) What were the 'events' which characterized Dewas' industrialization -- a chronicle of factory arrivals?
- iv) What are the local linkages and what is the nature of the local commitment of the medium and large units in Dewas?
- v) To what extent can the location decision of the small units in Dewas be considered crucial for their survival?

We will then move on to measuring the growth in employment in the factory sector and the contribution to the labour force of non-residents commuting from the neighbouring villages and migrants. This is followed by sections on skill availability and wage levels; the section is concluded with an assembling of the various aspects of the labour situation from the point of view of the employer.

The chapter concludes with an interpretation of Dewas' industrial activity in terms of 'location theory' and a section listing out the issues on which a speculation on the future industrial trajectory for Dewas can be based.

## **2.0 FEATURES OF DEWAS THAT INFLUENCED THE EXTENT AND NATURE OF INDUSTRIAL ACTIVITY IN DEWAS.**

In this section, we will be laying down those salient features of Dewas which have had some influence on

industrial activity in Dewas. Of concern to us is what could have had a bearing on, not merely the volume and timing of industrial investment, but on the composite 'nature' of industrial influx which we will attempt to capture in the later sections.

## 2.1 GOVERNMENT ASSISTANCE TO DEWAS

### 2.1.1 Introduction

Any investment by the state in social infrastructure, e.g., in transport would make a location a stronger contender for industrial activity. Similarly, as we shall see below, a large state presence merely in the form of offices and employment too has some bearing. However, by state assistance, we will mean here a far more purposive involvement of the state, in the form of a package of incentives/disincentives specifically intended to influence the location of industrial activity. Before we begin on a detailed account of the evolution of this policy and the involvement of the Central and State (especially Madhya Pradesh) governments, we will in brief trace its impact on the growth in the manufacturing sector of Dewas town.

Though Dewas did attract some industrial investment in the '60s, it was only since 1973 that the inflow became significant. This coincides with Dewas becoming eligible for the central assistance schemes and

with Industrial Areas/Estates forming in Dewas, whereby industrial investment in Dewas became eligible for capital subsidy as well as concessional finance. The M.P. State Government too favoured Dewas with the status of backwardness, placing it in the lowest slot of the three categories of backwardness.

By the mid '80s interest in Dewas seems to have waned with the last unit/firm commencing production in 1984. Allowing for a time lag between the decision to locate and actual commencement of production, we could assert that it was by 1983 that Dewas ceased to be an attractive location for newcomers in the medium and large sector. This too coincides with the emergence of more attractive (state assistance-wise) locations in the neighbouring regions and with the heightening of competition among state governments to attract industrial investment. Dewas suffered a further decline with the withdrawal of its eligibility for the Central subsidy scheme.

### **2.1.2 Central Assistance in the 70s**

It was in the late '60s that the concern for balanced regional development and industrial dispersal took a more effective form than mere statements : that of the constitution of the Wanchoo and Pande Working Groups, the latter to propose criteria for identifying industrially backward areas, the former to formulate an incentive package



to promote industrial dispersal. Apart from the National Development Council, the Planning Commission, the Reserve Bank and financial institutions, the Central and State Governments were involved in giving the policy a final shape. The Central Scheme of Investment Subsidy 1971 covered 44 districts/areas and offered an investment subsidy of 10% of the fixed capital investment subject to a ceiling of Rs. 5 lakhs for new units and existing units undergoing substantial expansion. In 1972, the coverage was extended and Dewas block, among others, was included. From March 1973, the subsidy was increased to 15% and the ceiling to Rs. 15 lakhs. The all-India term lending institutions started providing concessional finance facilities to districts selected as industrially backward. Since 1974 a concession in corporate tax became available to industrial units in areas qualifying for the concessional finance scheme.

These are examples of positive discrimination favouring backward areas. Negative discrimination towards the same objective was mainly through the licensing policy. The Statement of Industrial Policy 1977 which emphasises the need for industrial dispersal as a response to regional imbalances in the level of development as well as rapid deterioration in living conditions in burgeoning metropolitan areas. "In pursuance of this, the Government

decided to restrict licensing and financial assistance to new Industrial units...." (Page 7, Report on Industrial Dispersal, 1980) with certain limits of cities with population over certain numbers. This, according to the Report, is a formal provision reflecting a preexisting practice: "...this aspect of industrial location in backward areas of licensed industries is looked into by Government while considering applications for industrial licences submitted under the provision of the ID & R Act" (Page 16, Report on Industrial Dispersal, 1980).

### **2.1.3 Assistance from State Government : 1970s**

The various State governments followed suit. We will be presenting details pertaining mainly to Madhya Pradesh. The M.P. Government's industrial policy declaration of November 1972 identified 35 of the 45 districts in the state as backward, in three categories of backwardness, Dewas District being in the least backward category. Industrial units were offered land and water at controlled rates - lower rates being charged in backward districts. Further, the Government offered power tariff subsidy, octroi exemption, financial assistance at concessional terms and sales tax subsidies, the last being the most important. The power tariff subsidy and the sales tax subsidy were available at higher rates in districts in the most backward category relative to those in the least backward category.

The M.P. State Government was not alone in this effort. The West Bengal State Incentive Scheme was in effect from 1971. Prosperous states such as Gujarat and Maharashtra too began early in their attempt to influence the location of industrial investment.

In the early 70s the M.P. State Government developed an Industrial Estate and two juxtaposed Industrial Areas in Dewas. The former located close to the station (which, to recollect, was the location of several engineering units set up in the '60s) consisted of sheds designed to house small-scale industrial units. The Estate was provided with infrastructure such as internal roads, water supply connection and power connection. The Industrial Areas were meant for larger units. They were located about three kilometers away from the then boundaries of Dewas town on the road to Indore. Here too, the State Government had invested in infrastructure and was offering the land at rates substantially lower than market rates<sup>2</sup>.

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2. Since this is an implicit subsidy, we will attempt our own assessment. The present rates of premium and rent for industrial land payable by medium/large scale units in Dewas as announced by the Madhya Pradesh Audyogik Vikas Nigam are Rs. 85000 per hectare and Rs. 750 per annum per hectare respectively. Inquiries during our field survey reveal that land presently in agricultural use adjacent to the industrial areas fetches around Rs. 100,000 per hectare. The charge thus does not cover the cost of even undeveloped land. The 1983 policy was offering land at even lower rates : For Dewas Rs. 1200 per acre premium and Rs. 120 per acre annual rent; the revised rates apply only to new comers.

**2.1.4 Dewas vis-a-vis Other Favoured Locations: 1970s**

**TABLE 2.1 : DISTRICT WISE DISBURSEMENT OF FINANCIAL INCENTIVE (in lakh rupees)**

District	Disbursement of Central Subsidy upto March 1979	Concessional finance upto 31st December 1979	
		Sanctioned	Disbursed
Dewas	162.09(1)*	1264.14(1)	971.31(1)
Ratlam	65.09(2)	322.40(6)	240.01(4)
Raipur	61.61(3)	563.59(3)	212.40(5)
Bilaspur	51.45(4)	290.36(7)	185.00(6)
Damoh	-	570.58(2)	46.15(8)
Mandsaur	1.74	517.51(4)	495.56(2)
Raisen	-	435.95(5)	397.19(3)
<b>Total for M.P.</b>	<b>438.74</b>	<b>5096.81</b>	<b>3003.99</b>

\* Figures in brackets indicate ranking among districts in M.P.

**Source :** Annexure IV.3, Report on Industrial Dispersal, 1980

Table 2.1 shows that in so far as industrial investors in M.P. are concerned, in the '70s it is investors in Dewas who have gained the maximum benefit from the Central Government Assistance Schemes. Even if one assumes that all units eligible for central subsidy have claimed the assistance, Table 2.1 cannot be taken to mean that industrial investment in the years between 1971 and March 1979 was maximum in Dewas district among the districts/areas

in M.P. eligible for central investment subsidy. This is because the subsidy per unit was subject to an upper limit whereby in effect investment in excess of Rs. 1 crore in a unit could not gain any subsidy.

**TABLE 2.2 :** DISTRICTWISE DISTRIBUTION OF CENTRAL INVESTMENT SUBSIDY (CUMULATIVE UPTO MARCH 1979).

District	Rs. Lakhs
1. North Arcot	488
2. Aurangabad	381
3. Bharuch	366
4. Ramanathapuram	358
5. Medak	225
6. Solan	216
7. Mysore	209
8. Panchmahals	192
9. Dewas	162
10. Dharmapuri	157
11. Surendranagar	155
12. Goa	148
13. Alleppey	141
14. Madurai	139
15. Ratnagiri	138

**Source :** Page 14, Report on Industrial Dispersal, 1980

As we have mentioned above, such ranking according to subsidy disbursed has to be interpreted carefully. To the extent that the data in Table 2.2 can be used, one can conclude that, unlike the situation within Madhya Pradesh, on an all-India level there were several rivals to Dewas. This conclusion is reinforced by Dewas being ranked 23rd on the list of districts listed in a decreasing order as per the amount of concessional finance disbursed upto December 1979 (annexure IV - 3, Ibid). Several of the districts in which large amounts of central investment subsidy have been distributed, have contained Industrial Areas/Estates which were flourishing in the '70s. Ranipet in North Arcot district, Aurangabad in Aurangabad, Hosur in Dharmapuri, Ankleswar in Bharuch, Kalol and Halol in the Panchmahals, Medak in Medak, Dewas in Dewas, are all examples of location of industrial areas/estates in the respective districts which were flourishing in the 70's.<sup>3</sup>

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3. There is a wide variation across districts in the volume of central investment subsidy disbursed as well as in the volume of concessional finance disbursed. Only some of this may be related to the wide variation across backward districts in the investment made by the State Government in industrial infrastructure (which often takes the form of Industrial Areas/Estates). Other forms of state intervention too may have contributed.

### **2.1.5 Changes in the 1980s : The Emergence of Rival Locations in M.P.**

The Central Government announced measures which were to go into effect from 1st April 1983. "Backward" areas now belonged to three categories. The no-industry districts (category A of backward areas) were to offer a 25% fixed capital subsidy under the Central Government scheme. A few blocks/areas from those districts which were eligible for concessional finance, formed category B Backward areas. The remaining areas of these districts formed category C. Investors in areas belonging to categories B and C could claim 15% and 10% of their fixed capital investment as subsidy from the Central Government. It was also announced that those areas in which fixed capital investment (industrial) exceeded Rs. 30 crores as on 31st March 1983 would cease to be eligible for the Central Government subsidy scheme. Thus, simultaneously future investors in Dewas were denied capital subsidy and several no-industry districts enhanced their attractiveness as locations of industrial activity.

The 1981 Industrial Policy declaration by the M.P. State Government was a continuation of the policy of discrimination - favouring backward districts vis-a-vis forward districts and favouring the most backward among these vis-a-vis the less backward districts. The State

Government too introduced a capital subsidy scheme roughly along the same lines as the central scheme of 1983. The setting up of the Industrial Areas was accelerated and a separate body the M.P. Audyogik Kendra Vikas Nigam (MPAKVN) was set up to handle this measure. As on 30th July 1987, 16 growth centres have been formed by MPKVN. The Industrial Areas in Pithampur in Dhar District and in Mandideep in Raisen district attracted considerable industrial investment. As on 30th July 1987 the position in these was as below.

**TABLE 2.3 : GROWTH OF PITHAMPUR AND MANDIDEEP**

Growth Centre	No. of units to whom land has been allotted		of which the no. that has commenced production	
	M & LSI	SSI*	M & LSI	SSI
Pithampur	51	658	13	55
Mandideep	30	371	16	144

**Source** : The MPAKVN, Bhopal

\* M & LSI : Medium and Large Scale Industry

SSI : Small Scale Industry

The first of the M & LSI Unit in Pithampur and Mandideep commenced production in May 1982 and July 1977 respectively. The rush of investment to Mandideep began only in 1982. According to the Central Scheme 1983, Dhar is a no-industry district while Raisen is a Category-C backward



district (investment being eligible for concessional finance and a 10% capital subsidy). However both are in the category C of backward districts as per the State government's classification. Mandideep is 25 Km from Bhopal and Pithampur is 45 km. from Indore on the Agra-Bombay National Highway. The effect of these rivals can be gauged from the following fact: after 1984 there has been no new unit that has commenced production in Dewas. This is despite the continued availability of land in industrial areas. In Industrial Area No. 3 in Dewas (developed by the MPAKVN in the early '80s) of the 96 hectares of allottable land only 41 hectares have been allotted to industrial units. The rest awaits comers.

#### **2.1.6 Competition Among States: More Rivals for Dewas**

Since the mid-70s, competition among the various state governments to attract industrial activity has been heating up. The industrial dispersal policies of the various states have become one instrument in this competition as the states vie with each other in offering incentives to industrial units. Conversely, for industrial units, with the stakes placed by the State Governments going up, the location decision is tied up with the possibility of extracting more assistance from the State Governments, given the scope for playing off one state government against another. We will look at a relatively prosperous neighbouring state Gujarat. The Gujarat Industrial

Development Corporation (GIDC) had, as on 31st March 1987, floated 171 Industrial Estates which housed industrial units incorporating Rs. 1616 crores of investment and employing 2,32,904 people. (Source: Industrial Extension Bureau, Ahmedabad). Gujarat too offers investment subsidies at different rates in backward districts of different categories. The types of incentives and of organisations set up to assist industrial units are now roughly the same across states. The quantity ranges of the incentives of various types and the effectiveness of the various agencies would somewhat vary, as states attempt to be 'like nowhere else in India' (as the cover of one of the booklets announcing incentives issued by the Industrial Extension Bureau, Gujarat, 1983, proclaims).

For Dewas all this meant that state incentive (subsidies, infrastructure) was progressively of lower importance in attracting industrial investments.

### **2.1.7 The Backward Areas Approach and Dewas**

In the early 70s, when Dewas was chosen for state assistance in the forms of both subsidies as well as state investment in infrastructure, it could not have been considered among the most backward areas even within M.P. In Chapter 2, we have seen that in 1971, there were several districts even among our sample of 18 districts from M.P.,

which had a much smaller industrial workforce than Dewas. Thus, it was not with the objective of developing the most backward among areas that the state government made its decisions. At least two factors seem to be influential here.

i) If the 'efficacy' of assistance is measured in terms of the investment or employment attracted by such assistance, the choice of Dewas is likely to lead to greater 'efficacy' of state outlay than the choice of the most backward districts. For industrial units, the choice of Dewas instead of the most backward areas as the locus of state assistance means a possibility of securing these benefits without having to bear the disadvantages of the most backward areas. The influence of such calculation on the state's decision making cannot be ruled out.

ii) The influence of local political figures could alter the flow of state assistance (refer to Section 1.5). We will discuss the first of these in the rest of this section. In spite of a virtually similar structure of incentives provided by State governments, "advanced states have been able to attract more industrial investments in their 'backward' areas than the less advanced states in theirs. Further a large proportion of industrial investments is accounted for in all the states by 'backward areas' located in the vicinity of urban areas". (Javeri, 1981, pp 43-44). "Direct government intervention is a necessary condition for

diverting industry from industrially developed areas to industrially backward regions. However, factors which are likely to be equally important in decisions on industrial location are the availability of transport, communications, water, power, social amenities and other services".(Paranjpe J,1988, p321) Paranjpe finds that "industry in both the states is developing along corridors provided by the major transport networks and radiating outwards from Bombay..." In Gujarat this concentration existed despite there existing districts/talukas/growth centres in Saurashtra, North Gujarat and Kutch which are favoured in equivalent and in cases even in greater terms by the State Governments via the various forms of assistance (subsidies, industrial/areas/ estates etc.)

The above tendencies of industrial location have not gone unnoticed by the Gujarat Government. Thus, though all, except two of the districts in South and Central Gujarat, are not considered industrially backward, within these districts 19 talukas are candidates for State Government assistance in the form of fixed capital investment subsidy at the maximum rate offered by Gujarat (these 19 talukas belong to the 'Hathi Committee Talukas' category which includes only one taluka other than the 19). Further, 66 of GIDC's 106 Industrial Estates as on 31.5.1988 are located in Central and South Gujarat. This is only to be expected if one accepts that assistance in the above forms

offered by State Governments is aimed, though ostensibly at encouraging industrial development of backward areas, at attracting industrial investment to the state in general.

In Madhya Pradesh too, the tendency exists as is evident in the location of investment by the MPAKVN.

**TABLE 2.4 :** 5 LARGEST (AREA WISE) GROWTH CENTRES PROMOTED BY MPAKVN

Name of the Growth Centre	Category of backwardness status of district (M.P. State Categories on rising scale of Backwardness)	Allottable land in hectares	Expenditure on development in Rs. Lakhs	N*	Nearest major town (distance in km)
Mandideep	C	509	490	55	Bhopal(25)
Pithampur	C	1296	625	28	Indore(45)
Sirgitti	A	267	258	3	Bilaspur (20)
Urla	A	210	404	13	Raipur(15)
Banmore	A	160	20	7	Gwalior (50)

**Source :** MPAKVN and the MPAVN, Bhopal.

**Note :** N\* - No. of medium and large scale units which have gone into production or commenced construction.

The debate as to whether state assistance should be aimed at the most backward among districts (i.e. those whose scope for advancing from the most backward status is minimal in the absence of State assistance and therefore as the proponents of this view argue, are most deserving of such assistance) or at those backward districts which already offer fairly favourable conditions for capital accumulation through manufacturing activity and assistance to which is therefore likely to yield more returns (in terms of investment or employment per unit of assistance etc.; See IDBI 1981. Several of the papers appearing in it refer to this debate and push for its resolution one way or the other.) seems to have been resolved in practice by most state governments.

## 2.2 DEWAS AS DISTRICT CAPITAL

Dewas was the District Headquarters and a town of some significant size prior to the wave of industrial investment (1971 population of Dewas town : 51866). Among the locations of Industrial areas which were also eligible under the central subsidy scheme, Dewas was among the largest (population-wise) in M.P., though not at the all India level. A larger initial size might be linked with a greater ability to absorb any influx of people and industrial activity (e.g., a larger initial housing stock might mean a relatively faster response through changes in

the housing stock or in the owner occupancy and tenancy conditions. A municipal authority with a larger initial base of resources might respond better to the strain on municipal utilities). To put it differently, for a given number of migrants, a large initial population implies a quicker, less destabilising response in many sectors. A larger initial size would also in a very general sense imply a larger local base for the industrial units to draw their labour force from. Small scale private enterprise for the miscellaneous requirements of industrial units and their requirements would be more easily forthcoming.

That Dewas has been the district headquarters would have contributed to the initial size due to the presence of the district administration apparatus. This feature is however important for another reason. That it was the district headquarters meant that it would be hosted several district headquarters means it would be hosting several district level offices such as the District Industry Centre (DIC), the Collector's office, the District Headquarters of the Electricity Board and with the arrival of industrial activity, the district level offices of the Labour Commissioner, the Pollution Board and the State Finance Corporation. Given the high level of interaction between the State and any industrial unit (regulations, subsidies, state protection against labour...), having these offices near the location of the main unit makes liaison

easier without having to invest in separate facilities (as would have been so if the offices were located at a considerable distance). This feature is of greater importance to small scale units given their poor financial and managerial resource base.

### 2.3 PROXIMITY TO INDORE

**TABLE 2.5 : INFORMATION ON THE FOUR LARGEST CITIES IN MADHYA PRADESH.**

Cities	Population	Population growth rates decadal		Main workers 1981	Workers engaged in the non-household manufacturing sector	
		1961-71 R	'71-81 R		1981	'71-81 R
Indore (UA)	829327	42.03	47.85	237544	78146	55
Gwalior (UA)	539015	35.12	32.72	147765	38387	22
Bhopal (MC)	671018	72.62	74.35	47211	47211	245
Jabalpur (UA)	649085	49.8	46.09	70647	70647	83

**Sources :** The 1971 and 1981 Censuses, M.P. State

**Note :** UA = Urban Agglomeration; MC = Municipal Corporation;  
R = Decadal growth rates in percentages.

Indore is just 35 km away from Dewas along a national highway. It is the largest city in M.P. and has registered modest rates of growth in population, employment



in the non-household manufacturing sector as well as in the trade and commerce sectors. Its growth in terms of all these pales in comparison to that of the state capital. Yet Indore can be considered the major city in M.P. with regard to the manufacturing and trade sectors. Further this pre-eminence in the manufacturing sector is almost exclusively due to private sector investment, whereas both Bhopal and Jabalpur are the sites of considerable public sector investment.

The major industry in Indore is the textile industry - composite mills manufacturing cotton and blended fabrics. In recent times, though this 'backbone' of Indore's manufacturing sector has not been faring too well, new arrivals (large and medium scale units) in the edible oil, engineering and other industries sustained a modest rate of growth in the manufacturing sector. The manufacturing base of Indore in the 1980s is much broader than what it was in the 1960s. Indore hosts the only stock exchange in Madhya Pradesh and a number of state-level Government and corporate offices. Though the 'Green Revolution' seems to have reached Malwa only in the late '70s, Indore's agricultural hinterland, the Malwa heartland has been traditionally considered one of the richest agricultural regions in Central India.

The influence of the "proximity to Indore" factor<sup>4</sup> takes four major forms:

(i) Indore has a sizable domestic market for both consumer as well as industrial goods. In addition, Indore is a major transshipment point, given that Indore, as a major city is located in relative isolation. Between Indore and Gwalior to the North, Ahmedabad/Baroda to the West, Bhopal to the East, Nagpur to the South East and Bombay-Pune to the South West, there is no city of comparable size whether one considers population size, domestic industrial activity or trading infrastructure. All this make Indore an important destination for goods manufactured in Dewas with the proximity making for lower transportation/communication costs and easier 'access'.

(ii) Indore has traditionally generated entrepreneurs who are quick to seize opportunities in Dewas. The promoters of several medium/large scale units (STI, Gajra Gears, S.Kumars, Prestige Foods, Kalpana Industries) could be said

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4. That there has been a considerable increase in the volume of traffic between Dewas and Indore is indicated from the following :

Period	No. of 14-25 seater passenger vehicles granted permits to ply on Dewas-Indore route
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1971-81	9
1982-85	30
1986-87	32

Source : Road Transport Office, Ujjain.

to have 'originated' in Indore. The situation is not different when one considers small scale units. Here, a continued presence in Indore in the form of a trade outlet for small traders - turned - industrial entrepreneurs in Dewas may well be crucial for the survival of such units.

(iii) Private enterprise in Indore offers a wide range of services and products. Hence if factories in Dewas want the odd spare part or expert advice or the rare skill or the services of a courier for reaching some remote area (this list could go on), nearby Indore is a convenient source of these products/services. Whereas in some cases, the large units spawn the entrepreneurs who would take up whatever it is that the large units want to 'externalise', in other cases, this may not be possible (and the large units might have to look for relatively autonomous enterprises), because the size of the market, provided by the parent unit or even by a group of units in Dewas, may be inadequate for a viable unit. Consider for example, an irregular demand in relatively small volumes/values for a service/product, the supply of which requires a high initial investment in terms of equipment/skill/trading network. Indore also offers the services of an airport.

(iv) The medical, educational and social (entertainment etc.) amenities that Indore offers, the range of housing facilities available, the exhaustive consumer goods markets

all make Indore acceptable as a location for residence to those persons (employees or owners) whom an industrial unit might regard as crucial but who would not consider residing in Dewas.

#### 2.4 GEOGRAPICAL LOCATION OF DEWAS AND TRANSPORT INFRASTRUCTURE OF THE IMMEDIATELY NEIGHBOURING REGION

As mentioned earlier given that in some industries or for some units, locating near the source of raw material or market may be crucial, the characteristics of the neighbouring region in terms of forest and mineral wealth, agricultural produce, industrial activity and effective consumer demand become important. We have noted elsewhere in this chapter that the approximately delineated region in which Dewas exists is poor in terms of forest and mineral resource and that soyabean and cotton (the former increasing and the latter declining in importance) are the two crops of the neighbouring region that require processing. Cultivators in this region have only in the very recent times been turning, in any significant, way to a more mechanised practice of agriculture, the demand for agro machinery being yet not large enough for Dewas to host an industry to cater to these needs. There are some links between industrial units in Dewas and industrial activity elsewhere in the neighbourhood - Indore and to a much smaller extent, Ujjain. Dewas is located in Central India, on a national highway-the

Agra-Bombay Road and on a broadgauge railway line. For those units which are connected with markets at the national level, this feature may well have been the decisive factor in determining location.

## 2.5 POLITICAL INFLUENCE OF DEWAS

Dewas being the constituency of P.C. Sethi whose political career was on the upswing in the early '70s is of relevance only because the geographical destination of public investment in infrastructure and enterprises is often open to manipulation, especially when the location desired by the manipulator is not handicapped by any distinct disadvantage. The Bank Note Press was located in Dewas primarily because Dewas had P.C. Sethi as its political godfather to recommend its case, the godfather thereby improving his local stature. This was made easier by the fact that there could be no serious opposition to such a decision. The Bank Note Press is at present the largest single employer and by far the largest wage bill payer. Its workers constitute a relatively highly paid elite, with a large proportion of the shop floor workers having undergone formal training in ITI's.

In the early 70s, areas recommended by State Governments for central subsidies and sites selected for investment in infrastructure were not by any set of objective criteria the most backward areas (see section 4.9, Report on

Industrial Dispersal). Some scope did exist for political godfathers to nurse their constituencies. Since the early P.C. Sethi has been in the political wilderness and perhaps as a result, no major public sector industrial unit was located here in the 1980s.

### 3.0 NATURE AND SCOPE OF INDUSTRIAL ACTIVITY

#### 3.1 A SKELETAL OVERVIEW OF MEDIUM AND LARGE SCALE INDUSTRY

##### 3.1.1 **Aggregates**

In the year 1987, there were 49 medium and large scale industrial units located in Dewas. Of these, 3 had ceased regular operation. There were 12 registered small scale units located in the Industrial Areas/Estates in and around Dewas. For reasons to be mentioned below, this inventory does not exhaust the small scale units located in and around Dewas town. The medium and large scale units are estimated to employ 12342 workers. Total private sector investment in medium and large scale units (all but one of the above units belong to the private sector) amounted to Rs. 8234.74 lakhs.<sup>5</sup> In 1981, there were 10039 main workers

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5. Figures pertaining to M & LS units are derived from a directory published by the AVN, Bhopal. This directory does not include one unit which finds its way into the records at the DIC. Information on small scale industry is from the DIC. The employment figures indicate permanent employees (including those who are not shop floor workers too). Investment figures pertained

in the non household manufacturing, processing, servicing and repair sectors in urban areas of Dewas district<sup>6</sup> and 17116 of the same for the whole of Dewas District. (Table B-3, 1981 Census, Series 11, Madhya Pradesh).

Of the 49 medium and large scale (M & LS) industrial units, only one-the Bank Note Press - belongs to the public sector. 42 of these have been set up in Dewas after industrial investment in Dewas became eligible for investment subsidy and other forms of State assistance. 39 units have been set up in or adjacent to industrial areas developed by the State Government.

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to that submitted as gross investment in fixed figures pertained to that submitted as gross investment in fixed assets. An unrepresentative sample of 8 firms tell us that these figures are underestimates as shown below.

	Investment in lakhs	Employment
Own sample		
(figures for y/e 1987)	3703.7 (7)	6428(8)
AVN's Directory	2008.68(7)	4557(8)

The figures in brackets are the number of units surveyed. The firms surveyed cannot be said to together constitute a 'representative' sample.

6. In Dewas District no urban area other than Dewas towns contains any M & LS industrial unit. Thus, most of the ten thousand odd workers would be residing in Dewas town.

### 3.1.2 Size Composition

In terms of size (we will use two indicators of size: (i) employment as per the muster and (ii) gross investment in fixed assets) there is considerable variation.

No single unit or group of units dominates in terms of either indicator. Table 2.6 contains information on employment<sup>7</sup>

**TABLE 2.6** SIZE DISTRIBUTION OF M & LS UNITS ACCORDING TO EMPLOYMENT

Employment	No. of Units
500 workers	10 (8)
100-500 workers	25 (27)
50-99 workers	24 (7)
20-49 workers	29 (4)
Less than 20 workers	28 (-)
Closed	- (3)

**Source :** Labour Commissioner's Office, Dewas and for the figures in brackets, the Audyogik Vikas Nigam (AVN), Bhopal with the figures corrected to incorporate own mini survey.

7. The Labour Commissioner's office, (LC) collates information based on an inspection of muster rolls of the various units. However, this office does not observe the distinction between SSI and M & LSI. This is the major reason for the discrepancy in the records of the LC and the AVN, Another source could be the different ways of collecting information the L.C. may update more regularly.



**TABLE 2.7**            **SIZE DISTRIBUTION OF M & LS UNITS ACCORDING TO INVESTMENT**

Gross fixed investment in Rs. Lakhs	No. of units
500	6
200 - 500	6
100 - 200	12
50 - 100	18
20 - 50	3
closed	3
Information not available (high security public Sector unit i.e.BNP)	1

**Source :** The AVN Bhopal, with figures corrected as per own mini-survey.

Table 2.7 conveys a similar impression when one considers gross investment in fixed assets as an indicator of size: the wide variation and the absence of any 'dominant' firm. The maximum investment in a single private sector plant is Rs. 1740 lakhs.

### **3.1.3 Industry-wise Composition**

The following table amply establishes the multiple - industry character of large and medium scale manufacturing/processing activity in Dewas.

**TABLE 2.8 : INDUSTRYWISE CLASSIFICATION OF M & LS  
MANUFACTURING UNITS IN DEWAS.**

Industry Classification	No. of Units
Textiles (including woollen textiles)	12
Manufacture of textile dyes	1
Weaving units	1
Manufacture of synthetic yarn	4
Spinning and weaving	1
Weaving and processing	3
Processing only	1
Edible oil and deoiled cake	7
Leather products	1
Printing (the public sector currency note press)	1
Ceramics	2
Pharmaceuticals	2
Chemicals	2
Basic metals and alloys	8
Metal products and parts	3
Machinery including	6
transport machinery	4
other machinery	2
Electrical : Components of electrical appliances	1
Miscellaneous (Cigarette filters)	1
	Total 46

**Source :** Directory of M & LS Units, MPAVN, Bhopal

### 3.1.4 Comparison With Other Districts in M.P.

We will now look at information on large and medium scale manufacturing activity in other districts of M.P and see where the above broad characteristics stand vis-a-vis these other districts. Our information is on manufacturing units active as on 31-3-1987.

If one excludes units for which information has not been divulged - defence related units of which there are four in Jabalpur district and one in Hoshangabad, Dewas stands 3rd in terms of investment (behind Bilaspur, and Durg) and sixth in terms of employment (behind Durg, Ujjain, Indore, Bhopal and Gwalior). If one excludes some large scale public sector units (viz SAIL Bhilai plant Dt. Durg, the BALCO aluminium plant in Korba Dt. Bilaspur, the BHEL unit in Bhopal and the Bank Note Press, Dewas), Dewas is 7th in terms of investment (behind Raipur, Dhar, Mandsaur, Bilaspur, Raisen and Satna Districts) and 4th in terms of employment (behind Ujjain, Indore and Gwalior). If one further excludes the corporate mill sector of the textile industry (of which Indore, Ujjain and Gwalior have been traditional centres) and the cement industry which is conventionally regarded as raw-material and transportation-cost sensitive, Dewas tops the list in terms of employment and is third in terms of investment, behind Dhar and Raisen. Significantly enough, Pithampur in Dhar district and

Mandideep in Raisen are major industrial magnets of the 80s, favoured by state assistance and proximity to large cities (See Section 2.0). Unlike Dewas, both Dhar and Raisen are dominated in investment terms by a few large private sector units. Three units in the automobile industry out of a total of 32 units in Dhar district, account for more than half of the investment in Dhar District by the large and medium scale sector. In Raisen just 3 out of 23 units account for more than half of the investment by large and medium scale units in the district.

From the above inter-district comparison, it emerges that relative to other districts in M.P., (i) Dewas district is significant in terms of both industrial investment and employment and (ii) industrial investment and employment in Dewas district is less dominated by a specific industry or by a few firms.

## **3.2 SMALL SCALE UNITS**

### **3.2.1 Introduction**

Registration, permanent or temporary, at the District Industries Centre (DIC), is required for the units to be eligible for various benefits offered by the state. The DIC is the major liaison single window office which performs functions such as the disbursement of state subsidies, allocations of sheds or plots of developed land

and the distribution of scarce raw material. That a unit is on the permanent register of the DIC is not to be taken to mean that the unit functions on a regular basis. In the Industrial Areas/Estates in Dewas town, in 1987, there were 128 live permanent registrations. This excludes small scale units, registered or otherwise, which are not located on Industrial Areas/Estates<sup>8</sup>. Further, it excludes units which, though unregistered, are located on the Industrial Areas/Estates presumably on rented premises. There are at least four instances of the latter kind, all being units informally associated with larger units and operating from rented premises. The number of small scale industrial units operating from outside the Industrial Areas/Estates appears not inconsiderable, e.g., of the 50 small scale units that undertook machining and assembly on a job - work basis from Kirloskar Bros. Ltd., only two are located on the Industrial Areas/Estates in Dewas town. Notwithstanding the problems with information from the DIC, it is to this listing of permanently registered small scale units operating from Industrial Areas/Estates in Dewas that we turn to.

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8. Till March 1981, 1233 units were on the permanent register of small scale units operating at locations spread over Dewas district. Between April 1981 and March 1987, 1518 more units have registered themselves proposing to employ 5027 persons. The DIC is unable to supply us information as to how many of these units operate on a regular basis.

### 3.2.2 Size Distribution

**TABLE 2.9 :** SIZE DISTRIBUTION OF SSI UNITS ACCORDING TO EMPLOYMENT

Number of employees	No. of units
100	3
60 - 100	2
40 - 60	11
20 - 40	12
10 - 20	20
10	70
Not known	10
<b>Total</b>	<b>128</b>

**TABLE 2.10 :** SIZE DISTRIBUTION OF SSI UNITS ACCORDING TO INVESTMENT

Gross fixed investments (in Rs. lakhs)	No. of units
30	3
20 - 30	4
10 - 20	22
3 - 10	8
3	57
Not known	14
	<b>128</b>

**Source of Table 2.9 and 2.10 :** The District Industries Centre

As is evident, a majority of the small scale units are extremely small. 90 units employ less than 20 workers and 85 units have invested less than Rs. 10 lakhs.

### 3.2.3 Industry wise Classification

**TABLE 2.11 :** INDUSTRY WISE CLASSIFICATION OF NUMBER OF SMALL SCALE UNITS AND EMPLOYMENT IN THESE UNITS.

Industry Classification	No. of Units	Employment
Utensils	4	45(4)
Chemicals :	6	112(6)
for the Textile Industry	2	
Others	4	
Textiles :	9	495(9)
Weaving	8	
Processing	1	
Cardboard/paper packaging material	6	139(5)
Wooden packaging material, building material etc.	9	42(8)
Fabrication (metal, furniture, small structure)	9	82(9)
Manufacture of minor machine parts	4	43(3)
Machinery and minor assembling workshops	8	47(8)
Work on metals and alloys (e.g. foundry etc.)	6	131(5)

Contd

Table 2.11 contd .

Machine tools	2	15(2)
Pharmaceuticals and medical products	5	68(5)
Plastics (HDPE and LDPE extrusion plants mainly)	19	196(18)
Components of electrical appliances	3	208(3)
Electrical machinery	5	105(5)
Wire drawing and plating	5	67(4)
Cement tiles, tanks and other minor cement products	5	33(5)
Edible oil	4	17(3)
Dal mills and flour mills	3	38(2)
Miscellaneous	16	165(15)
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Total	128	2049(118)
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**Source :** The DIC, Dewas.

**Note :** The figures in brackets are the number of units to which the corresponding employment figure pertains. Among the larger units are the weaving units, the textile chemical units, two successful cardboard packaging material manufacturers, some foundries, some of the units manufacturing electrical components, machinery and tools/machine parts. The typical unit in the utensils, wood working, plastics, machining, minor fabrication, cement products and foodstuffs (edible oil, dal and flour mills) is very small in size going by both indicators of size.

### 3.3 CHRONICLE OF INDUSTRIAL VENTURE

Manufacturing activity in the form of factories first came to Dewas in the 1940s. The then ruler of Dewas (Jr.) princely state formed an Industrial Estate a kilometre to the south of the then boundaries of Dewas town and



invited industrial investment from Indore and Bombay. In response, six factories were set up, all in the consumer goods sector. Two of these survive now. One is in the edible oil industry, another is a cotton textile spinning-cum-weaving unit. The town had to wait till the early 60's before any new industrial investment came its way. Meanwhile, with the abolition of princely states, it had ceased to be the capital of princely states. Instead, it had become the district headquarters of a newly formed Dewas district. It now hosted the district level Government offices. The Agra-Indore-Bombay road, now National Highway 3, had been in existence since centuries. By 1959, a broad gauge railway line between Ujjain (which was connected by broadgauge rail to Bhopal and Ratlam both of which were on trunk lines) and Indore via Dewas was laid and became operational. In the 60s, three units were set up in Dewas, all of which were adjacent to the station. All were in the engineering sector. The similarity ended there. One produced machine parts, another automobile gears and the third, pumps for agricultural purposes. The last belonged to a multiplant leading industrial house, the second was floated by an oil-engine dealer closely connected with Indore while the first was floated by a technocrat-entrepreneur who had little business interest elsewhere.

By 1971 the M.P. State Government had floated an Industrial Estate offering developed plots and sheds mainly

for small scale units. These industrial estates were also close to the Railway Station. One more unit came to Dewas in 1971, a forging unit floated by one of the leading Jagirdar - trader families. The major client of this unit was Bajaj Auto Ltd. of Pune which was the former employer of the entrepreneur.

In 1971 potential industrial investors in Dewas became eligible for capital subsidy and concessional finance, under a Central Government Assistance Scheme. In 1972, the M.P. State Government announced an Industrial Policy offering a number of facilities to investors in backward areas (see Section 2.0 for details). In 1973, an industrial area was formed 3 kilometres along the National Highway to Indore. This offered developed plots at subsidised rates to medium and large scale manufacturing units. In 1970, it was decided to locate the Bank Note Press (which prints currency notes) in Dewas and construction activity began to create a vast campus near the Railway Station, along the boundaries of Dewas. The site of the Bank Note Press is generally regarded as having been chosen less due to considerations of industrial dispersal and more out of the exigencies of a political democracy.

Between 1970 and 1984, 42 new private sector units were set up in Dewas. They belonged to a wide variety of industry: Engineering, Textiles, Ceramics, Pharmaceuticals,

Leather, Edible oil etc. Only 4 of these units were set up by firms/industrial houses which had previously invested in Dewas. 3 of these were located near the Railway Station. One was set up by the promoters of the gear manufacturing unit set up in the previous decade on the premises of the pre-existing unit. The other two are member units of just one controlling interest. The other 39 are located either on or adjacent to the Industrial Area along Indore road.

Since 1975, the Industrial Estate has been getting filled up with small scale units. The rate at which new large and medium scale units arrived was more or less uniform during this period while the small scale unit arrivals were mainly in the 80s. Since 1984, no new medium and large scale entrepreneur entered Dewas. One new unit was set up by a firm whose major manufacturing interest was already located in Dewas. All other incremental investments after 1984 have been due to expansion of existing units (including some vertical expansion). If we assume a time lag of a year between the location decision and the commencement of production, we could assert that Dewas ceased to attract new investors from 1983. This coincides rather neatly with the emergence of rival locations within Madhya Pradesh, locations which relative to Dewas offered more state assistance.

#### 4.0 MEDIUM AND LARGE SCALE UNITS : FIRM CHARACTERISTICS, LOCAL LINKAGES

##### 4.1 INTRODUCTORY

We have chosen what we consider three of the most significant local linkages:

i) With local non-industrial endowments: mineral and forest produce are noteworthy only in their insignificance for industrial activity in Dewas. The story is different when we consider local agricultural produce.

ii) With local produce markets: these markets could be both consumer and industrial markets. What emerges is that the local market is by itself incapable of providing support to but a few medium units.

iii) With local industrial units, mainly smaller ones by way of externalising parts of the production process. It perhaps needs to be clarified that "linkages" is used here in a narrow sense. Employment too could be considered a local linkage and so could the dependence on local water sources (the latter is treated in detail in the next chapter). The meaning of the term 'linkage' would get diffused thereby. We have therefore, chosen the linkages that we intend to explore here.

## 4.2 FIRM CHARACTERISTICS

### 4.2.1 Specific Firm Characteristics and Local Commitment

We will examine the extent of concentration of a firm's resources and interests in a particular site and the localised region containing the site. The concentration takes the forms of investment in production facilities and of a concentration of top attention of managerial personnel on a particular site.

Our hypothesis is that when a firm considers investing resources at its command (own resources as well as resources commanded through the share market and lending institutions), the extent and nature of commitment to a site bears an influence on the site decision of the incremental investment. If the production facilities are concentrated in one site; if in this concentration, there is unused capacity (which could take the form of unused but developed land, internally unused production capacity of facilities such as foundries, textiles/leather finishing, and capabilities of top managerial personnel or expensive labour resources) and if the specific form that the new investment will be taking is such as will be able to utilise this 'excess capacity', the existing concentration will have a strong argument in its favour as the site of the incremental investment.

There are other ways too in which 'concentration' plays a role. To the extent that familiarity with an area counts as a factor in determining the site (especially given the nature of most of India's Industrial Houses in terms of them being controlled by 'families') of investment, concentration of production facility of those firms which have not acquired 'national' stature in terms of production facilities scattered all over India, would mean a greater familiarity with the site of concentration for the entrepreneur family, and therefore an increased likelihood of the site drawing more incremental investment.

Yet another instance would be the increased capability to overcome handicaps imposed by the remoteness of any site, arising due to a plant belonging to a firm which has production interests 'elsewhere' which are either dominant in an intra-firm sense or are located in a more developed area. Interplant but intra-firm transfers of personnel, goods and services could help overcome handicaps such as the scarcity of skilled enterprise or disadvantages arising out of being an 'outsider' in fund and produce markets which could be either concentrated in or be more receptive to developed regions.

Thus, (i) the continued favouring of the spatial unit, in which the industrial firm is embedded, with incremental investment and (ii) the ability of firms to

transcend spatial distance in responding to opportunities or adverse circumstances, are both influenced by firm level characteristics of the kind described in the paragraph that follows.

#### **4.2.2 Outside Linkages of Firms in Dewas**

Most of the larger units in the medium and large scale category belong either to multi-plant firms or to single-plant firms which may be affiliated to other firms. Three large industrial houses - the Tatas, Mafatlals and Kirloskars have units in Dewas. Other multi-plant firms with factories scattered all over India such as Ranbaxy Laboratories Lt. and the Johnson group in the ceramics industry also have factories in Dewas. The Steel Tubes of India group has floated two new factories : one in Bangalore and another in Dewas apart from its original installation in Dewas, which has undergone substantial expansion and some backward integration. Apart from STI, other multi-plant units which commenced manufacturing operations from Dewas and proceeded to expand are the Gajra group of units, and the Prestige group. The S.Kumar's manufacturing enterprises in Dewas were set up by the entrepreneurs after they were deeply entrenched in the all India textile distribution network. Two of Indore's prominent families, the Bhandaris and the Sanghis have a minor presence in Dewas, the former with three small units and the latter in the process of

setting up one. Kalpana Industries and Premier Extractions are two firms which have several plants in the Malwa region apart from the ones in Dewas, the former in the lamp industry and the latter in the edible oil industry. Some of these multi-plant units have restricted themselves to just one product or to a range of closely related products. These could be termed multiplant single industry firms. Some of the multi plant units have plants in different locations. For some units, these locations are dispersed within a region; for others, the area of dispersal is much larger. Tata Exports Ltd. would thus be a multi-plant multi-industry multi-location (on a national scale) firm. The Gajra group would on the contrary be a multi-plant single-industry single-location group.

#### 4.3 MEDIUM AND LARGE SCALE MANUFACTURING ACTIVITY AND LOCAL NON-MANUFACTURED NATURAL RESOURCES

##### 4.3.1 Forest and Mineral Produce-based Industry

In Dewas, there are no medium and large scale units which directly use forest produce or mineral produce as a major raw material. The heart of the Malwa region stretching from Sagar district in the east to Ratlam in the west and from the Vindyas in the south to Mandsaur District in the North has very poor forest ranges. The minor forest patches in the Vindyas in Dewas district do not support any major industrial activity locally. In terms of mineral



resources too, the area is not known to support any major industrial activity except the many small slate quarries, a couple of cement factories and two medium cement factories in Dhar and in Mandasaur.

#### 4.3.2 Agriculture Produce-based Industry

**TABLE 2.12:** DEWAS DISTRICT: LAND UNDER SPECIFIC CROPS  
(IN '000ha)

Year	Gross Sown Area	Cotton	Area under Soyabean	Sugarcane
1970-71	355	61	N.A.	2
1973-74	N.A.	N.A.	6	N.A.
1980-81	384	38	30	6
1985-86	423	42	93	7

**Source :** Season and Crop Report, Madhya Pradesh.

In terms of agro-processing industry however, the situation is different. The sugarcane grown in Dewas district feeds mainly small sugarcane crushing mills in Dewas district and the neighbouring districts apart from three medium sized sugar mills, one each in Indore, Ujjain and Sehore districts. Though the Malwa region (which includes most of Dewas district) is a predominantly clayey soil (commonly known as black cotton soil) region, the acreage under cotton has been declining as is evidenced in

Dewas district. Indore, Ujjain and to a lesser extent, Ratlam cities have been traditionally associated with the textile industry - the composite mill sector, many of the mills using cotton as a major input. In Dewas there is one spinning unit which uses cotton - the Standard Mills Co. Ltd. However, decisions regarding the purchase of cotton are made in a centralised manner for all Standard Mill units. It therefore, is likely that this unit in Dewas is fed by cotton grown in a region wider than the immediate neighbourhood.

In the recent past, there has been a phenomenal growth of area under soyabean cultivation that has prompted investment in agroprocessing industry in the region. The districts of Dewas, Indore, Ujjain, Ratlam, Sehore, Shajapur, Hoshangabad and Dhar which together form a major portion of the most important soyabean growing belt in India host 30 medium-large scale plants in the edible oil extraction and oil cake industry. Only five of these were in existence prior to 1980. Dewas city is the location of seven of these plants. The three largest among these are nearly entirely dependent on soyabean as the major input (the solvent extraction process can use other seeds too as input. Sunflower seeds, cottonseeds and rapeseeds are used to a much smaller extent by the plants in Dewas). These three relatively larger units meet their soyabean requirements not merely from the mundis in Dewas District but from all the

other districts in the soyabean production belt which contains Dewas (the reach extends to as far as Chhindwara District in the east and Banswara in the west). The purchases are made from licensed traders at Mandis—these traders either 'sell' to the extraction plants via brokers or act as commission agents and buy from the farmers on behalf of the extraction plants.<sup>9</sup>

The three larger units export almost all of the oil cake produced. Two of these units are attempting to market a part of the soya oil in a packaged and branded form. Indore is one of India's most important soya oil markets - both branded and bulk. It is a major transshipment point feeding the national soya oil market. A considerable portion of the soya oil produced by the extraction plants in Dewas is sold in the Indore market, with the rest reaching the smaller towns in the region for local consumption.

#### **4.3.3 Livestock Based Industry**

Tata Exports Ltd. use tanned leather as an input for its processing unit in Dewas. It either buys tanned

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9. The entry of the oil extraction plants, major buyers of soyabean crop, thus is merely grafted on to the antecedent situation in the mandi. The licensed traders there buy up the soyabean crop partly in their own names, to be sold to edible oil plants and partly on behalf of the edible oil plants which have appointed them as commission agents. In Dewas mandi, it is three of the largest traders, who have been appointed as commission agents by three medium sized edible oil plants in Dewas.

leather from tanneries or buys raw leather and gets it tanned through job work contracts. Both raw and tanned leather is purchased from all over India. Deepak Woollens' spinning unit uses relatively coarser varieties of wool. The major wool producing states in India are Rajasthan, Haryana, Himachal Pradesh and Jammu and Kashmir.

#### **4.4 PRODUCE MARKETS OF UNITS IN DEWAS**

##### **4.4.1 Intra-firm 'Sales' or Localized Markets**

A few of the larger units do not enter the 'produce market'. Their produce gets absorbed via inter-plant transfers within a vertically integrated form. Among these are Standard Mills Co. Ltd., Gajra Automotive Gears Pvt. Ltd., Kalpana Industries Pvt. Ltd. and S.Kumar's enterprises.

Only a few and that too the relatively smaller ones among the medium and large scale units limit their marketing efforts to a 'local region' (the boundaries would be ill defined and even in the rough contours would be unit-specific, while retaining a distinct local quality). Among these smaller units, it is mainly the units in the textile industry, the edible oil industry, some of those producing metals/alloys and those offering forging/casting facilities that operate within markets that are spatially circumscribed enough to be termed local or regional. It is however, not

unusual for some of the smaller units especially in the last mentioned industry (metal/alloys forging, casting etc.) to secure orders from up country clients. Rahul Steel Forging Pvt. Ltd. undertakes work for clients located in Pune. Small units producing alloy steel do seek clients in areas other than the immediately surrounding region.

#### **4.4.2 National and International Market**

The markets of the rest of the larger units are spatially widely dispersed. Tata Exports Ltd. exports all of its produce. Three of the larger edible oil extraction plants export deoiled cakes. The STI is a major participant in a joint venture project with two Japanese firms in Singapore.

Kirloskar pumps, Gajra gears, cloth from S.Kumars Fabrics, sanitary ware from Johnsons, some pharmaceuticals from Ranbaxy and cigarette filters from Hind Filters are all examples of products manufactured in Dewas for the national market.

##### **4.4.2.1 Larger Units and Dispersed Markets**

Many of these units draw upon facilities maintained in places other than Dewas in their effort to tap national and international markets. Almost all the larger units have offices in nearby Indore for marketing and liaison purposes. As mentioned earlier, many of the units in

Dewas belong to firms/group of firms which operate on a national scale. This could assist in the marketing of the specific product range (either by absorbing specifically directed expenditure or by sharing 'overhead' facilities (such as a reputation built up for a brand or contacts ensuring favourable treatment in the distribution channels)).

#### 4.4.2.2 Smaller Units in Dewas and Spatially Dispersed Markets

The smaller units do suffer a relative disadvantage in upcountry markets because

i) Dewas is located in a region which is neither among the industrially most developed nor among the agriculturally most developed regions of India. Thus the markets in which small enterprises could stake a claim due to the advantage of proximity is limited in terms of size and product.

ii) Distant markets are often beyond reach because of the expenditure on maintaining facilities in those regions and because the higher level managerial resources could be severely stretched if there is an attempt to spread out spatially.

## 4.5 JOBWORK CONTACTS

### 4.5.1 The Nature and Extent of Jobwork

At least four large firms operating production facilities in Dewas hand out jobwork contracts to smaller units on a somewhat regular basis. These are the Gajra group of units, Kirloskar Brothers Ltd.(KBL)'s plant, Tata Exports (TEL)'s leather processing units and S.Kumars' textile weaving/processing facilities<sup>10</sup>. We will designate the units which hand out the contract, and the units which perform the work, as principal units and ancillaries respectively. Apart from job work contracts, the principal units transact with small units on a regular basis by way of purchase of the small units' produce (purchase of machine parts by Gajra and KBL, purchase of tanned leather & finished goods by TEL, purchase of cloth - either

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10. The significance of job work contracts for the parent unit can be gleaned from the following assortment: (i) TEL's inhouse employment in the leather processing and leather goods manufacturing departments in 1987 was approximately 900 while the aggregate employment in 1987 in the three ancillaries which merely undertake leather goods manufacture was 240. (ii) The inhouse weaving units of the S.Kumar's group in Dewas had 140 looms installed. The number of looms installed in three of its ancillaries in 1987 was 115. (iii) KBL's annual sales increased from Rs. 9 crores to Rs. 17 crores in the period 1982-83 to 1986-87. The number of employees as per the muster declined in this period from 1125 to 970. While some of this increase in value of sales per worker could be attributed to product-value inflation and increase in productivity, the partial externalisation of one of the most labour intensive of KBL's processes-machining-also could have some explanatory significance.

unprocessed or finished-by S.Kumars) or sale of own produce (TEL's waste leather). In some instances, the principal unit buys from the smaller units and enters into a work contract with the same ancillary. Both Gajra and KBL hand out machining and assembly work on job work contracts.

Gajras were earliest among the units in Dewas to hand out jobwork contracts. Since the mid-70s, a number of units have been set up dependent primarily on their jobwork. All of Gajra's ancillaries are in Dewas. KBL commenced such operations only in 1983-84. In 1986-87, jobwork contracts worth Rs. 38 lakhs had been undertaken by 20 ancillaries (which includes one 'sister unit' of KBL located in Dewas). 16 of these are located in Dewas and the rest in Indore. The Leather Division of TEL gets leather tanning and the production of some leather items (from leather made ready at TEL Dewas for such use - finished leather') done on a jobwork basis. Among the few tannery ancillaries, only one is located in Dewas (It is to be noted that TEL buys leather, raw and tanned, from all over India and not from any specific region). Of the four ancillary units producing leather items, three are located in Dewas. These, in addition to job work also 'buy', finished leather from TEL and 'sell' TEL their produce. The three units together in the year 1986-87 employed an average of 350 workers, earned 'conversion charges' to the tune of Rs.40 lakhs and sold goods worth Rs 18 lakhs. S.Kumars as we have



mentioned, was, till it set up the processing plant in Dewas in the late 70s, just a trading house. The textiles sold, branded as S.Kumars fabrics, were either bought in their final form or were woven/processed by ancillary units in the fulfilment of jobwork contracts. Even after investing in weaving and processing facilities in Dewas, S. Kumars continues the above 'externalising' of the production process. The processing unit in Dewas, in addition to being fed by the in-house weaving unit, gets fed by cloth that is woven on jobwork contracts or purchased. The jobworking weaving units (most of the units having looms in the range of 40-80) are located in Dewas, Indore, Bhilwara etc.

#### **4.5.2 Arguments for Localization of Jobwork Contracts**

For the principal units, there are two distinct advantages in having the ancillaries located nearby : i) If the contract involves a two way movement of goods between the principal and the ancillary, there could be a saving on cost of transportation and handling of goods. It is not necessary that jobwork contracts involve such a two-way movement e.g. TEL could buy leather in south India, get it tanned in Madras and transport such tanned leather to Dewas. S.Kumars for long was involved as a principal in jobwork contract without owning any production facility

(thereby ruling out the possibility of any movement to/from the principal unit).

ii) Most principal units can afford to externalise parts of the production process only if they can ensure quality control. Such control can be aided by machines. However, frequent contact is often required to ensure such control. Further, the jobwork specification may vary quite frequently, further necessitating close contact. Such contact is made easy if the ancillary is located close to the principal's facilities.

#### **4.5.3 The Aspect of Control Over Ancillaries**

Almost all ancillaries are crucially dependent on jobwork contracts and in Dewas, with its limited range of opportunities of job work, a unit which invests in facilities which enable it to undertake specific jobs, would find itself dependent on just one or two local principals (and in most cases, would be unable to seek principals elsewhere, even nearby Indore). The contrasting histories of Garnet Tools which has managed to successfully float an independent product and of Pujat Agricultural Implements which has failed in its attempt to do so, both starting out as ancillaries of Gajra tell us of what these ancillaries are constantly attempting to do. It is the fate of Pujat that is more representative of that of the ancillaries in the machining/assembly segment. The ancillaries of TEL and

S.Kumars are on the average much larger. The ancillaries of S.Kumars often obtain jobwork contracts from other principals. A couple of weaving units which, initially dependent on job work contracts, have for some time now been reaching the regional market independent of S. Kumars. TEL's ancillary units have not, in any systematic manner, tried to develop a market other than through TEL.

It is TEL's ancillaries that are most entangled with their principal. The major shareholders of these private limited companies are employees at the TEL. The three units in Dewas making leather products are located on premises/sheds rented from TEL. The machinery is either hired from TEL or purchased on the advice of TEL. TEL has either directly lent to or guaranteed the borrowing by these ancillaries. Top managerial/technical personnel are deputed by TEL to these ancillaries. In case of S.Kumars, KBL and Gajras, these linkages are limited to the following:

- i) In most cases, the effective controllers of the ancillary are current/past employees/workers, suppliers, part owners of the principal or are associates of the same
- ii) The principal assists in the financing of the venture and in the purchase of the production equipment.

#### 4.5.4 Process Characteristics and the Possibilities of Ancillarization

Such jobwork contracts represent the efforts of the principal to externalise a part of the composite production process . Some processes yield themselves relatively easily to such a breakdown into distinct parts i.e. the composite process is interruptible and the cost of material handling is low.<sup>11</sup> If such production is to be undertaken by smaller units, the minimum investment/capacity for such a process should be low enough. Further in such processes there should be no significant opportunities /advantages arising out of a larger scale of operation or a more integrated mode of operation (reducing costs of material handling). In our sample (the four principals ) the externalising of processes has not resulted in the use of embodied technology too different from that which would have existed had the processes been internalised. Thus the looms that S.Kumars' ancillaries use are not too different from those used in S.Kumars' on-house weaving facilities. The same holds with regards to the machining work of KBL and Gajra and leather product manufacture of TEL.

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11. The composite textile manufacturing process can easily be broken down and the individual process can be located somewhat distant from each other with the material being no worse for the between-processes-transportation/handling. The same holds for what TEL, KBL and Gajras are engaged in.

#### 4.5.5. The Principal's Viewpoint: Advantages of Ancillarization

The major obvious arguments for such ancillarisation are two fold :

i) It is generally acknowledged that the wage rate in the small scale sector is lower than that in the large sector. Thus, a shift of production processes from the large to the small would mean a lower wage bill in the aggregate and if there are no cost differences otherwise (we have stated above that the cost of saving if at all due to internalising the production arrangement should not be too high), a higher residue to be shared out between the ancillary entrepreneur and the principal.

ii) A perusal of any listing of government incentives to industry will reveal that the small scale sector is the recipient of larger doses of aid in its obvious forms of cash subsidies, tax subsidies etc. Such aid permits the principal to impose such conditions on the ancillary which might otherwise have resulted in an unacceptably low rate of return.

In addition to the above two arguments there are some less 'obvious' arguments for ancillarisation:

i) Such 'externalising' results in the principal having access (in Dewas as we have seen, the dependence of the

ancillary units on the principal guarantees such access) to production capacity without having to invest in such facility . This permits the principal more freedom in the choice of what to invest in. An element of disproportion is possible among the capacities in separable in -house processes, provided it can be corrected by relying on ancillaries. The principal can concentrate its investments on those processes where there are significant advantages of scale. Thus KBL could invest in a foundry (and utilise its excess capacity by taking up work for several large factories located elsewhere such as Crompton Greaves, Mahindra and Mahindra, Usha and Parry's) without having to invest in corresponding capacity in other departments such as machining. TEL could invest in its leather finishing department which supplies to the inhouse 'Shoe Uppers'-Department' as well as the ancillaries. S.Kumars' processing unit does not have to rely merely on the inhouse weaving unit.

ii) This feature of the principal gaining guaranteed access to production without corresponding investment greatly enhances the flexibility of operation for the principal. If demand fluctuates, this can be passed on to some extent to the ancillary by way of changing the volume of orders. Instead of under-utilised inhouse capacity for the principal, it will be the ancillaries who will run out of

work. If KBL faces a seasonal fluctuation in demand and an annual peak dependent on the erratic monsoon, by externalizing machining, it will be relieving itself of some idle capacity. TEL secures bulk export orders in a volatile international market. Fewer export orders would, due to externalization, mean fewer batch orders for the ancillaries.

Flexibility arms the owners of the principal against labour. In the event of a strike, some of the strikers can be neutralised by externalizing the production process that the strikers think they have paralyzed. KBL broke a strike in 1983 by offloading a large portion of the production process. Since then, for KBL externalizing a part of at least the machining and assembly work has become a regular practice.

In some industries, a disruption of output might have major consequences such as the loss of market shares in a highly competitive market or disruption of production in downstream inhouse production units for a vertically integrated multiple unit firm. The possibility of externalizing could minimize these consequences of disruption caused by strikes or lockouts.

iii) For the workforce in general such a phenomenon reduces its bargaining power because it a) arms the employer with the flexibility mentioned above and b) splits up the

workforce into smaller units. The principal units can limit the size of its workforce and deflect employment to small units.

iv) Such offloading permits large units to get around licensing restrictions which may limit the participation in some processes to small scale units. Thus, TEL can, despite leather tanning being restricted to the small sector, ensure supplies, adequate in terms of both quality and quantity, by setting up captive small, formally independent tanning units. TEL can meet export commitments of leather products, the manufacture of which is the prerogative of the small sector, by helping set up ancillary small scale units to manufacture these products.

## **5.0 LOCAL LINKAGES AND SMALL SCALE INDUSTRIAL ACTIVITY**

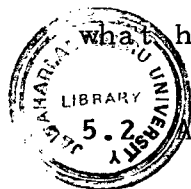
### **5.1 MARKET PARTICIPATION AND STRATEGIES FOR SURVIVAL**

For small scale industrial units, the aspect of local linkages get linked with the question of survival. The geographical spread of operation of most units is extremely circumscribed. It seems reasonable to assert that small units would by and large be at a disadvantage in any form of market participation. For many units, limiting the produce market to a small geographical area might well be a strategy to offset these disadvantages of low initial endowment and the absence of any unique advantage cost-wise, quality-



wise, even image-wise. The small scale units which address spatially widespread markets are usually in industries where the spatial density is low and when competitors are kept off either due to the products' involving a more complicated technology or higher risk or due to the units' committed market network being strong despite being spatially dispersed.

It seems unnecessary to examine local linkages of small scale units in the same manner as adopted for large scale units. Dependence on local non-industrial resources for inputs (the instances of which are few, such as the wood working industry, the oil expellers and the dal mills) can be collapsed with dependence on the local produce market to form just one phenomenon- participation in local markets. The issue of the relationship with larger units need not appear here since it would merely be the obverse side of what has been discussed in the previous section.



## 5.2 SURVEY OF SMALL SCALE UNITS IN DEWAS

In a section above, we had reproduced some aggregate figures for the small scale sector. Here, we will use information obtained from the District Industries Centre (documented information and discussions with officials) and from various persons connected with small units, to consolidate and present impressions regarding the conditions

permitting the survival of such units, the dependence on larger units, state assistance and on the access to markets due to co-ownership of outlets. We will begin with an industry-wise survey of the 128 units (industry-wise categorisation here extends only to 126 units). We would therefore be missing out on the functioning of small scale units which are not located on Industrial Areas/Estates and of those that are not registered. This lacuna is only partly covered by our discussion of job work contracts.

- Utensils: All four units closed within 5 years of commencement<sup>12</sup> This 5 year period is important because for units in Dewas block, the Sales Tax Exemption/Deferment facility is available only for five years and the power subsidy for three years. All the units were producing for the local (Dewas-Indore market) and one was owned by a dealer in utensils from Indore.

- Chemicals: Both the units producing textile chemicals are faring well and are associated with<sup>13</sup> larger entities: one with the Mafatlals and another with a weaving unit in Dewas,

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12. The word 'closed' needs to be interpreted carefully; it does not mean a formal winding up of the unit affairs. The unit may continue to maintain a skeleton staff of perhaps one caretaker. The equipment may be intact.

13. The word 'associated' too needs explanation. It could mean that the owners are the same individuals, 'family' or a wider group (kinship, friends) or are related such that there exists either a mutual or one-sided claim which ensures preferential treatment in what are ostensibly 'market' transactions.

both of which in turn are associated with textile dealers and units in Indore, undertake jobwork for them and in addition market their own produce. Among the other four units which produce miscellaneous chemicals, one is closed and three are just about surviving on local markets.

- Weaving and Textile Processing: Among the eight units one is closed, five are entirely dependent on job works (the principals created in Indore, Dewas and Bhilwara), one is the associate of the textile chemical unit mentioned above and just one (which is included in the AVN directory of medium and large units, too) can be said to be less of a job working unit and more of an independent seller of textiles. The one processing unit (of woollen textiles) is affiliated to a larger woollen weaving unit in Dewas. Even the smallest unit in this industry would be larger than the average unit in the small scale category in Dewas.

- Packaging: Paper and Cardboard: Three units are just about surviving; one unit is affiliated to the S.V. Industries Group, manufacturers of bulb caps, etc., and produces packaging materials for these units. Three units are large, and market their produce over a wide region. One of these was floated by a former associate of Gajras from Bombay. His products find their way to Bombay too.

- Wood working: Only one among the four units which do not have links with local timber dealers has survived. The

absence of such connections is a disadvantage in both the input and the output markets. The output is sold within the region, the raw material being bought from public auctions (where timber dealers corner all that is offered) or from timber dealers, the timber usually coming from the forests in the neighbouring region.

- Metal Fabricators: Of the 10 fabricators, two depend partly on machining job works. Two produce furniture for government offices on contract. Two others have local links, one with a furniture dealer, another with a hardware dealer. Two produce minor structures for industrial uses. One failure and one success (assisted by links with the STI) completes our tally.

- Machine Parts: Of the three firms that produce machine parts, one produces parts used by KBL, another's main source of income is a tubewell that has a continuous high yield.

- Machining Jobwork: Of the ten firms dependent on job work, three are continuing their attempts to develop independent products. As Pujat reveals, several of the other seven may have failed in their attempt to do so. The principals are either the Gajras or KBL.

- Metals, Alloys, Foundry, etc.: One gas-based furnace has been set up by the Gajras to handle heat-treatment jobs of the associated concerns. Of the five foundries, three have

tried to float independent products. Four of these foundries have been able to generate sufficient work locally (casting jobs for units from Dewas and Indore) to be among the larger units in the small scale category.

- Machine Tools: Of the two units, one supplements its revenues by income from job work, the other is an ex-job worker of Gajra Gears- Garnet Tools.

- Pharmaceuticals: The only relatively successful unit (out of five) produces absorbent cotton for a market spread all over Madhya Pradesh.

- Plastics: Our grouping includes one manufacturer of nylon belts who sells the product all over India. One unit is affiliated to the Mafatlas and manufacturers plastic cans, tubes etc. to be sold partly to other units of Mafatlal and partly to a regional market. Some PVC product manufacturers are doing well in the Madhya Pradesh market, with government contracts providing a useful boost. At least six units have ceased to operate partly due to the expiry of the initial five year period. Some high density polypropylene extrusion plants( HDPE ) and all low density polypropylene extrusion (LDPE) that have survived depend on the local market-the consumer market as well as the industrial market. At least three units are associated with retail/wholesale outlets of related products.

- Cement tiles and other cement products: All the five units produce for the local market, three connected with outlets in Dewas.

- Oil seeds and edible oil: The one survivor among the three units produces for the local market. Another started out as an oil refinery and later converted itself into a dal mill.

A unit manufacturing fuel briquettes has been expanding quite rapidly, its market expanding as several local users switch from other fuels to this form and as the market expands spatially (once again by displacing other forms of fuel).

### 5.3 SMALL SCALE UNITS IN DEWAS CATEGORIZED BY SPATIAL SPREAD OF MARKET

One can divide the small scale units into two groups. One group consists of those units which address a localized market and even in this, they seek to secure their survival by exercising privileged right of market access through fraternal links with distribution channels or consuming manufacturing units. Some of these units have highly customised small production runs (e.g., furniture or ready made garments) relying on a localized market in which they have an established presence.. Others producing standardized goods rely on, in addition, to low costs (low

wages, perhaps low returns on capital ,state subsidy, low overheads) of production, the strategy of addressing themselves to localized markets, minimising transportation costs and maximising any advantage derivable from local contacts. Most units producing plastic goods, chemicals, wooden packaging material, etc. belong to this sub-category. Units supplying to other(usually larger) manufacturing units nurture such relationships to secure an extra-economic lever. All such units are therefore rooted to the site that yields adequate advantage in terms of proximity to and contact with markets.

Then there are the units which address relatively widespread markets.These belong to industries in which one or more of the following holds:

i) The investment for setting up a production facility for producing at competitive costs seems to be high enough to deter competitors.

ii) Density of demand seems to be low and it takes a market of a relatively wider area to support a producer of an economically feasible size(as in the case of wood working, carbide tipped saws, copper enamelled wires for use in electric motors and coal briquettes though in the last case, the promotional efforts of the sole producer in Dewas seem to have effected an increase in spatial density of demand, at least locally)

iii) The production process is a complex one, requiring (a) high technical skills to be invested in some decision maker (usually the owner, given the tendency of most of the small units to cut overheads and therefore avoid the employment of skilled personnel) or (b) the marketing being relatively risky requiring entrepreneurial attention and perhaps contact.

Most of such units cater to markets in a contiguous region inclusive of Dewas. The reasoning above is pertinent to competition among small scale units. It remains to be seen as to why large scale units do not wipe out small units given their widely accepted advantages.

A majority of Dewas' small units produce those items which are reserved for the small sector. The following products of small units in Dewas figure in the list of items reserved for the small sector as of end May 1986 (c.f. list published by Development Commissioner, Small Scale Industries, Ministry of Industry, New Delhi): dal milling, groundnut oil (other than by the solvent extraction process), wooden crates, sawn timber, wooden furniture, corrugated paper and boards, leather garments, shoes and other items, products of polythylene film, polythylene and PVC flexible hose, HDPE woven sacks, PVC pipes, coal briquettes, flooring tiles, cement tools etc. This list almost exhausts the products of small units. We will now



look at how the few units engaged in sectors not reserved for small units survive in face of a threat of, if not actual competition from, larger units. The job work units are in fact set up by the larger units and there exists a complementarity between the two sectors (see section 4.5). The few other units are able to survive due to the greater transport costs in addressing dispersed markets from centralised locations, greater influence on local distribution channels, lower wage structure, state assistance, etc., all of these counterbalancing the superior position of larger units in other respects.

## **6.0 THE LABOUR FORCE ENGAGED IN NON-HOUSEHOLD MANUFACTURING ACTIVITY**

### **6.1 Some Estimates of Size of Labour Force and Growth**

As per the AVN'S Directory, as on 31.3.1987, 12342 persons<sup>14</sup> were employed in the 46 live medium and large scale units in Dewas district. All these units were located within the post 1982 Municipal limits of Dewas town<sup>15</sup>.

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14. We had surveyed 8 of these units in 1987-88. Our survey yielded the information that these units employed 6428 persons while as per the AVN's directory they employed 4557 persons. The directory figure could therefore be an underestimate. Our sample was not designed to be a precisely representative one. If one could expect the bias to run through, the estimate of employment in medium and large scale units of Dewas town as on 31.3.1987 would be 17409.

15. In 1982 the Municipal limits of Dewas town were extended to include the Industrial Area on Indore Road on which 36 large and medium scale units are located.

Further as on 31-3-1987 in 118 small scale units located in the Industrial Estate/ Area in Dewas town, 2048 persons were engaged as employees. This does not exhaust employment in the large, medium and small scale industrial units because :

i) our own survey of musters in selected firms indicated that actual permanent employment was about 41% higher than the AVM figures for the corresponding first

ii) The listing does not cover non-permanent workers i.e., those that are not on the muster. Our survey quoted in footnote 14 also excluded non-permanent workers. The proportion of non-permanent workers in the total work force varies widely but our own survey indicates that 1/3 maybe a reasonable approximation across units.

iii) The coverage of the small-scale sector is restricted to those units which are located the Industrial Area and Estate.

In the light of this, some corrections are in order. The AVM/DIC figures for permanent employees suffer from infrequent revision and thus the underestimation is most likely for older firms. Indeed seven out of eight of our sample of firms were already in existence in 1981. To correct, we assume that all firms established before 1981 have an underestimation of an order similar to that

encountered in our sample, accepting AVM/DIC figures for the rest.

According to AVM, seventeen new, medium and large scale units of the 47 live units as on 31.3.1987 commenced production after March 1981. These units employed 3,261 persons (26% of the employment in medium and large scale units in Dewas as on 31.3.1987). Since March 1981, 45 small scale units commenced production in the Industrial Areas/ Estate around Dewas employing 1,026 persons (50% of the employment in small scale units as on 31.3.1987). Besides 8 units underwent 'significant expansion', after March 1981, 5 of them employing 497 people in the additional facilities.

Thus, the AVM/DIC estimate of 1987 permanent employment, small, medium and large, in firms set up after 1981 is 4784 and that for firms set up before 1981 is 9606. The 'corrected' permanent employment in the latter is likely to have been 13550 and thus total permanent employment in 1987 is likely to have been 18334 excluding, of course, the SSI outside the industrial estates. Blowing up this figure by 50% to accommodate estimated non-permanent workers (not on the muster roll) gives a figure of 27,501. This figure needs to be put in context first by noting that it amounts to about a fifth of the town's population and thus almost 2/3 of the total workforce resident in the town- which being

too large a percentage suggests that a considerable part of the industrial labour force working in Dewas town might be residing outside it. Secondly, a comparison with the 1981 Census is necessary.

As per the 1981 Census 17116 persons resident in Dewas district were employed in the non-household sector. Of these 10,035 resided in urban areas. Since there are (and were not in 1981) no large or medium scale factories in Dewas district outside what is now Dewas town, a considerable part of the large number of industrial workers resident in rural areas must have been employed in Dewas town itself.

As to 1981 employment in the medium and large scale industry and the small scale units located in the Industrial Estate, we can form an estimate by excluding from the 1987 employment figures above. (i) employment in those units established after 1981, and (ii) the increment in employment during 1981-87 in the units established before 1981. For the latter we rely on our sample and as evident from figures in table 2.14, the average annual growth rate of employment works out to 8.63%. Using these our estimate for 1981 is 12369<sup>16</sup>. This is intermediate between the Census figure for workers in non-household manufacturing

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 16. This figure is  $\frac{27501 - (1.5 \times 4784)}{(1.0863)^6}$

resident in Dewas district and urban areas of the same. The difference between the Census district estimate and Dewas town employment can easily be explained by small scale units outside the industrial estate in Dewas town, be they in the town itself or elsewhere in the district. Also, the figures imply as already noted above that considerable number of those working in Dewas town must have been residing in rural areas. Further this exercise yields an estimate of the growth of industrial employment generated during 1981-87 by units in Dewas town and this works out to 14.2% per annum, which is slightly higher than the 12.2 % growth rate in the Census estimates of that in non-household manufacturing in Dewas district between 1971 and 1981.

**TABLE 2.14: EXPANSION IN EMPLOYMENT OF SELECTED UNITS**

Name of the unit	Employment as on year indicated in brackets	Employment as on year ending 1987
Shubham synthetics	105 (1981)	126
Bank Note Press	1754 (1984)	2805
Tata Exports	639 (1983)	886
Vippy Solvent	150 (1984)	180
Kirloskar Bros.Ltd	1125 (1983)	970
Steel Tubes of India	467 (1983)	741
Rahul Steel Forging	140 (1982)	140
K.D.Wires(SSI)	18 (1983)	16
Tata Exports Ancillaries (3 SSI units)	80 (1982)	255
Garnet Tools	30 (1983)	45

**Source :** The records of the relevant units; information culled out during our own survey.

## 6.2 EMPLOYMENT IN FACTORIES OF DEWAS' HINTERLAND

The Census figures used here pertain either to urban areas in Dewas district or to the whole of Dewas district. Employment in the large, medium and small scale units in Dewas town is not confined to the residents of the town.

The information on employment from the AVN and DIC quoted above does not differentiate between urban and rural residents. Our field survey has indicated that a large number of workers in the non-household manufacturing units in Dewas town are residents in villages around Dewas town. Between 1971 and 1981 the number of rural residents in Dewas district engaged as main workers in the non-household manufacturing sector increased from 2,180 to 7,077.

**TABLE 2.15:** INDUSTRY WISE CLASSIFICATION OF MAIN WORKERS IN DEWAS DISTRICTS (CLASSIFIED BY INDUSTRY CATEGORY OF SUBSIDIARY OCCUPATION)

		1	2	3	4	5	6
1971	Dewas District total	1850	515	565	365	-	-
"	Dewas District rural	1690	500	440	360	-	-

contd.

Table 2.15 contd .

		1	2	3	4	5	6
1981	Dewas District total	3650	1150	3249	1747	1639	5270
"	Dewas District Rural	3384	1192	2818	1677	1580	577

Source : Tables B-6, 1981 Census M.P. and B-7 1971  
Census, M.P.

**Key:**

1. Number of main workers registered as cultivators whose subsidiary occupation is in the non-household manufacturing, trade, transport etc., and other service sectors (broadly termed non-household industry).
2. Number of main workers registered as agricultural labourers whose subsidiary occupation is in non-household industry.
3. Number of main workers in non-household industry whose subsidiary activity is as cultivators.
4. Number of main workers in non-household industry whose subsidiary occupation is as agricultural labourers.
5. Number of main workers as cultivators whose subsidiary engagement is in non-household manufacturing sector.
6. Number of main workers as agricultural labourers whose subsidiary engagement is in the non-household manufacturing sector.

In Dewas district the number of main workers in non-household industry whose subsidiary occupation was as either a cultivator or an agricultural labourer rose from 3.3 percent in 1971 to 9.8 percent in 1981. This and all the number of main workers as cultivators and agricultural labourers whose secondary occupation is in the non-household industry sector partially indicates the overlap between the agricultural and non-agricultural work force. Taking Dewas district as a whole, 7081 rural residents were engaged as main workers in the non-household manufacturing sector. Though only a few of these returned agricultural activities as secondary employment, a very large number of workers belong to families which are engaged in agriculture, such workers themselves contemplating a periodic engagement in agriculture. For many of these workers, incomes from employment in the town merely supplements the household income pool. This is evidence on resource transfer from agriculture to the manufacturing sector.

Though it has not been possible to ascertain numbers, our field survey of industrial units in Dewas and a few villages permit us to draw some conclusions: Opportunities of employment in manufacturing units in Dewas town drew a number of people from the neighbouring villages to Dewas. Few of these workers had any prior experience in manufacturing activity and few had undergone formal training in any of the skills required in these jobs. These workers



joined as unskilled workers and many have improved their status in terms of wages, levels of skills and formal skill categories, through longevity of employment and on-the-job learning. Almost all these workers (belonging to the unskilled category or the skilled category-through-on-the-job upward mobility) commute to work on bicycles<sup>17</sup>. The spread of a hinterland from which Dewas town draws such low skilled workers can be limited to within a radius of 20-25 kms (1 to 1 and 1/2 hours of cycling one way). Most of these workers belong to households who own land and which consist of more than one adult male member. Most of the respondents in our interviews stated that the limited capacity of labour absorption on family holdings made the opportunity of employment in the manufacturing sector and a relatively stable income more attractive. Our respondents reported a lower incidence of participation in the manufacturing sector by those belonging to agricultural labourer communities.

Table 2.16 shows that there was a rise in agricultural wages in the period 1978-1985. Satwas, the observation point in Dewas district is in Kannod tehsil, which would fall outside the 'hinterland' delineated above.

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17. One survey of 52 villages in Indore, Dewas and Ujjain Districts informs us that 10 villages around Dewas send 1725 regular commuters to Dewas town (Table 22, SPA 1986)

In Dewas tehsil in the 6 villages visited, the wages of agricultural labourers was Rs.12 to Rs.13 per day in 1986-87. The increase in agricultural money wages is not entirely attributable to pulls from the non-agricultural sector. A general inflationary context and a changing agriculture seem to be contributory factors as well.

**TABLE 2.16: DAILY AGRICULTURAL WAGE IN DEWAS DISTRICT**

	1978-79		1984-85	
	Min.	Max	Min.	Max.
Carpenter(skilled category)	8	12	20	30
Agricultural labourer(unskilled category)	3.5	4	8	10

**Source :** Agricultural Wages in India, Ministry of Agriculture, GOI.

### 6.3 PARTICIPATION OF MIGRANTS IN THE INDUSTRIAL LABOUR FORCE

We have seen that the flow of migrants from other districts of M.P. and from other states were a major contributor to urban areas. Table 2.17 below presents information on male population in support of the above contention.

Through our survey it has been possible to ascertain that a number of these migrants are employed in

**TABLE 2.17 : MALE POPULATION CLASSIFIED BY PLACE OF BIRTH**

Place of Birth	1971		1981		Absolute change between 1971-1981		% change	
	Total	Urban	Total	Urban	Total	Urban	Total	Urban
In place of enumeration	244444	35943	327088	54017	82644	18074	34	50
Elsewhere within the district	33065	5360	39632	8503	6567	3143	20	59
In other districts of the State	26365	6005	37990	12294	11625	6289	44	105
States in India beyond state of enumeration	3720	2000	7237	3388	3517	1388	95	69
Total Male population	308094	49723	412302	78410	104208	28687	34	58

**Source :** Tables D-1 of 1971 Census (M.P. State) and D-1 of the 1981 Census (M.P. State)

the non-household manufacturing sector. Our own survey and other accounts of urbanward, relatively long distance migration (at least across district boundaries) permit us to state that most migrants embark upon journeys without any prior assurance of employment at the destination<sup>18</sup>. Thus

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18. We cite here a few cases' encountered in Dewas town:

One person formerly a marginal farmer in Akola district, Maharashtra, left his village with his family in search of an adequate livelihood. In 1973, while he was in Khandwa district looking for a job, the news chanced upon his ears that large scale construction was soon to be underway in Dewas due to large scale public the participation of long/medium distance migrants in the 'informal'labour markets or in petty enterprise would be high. At least one section of the work force in non-household manufacturing- ITI trained workers - contains a disproportionately high level of migrants from other districts of M.P. sector investment. The family arrived in Dewas town; the head of the household participated in the construction boom and in the mid-70s started hawking food stuffs.

A few households migrated from Jaunpur and Ballia at the instance of migrants of an earlier period who were employed in a couple of factories in Dewas. While some of the adult males of these recently migrated households did find employment in factories others had to content themselves with intermittent employment in factories.

Quite a few households migrated from Nimar an area across the Narmada river, to the south of Dewas town. These households came from different villages, separately. Most of them intend to return to their villages. They prefer casual employment as labourers on jobs outside factories or some petty enterprise to the relatively impersonal contracts with employers in factories and the relatively alien environs of a factory.

A worker at the public sector newsprint paper mill in Nepanagar, Khandwa district, upon retirement, moved to Dewas with his family. Three of his sons work in a factory, one of them as ITI trainee and another now an experienced machine operator. The head of the household moves around the new colonies of Dewas selling vegetables.

#### 6.4 'LEVELS OF SKILL'

We have already noted that manufacturing activity in Dewas was not dominated by any one industry. Dewas would offer a finely graded variety in terms of level of skill<sup>19</sup>, if one takes the level of skill to be the result of investment in altering the capability of a worker-investment either in formal training programmes or in on-the-job training. For a majority of shop floor workers employment in factories in Dewas was the first exposure to non-household manufacturing activity. For such workers, the level of skill is a function of on-the-job training in Dewas. This is true especially of rural residents. Those employed in the non-household manufacturing sector who are formally trained(e.g., ITI trainees) are migrants. The Dewas ITI offers a formal course only in machinery skills.

#### 6.5 WAGES

Manufacturing wages vary across units as is evident from Table 2.18 . Table 2,19 presents wage ranges corresponding to different skill-level categories.

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19. The above was to some extent reflected in the occupational classification of the industrial work force in Dewas district presented in the Census reports. We however will not be using that information here because the occupational classification does not constitute a satisfactory classification in terms of level of skill. The occupational classification tables use categories which do not coincide with such a gradation of level of skills. They indicate merely the

TABLE 2.18 : VARIATIONS IN AVERAGE WAGE RATES ACROSS FIRMS

(Source: Own Survey)

Name of the Firm	Product/Process/ Firm characteristic	Average wage index (1987)	Average annual wage in Rs.
1. Shubham Synthetics	Textile: Weaving; Independent unit.	162(Base:1982)	10841
2. Bank Note Press	Currency note Press; Public Sector.	188(Base:1984)	27629
3. Tata Exports	Leather goods; Prominent industrial house	137(Base:1983)	26383
4. Vippy Solvent	Edible oil; Independ- ent unit.	128(Base:1984)	7742
5. Kirloskar Bros. (Ltd.)	Machine pumps; Prominent industrial house.	159(Base:1983)	27216
6. Steel Tubes of India Ltd.	Steel tubes; Product market leader, multi- plant firm.	110(Base: 1983)	21124
7. Rahul Steel Forging Pvt. Ltd.	Independent unit.	128(Base:1982)	6429
8. K.D. Wires	Small Scale unit.	181(Base:1983)	9062
9. Tata Exports Ancillaries	Small Scale unit.	122(Base:1982)	9745
10. Garnet Tools Pvt. Ltd.	Small Scale unit; Machine tools	131(Base:1983)	6556
11. Kirloskars Ancillaries	Small Scale units	120(Base:1984)	5400

**TABLE 2.19 : SKILL CATEGORYWISE MANUFACTURING WAGES IN DEWAS IN 1987**

Skill Category	Wages per annum in Rs.
Material handling and unskilled maintenance jobs such as cleaning	3600-7200
Machine feeder	4800-8400
Inexperienced machine operator	6000-12000
Experienced Machine operator	9600-18000
Supervising cadre	14400-20400
ITI Trainee (machine operator with superior upward mobility)	12000-21600

**Source :** Our own survey

- Note :**
1. The range is indicative of (a) the differences in wage rates across firms and (b) the existence of a finer skill gradation than what is captured by our skill categories here.
  2. The coverage of our skill categories is not comprehensive, given the variety of the nature of skills among workers in Dewas and the industry-wise diversity.

The above two tables permit the following observations to be made: (i) By and large the wage structure in larger units belonging to large industrial houses is higher than that in other units. (ii) Across industry-wise categories too, there is variation in the average wage. This would be more due to difference in the skill- level-wise composition of labour across industry-wise categories. (iii) If one takes firm specific characteristics (such as the firm being a premier employer, or belonging to a large industrial house) as constant, workers with similar levels of skills get similar wages across firms. Thus an experienced weaver employed by the Standard Mills gets Rs. 1,400/- per month on par with an experienced machinist in Kirloskar; (iv) Small scale units on an average pay lower wages. This is because: (a) smaller units usually make do with a lower complement, per shop floor worker, of highly skilled workers/ office staff; this complement represents the higher wage stratum within the firm, (b) by and large shop floor workers possessing similar levels of skills get lower wages in smaller units relative to those in larger units. This is the well known dual wage structure in the Indian economy - the dichotomy

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Footnote 19. Contd....

nature of skills e.g. whether the worker is a machine tool operator or a brick layer. Further, the table for Dewas district does not differentiate in terms of 'class of worker' or the household/non-household sector.



between the organized and the unorganized sector. The dual structure in wages owes its existence largely to the efforts of organized labour. In Dewas organized labour has not been particularly militant in the medium-large sector. But workers in the small sector remain worse off due to the total absence of organized strength, (v) In terms of attaining a wage level, on-the-job learning often compensates for lack of formal training and (vi) Money wages have been steadily increasing in the 1980s. However the rate at which average money wages are rising varies across firms. Whereas the wage level can be associated with the firm characteristics, the rate at which wages have increased do not display such a pattern. Apart from firm level bargaining between employers and workers, changing skill level composition too plays a part in determining the average wage at the firm level. Several firms (including small scale firms) have undergone alteration, in the terms of expansion or vertical spread or technological change.

#### 6.6 THE LABOUR SITUATION AS EXPERIENCED BY INDUSTRIAL UNITS IN DEWAS

There was no dearth of unskilled labour offering itself to factories in Dewas. Such workers were drawn not merely from Dewas town and its neighbouring villages. The labour market in Dewas was not in the least an 'isolated' market. In terms of labour equipped with not-too-esoteric

skills, industrial units drew upon the ITIs from all over Madhya Pradesh, from the industrial work force (especially clerical staff) in Indore and Ujjain and from other units within Dewas, the last being of relatively less significance especially given the diversified character of Dewas' industrial structure and the prospect of upward mobility through-longevity-of -service. It is only in terms of highly paid or esoteric skills that industrial units in Dewas experienced a relative difficulty. Some of the multi-location firms solved this partly through inter-location and intra-firm transfers. Dewas town with its 'inferior' urban status and with a relatively young industrial base, did not contain a sufficient pool of such labour.

Though there has been a rise in returns to labour over time, industrial units faced a relatively lower wage structure in comparison to other larger centres of industry. On the one hand were the factors of a low cost of living relative to a large city such as Indore (mainly in the form of lower rent/expenditure on housing<sup>20</sup>, lower intra-urban transport cost and lower prices of some consumer perishables) and relatively docile labour<sup>21</sup>. On the other

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17. In Dewas, it was, even in 1987, relatively easy to 'squat' on favourably located land. This can be expected to have a bearing on cost of living at least of relatively unskilled labour.

18. Most of the workers are first generation workers till recently engaged in agriculture and residing in rural areas. None of these characteristics can however be

hand was the partial dependence of the households of many of the workers on income from agriculture. Many of the workers commuting from the neighbouring villages were relatively more willing to offer their labour at wages as low as RS.300/- per month. That these workers do have an alternative source of income ,however meagre, to fall back upon, could lead one to expect only a sporadic participation

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Footnote 21 Contd...

associated in a predictive sense with docility (see the work of E.P.Thompson, John Foster and others for evidence on industrial unrest in the early period of the Industrial Revolution). Employment did mean a sudden transition for most workers, in terms of the nature of work, the work environment and the social relationship directly underlying such a labour process; non 'adjustment'took the form of a withdrawal from the industrial pool, in the rare instance a fight at the workplace and a relatively low tendency to engage in corporate bargaining through trade unions. The 'trade union' that is most 'powerful' in Dewas is the Congress -I affiliated INTUC . All the four trade unions in Dewas district which have acquired the status of 'representative unions' are affiliated to the INTUC(The Registrar of Trade Unions, Indore,M.P.). Employers openly declare that they find such unions more pliant . Workers feel tht the INTUC is more successful in securing marginal economic gains. Since 1979 there have been 90 'Industrial Disputes' recorded at the Labour Commissioners office, Dewas. Of these, there were two instances of industry-wide disputes, the rest being firm level disputes. While the majority of the disputes centre around the composite ' returns to labour' issue, a few relate to other problems such as regularity of employment/permanent status and conditions of work. 18 strikes have been recorded by the Labour Commissioner, in five cases for a duration of more than five days, and in no case exceeding a fortnight(the Office of the Labour Sub-Commissioner, Dewas). The trade unions were active in and derived their membership from a few of the medium and large scale units. The unorganized sector thus accounted for the majority of industrial workers.

in the industrial work force. However, this element of sporadic participation is not significant enough in Dewas.

## 7.0 CONCLUSION

In concluding, we would like to address in brief two issues:

- i) The location decisions of firms in Dewas; this will simultaneously be exploring the applicability of concepts forming the backbone of neoclassical theory.
- ii) Speculation on the possibility of expansion of the factory sector in Dewas, now that several locations have emerged which are superior in terms of State assistance.

Neoclassical industrial location theory takes the firm as the unit of analysis. The circumstances are characterized as either perfectly competitive with a fixed price and lack of firm interdependence or as 'markets' where there is considerable firm interdependence and where demand/market share responds to price changes. The location decision is considered as part of the strategy to maximize profits (which, depending on the market conditions could be different from another chiefly by way of differing availability of relatively immobile resources (such as labour skills, service facilities, an 'industrial climate' etc.) of differing transport and communications costs, of differing agglomeration economies.

Complications are introduced with conditions such as unit cost of production varying with volume, retaliation by rivals and the ensuing uncertainty, other forms of locational interdependence, the unit cost of transport (per unit of distance) varying with distance etc. Firms are attached to processes which could have some input-substitution possibilities, which could incorporate different technologies and therefore different levels of capital intensity and labour skills, etc. Models are designed to yield specific outcomes -- the 'ideal' location for a firm, or more grandly, the ideal locational pattern of industrial activity (Losch); the spatial dimensions of the market reached, given the location, the minimum cost location given the spatial disposition of raw materials and markets; the locational factor's role in either the simultaneous or the sequential determination of the size, technology, location, market share, market area, profits and costs, etc.

'But much of this work is aimed at bringing the space dimension into conventional economic theory rather than providing a background from which to embark upon empirical studies of industrial geography'(Smith 1973, p.126) is a comment from a sympathetic survey of the work of Weber, Hoover, Losch, Isard, Greenhut and others who are major contributors to the body of theory presented by us above. The theory is merely an explication of the logic of

industrial accumulation with the spatial aspect as its centrepiece . 'Explaining' industrial location is examining how this logic of accumulation (and minor deviations, as accounted by the 'behaviouralists' among the contributors to location theory -- such as Pred or the institutionalists such as Galbraith) impels an evaluation of the spatial features of a context and causes a location decision to be taken. It would be useful for us to consider the probable evaluation undertaken by industrial investors in Dewas of the 'features' of Dewas town.

State assistance was an important factor in making Dewas an attractive location for industrial activity. However, the availability of state assistance does not explain either the specific mix of industrial investment in Dewas, nor why Dewas was preferred in comparison to other locations eligible for similar assistance. Any explanation would leave something to the imponderable, even if the explanation took into account tendencies/factors prevailing in any environment much larger than Dewas and its region. We here present some of the features contained in a rich environment in and around Dewas to shed a little more light on the location decisions.

As we have seen above, the only units which by locating in Dewas saved on transport and communications cost (see Klaasen, 1967, especially, p.43 for an introduction to

the context of communication costs. Unlike Klaasen's emphasis on distance created by cultural differences, we would emphasize the difficulty in penetrating markets which are entrenched suppliers/buyers and are at a distance) in the procurement of raw materials (non-manufacture) were the edible oil extraction plants. Several small units (e.g. foundries) processed material supplied by local manufacturing units. This could be considered as location driven by agglomeration economies (Latham, 1976 considers inter-unit flows as a part of agglomeration economies. See also Smith, 1971) or by a special form of transport economies. These supplier/client manufacturing units are located either in Indore or in Dewas. Few of the medium and large units address localized markets. In some cases, (textile weaving units), the market was the regional consumer goods market. In other cases, it was the regional industrial/intermediate goods market. This ends the inventory of those units whose material/market orientation prompted the location in Dewas if one considers such orientation as the tendency to locate in the region in which demand/supply is concentrated.

Most of the larger units in Dewas have widely dispersed markets. It becomes more difficult for transport costs to weigh heavily in the location decision because the relative importance of the various spatial pockets of demand

may keep shifting, even in the short run. In the long run, most large firms have the option of setting up plants at other locations, especially in response to changes in the spatial disposition of markets. It is possible that in addition to state assistance, multi-location firms located plants in Dewas on the basis of calculations of serving a national market from scattered locations. Dewas' being in Central India is of some importance here. Transport of goods for such units as well as units with localized markets, is considerably facilitated by Dewas' road-rail links.

That it is not material/product market considerations that have in any obvious way determined the location of units (especially the larger units) in Dewas is not surprising. 'Large scale markets mean that optimal distance-cost relationships for shipment of products are all but meaningless except in a few cases of very heavy final products or weight losing raw materials' (Storper, 1981, p.22). For most small units, however, localization of market (raw material and produce -- in the case of jobwork, the two could be regarded as just one market) seems to be the sine qua non, and the location seems to be market oriented.

The importance of Indore's proximity cannot remain unnoticed. Entrepreneurs or firms with interests in Indore, would have found Dewas as a superior location (given state



assistance) in the 1970s (before the emergence of Pithampur) for relocating units (as in the case of the Steel Tubes of India, Dewas) or for locating new units (horizontal or vertical expansion, such as by Kalpana Industries or the Sanghis). This could be considered a manifestation of the agglomeration economies discussed in neoclassical location theory, especially of the economies arising due to intra-firm spatial concentration. Further, access to Indore's 'urban' services and 'industrial' services seem to have been a positive externality for Dewas.

The labour situation offers a clue only as to Dewas' attractiveness relative to larger and more established industrial centres: the wage structure is relatively lower and there is a lower likelihood of disruption of production through militant labour action. The skill types and levels available in Dewas are of a relatively narrow range. Further, there is no sizeable 'pool' of incumbent skills that factories can draw upon. These are typical contrasts to 'agglomeration economies'. This would make it disadvantageous for skill-intensive units or units relying on esoteric skills. This disadvantage has been overcome to some extent by relying on commuters from Indore (a relatively expensive option) and by multi-location firms, through transfers from other plants.

Dewas thus falls somewhere between a diversified industrial centre displaying agglomeration economies and diseconomies and a relatively virgin location. The diseconomies of agglomeration (such as the contagion of labour militancy, job-hopping, strain on the relatively fixed public investment in infrastructure -- we have devoted a chapter to water supply in Dewas -- heightened localized competition for markets and for local supplies of skills and enterprise...) do not seem to have as yet acquired significant proportions. Though Dewas' stature as an industrial city is a recent phenomenon, and it did not till recently display much agglomeration, industry in Dewas has to a considerable extent been able to overcome the initial absence of 'economies' of such agglomeration. Thus, principals either spawned the entrepreneurs required to permit them to externalise production or found would-be entrepreneurs in the town ( ex-workers or traders, etc.). Firms maintain large establishments in Indore and there is considerable flow of goods, services and passengers between Dewas and Indore, the latter having a wide base of industrial services. It is likely that these possibilities of overcoming the shortcoming of Dewas' limited industrial, entrepreneurial, trading and labour skill basis would have been a part of the initial evaluation of Dewas as a location.

It is convenient now to move on to the second of our issues. Now that vis-a-vis state assistance Dewas is no longer a very attractive proposition, even in the neighbourhood of Indore (given Pithampur) it remains to be seen whether industrial growth in Dewas would continue -- now on the basis of features other than state assistance.

Dewas is left with whatever agglomeration economies it can offer and other locational advantages such as the proximity to Indore, the non-manufactured output of its hinterland, its location in Central India and the road-rail links. The discussion below pertains to growth arising out of discrete doses of investment, not due to marginal increases in output etc.

Our speculation will be based on Dewas' experience in the past decade. Agglomeration economies<sup>22&23</sup> can be of

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22. The discussion on the urban-size ratchet (see Thompson, 1965)- whether a city, having reached a size threshold ('size' could be variously interpreted in terms of population, manufacturing employment, size of industrial or urban services etc.) would even face a situation of a large contraction in population, manufacturing activity etc. -- seems of some relevance in speculating on Dewas' growth. Would Dewas' economy not merely not contract but continue to expand now that it has attained a certain size? Those who argue for the validity of the ratchet, point to several factors which build in a dynamism (or in its weaker sense, at least a non-contractionary safeguard) in a large urban economy: The economies of agglomeration, a diversified industrial base (freeing the urban economy of the fortunes of any single industry), preexisting commitment of a large volume of infrastructure and productive apparatus, the

four kinds: (i) The first order economies i.e. those internal to the firm. It is possible that firms which have committed resources in Dewas might consider Dewas with favour as the location of future investment especially (a) if the existing investment has excess capacity (in terms of developed land and other infrastructure, production facilities, top level management, labour skills, etc.) and (b) if the new investment is vertically or horizontally linked to the existing facilities and by locating in Dewas, would cause a saving on transfer costs. Investment in Dewas in recent times by the Gajras and Steel Tubes of India in units other than the first unit is evidence of the first order economies'.

ii) Second order economies or that based on inter-plant transfers (other than inter plant, intra firm transfers which are included in the first order economies) : This

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Footnote 22&23 Contd...

political power of the city's residents etc. Dewas might perhaps have not yet crossed that threshold -- the test is whether the existing agglomeration and diverse industrial structure ensure not merely non-contraction but continued expansion.

23 'Agglomeration economies' have received considerable attention from all those contributing to location theory, including the classical contributors such as Weber and Hoover; The almost obligatory section on 'agglomeration economies' appears everywhere, with variations in the terms of categorisation, emphasis and whether those economies which have essentially to do with savings on transfer/communication costs should be included. Our none-too-inane presentation's categories start with the narrowest basis -- intra-firm-- to build to broader bases.

would depend on (a) the possibility of linkages with units in Dewas and (b) the profitability of such linkages. In case of job work an intermediate process on such economies almost dictate juxtaposition given the to-and-fro transfers. Even at present, there are linkages among firms in Dewas of this kind : a spinning unit and weaving units, a foundry and a unit using its casting facilities, etc. Needless to say there are several considerations which could override the proximity argument.

iii) Third order economies or the economies of location of industry : If a location or region specialises in an industry, it offers very strong advantages in terms of the easy availability of a pool of skills, material, services and even outlets (buyers may flock to such 'centres' ) and the availability of some specialised services which may be industry specific and may require lumpy investment/certain demand threshold, and some disadvantages in terms of heightened competition for supplies from such a pool. Such localisation is sometimes due to natural factors such as mineral or forest resources, climate, natural features such as harbours etc. and otherwise attributable to the forces of cumulation and accident. Dewas has a diversified industrial structure and therefore does not seem to offer the above economies, as such. Diversified bases are however associated with more stable trajectories relative to single industry concentrations.

iv) Fourth order economies or the economies of urbanisation. This is regarded by some as the true economies of agglomeration. Though Dewas does not yet seem large enough to support a base of the variety of services and the magnitudes that would constitute the force behind these economies, nearby Indore seems to compensate.

Speculation on Dewas would have to necessarily consider Dewas somewhat of an extension of Indore and therefore being able to offer more agglomeration economies than otherwise. We have already seen that the only non-manufactured local output that supports industrial activity is the soybean output. It is not clearly indicated as to whether Dewas will attract most of the investment in this sector because the soybean zone is large and contains some locations which are more favoured at least state assistance wise.

We will end by commenting on the diseconomies arising out of the rapid industrial growth of Dewas. We present two examples, each of which is discussed in detail in the next two chapters respectively: (i) A large part of the industrial workforce and the poor population that attends to any agglomeration of people, is being accommodated in cramped, poor quality and often badly located housing facility. (ii) Industrial consumption of water and the requirements of the growing population of

Dewas have caused a strain on the local ground water resources on which Dewas is crucially dependent. Whether these diseconomies will fall on Dewas' industrial growth is a matter of speculating on whether these will be translated into rising costs for industry. At the moment, as we shall see, the poor quality and cramped housing has not resulted in any strong protest from the poor. Thus, neither is there any upward pressure on wages (which are relatively low partly because workers survive on lower real wages by cutting down consumption of the housing good) nor is there increasing unrest. The strain on the local water resources is telling on the cost of supply, the increasing cost being borne by the population (increased labour hours and investment to secure water), the state (increased outlay as water supply, subsidies) and to some extent by industry (increasing dependence on own sources and increasing costs of extraction). However, the increase in cost has not been significant enough to cause either a curtailment of production (and thereby consumption of water) or the introduction of water-saving technology.

## APPENDIX

### *Select details on a few industrial units*

The profiles presented here are only of a select few units. The coverage could not be exhaustive either extensively or intensively. It is felt however, that with the exception of the small sector, the selection of units and of details regarding units covers the most significant features of activities in Dewas.

#### THE STANDARD MILLS CO. Ltd

The Standard Mills Co. Ltd. unit in Dewas which was originally a cotton spinning mill set up by a group of promoters which included the Dewas Jr. Raja, was acquired by the Mafatlals, inducted into the Standard Mills group and converted into a spinning-cum-weaving unit. This unit is located on the small Balgadh Industrial Estate formed in the 1940s by the Dewas Jr. Raja. In formal terms, this unit is not an independent entity and it does not publish an independent set of financial statements. The power to make several important decisions is centralised e.g. purchases of cotton are made centrally and the units belonging to the group are allocated different amounts.

Since the early 80s, this unit has been introducing labour displacing machinery in both spinning and weaving departments. Shop-floor employment has marginally shrunk with recruitment being virtually stopped and workers encouraged to seek premature retirement. Labour resistance to the increased workload was overcome with loyalty and submission being rewarded and a pliant union being manipulated.

Though the boundaries of the city have now expanded to include this factory a stretch of a mixture of farm land and marsh still intervenes between the factory



and land put to actual intensive urban use.

#### **KIRLOSKAR BROTHERS Ltd.**

Kirloskar Brothers Ltd. (KBL) set up a factory in Dewas in the early 60s to manufacture pumps for agricultural uses. It remains even today the only factory owned by KBL for the manufacture of pumps for agricultural uses. In the late 1970s, it took over New Precision India Pvt. Ltd. Dewas. This unit had been floated by a technocrat entrepreneur in the early 60s. It has facilities for casting and machining. KBL's marketing division is headquartered in Indore, facilitating its attempt to increase its all-India market share.

It continues to face fluctuations in demand across years, with the demand within each year following a regular cycle in keeping with the rhythms of agriculture. For some time, KBL Dewas had been getting some batches of parts manufactured outside its facilities and from 1984, it started handing out machining and assembly work too on job work basis. In the year 1985-86, Rs. 18 lakhs worth of machining and assembly work had been handed out on job work. In 1986-87, this increased to Rs. 38 lakhs. 16 of the 20 enterprises which undertook job work for KBL are located in Dewas with the remaining in Indore.

KBL's sales increased from Rs. 9 crores to Rs. 17 crores in the period from 1982-83 to 1986-87. The number of workers as per the muster decreased from 1125 to 970 over the same period, while the value of fixed assets increased from Rs. 3.28 crores to Rs. 4.34 crores. In 1983-84, a year before the jobwork subcontracting started in a big way, there had been a strike in KBL, with the demands centering around what could be characterised broadly as the 'returns to labour' issue. The strike was settled with KBL having to bear a higher 'composite wage' burden.

## GAJRA GEARS Pvt. Ltd.

The third factory that the early 60s saw being set up was the automobile gear manufacturing unit of the Gajra family from Indore - the Gajra Gears Pvt. Ltd. (GGPL). This family set up three more medium sized units in Dewas in the 70s, two of which manufacture gears of different kinds and a third makes gear boxes and other such inputs. Two small-scale units have been set up by relatives of the family, one of which undertakes computerised data processing for the other Gajra units and the other being a unit for heat treatment required by materials used/produced by the Gajra units. Besides, for more than a decade now, the Gajra group of units has been contracting out machining and assembly work on a job work basis.

Pujat Agricultural Industries and Garnet Tools Pvt. Ltd. are two small scale units set up in the mid-70s in sheds on the Industrial Estate on Ujjain Road developed by the Industries Department (M.P.) in response to the jobwork requirements of the Gajra group. Both units faced fluctuations in demand. Both attempted to diversify markets by developing independent products. Pujat started producing liners for diesel engines, reaching out for the Agra and Ludhiana markets of small oil-engine manufacturers. The sales of liners peaked in 1982 (around Rs. 18 Lakhs per annum). By 1987, however, the revenue from sale of liners was negligible, Pujat having been outcompeted, mainly pricewise. Pujat had to fall back upon job work from the Gajra group (value: Rs. 5-6 lakhs per annum) for maintaining a precarious existence. Garnet Tools has managed to reduce its dependence on job work from the Gajras from about 70% of total revenue in 1982 to zero in 1986, with its revenue from the sale of its products-carbide tipped saws and woodworking machines mainly sold within Madhya Pradesh-amounting to approximately Rs. 21 lakhs in 1986.

## **RAHUL STEEL FORGING Pvt. Ltd.**

This company commenced production in 1971. Its owners were a jagirdar trader family which could trace its own influential presence in Dewas backwards to at least three centuries in the past. This is the only instance of a family belonging to the old elite setting up a manufacturing unit of some significance. The promoter is a former employee of Bajaj Auto Ltd. Pune. Despite the gradual emergence of a local market, units in Pune especially Bajaj Auto Ltd. continue to be the major clients of this unit.

## **THE BANK NOTE PRESS**

The Bank Note Press (BNP)-the only public sector unit in Dewas -commenced production in 1974, after a year of hectic construction activity. The location of the BNP in Dewas is generally regarded to have arisen less out of considerations of industrial dispersal and more out of the exigencies of a political democracy and the tendency to nurse constituencies. Old time residents of Dewas town regard the BNP as the herald of the new age in Dewas town.

The possibility of employment in the construction activity attracted people from as far away as Vidarbha. Around the same time other factories too came up which though being much smaller supplemented the BNP. In March 1988 the BNP employed around 2800 persons-2165 on the shop floor. The wages and salaries are estimated to amount to Rs. 775 lakhs for the year 1987-88 (a revision of pay scales is to be put into effect soon which will raise the bill to Rs. 900 lakhs). In 1981-82 the bill was only Rs. 157 lakhs. Since then, the rapid increase has been due to both increased employment and revised pay scales. Almost all the employees reside in Dewas town (roughly a thousand availing of the housing facilities offered by the BNP on its own campus). The pay scales at the BNP are among the highest relative to other units in Dewas. Further, all the shop

floor workers in the printing department routinely earn sizeable additional income by working over time. Most of the skilled shop floor jobs and the managerial ones are handled by migrants.

#### **TATA EXPORTS Ltd.**

Tata Exports Ltd. (TEL) was one of the first to set up a unit in the Industrial Area. Motivated then by the attractive prices at which land was offered on lease in the Industrial Area, TEL leased in land much in excess of what was needed in the near future. Thus, more than a decade after the commencement of regular production runs of its factory which manufactures leather goods, an 83 acre plot leased in by TEL lies unused. This is in addition to the extensive premises of the leather unit and the plot on which sheds have been constructed and rented out to 'ancillary' units. The Dewas plant is the only processing unit of the Leather Division of TEL. This plant consists of two departments : 'Finishing Department' which prepares tanned leather (Wet Blues) for conversion into shoe uppers and garments, and a 'Shoe Uppers Department'.

TEL purchases both raw leather as well as 'wet blues', the raw leather undergoing the tanning process in units which are virtually captive, dependent on the tanning job work contracts handed out by TEL. One such unit is located in the Siya Leather Complex about 13 kms. from Dewas. This tannery was forced to shift out of its former location near the Standard Mills by public protest against the polluting effects due to the tannery's water borne effluents. There are at least four small leather processing units which on a contractual basis converted wet blues supplied by TEL into leather garments and shoe uppers as per TEL's specification. Three of these are located in Dewas, on sheds adjacent to TEL's factory which have been rented to these units by TEL. The arrangement between TEL and these ancillary units sometimes takes the

form of a 'purchase' of the leather products by TEL. In 1987, these three units together employed an average of around 250 workers. In the same years, TEL's employees numbered approximately 890.

#### **S.KUMARS GROUP OF COMPANIES**

This group is deeply entrenched in the textile distribution channels. Prior to the setting up of the Dewas units, all cloth branded S.Kumars' was either purchased by S.Kumars or woven/processed on job work contracts for S. Kumars. Apart from a sick unit in Bombay taken over recently by S.Kumars, the Dewas units are the only textile manufacturing/processing facilities owned by this group. The processing unit uses cloth woven in the in-house facility as well as cloth woven on a jobwork basis by the 'powerloom' units in Dewas, Indore, Bhilwara and elsewhere. While the in house facility in S. Kumars Enterprises, Dewas has 140 looms, three units in Dewas which were entirely dependent on contracts from S.Kumars contained 115 looms as of 1987.

#### **SHUBHAM SYNTHETICS Pvt. Ltd.**

This is a small weaving unit (50 looms) which neither undertakes job work nor has privileged access to any distribution network. It is attempting to project its brand name in the regional market. At present, most of its sales is confined to the local/regional market. It gets more favourable terms from local cloth dealers than from upcountry dealers. Unlike Bhilwara in which many such units are located, Dewas does not attract upcountry dealers and favourable terms.

#### **PRESTIGE FOODS Ltd.**

It is a rapidly expanding unit in the edible oil (mainly soybean oil) extraction industry. Its promoters

have floated other edible oil extraction units elsewhere. Also they have floated a factory manufacturing LPG cylinders in Dewas-Prestige Fabrications Ltd. Prestige Foods Ltd. is attempting to sell edible oil under its own brand name, apart from selling in the bulk oil markets. Indore is a major soyoil market collecting this oil from plants all over Malwa and the neighbourhood (the major soybean growing and processing region in India). The soybean is procured from mandis all over the region (including Dewas mandi). Some of these purchases are routed through licensed traders in mandis who buy on behalf of the extraction unit on a commission basis, the payment to the farmers being made directly by the extraction units. The rest is purchased from these licensed traders. Sometimes, single traders act as a commission agent for, as well as a seller of soybean to, the same extraction unit. At least three of the largest trading families operating in Dewas mandi act as commission agents for various oil extraction units located in Dewas.

#### **K.D. WIRES**

K.D.Wires (1987: average employment-16 workers. Turnover-Rs. 48 lakhs) is a relatively successful small scale unit which manufactures enamelled copper wire used in electric motors for a market restricted to Madhya Pradesh. Its promoters formerly employed in CIMMCO, Gwalior found Dewas an attractive location in 1982 when Dewas was one of the few 'backward' areas in Madhya Pradesh which boasted of an 'Industrial Area' as well as social infrastructure such as housing, medical and transport facilities. The sales tax subsidy is for a five year period. Now, the promoter is considering a shift of the production facility to Indore where he resides.

## **S.V. INDUSTRIES**

This is another successful smallscale unit which has spawned three other small scale units. The promoter was formerly employed in a factory in Indore manufacturing lamp components. The four units in Dewas manufacture various lamp components, mainly bulb caps to be sold to lamp manufacturers all over India, the marketing being aided considerably by the contacts developed by the promoter while in employment. The four units together employ about 350 workers.

## CHAPTER 3 : HOUSING

### 1.0 INTRODUCTION

#### 1.1 REVIEW OF THE EXPANDING ECONOMY

Since the mid 70s and particularly in the decade between the mid 70s and the mid 80s, Dewas was gripped by an expansionary trend. Chapter 3 attempted to capture the essence of that by focussing on industrial activity as the prime mover. Here, we present a summary of the trend. In the decade under consideration, several industrial units commenced production in the units established in Dewas. Most of the industrial workers stayed in Dewas town, the rest being scattered among the villages around Dewas. Some of the employees especially the ones at higher levels preferred to stay in Indore. Industrial activity sparked off a host of linkages with local enterprise engaged in trading, transporting or processing materials used or produced by the industrial units. Further, there came up units trading in spare parts, servicing or repairing machinery, undertaking minor construction work, providing labourers in contract, etc. Expanding industrial activity and a growing town were accompanied by an expansion in employment in government offices. Government expenditure on infrastructure spawned contractors who undertook construction work and the supply of materials and labourers. Private and mainly small-scale



enterprises strove to grasp opportunities in trading, petty manufacturing and the provision of services, these opportunities arising out of a growth in population employment and incomes.

The increasing numbers had to be housed and the demand for altered housing space by those with altered abilities to pay and altered requirements, had to be met. In this chapter, we will be studying the response to this situation in the housing sector in this decade.

## 1.2 LOCATION ELEMENT

At the outset, we would like to introduce a concept that will be in frequent use to characterise any facility erected on land ( house, shop, factory or office ) the 'location element'<sup>1</sup>. The specific location of the facility confers certain characteristics upon the facility other than size, architecture, materials used, etc. These stem from the following factors:

- i) The distance factor : Depending on what use the land is put to and who the user is, there will be traffic of varying

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1. Though this concept finds wide usage, its definitions are by and large confusing. Ball and Kirwan (1975) in discussing spatial 'dimensions' (which seems to correspond to our 'location element') include some of the 'factors' listed, here as well as some processes (e.g. historical development of the town or land use planning) which contribute to these factors. We therefore feel the need to clarify our concept.

volume & frequency between the site & other points in the town. The location determines the geographical distance and the case of transport.

ii) The infrastructure (other than transport) factor : Public infrastructure availability is known to vary across location. Private investment in infrastructure could depend on the collective ability to pay of the neighbourhood.

iii) The neighbourhood factor: Who the neighbours are and what use the neighbouring land is put to, affect the user in several ways.

iv) The ecological factor : Features such as the topography, natural drainage, availability of ground water etc. affect the user and the use.

The location element could be user/use specific. Further, over time, one could expect the location element to undergo change. This element is relatively independent of initiative by a single user, unless the user is large (see Lamarche, 1976, on the activities of property developers). In the text that follows, this concept would be used to various ends.

### 1.3 AN AGGREGATE AND THE INTRODUCTION OF AREAL TRIFURCATION

The total number of residential houses<sup>2</sup> in Dewas in 1976 was 4515, in 1979, 6121 and in 1987 11504 (See Table 3.1). In 1981 the population of Dewas Municipal Area was 84267 forming 14336 households. In 1982, the municipal limits were expanded to include among others, the industrial areas on Indore Road and a few villages neighbouring Dewas. Table 3.1 treats these villages separately. In this chapter these villages will not be looked at.

The old town comprises all those areas which were settled prior to Independence. Almost all the land in this region had been by the early seventies committed to physical structures, users and owners. Though the old town is homogenous in this aspect, there are wide variations in several respects. Our presentations of information on a few localities and on two broad categories, which appears in the Appendix, reveals this heterogeneity. The

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2. A house is defined as a contiguous housing facility owned by a single ownership built (which could be a single person or more than one joint owner). Each house can contain more than one household (taking 'household' as defined by the Indian Census). The Municipal Corporation's records from which the information is gleaned does not explicitly state its definition of 'household'. The tenant household unit implicitly defined as a unitary contracting party in the rental transaction. Table 3.1 (All tables prefixed with 'A.3' will appear in the appendix to this chapter) presents information on the number of households per house in a few sample localities. The average number of households per house across our sample is 2.4.

**TABLE 3.1 : NUMBER OF HOUSING UNITS IN BROAD LOCATION CATEGORIES IN SELECTED YEARS**

Year	Total	Old town	Intermediate town	Balgadh & neighbouring areas which have been an outcrop of Dewas since long	New town	Outlying villages which have become a part of Dewas town since 1982.
Number of housing units						
1976-77	4515	3730	595	190	-	-
1979-80 <sup>1</sup>	6121	4910	839	284	88	-
1986-87 <sup>1</sup>	11504	5690	1257	909	1812	1836
Number of households <sup>2</sup>						
1976-77	7808 <sup>3</sup>	6543	959	306	-	-
1979-80 <sup>1</sup>	14145 <sup>3</sup>	11844	1645	557	99	-
1986-87 <sup>1</sup>	24242	14196	2514	1818	2042	3672

**Source :** The Municipal Corporation's property tax assessment registers.

- Note :**
1. These figures are figures for 1984-85 updated till 1986-87 and therefore can be regarded as pertaining to 1986-87.
  2. The ratio of houses to households is based on extending the findings of our study of a sample of localities in Dewas town. The sample covers in three period between 20% and 30% of the houses in the old town and between 42% and 52% of the houses in the intermediate & new towns.
  3. As per the Census 1981, Dewas town contained 14191 households (Table A-5 1981 Census). Our estimate for the households in Dewas town as in the year ending March 1980 seems to be a slight over estimate. We will however over look this error.

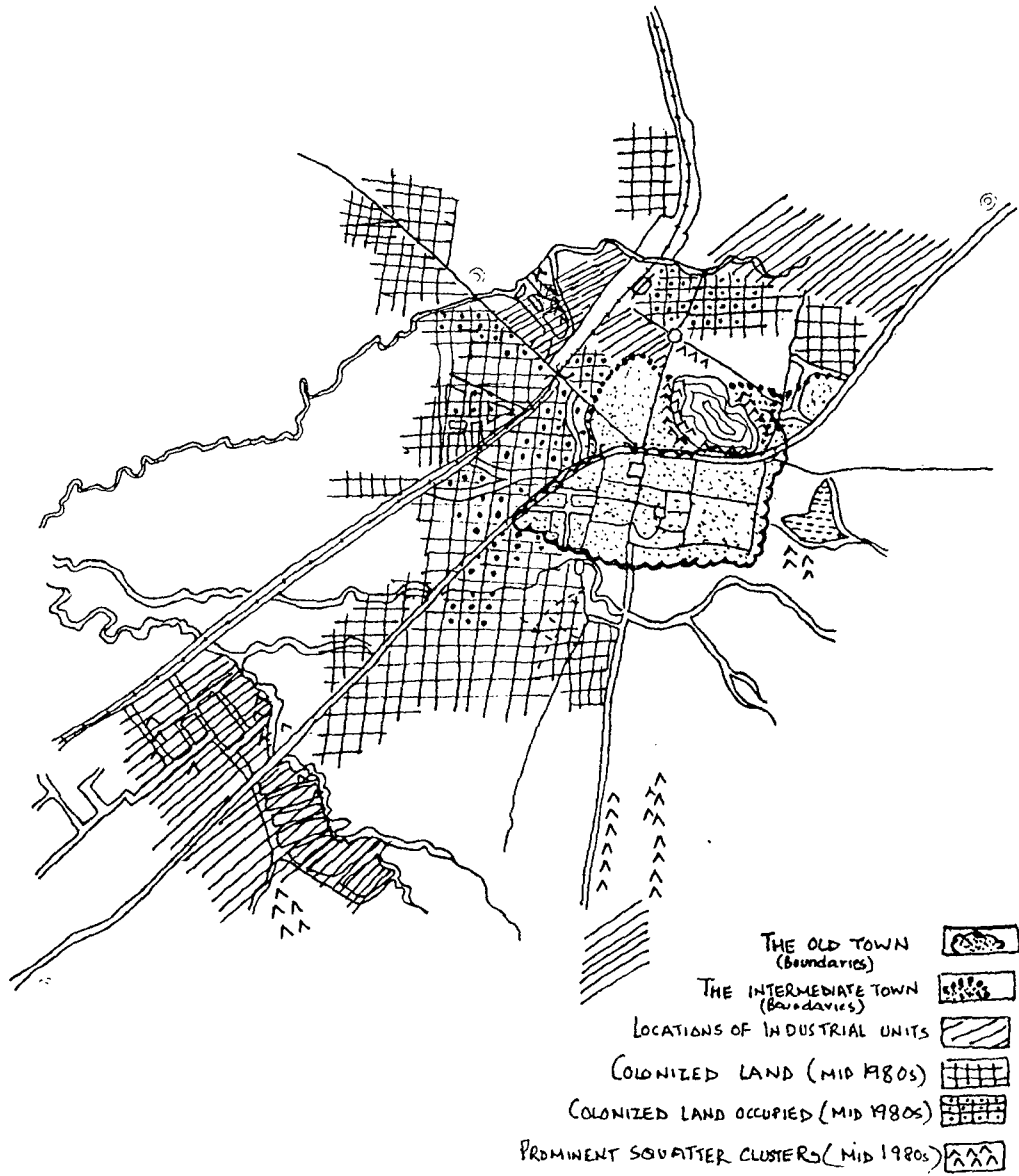
intermediate traces its origins from the 40s, to the mid 70s. Most of the land brought into use here underwent the formal process of colonizing<sup>3</sup> but in a period when the town's population grew at a lower rate than in the 70s and the 80s. We will be including the Tekri in the intermediate town - the settlements grew around it. The Tekri slopes are the site of major squatter concentrations, all of which came up after the mid 70s, with agricultural land being developed into housing colonies by 'colonizers' and with some land being used by squatters. The new town's commitment to urban use, users, and physical structures is of recent origin. Much of the land in the new town has not yet been constructed upon. The intermediate town, in its aspects of partial & relatively recent 'commitment' and of open spaces, falls somewhere between the old and the new towns. This trifurcation is represented in the accompanying map.

Table 3.1 disaggregates the data on number of houses, according to the areal trifurcation introduced above. We can see from the above table that even in the year 1986-87, the old town hosted a majority of the population of Dewas town. A decade earlier, it was almost all that the town was. Since then, it has continued to absorb a

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3. The process of colonizing consists of investment in land development and formal procedure to get this developed land approved for urban uses. Details appear in Section.

# MAP

## DEWAS : AREAS AND HABITATS



sizeable number of households. The intermediate town, as can be expected, grew faster in terms of the number of households. Though Table 3.1 shows that the new town has grown phenomenally, it is only some colonies in the new town that have approached near saturation levels of houses. As will be evident in our section on colonizing, the new town is a sprawl, mainly in the form of land either fully or partially colonised, with few houses relative to the land area.

#### 1.4 THE 'HABITAT' TRIFURCATION

We will be dividing the residential arrangements, in the town into three divisions along a different set of criterion. Firstly, these are the buildings which have existed for over a decade with or without having undergone alteration. Such buildings exist in localities where there existed already installed physical infrastructure. The incidence of sale of such property is relatively low. Such property housed larger populations through minor & major alterations in the physical structures, changes in the occupancy ratio and changes in the tenancy status/ratio. Secondly, there are those new structures which have come up without their sites having undergone the process of colonizing. A majority of such structures are squatter dwellings & form squatter settlements. Thirdly, there is the land that underwent the colonizing process and passed

on to the user. Such land was routed through the speculator circuit ; though it was formally required that colonizers create an adequate standard of infrastructure, in several colonies, such privately provided infrastructure is either inadequate or partially installed. The extension of public investment in infrastructure has occurred only in few instances.

Though the three habitats do not coincide with the three areas, it could be said that the old town & to a much smaller extent, the intermediate town contained the first of our habitats. Several squatter settlements are located in the intermediate town, mainly on the Tekri's slopes. Till the early 80s, these bastis were primarily an intermediate town phenomenon. With the population in these reaching saturation point, and with an increasing number of squatters seeking employment in factories, squatters have looked elsewhere, at space near and amidst factories located around the railway station and in the Industrial Areas along Indore Road and at other interstices in the new town. The third of our habitats exists predominantly in the new town.

We will now be discussing the three areas of the town. In each, we will be focussing on what we consider to be the most significant phenomena; these may not be unique



to the area but may be concentrated to a significant extent in the area.

The first part of the section on the old town will take a broad look at the continuing importance of the old town in terms of housing as well as commercial activity and at changes in some specific categories. We then move, perhaps a trifle abruptly, to a discussion of the rental market, in the old and the other areas of the town, the positioning of this subsection being (i) the old town hosts a majority of the tenants and (ii) much of the change in the town was through the rental market. The section on the intermediate town will consist of a subsection on squatter settlements (which will include information on squatter settlements in the new town) and another on three well-established neighbourhoods of Dewas today. The section on the new town will start with a discussion on investment in housing - primarily in new housing, which will be followed with the major feature of the new town ie. colonizing-cum-land speculation. The section will end with a brief note on government regulations relevant for the housing sector. Most of these regulations leave the older habitat untouched.

## 1.5 DATA BASE

### 1.5.1 Introductory

Before looking at selected aspects of the three areas into which we have divided the town, we would like to introduce our major source of documented evidence : the Assessment Registers at the Property Tax Department of what is now the Municipal Corporation of Dewas. Extensive surveys of housing units had been conducted in 1976-77, 1979-80 and 1984-85, the first by the Excise Department, the others by the municipal authority. A register appended to the 1979-80 records contain the results of a survey conducted in 1982-83 of some of the fastest growing areas, mainly in the town. (The 1984-85 survey has been getting updated, somewhat irregularly with new housing units and plots getting registered at the owner's initiative. Thus, the 1984-85 Assessment Register can be considered as a record of the situation as in, say, 1986-87).

A housing unit is a contiguous housing facility registered under a single ownership unit (which could be either one individual or more). If the unit is owner-occupied (fully or partly) one could impute that the number of households (as defined by the Census) occupying the house equals the number of tenant households plus one. Such an imputation could be used to calculate the densities of population in the various neighbourhoods, since it is widely

accepted that the household as defined by the Census is of a relatively unvarying size, given a sufficient sample size. However, one is wary of using such an imputation for the old town because of the following reason: A significant proportion of the increase in the number of housing units in the old town in our decade is attributable to a subdivision of property among former coowners/heirs of former owners. The sheer number of occurrences of this phenomenon of subdivision prompts one to speculate that this might be the mere formalisation of an already existing division of the family into separate households (triggered off probably by rising values of real estate). If this proposition were true, it would be misleading to calculate population densities on the assumption that each ownership unit is a household -- the average size of such households being unvarying over time.

These surveys were conducted locality wise. The delineation of localities in the first two surveys differs at the margin from that in the 1984-85 survey. We have attempted to match these to arrive at a delineation which makes possible a rough correspondence among the records, of the location classification; our reconciliation is informed by an intimate knowledge of the geography of the town. This has made it possible to trace across the surveys the localitywise changes.

### 1.5.2 Caveats

While interpreting the changes, it is necessary to keep several points in mind. It would be possible that several houses may not have entered the register either because of questionable legitimacy of the houses or because of collusion to evade property tax. However the property tax rates are nominal. Besides, for an entire colony and its houses to be eligible for the facilities offered by the Municipal Corporation, the houses have to be registered at the assessment office.

We are told that in bastis with irregular streets and confusing house ownership construction patterns, the assessors have not been meticulous enough. Pathankuan and Jabran Colony are cited as examples of such bastis. In areas where houses are built so as to constitute what is known as 'encroachment', the inclusion of such houses in the Municipal registers was due to reasons other than the fact of their mere existence. The assessors tell us that in 1979-80, they were pressurised by local political bosses to include some encroaching structures. During and after the 84-85 assessment, the Nazul department of the Collectorate sent lists of hutments legitimised by the grant of pattas under the 1983 Act (the details of which are presented below) to be included in the records. This brought into the records houses whose existence antedated their being

entered into records. This also indicates that these records could by design exclude a large section of housing, primarily of the poor.

The 1984-85 records include an inventory of empty plots. This would not list the plots bought on instalment purchase schemes (a majority of the plots bought from private colonizers falls in this category) unless the ownership of the land has been transferred to the buyer - which could be expected to happen after the payment of all the instalments. We are told that many of the buyers are reluctant to get plot title transferred presumably because, for speculators, this would increase the transaction cost of their activity.

We are told that often, what had been formerly registered as a single housing unit gets registered in the succeeding survey as more than one housing unit despite there being no alteration to the housing units. This could happen when there is subdivision of property upon sale or inheritance. Conversely, even if the housing space alters (either by expansion or by replacement with an altogether new structure) as long as the ownership continues to be vested in the same number of persons, the unchanging numbers would be concealing changing housing facility.

In our analysis, we will be using the number of rooms in a house as an index of the size of the house. The

earliest of our surveys does not contain any information about the size of houses. We will be using the ratio of fully owner occupied houses to total number of houses as an operational index of the extent of the phenomenon of renting out space. We will call it the Rental Market Index.

## **2.0 THE IMPORTANCE OF THE OLD TOWN**

### **2.1 THE OLD TOWN'S CONTINUING TO ABSORB POPULATION INFLOW DESPITE EXPERIENCING DETERIORATION**

#### **2.1.1 Increasing congestion in the old town relative to other areas**

The population of the town grew in the 1960s and the 1970s. Needless to say this increase owed much to migration, i.e. the influx of households with no prior housing interest in the town. Geographically the town spread. This spreading was noticeable much more in the sixties. There were two instances of formal discrete expansion, once in the seventies and once in the eighties. Thus the municipal area has expanded from 11.53 sq. km. in 1971 to 17.36 sq. km. in 1981 to 117.57 sq. km. in 1986. The increase in the population was absorbed partly by the old town. The number of housing units of the old town increased from 2499 in 76-77 to 4681 in 1986-87. In the same period, the number of households grew from 6418 to 14057. Given that by definition, the old and intermediate towns are

spatially circumscribed, the increase in their population meant growing areal densities. In the old towns, growing areal density was accompanied by growing congestion in the housing stock too as the rooms per household declined. In the intermediate town however, the number of rooms per household increased during this period. Interviews with resident of the old town brought out the decline in the quality of public infrastructure and utilities. Even for their quality to be just maintained, it would have been necessary for public (mainly municipal) investment in infrastructure to keep pace with the increase in population, which would have meant more than proportionate increases, given that the physical structure that the utilities were committed to, would perhaps have required considerable redesigning and reconstruction.

#### **2.1.2 Population growth despite deterioration**

Despite increasing congestion and the declining quality of public utility services, the population in the old town increased rapidly and in particular today hosts a very large number of tenants to accommodate this increase there was considerable private investment in housing in the old town<sup>4</sup> although this has not been able to reduce

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4. It has to be kept in mind that we are studying the immediate response to sudden and massive influx of population.

deterioration in quality of housing stock or a fall in the number of room/persons (the rooms per household in a sample of localities in the old town fell from 2.41 in 1980 to 2.36 in 1986).

i) Population influx to Dewas town was rapid and massive. This required that the availability of housing facilities be increased rapidly. The response was mainly the creation of new housing space out of existing housing stock (by decreasing the number of rooms per household especially per tenant household) and out of marginal alterations to existing stock (addition of a few rooms, with or without any additions to 'private' services), this creation coming about without additional creation of public utilities. The response was thus entirely dependent on private initiative, and, even small investors (cum-house-owners) participated in the process of creation of new housing, thereby widening the base of suppliers and resources which would be engaged in the effort of creating new housing space. The housing space thus created differed from that which would have come about by the construction of entirely new housing stock (unattached to existing stock) in lower marginal investment, by passing the purchase of land and creation of public utilities, and was carved out by atomistic small investors with relatively low initial capital rather than undertaken either by an association of users or by some large intermediary as in the case of colonization which to



place in the new town and was virtually pre-empted by this class of speculators -qua-colonisers.

ii) A large number among those seeking new housing (mainly migrants) owned few resources and were either uncertain of unemployment prospects or had secured jobs at relatively low wages. Such households were interested in minimising outlay on housing (at the moment, we include the transport cost, incurred as members go about their daily life which would involve travel from their residence, in the outlay on housing). Not only would such households prefer rental arrangements but they would choose ones at 'minimum costs' willing to make do with bad living conditions. The creation of rental space in poor neighbourhoods in the old town where such creation implied little marginal investment in public utilities and little marginal investment in 'private' services too for the existing facilities could be shared - by atomistically operating small investors - who would perhaps be willing to accept lower rates of return than those large investors in housing who could consider investment avenues other than housing too and for whom the investment in housing could be entirely free of any element that deviates from the maximum - returns calculation<sup>5</sup> - fits

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5. Such as that which could exist for one who rents a part of a house in the use-value of which he has an interest either contemporary occupancy or future occupancy. Most of the small investors do have such an interest in the housing space they offer on rent.

the bill for such poor households. Rental values would be lower because of less space and poor services and utilities. The latter would be expected as a result of lower investment in housing stock, lower 'location' value and possibly lower return to the investor.

iii) The old town continued to be quite important as a location of economic activities (mainly trading and petty manufacturing and servicing enterprise) and as the locus of some 'social' infrastructure such as hospitals, schools etc. (We will be detailing the continuing importance in the next section). This meant that the location of residence in the old town would be important for many households, including relatively affluent households (especially those engaged in trade it has been widely observed that in India, at least, commercial streets have traditionally hosted both shops as well as residences of the traders. That this tradition continues, though perhaps not in all its strength in Dewas was evident during our field survey. Some of the most prominent among Dewas' wholesale grain dealers, jewellers, moneylenders, cloth traders etc., operate from their residence-cum-office-cum-outlet. So do some of the most humble traders. Almost all of these arrangements are located in the old town). Thus even while a large number of migrants sought housing space (mainly rented) in the old town to take advantage of the offer of a large number of low rank 'dwellings' and of the proximity of such dwellings to

sites of employment and social amenities, a large number of those who already were residing in the old town preferred residing in the old town. The old town thus grew denser.

Many of these residents of the old town, some of them affluent as of generations have participated in the boom the town has been experiencing by engaging in diverse trades--commodities trade, repair workshops, construction or material supply contracts, employment etc. This not inconsiderable inflation of income has impelled some movement out of the old town. It has also helped finance private investment in housing in the old town. Discussions with residents suggest that the incidence of land sale in the old town was relatively low. So the response in the form of private investment in housing and changes in occupancy characteristics was largely by relatively old-time owner families a majority of which could be regarded as capable only of small volumes of investment.

### **2.1.3 Changes in old neighbourhoods**

There are significant variations within the old town in responses in terms of, for example, the alteration of physical facilities or the offer of rented space for houses/shops or the particular segment of tenants catered to. We will first look at localities categorised broadly

into richer and poorer localities. For short selective descriptions of a sample of localities, see the Appendix.

#### 2.1.3.1 Relatively Affluent Localities

A few localities contain houses which on the average are larger in size than the average for the entire old town. These are regarded as the relatively richer localities. Apart from containing houses whose 'quality' is better than the average, such localities are provided with better infrastructural facilities, this being just another instance of the complementary relation between private and public investment. Krishnapura, M.G.Road, Sutar Bakhhal (all in our sample), Radhaganj, Bada Bazar, Vijaya Road and Nayapura are all examples of such localities. Most of the badas of the erstwhile nobility were located in Krishnapura, M.G.Road and Bada Bazar. The other category of the erstwhile elite - rich traders - had houses in Bada Bazar, Nayapura, Vijaya Road and M.G.Road. In addition badas were scattered in Sutar Bakhhal, Haibatrao Marg, Rajab Ali Marg & other localities. In the post - Independence period, several trader households have prospered and built themselves mansions. Prominent examples are the few refugee families from Pakistan who flourished as traders and contractors and eventually built themselves mansions along a stretch of the Agra - Bombay Road and on some streets leading off from this stretch.

Few of the pre-Independence badas have changed hands, the sellers often simultaneously quitting Dewas. While the non-trader elite families have suffered a relative decline with the present day descendants in most cases either becoming government employees or entering into the 'professions'; most of the erstwhile trader elite have prospered due to involvement in the expanding traditional trades as well as the booming new trades.

The changing fortunes of these families and the changing nature of their integratedness with the rest of the town are features which shed light on changes in these localities, which take the form of investment in housing, transfer and renting out of property, emigration of some families from Dewas and the migration of some households to the newer regions of Dewas town. The renting out of space in big houses seems to be a common phenomenon with the houses sometimes undergoing alteration (including expansion), the exceptional case of houses not entering the rental market being when consideration of lifestyle overrides market stimulus (this being facilitated if the owner family prospers). When one looks at the number of rooms per resident household (see Table A.3.1), the figures relating to these neighbourhoods are not significantly different from those pertaining to the poorer neighbourhoods. Thus, the rental market seems to be a leveller across neighbourhoods inasmuch as the number of rooms per household is concerned.

#### 2.3.1.2

#### Relatively Poor Localities

Several neighbourhoods register houses whose average size is smaller than the average for the entire old town. Areas such as Rewa Baug, Shantipura, Kumhar Gali (all in our sample), Mukti Marg, Bhawanisagar, Pathankuan and Bherugarh are among the localities with smaller average size of houses. These areas were historically poor localities, some containing communities specialising along occupational lines. Such neighbourhoods have tended to be formed on locations characterised by a relatively low pressure of land (cheaper land or less reprisals on squatters). That these neighbourhoods are scattered all over the town, not necessarily along what are presently the boundaries of the town, bears witness to the changing spatial dimensions of the town; the story that would most likely emerge, as one relates the period of initial formation of the locality with the contemporaneous spatial dimensions of the town, would be as simple as the following : squatter settlements tend to develop where pressure on land is least and fear of eviction is minimum. In compact towns (with no open intervening spaces) such areas are found along the outskirts. The open space that the households manage to secure around their houses and that which the neighbourhood manages to contain within its precincts depends on this pressure on land. These open spaces attached to houses could have been used for storage, housing animals or as extensions for residential

use (given the clement weather for most part of the year). As the town grows around them, engulfing them, it is only when the pressure on land increases beyond a threshold that these open spaces (especially that which is cordoned off as private property) get built upon (one would encounter exceptions such as when this is prompted by growth in the size of the household that is to be accommodated there or by an improvement in the economic fortunes of the family coupled with the desire for more housing space).

This threshold seems to have been crossed for several families only in the late 70s. The response of families in terms of altering the construction is limited by the capital the family has access to. The quality of housing offered and the market segment this space is addressed to are thus influenced by the resources the owner has access to and the antecedent position in terms of nature of existing housing, the nature of the neighbourhood and the public utilities at hand. The decision to sell off one's entire property might mean uprooting oneself from a network (with definite spatial dimensions) of not merely economic ties but traditions of mutual assistance and social contact. This explains the extreme reluctance to respond to economic pressures to sell. Such economic and extra - economic significance of the location is itself subject to changes..

One significant conclusion that emerges from our sample is that till the mid 70s most of the poor neighbourhoods (Rewabaug, Kumhar Gali, Shantipura being the relatively homogeneous poorer neighbourhoods in our sample) had a lower than average market index. But by the mid80s, several of these had almost caught up with the average. This could be understood against the following context: the poorer localities tend to attract relatively poorer households. A large number of the families which migrated to Dewas were poor families. That these families required housing arrangements resulted in low rent housing units having many takers<sup>6</sup>

## 2.2 THE CONTINUED INTRA-URBAN IMPORTANCE OF THE OLD TOWN IN ASPECTS OTHER THAN HOUSING

### 2.2.1 The Spatial Disposition of Activities: A Description

We will begin with an inventory of the economic activities located in parts of Dewas other than the old town. All the large and medium scale factories and almost all small scale factories are located outside the old town in three clusters, in the increasing order of magnitude, the Balgadh cluster (on an 'Estate' formed in the 1940s) the

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6. This tendency ties in well with the tendency that we have noticed and noted in the section on the rental market: that poorer location have accommodated a large number of migrants seeking cheap rented space.



railway station - B.N.P. cluster (all the factories that were established in the 1960s, some of those set up in the 1970s and an Industrial Estate for small scale units, are all located here) and the cluster on the road to Indore (the major Industrial Areas that were formed in the 1970s and a few units beyond, but contiguous to the Industrial Areas).

Two roads fanning out from the old town - both leading to the railway station - B.N.P. cluster - are important in ways other than being arterial roads. One - the Ujjain Raod which leads off from A.B. Road and runs onwards past the Industrial Estate for small scale industrial units to Ujjain - is lined on one side with offices of firms engaged in the provision of the service of goods transportation and on the other with workshops undertaking repairs to vehicles and shops selling automobile parts. A complex containing three cinema halls is located just off this road at some distance from the boundaries of the old town.

The second of the two roads mentioned above is the Station Road. The Station Road issues forth from one of the gates of the old town situated on A.B. Road looking northwards. The Station Road goes straight past one of the neighbourhoods in the intermediate town with the imposing Tekri rising sharply after an initial gentle slope, on the other side. The road then leads to factories, and forks,

one arm turning off along the factories, leading upto the station. The other arm straightens out along the original direction and leads to the Bank Note Press. Transport flows along this road, which skirts the Tekri, towards the railway station, some of the factories in the Station - B.N.P. cluster (including the B.N.P. itself) and to a few residential 'colonies'. Till March 1988, a small section on one side of this road (at the foot of the Tekri) was the site of the weekly cattle fair; the night before and on the day of the cattle fair, animals and owners would stream in along all roads leading into Dewas. The streams would converge along this section of Station Road. The T-shaped junction of the Station Road and the A.B. Road, houses the major concentration of building material shops and timber depots, marts and sawing workshops. A little beyond the former site of the cattle fair is a row of shops constructed by the Municipal Corporation, several of which are vacant while the rest deal in a miscellany of goods building material, general merchandise, food stuff etc. The A.B. Road marks the border of the old town along quite a distance.

The timber depots, sawmills and the cattle fair have been located out of the old town at least since independence. The building material trade has been largely a preserve of the timber traders and the facilities being juxtaposed seems to be derived from this sibling status. The auto workshops and the three petrol filling stations are

newcomers, hugging close to the major vehicular thoroughfares, the A.B. Road and the Ujjain Road. The truckers required space for parking trucks in addition to location on a prime vehicular artery. Ujjain Road was suitable for this trade and for the major entrant in the entertainment sphere—the three new cinema halls. Government office spread into adjoining Moti Bunglow which (being formerly comprised of large houses and plot belonging to the nobles of Dewas Jr.) was well 'developed' and had spacious premises to be let out on rent or had large plots.

But outside of the old town, one rarely encounters establishments engaged in wholesale grain trade or in the cloth, jewellery and money lending trades. Small shops selling dry grocery and perishable foodstuff, some small flour grinding mills, tailors' shops and some minor repair shops are scattered amongst the various neighbourhoods. And then there is the odd shop selling fertilizer or stationery..... The rest of the trading establishments are in the old town most of them arranged along some of the major commercial streets with some streets or stretches of streets specializing in specific commodities or groups of commodities. In the area around Subhash Chowk on M.G. Road and along Shalini Road are shops engaged in cloth, jewellery, utensils and money lending trades. For earthenware, residents went to Kumhar Gali, for bangles to Chudi Bakhal, for quilts, pillows and mattresses to a place

where a few Pinjaras lived. Those desiring to buy hardware were directed to Pitha Road and for furniture, a trip to J.P.Marg was considered appropriate. The old town contains all the shops selling modern consumer durables and almost all the private medical clinics (for medical examination as well as treatment), shops offering photocopying or typing facilities, shops selling pharmaceuticals, modern agricultural inputs, etc. The major weekly 'haat', which coincides with the cattle fair fills Jiwaji Chowk (which is the square behind the gate which opens northwards towards the Station Road and the cattle fair). The roads leading away from it are filled with miniscule shops; some of which pave the chowk and the roads while others are perched on carts.

The two major vegetable markets are in the old town and so are most of the shops selling tea, 'jalebis' and 'poha', the favourites of most of Dewas' residents. All the temples and mosques but for the ones on the Tekri are in the old town. The town's only cemetery is at the southern fringe of the old town. The two major public hospitals and all the municipal schools but one are in the old town (the only private school of any respectability<sup>7</sup> was set up in the

7. Much of what the new and intermediate town contain by way of educational and medical facilities are the residences of doctors, private tuition classes, 'nurseries' for preschool children, one small private hospital, a couple of clinics, a major private school and a municipal school.

mid- 70s is located at the outskirts of the town, a little distance from Ujjain Road. Two major hospitals are being constructed, both outside the old town-one is the new District Hospital; the other is the Employees' State Insurance Hospital.

### **2.2.2 The concentration of trading activity in the old town**

Firstly there is the tendency for certain trades to congregate. Secondly there is the phenomenon of the old town hosting the congregation. For several trades, congregation might be a major tactic to attract clientele. Of relevance is Hotelling's solution to the location problems faced by two icecream vendors (the only two icecream vendors) on a beach. Hotelling predicted a back to back location ( Hotelling 1929, discussed in Smith 1971, pp 138-140). This solution invited much criticism, one of which was, that by locating back- to- back, the sellers end up being undifferentiated and run the risk of losing the entire custom. Geertz gives us evidence about this risk existing in the real world . In Modjokuto pasars where similar traders congregate, all traders are faced with the problem that juxtaposition makes one shop almost no different from another. And yet Geertz's pasar traders choose to congregate (Geertz 1963).

It is widely agreed upon that outlets of shopping goods lead to concentration of shops in the same area (e.g. see Hoover 1948). By 'shopping goods' those goods are indicated, for the purchase of which the potential buyer is willing to travel long distances and would prefer to examine more than one outlet. Such purchase transactions would be infrequent per buyer, but the value of each transaction would be relatively high (to put it differently, the transaction would be important enough to prompt the customer to examine several options before making a choice. Another group of trades impels congregation: those where product differentiation is associated with locational differentiation. Thus, eating out in a down town restaurant may be regarded as qualitatively different from eating out at uphill restaurants. A suit tailored at Bond Street would be considered superior to an identical (read 'imitation') suit stitched in some suburb. The above tendency to congregate might result in the formation of a general trading district or in the formation of many trading districts differentiated (at times rather finely so) in terms of the commodities dealt in.

The old town in Dewas remains the centre for trade in traditional goods such as jewellery, grains, utensils, cloth, earthenware, bangles, etc as well as in 'new' goods and services such as domestic electric appliances, pharmaceuticals, medical examination facilities, etc. The

fortunes of many of the shops hinge on their being able to draw custom from all over the town and not merely from some small neighbouring areas. Outlets for 'convenience goods' such as dry groceries, barbers, bicycle repair shops, tea shops and flour mills are scattered all over Dewas. There are a few concentrations outside the old town which too draw their custom from all over the town, e.g., the timber and building material construction trade at the Station Road - A.B.Road junction.

That the congregation of trade in some commodities is located in the old town (and further, the congregation along certain streets) can be explained by turning to factors of a different kind as in the paragraph that follows.

In Dewas, along commercial streets (e.g. Vijaya Road, Shalini Road, Pitha Road) much of the property is owned by trader families; often the shops on the ground floor street-front being operated by the owner family. Such families may set up more shops on own premises (these shops need not all necessarily be in the same trade). Often, the houses have been designed/altered to make possible the maximum usage of space as shops. For those traders who wish to rent in shops, space which could be used as shops would be more easily forthcoming along such streets. Along Pitha Road and Vijaya Road, shops have multiplied, often the owner's

shop alternating with the tenants' shops. It might be worthwhile for traders to congregate spatially in terms of location of shops because this might facilitate social contact among traders, such contact being important in view of the possibility of complementariness in the relationship amongst traders. This complementariness is evident in the inter-trader flow of funds(which would increase and ease the access to credit), in the joint exploration of new opportunities (as we shall see later,many of the private 'colonizer' firms had several traders as partners), in dealing with 'external' factors such as the government or competition from outsiders (the proximity of Indore and precedent of Indoreans grabbing opportunities in Dewas constitute one form in which the 'outsider' threat looms).

## **2.3 THE RENTAL MARKET**

### **2.3.1 Extent of the rental phenomenon**

The phenomenon of households occupying rented premises was fairly widespread in Dewas town. In 1981 of 13975 households residing in Dewas town, 7615 households occupied rented premises (Table HH6 1981 Census,M.P.State).



**TABLE 3.2 : TENURIAL STATUS, DEWAS TOWN**

Year	No. of houses	No. of houses in our sample	No. of households in our sample	No. of tenant households in our sample
1976	4515	1453	2499	1232 (49)*
1979	6121	1584	3627	2257 (62)
1984	11504	2796	5661	3430 (61)

**Source :** Tables A.3.1 and A.3.1a, Appendix

**Note \* :** Figures in brackets represent the number of tenant households as a percentage of total resident households.

**TABLE 3.3 : NUMBER OF HOUSEHOLDS CLASSIFIED (1984)**

Region	1 Total No. of households	2 No. of tenant households	3 2 as a % age of 1
A. Old town	3655	2378	65
B. Intermediate town	1088	634	58
C. New town except	918	418	46
D. Squatter settlements in the new town	246	12	5

**Source :** Tables A.3.1. and A.3.1a, Appendix to Chapter 3.

The tables above further corroborates the importance of the rental market. In 1984 the phenomenon of renting space was more prevalent in the old town relative to the new and intermediate towns. In the squatter settlements however, this phenomenon seems negligible.<sup>8</sup> Table 3.3 shows this.

### 2.3.2 Tenants

2.3.2.1 The demand for rented space comes mainly from four distinct categories of households. The first two are distinct from the subsequent two in that that, in the 'choice' of their members for rented premises, it is resource constraint that plays a decisive role, unlike for members of the other two categories.

i) There are those with a future savings profile adequate to ensure a minimum acceptable quality of housing facility but who are forced to seek rented dwelling because of an operative credit constraint (i.e. the conversion of this flow of savings into a stock of funds currently available is either impossible or possible only at prohibitive cost). Even if the household were willing to undertake staggered

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8. The negligible occurrence of tenancy in squatter settlements could be due to the following: it is still possible for households in Dewas to squat without encountering much resistance. Though settlements favourably placed vis-a-vis the old town are getting congested, new ones are growing rapidly.

investment in housing the initial outlay constraint may operate.

ii) There are those poverty stricken seekers of rented dwellings for whom this credit constraint is irrelevant. Some of them have an extremely uncertain savings profile in addition to the savings being low or non existent. Others may have a certain savings profile but of such a low magnitude that even if the credit constraint were not operative, the households would not be able to command a minimum acceptable outlay of housing, speculative preempting of most of the land in relatively preferable locations and government regulations on colonizing both having caused an upward movement in this minimum level of outlay. Such households are forced to turn to illegitimate housing (where neither the price of land nor the partial cost of infrastructure provision is to be borne by the user) or to renting space in legitimate housing.<sup>9</sup>

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9. For rented premises of a minimum outlay to be available to households with extremely low and sometimes uncertain savings, it is necessary that the owners of such premises do not consider the market value of the premises for calculating the returns in the form of rent. The following case seems to fit the bill. The owner of a house in an acceptable location extends his premises by adding one room to be rented out with the toilet facilities being shared with the rest of the house. Such an owner may not consider the market value of just the rented premises (as isolated from the rest of the house occupied by the owner) for two reasons. Firstly, the isolated premises may not be a saleable commodity in itself. There are few instances of sale of merely one room attached to a large house. Secondly

iii) Those with adequate future savings and with no credit constraints but who, due to the temporariness of their presence in Dewas and the deterrent factor of transaction costs of temporary investment in housing, prefer to occupy rented space.

iv) These are those who by virtue of being tenants of long standing have to pay rents at rates far lower than market rates. Some of these tenants may prefer to occupy rented premises despite owning some housing facility(which would have been rented out) to make the most of the tendency of rental rates in 'contracts' of long standing to lag behind market rates.

2.3.2.2           The demographic characteristic of household size has a strong inverse correlation with the probability that the household will be occupying rented premises as is evident from the table 3.4.

We feel that this strong negative correlation can be explained to a significant extent by the factors of expectation regarding the future savings profile, the credit constraint and temporariness of stay in Dewas. There is a  
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Footnote 9. Contd.

the owner may consider only the marginal investment required for creating the rented space (this would be lower than the market value because it would not include valuation of the plot especially of the location element, and the shared facilities) as is the basis for calculating the rental value.

strong positive association between size of households and 'age' of households. The smaller the household (and the younger the household) the more uncertain is the future trajectory of the household (in terms of both future savings profile and the longevity of stay in Dewas ) and therefore the more unlikely that the household would commit resources (given transactions cost ) in a house. Further, it is likely that, ceteris paribus, the younger the households the lower the accumulated savings and therefore the stronger the credit constraint due to 'moral suasion' and the higher the possibility of an inadequacy of the initial resource base.

**TABLE 3.4 :** HOUSEHOLD SIZE AND TENURE STATUS OF HOUSE OCCUPIED -DEWAS URBAN DISTRICT.

Tenure status of house	All sizes	Households having number of members					
		1	2	3	4	5	6+
Owned	14145	540	745	940	1445	2040	8435
Rented	10725	1510	1350	1680	1630	1750	3105
*	43	74	64	64	53	46	27

**Source :** Table HH5, 1981 Census, M.P.State.

**Note :** \* Number of households of each size class renting premises as a percentage of total number of households in that size class.

**2.3.2.3** The Dewas rental market(as well as the housing property market) has been deprived of the custom of

households which have preferred to reside in Indore even while deriving a part or all of their incomes from Dewas. Most of them belong to the category of 'industrial elite' - highly paid employees and owners<sup>10</sup>. Some of these have a temporary local interest (e.g. employees intent on retaining occupational and geographical mobility). This has resulted in there being fewer housing units that would stand out from the rest in terms of opulence. It is as if the Indore rental market skims the cream of Dewas' rental market. Those households that belong to this elite category and do reside in Dewas are too few in number (and relatively scattered) to constitute even one 'posh' locality that would offer a contrast to slums similar to the contrasts in Indore or in other towns/cities where the elite of the town/city does by and large stay within the town.

2.3.2.4 The preference of potential tenants for neighbourhoods can be in some instances be related to their socio-economic background. Tenants employed at the upper levels in government offices and other corporate units (including manufacturing firms) prefer rented space in some of the well established colonies of the new town, the premier colonies of the intermediate town and in Radhaganj

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10. The owners of industrial units who reside either in Dewas or Indore are usually owners of small scale units or of larger firms which have most of their production facilities located in Dewas or in the neighbouring region.

(old town). These neighbourhoods are better developed infrastructure wise ,are less congested and permit a relatively atomised existence of households.

Poorer tenants who are migrants from the neighbouring areas (including rural areas), especially those whose livelihood is connected with activities in the old town prefer rented space in some neighbourhood there, opting for the relatively more integrated social fabric and the prime location element. Some preferences are based on caste/ religion/place -of- origin affinities. This is more true of the poorer households. Such preferences do represent a move towards homogenisation of neighbourhoods. In such homogenisation , the role of these preferences seem secondary to the role of the rental rate structure, a market 'economic' phenomenon, in two ways: i) the prevailing rental rate structure across neighbourhoods narrows the field within which the assertion of the above preferences is made and ii) these preferences are based on 'locational' characteristics of neighbourhoods which are a major determinant of relative rental rates.

### **2.3.3 The supply of rented space**

#### **2.3.3.1 The partitioning phenomenon**

The supply of rental space is in the form of either a partial renting out of houses or a renting out of

the entire house en bloc. The former was widely prevalent in the decade after 1975 in the old town as well as in the intermediate and new towns. Table A.3.1 reveals that in a sample of eleven localities in the old town in 1979, of the 583 houses which were occupied by at least one tenant, only 52 had been rented out en bloc and in 1984, of the 759 houses which had at least one tenant, only 68 had been rented out en bloc. In the intermediate town, in our sample of three localities in 1979, only 14 of the 210 tenanted houses were rented en bloc. The corresponding figures for the intermediate town in 1985 were 285 and 47. In six colonies in the new town, in 1984, the figures were 356 and 165 respectively (Table A.3.1a). The partitioning of houses seems low in the new town. However if one excludes Jawaharnagar (a colony floated by M.P.Housing Board: see table A.3.6 for details) from this sample of colonies, the significance of partitioning shoots up. In the other five colonies, in 1984, of 124 houses taking in tenants, only 23 had been rented out en bloc (Table A.3.1a).

In cases, where it was a previously unitary house that was being partitioned the partitioning was accompanied by some modifications to the physical facility. However, whether the modification created houses which could be separable without having to share facilities such as bathroom and entrances depended on the rental market segment aimed at by the owner and on whether the house was also



partially occupied by the owner. A large number of houses in the old town and some in the intermediate town were constructed prior to the boom in the housing market and were therefore not too amenable to disjunct partitioning. Some of these underwent major alterations (often as a consequence either of a transfer of property or of an improvement in the resource condition of the owner household). In the new town as well as in the boom-period construction in the intermediate town, many houses have been designed so as to be amenable to disjunct partitioning. This, in several cases, has taken the form of what is locally called 'the railway-coach style' -each unit has rooms and toilet facilities arranged in a single row. That the incidence of partitioning is low in Jawaharnagar (see table A.3.1a) is not entirely unrelated to the fact that in Jawaharnagar the houses were designed and constructed by the M.P.Housing Board and could not be conveniently partitioned.

The widespread phenomenon of partitioning has manifold effects: (i) It makes available a minimum housing facility at lower costs than otherwise, because it causes a sharing of the housing facility. Thus a large number of single rooms (belonging to houses which often contain many such units) are offered at a rental range of between Rs. 50/ and Rs.150/ per month; the 'units' belonging to the same 'complex' sharing walls, bathrooms, entrances and yards.(ii)

It signifies the participation of a large number of house owners in the rental market as providers of rental space. The creation of a separate single room unit could mean either no additional investment but increased occupancy ratios or some additional investment in creating the unit. Such unit have been made available even in poorer neighbourhoods through a marginal adjustment of existing physical facilities. So, an open yard could be enclosed and roofed; an enclosure for storing material or a cattle-shed could be converted into a unit for human residence. Such a response from poorer neighbourhood further lowered (due to the 'discount' attached to the 'neighbourhood element' and the infrastructure element of such localities) the minimum rental value at which a 'housing facility' could be availed of and made it possible for cheap accommodation (albeit of a poor 'quality') to be available at the relatively favourable locations that such poorer neighbourhoods occupied. (iii) The facility of using a part of the house and renting out a part draws into the rental market as suppliers, a large number of those whose overriding concern is not narrowly 'return on investment'.

#### 2.3.3.2 Suppliers' interest : deviation from the purely economic

On the one hand the 'economic returns on investment' element does seem to figure high in the

calculations of suppliers of rental space in their determination of the quality and quantity of space offered in the rental market. On the other hand there are a number of factors which whittle away at the importance of the above element. One factor is the rental transaction forming part of a larger social relation. We have mentioned above that the housing facilities offered by employers was a part of the employer-employee relationship. The same holds for 'public housing' offered on rent (non-existent in India). This factor is unimportant in Dewas.

Rented space may be offered by those who invest in housing in excess of their present requirements and in anticipation of future requirements. Some of these houses may be partially occupied by owners and partially rented out<sup>11</sup>. The owners would be interested in addition to the

11. This is a special case of the partitioning discussed above. The table below pertaining to 1984, establishes the quantitative significance of this phenomenon.

Region	Total No. of Houses	Sample size No. of houses	No. of houses of our sample either wholly or partially occupied by owner	No. of houses partially occupied by owner
Old Town	5690	1465	1277	571
Inter-mediate Town	1257	544	454	195
*New Town	1812	787*	500 <sup>+</sup>	69 <sup>+</sup>

\* Excludes Sarvahara colony from amongst the localities presented in Table A.3.1a.

+ If one excludes, Jawahar Nagar, the significance of partial owner-occupation shoots up.

'economic returns on investment' also in who their neighbours are and how the rented space may have rented out the house en bloc with an intention to 'resume' owner occupation at some future date. Such suppliers too would be interested in matters other than 'exchange value' of the rental transaction. For owners of rented space intending to eventually occupy the property, investment in housing as an asset may well be the only deployment of resources the owners are capable of and such investment, given the potential 'use value' of the housing property, would not be considered as equivalent to investment in other productive avenues. This trait cannot be reduced to the speculative qua fear element of appreciation in the value of real estate. Such investors would not grant prime place to the comparison of rates of return across avenues of investment in their decision to invest in housing. There is however a need to deploy a caveat in this argument. The quantitative significance of phenomena in which inhere pulls that might deviate from a 'return on investment' argument may overstate the impact of such phenomena on market movements because such phenomena may well be market followers with the tendency that sets down market movements being the one with 'returns on investment' as the prime mover.

## 2.3.4 Rental rates and rental values

### 2.3.4.1 Introductory

Table A.3.3 presents localitywise information on rental rates commanded by the majority of housing space<sup>12</sup> in each locality as well as the 'rental' per month for a standard tenant household. The rental rate is the rental per room. If one assumes room-size to be uniform (a rather demanding assumption) differences in rental rates will therefore arise not due to the room-wise size of the rental facility in terms of the number of rooms but due to the location element and the 'quality' of housing. There is a high positive correlation between rental rates and the size range (in terms of the number of rooms) of the housing offered on rent (See Table A.3.3). There is little correlation, however, between the ratio of tenant households to total households in a locality and the rental rate as

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12. We will be citing rates confronting the newcomer. It has been noticed that in a majority of instances, tenants of relatively longer standing pay rents at a rate lower than that confronting a new seeker of rental space. Rental rates implicit in informal long-standing contracts do get revised as market rental rates (confronting the newcomer) go up. However, such revision rarely keeps pace with market trends. In some cases, for the same physical unit, the contractual rate displays a discontinuous trend, with discrete jumps as rental rates get revised whenever there is a change in the contract in the form of a new owner, a new tenant or a new land use. It is in some of the old town's localities that the disparity between market rates and contractual rates is maximum.

well as between the average size of houses and the rental rate. The average size of houses has little to do with the average size of the housing facility offered to the standard individual tenant household. There is, however, a strong positive correlation between the number of rooms per resident household and both the rental rate as well as the average size of a house occupied by tenant households.

#### 2.3.4.2 Variation across neighbourhoods: Some explanations

That rental rate varies across localities is indicative of differences in the location element. A favourable geographical location, a well spaced out neighbourhood, a relatively homogeneous neighbourhood inhabited by the relatively affluent and containing houses which are relatively well appointed, regular supplies of water (especially in a context of water shortages as faced by Dewas town at present) are all characteristics which contribute to the rental rates being high. In some localities, trade-offs are involved. A favourable location could be traded off for relative congestion. Some neighbourhoods may foster specific relationships among neighbours which may be preferred by some households. Public investment in infrastructure tends to strengthen these differences. It is widely accepted that in general, public investment tends to go in tandem with private investment. In Dewas town, the municipal infrastructure

(such as roads and drainage especially the maintenance of these systems) favours those localities where there is relatively higher private investment. The municipal administration is known to yield to pressures from the wealthy and the well connected. This is evident in the contemporary situation of water shortage with the Municipal Corporation's investment and regulating activities yielding to pressures intent on altering the distribution of a scarce resource.

Neighbourhoods of the poorer kind offer rental space of a lower than average size and at a lower than average rental rate (As we have noted, there is some positive correlation between rental rates and the average rental value). In these neighbourhoods the owners are constrained by low resources in their efforts to alter their property so as to create maximum rental earning capacity. These efforts result in poorly constructed small units often sharing facilities such as bathrooms. The poorer households flock to such neighbourhoods in their effort to minimise outlay on housing by accepting a small size as well as poor quality houses served by inferior infrastructure.

### **3.0 THE INTERMEDIATE TOWN**

#### **3.1 INTRODUCTORY**

In the 40s, there was little of Dewas town that extended across A.B. Road. The Puar (Sr.) had granted large

plots of land to some of his favoured citizens, mainly the titled, some traders and some important figures in the government. This locality was Radhaganj. Radhaganj is one of those few localities which was formed in the pre-independence period but which resembles the intermediate town in later developments. Near Radhaganj, in two separate localities, were settled two distinct communities - land owning Patels and the lower caste Baghris. They were moved out of the old town in the 30s to make way for two commercial streets - Vijaya Road and Shalini Road. Since then, till the early 70s, several areas were converted into use for housing. The intermediate town comprises of all these and the Tekri. There are thus two distinct habitats in the intermediate town: i) the squatter settlements on the lower slopes of the Tekri ii) the legitimate localities some of which are poor (Nai Abadi etc) while others are regarded among the premier localities of the town (Radhaganj and Karmachari Colony)

These sharp contrasts will be reflected in our presentation of the intermediate town. We will begin with a lengthy section on squatter settlement. This will ofcourse take us beyond the confines of the intermediate town (as did the discussion on the rental market in the section on the old town). However, the bastis in the intermediate town are among the oldest and the most prominent ones in the town.



Further, within the intermediate town, the contrast between these and the adjacent prime localities is quite striking. The subsection on squatter settlements will be followed by a study of three legitimate localities in the intermediate town, Nai Abadi being rated as a slum in the 1981 slum and Karmachari colony, being the most sought after locality in Dewas.

### **3.2 SQUATTER SETTLEMENTS**

#### **3.2.1 The Illegitimacy Aspect Coupled With Poor Living Conditions**

We start with a working definition of squatter settlements: all those settlements of the poor which are either of a questionable legitimacy or which have been granted legitimacy by fiat in 1984 would be deemed as squatter settlements. Squatter settlements are distinct from the rest in this aspect of legitimacy of holding. By and large, such options are preferred by those who are too poor to be able to convert a de facto occupation of urban space into a de jure occupation via an act of purchase of colonized land. Instances of illegitimate occupation of land by the relatively affluent do exist often on a larger scale if one considers the widely prevalent practice of minor encroachments of public land by residential arrangements or shops/workshops or unauthorised occupation of large plots by individual entities. The issue of

legitimacy is a formal legalistic one. Even in squatter settlements, some property rights do get established extra legally not only in the much publicised case of slum lords but even in the case of several small holder residents of squatter settlements in Dewas.

### **3.2.2 Squatting as the Least Expensive Option for the Poor**

Squatting becomes the 'preferred' option especially when most of the land within a reasonable distance of the town gets purchased by land developers and undergoes an appreciation in value. There are less obvious reasons which prohibit the participation of the poor in the legal land market: (i) Investment in housing is sought to be minimised by those households who regard mobility as an important aspect of their survival strategies. High transaction costs and credit arrangements (we have mentioned elsewhere that participation in the land market does demand an initial lump of investment for most households) tie the household to a specific locality. (ii) Uncertain income flows make credit either inaccessible or accessible at only prohibitive costs. (iii) Land development has been undertaken by private investors. Since the expenditure is to be borne by private users, land prices, already moving upwards, fuelled by speculative activity, are given another boost upwards. Such land development cannot be undertaken, except at exponential costs, by individual users. It is not

feasible for poor, recent migrant households to group together immediately after migration and undertake land development (much urbanward long term migration is undertaken by households after relatively atomistic decision making).

Those who are forced to squat due to a paucity of resources preventing their participation in the legal land market, attempt to further minimise their outlay on housing by opting for small, crowded quarters and inexpensive building material. Notable exceptions are the upwardly mobile squatters. By and large, squatter settlements are characterised by bad living conditions and would be categorised as slums.

### **3.2.3 Slum and Squatter settlements: The process of acquiring legitimacy**

In this category of slums would be other localities, which may be better off in terms of legitimacy but not in terms of building materials used, cramped conditions and public utilities. Thus if one considers legitimacy as merely one attribute of housing, the other being the size of the housing unit, the quality of construction, the location, availability of public utilities etc, squatter settlements lose their distinctness and become a part of a large number of localities which are occupied by the poor and which show evidence of the attempt by the poor

to minimise outlay on housing. There was a dominant element of 'squatting' in the formation of the now legitimate slums such as Rewabaug, Pathankuan and Mirza Bakhal. These were formed mainly in the pre- Independence period and the legitimisation was not so much by the passage of an Act such as the M.P.Urban Squatters Act 1984(see below), but an acknowledgement by the then society, Rajas and powers- that - were of the de facto occupation of land by people who played a role in urban life.

In 1981, there were nine notified slums within the municipal limits of Dewas, containing a population of 23900 (around 28% of Dewas' population in 1981) (Statement IV A, Town Directory, 1981 Census, M.P. State). Three of these slums were squatter settlements and one of the slums which was not a squatter settlement was in the intermediate town. The rest (population 13000) were in the old town.

#### **3.2.4 Quantitative Aspects**

Till the late 70s, almost all of the gradually inclining lower slopes of the Tekri did not attract the "interest' of those who could invest in land despite the Tekri being just the old town. In the early 70s, this unused area housed the stray squatter. The intermediate town grew on two sides of the Tekri with the Police Lines occupying the side farthest from the old town. The mid-70s

onwards, it was on this unused but favourably located land and on land alongside two roads going southwards from the old town (we shall see below that speculative attention was engaged in other directions. Thus, some land immediately to the south, was though close to the town, 'available' for squatters) that most of the squatters settled. By the beginning of the 80s, the Industrial Areas and outlying villages too became sites for squatters, in addition to the area around the factories near the railway station. The older, more favorably located areas got congested and many new squatters preferred institutional locations in the newly colonised areas of the town.

The 1981 Census enumerated the squatters around the Tekri at 4900 and those on Malhar Road (to the south of the town) at 3000. (Statement IV A, Town Directory, 1981 Census, M.P.) The Census enumerated squatters within the then municipal limits of Dewas, excluding the Industrial Areas along Indore Road. In these Areas and in Amona and Bavadia villages, squatter settlements had come up in the late 70s, gaining rapidly in population in the 80s. Around the turn of the decade, land adjacent to the Kirloskar factory (Naushevabad road) and to the B.N.P. (Ambedkar Colony) attracted their first settlers. By the mid 80s, most of the squatter settlements in the prime location around the Tekri, near the Kirloskar factory and the B.N.P. and the Malhar Road, were getting saturated



in terms of dwellings possible on 'available vacant land'. The vast open areas around the Industrial Estates and the two outlying villages (which were inducted into the town limits in 1982) continued to be hospitable to squatters. But several households, finding the Industrial Area clusters too remote (more likely in the case of households which have little to do with factories) and the localities around the old and intermediate towns either hostile to newcomers or saturated, settled for interstitial spaces in the sprawl of colonised land around Dewas. In 1984, the Dewas District Administration undertook a survey of squatter settlements, preparatory to giving the squatters legal title to land. This was provided for under the M.P. Nagariya Kshetron Ke Bhoomihin Vyakti ( Pattadhruti Adhikaron ka Pradan Kiya Jana) Adhiniyam 1984 (henceforth the Squatters Act 1984) 3047 dwellings and 14005 people were enumerated as occupying squatter settlements. In the settlements that were enumerated during the 1981 Census, the District Administration (D.A.) registers a population of 2597 against the Census' 7900. Some 6650 of the 14005 squatters enumerated by the D.A. resided in settlements that are outside the 1981 boundaries of the town -- in the settlements around the Industrial Areas and in outlying villages, both included in the town limits since 1982 our own observations lead us to believe that the D.A's count is an underestimate. On the one hand, the D.A's coverage

of dwellings in the settlements surveyed has been far from exhaustive. On the other hand, settlements have been entirely excluded, as in the case of 'Maa Indira Colony' described below which contains around 400 dwellings. If we correct this by inflating the figures for settlements within the 1981 Municipal limits on the consideration that the Census is accurate, Dewas squatter population would have been 29024 in 1984. The Census figure cannot be considered to have covered all settlements within the municipal limits in 1981. Further, the settlements outside the then municipal limits did contain some squatter population even in 1981. Thus, the comparison of our corrected figure with the Census figure may be overstating the growth in the intervening period. But it would not be too much of an overstatement, given that our inflation of figures assumes no growth in this period -- an unlikely assumption. We came across yet another partial survey conducted in 1987. The Municipal Corporation in the course of a slum improvement program enumerating the dwellings in 6 settlements, five of these contained 1407 dwellings in 1987 and only 944 in 1984 (as per the D.A. survey). We could assume that the degree of underestimation is the same in the two surveys. The difference could be attributed to growth in the 1984-87 period. If we assume that other settlements too grow at the same rate (which at 49% for the three period is much higher than the rate at

which the population of Dewas grew in the period 1971-81 -- an annual rate of 4.9% which converts to a three year growth rate of 15.5%), the squatter population in 1987 would be 43245. Assuming that all squatter settlements grow at the same rate as the ones in the Municipal Corporation's sample would understate the growth because this sample contains older settlements which were approaching saturation levels by 1987. As per Table 31, the town excluding most of the squatters contained 24242 households in 1986-87. If one uses as a conversion factor the household size in Dewas as revealed by the 1981 Census, the population of Dewas in 1986-87 would be 1.42 lakhs and the squatter population of 43245 would be around 30% of the non-squatter population in Dewas of the 14005 squatters as per the D.A's survey, 3633 (26%) live around the Tekri and in other areas in the intermediate town, 1930 (14%) live in settlements to the immediate south or east of the old town (in both directions, there has been little speculative interest), 5051 (36%) in or around the factories on Indore land and in the Ujjain Road -- railway station area (and in the villages adjacent to these), 1963 (14%) live in some areas in the new town, mainly adjacent to the intermediate town. The role of the intermediate town is thus declining as a host of squatter population. However, most of the squatter clusters other than those in the intermediate town and adjacent to it, are relatively



spread out and as yet far from being saturated. It appears as if it is the squatter settlements in the last three categories that will grow fastest, representing a move away from the intermediate -- old towns towards the direction in which there has been considerable speculative attention.

### **3.2.5 A few squatter settlements**

We will first describe a few squatter settlements of Dewas and follow that up with an attempt to relate living conditions in them to the socio-economic characteristic of the squatters. As mentioned elsewhere, the description though incomprehensive will cover the important features.

**3.2.5.1** Near the government rest house is a settlement of about 30- 60 families. We have mentioned a range because the number is subject to frequent change. These families are seasonal migrants from Jhabua working as contract labour on construction jobs. Some of them have small rainfed holdings in Jhabua. Often, a part of a village migrates en masse. Over time, the migration routes get settled, families migrating to the same place for some part of the year (or for some, the migration might be for almost the whole year). For a few families, houses are marked merely by a fire place, flattened mud, beds of grass and rags and some bundles/boxes. Others have constructed a roughly semi-cylindrical shelter using bamboo for the frame and

leaves, cane, paper, cardboard, cloth or polythene sheets as the covering. Any larger investment in housing may be unwise given (i) their meagre earnings and (ii) that they are seasonal migrants who do not have a permanent interest in Dewas.

**3.2.5.2** Along either side of a road leading up the Tekri is a row of houses. A few of these are similar to the structures noted above. Others have a raised floor. Some have walls made of kutchra brick and mud; a few have roofs made of tin or asbestos. Most of these huts have been in existence for the past six to eight years. The numbers grew, partly due to fresh migration and partly as some families got evicted from private plots elsewhere. Recently, all private plots around this settlement have been fenced, thereby enclosing the settlement and preventing its spread.

The majority of the families came to Dewas over a period of about five years. In the past two to three years this inflow has slowed down to a trickle. All the families have migrated from Nimad where only a few had minor landed interests. Some owned land just about enough for a house/garden. The major source of income in Nimad had been agricultural labour. Many of these would like to return to Nimad after having saved up some money to buy a plot of land. Close contact is maintained with Nimad, through

correspondence and frequent visits. The arrangement of marriages and the celebration of festivals are all done in Nimad. If the visits to Nimad are for a long duration, most of the possessions are carried along, with the occupied plot and the relatively cumbersome and low-valued property left behind to be safeguarded by the neighbours. In Dewas they work as construction labourers, hawkers (Telewale) or coolies (hammal). These Nimadis seem to be more at ease with the ways of the town and with the practice of commerce than the migrants from Jhabua; this is reflected somewhat in the wider job option for the Nimadis. This squatter settlement recently named Maa Indira Colony, does not figure in the survey of the District Administration. None of the approximately 400 families have obtained pattas nor is there any evidence of organized effort to procure pattas or public utilities.

**3.2.5.3** Scattered in the Industrial Estate are a few squatter settlements mainly housing families of industrial workers. Few of these workers have permanent jobs. Most of the families are migrants. One of these mainly houses migrants from Uttar Pradesh and Bihar. Many of these belong to families who have land in the places where they came from, with the agriculture currently practised on such holdings not being able to provide gainful employment to all members of the families. Some of these houses are built of mud in a way which bears testimony to the rural origins

of the recent migrants. Pattas have been distributed in this settlement but not to all.

3.2.5.4 The Mahatma Gandhi colony is on the lower slopes of the Tekri. This and a couple of other colonies form a crescent along the lower slopes. The inhabitants display a wide range of characteristics. One is a retired police constable who, on being transferred to Dewas in the early seventies, occupied land near what was then a very small cluster of houses. His two sons now work in factories. Another resident, Hiralal is a watchman at the Nagar Niwas , the oldest cinema house in Dewas. Yet another is a peon in the Municipal Corporation. He and his family moved out of his father's house in Nai Abadi. Some of the residents had formed an association to fight for pattas and amenities but the association was soon riddled with factions. Many of the residents (including the ex-constable ) have got 30- year pattas, entitling them to a single point electricity connection. The peon could get only a one year patta because his plot was being claimed by the owner of a large plot nearby. Nevertheless, he has been able to get an electricity connection. Hiralal was not given the patta because of his refusal to bribe some lower level official at the District Administration. The houses too are varied in character. Almost all of them have been constructed by the

resident families, with the houses constantly being upgraded.

3.2.5.5 Mahakal colony, which we are about to describe, is not exactly a squatter settlement because the initial settlers secured titles to land through the transaction of purchase of plots. However, this will serve as a bridge between the squatter settlements described here and the colonies of the previous section because (i) The status of the houses that have come up here is one of questionable legitimacy, given that the colonization process has not yet been completed, (ii) the Municipal Corporation has not yet extended its facilities to this colony and (iii) the owners who belong to the poorer sections have attempted to minimise outlay (especially cash outflows) by a) contributing own labour to the construction of the houses b) using relatively inexpensive material such as mud and c) constructing the house in stages, thereby staggering investment so that it will keep pace with the generation of own resources.

Mahakal colony is beyond the Steel Tubes of India (STI) factory which is on the northern fringe of the town. Three workers of the STI had rented rooms in nearby Kalukhedi when they had to come to Dewas after the shifting of their factory from Indore. Their landlord suggested a decade ago that they construct houses on plots in his farm

which was adjacent to the STI factory. The landlord then sold more of his farm in the form of plots to indigent migrants who were mainly industrial workers. Several of these were from eastern Uttar Pradesh, the word having been spread around by the original settlers who were also from the same region. Others were migrants from neighbouring regions. The plots were bought on credit and thus far, there has not been much of an insistence on regular payment of instalments. The colony is an assemblage of houses varying widely in terms of size, materials used and extent of completion. Some of the early settlers who have secured for themselves relatively larger plots have been renting out portions to later day fellow immigrants from eastern Uttar Pradesh.

There is thus a variation across squatter settlements in terms of i) location, ii) investment in and quality of housing facility ranging from housing being merely an open patch under the sky which serves as a place for sleeping and for a fire, to housing constructed of brick-cement-plaster, iii) extent of permanence and iv) extent of investment by the municipal authority in the provision of utilities.

### **3.2.6 The location aspect**

Members of the squatters' households have to travel to various destinations in the town to earn, to buy

consumables and to partake of services such as education, health and entertainment. The location of the residents may well be crucial<sup>13</sup> for (i) expenditure on transportation might consume a significant proportion of meagre incomes and (ii) a specific location may mean specific advantages (e.g labour contractors often go to selected settlements to recruit daily labour; employment opportunities are made available through informal contact- among squatters and with those outside the settlements. Jobs in factories or as domestic help may be more easily available if one maintained friendly contacts with industrial workers or domestic servants respectively).

By and large, there is a tendency for favourably located land to be brought into legitimate use to house either commercial activities or the affluent. Land in favour locations ('favoured' by those engaged in the privatised capital accumulation process ) becomes difficult to squat on, even if publicly owned, because there is pressure on the state to either privatise such holdings, or put such holding to be used envisaged by private accumulators. Such pressure on the state can only be expected to increase as the urban economy grows and as there

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13. The disadvantages that location confers on its inhabitants could be somewhat inhabitant - specific too. The following is an example. A slum near the industrial estate is advantageous to an industrial worker but not to a domestic help.

are more claimants on larger stakes. There have been recent instances in Dewas of sale of public land in favourable locations, occupied by squatters such as some plots around the Tekri and some in the intermediate town), to private users/colonizers. Such sales are followed by a forcible eviction of squatter. Further, use of prime land in 'beautification campaigns' and for construction of office-cum-shopping complexes and other urban, commercial/industrial infrastructure (such as under the IDSMT programme) have driven actual and potential squatters to unfavourable locations. All of the above pressure on favourably located vacant (usually state-owned and only in the rare instance privately owned) and increasing congestion has caused squatters in the mid80s to look elsewhere; some attach themselves to the settlements in the Industrial areas outlying villages.

The expediency of populist politics does result in legitimation of some squatter settlements even in favourable locations. Such adhoc and partial solution usually favour the relatively better off among the squatters and worsen the situation for others. This was true of the selective coverage of squatters in Dewas by the implementing agency of the 1984 Act. Sarin dwells upon the unfolding of this process in the context of non-plan settlements in Chandigarh (Sarin 1982, especially pp 110 -128)



In Dewas, some squatter settlements (some of them now legitimised ) occupy locations which are not too remote and in a few instances, quite central too. Several factors contributed to this. Some settlements such as those around the Tekri, on Malhar Road and near the factories adjacent to the station were formed in the initial stages of the boom and got entrenched in relatively favourable locations with many of the resident households being entrenched in local economic activities and political processes. Such settlements could resist eradication drives and were granted legitimacy in 1984. Topography was responsible for the slopes of the Tekri , despite its being centrally located, being available to squatters. Squatters could settle along Malhar road leading southwards from the old town to Balgad industrial estate, despite this being very close to the boundaries of the old town, partly because speculators did not cast much of a glance in this direction (given the speculators anticipation would grow along the Indore road and in an arc from the south-west to the north -west) and partly because the road ran alongside some swampy land. Claims by individual squatters on pattas are not automatically honoured; contacts or monetary payments mediate). On the other hand, for some squatter settlements or sections of the same (since the boundaries of a 'squatter settlement' are rarely well-defined, some settlements being an aggregation of contiguous sections each characterised by

an internal homogeneity of sorts), the homogeneity can be in terms of place of origin of migrant inhabitants, caste/religion to which the inhabitants profess to belong, occupation of dwellers or in terms of housing facility, the provision of utilities (which is normally undertaken at the level of the squatter settlement as evidenced in the Municipal Corporation's slum improvement project), and the security of occupation of land.

### **3.2.7 Inhabitant Attributes and the Characteristics of Settlements**

In terms of the relationships between inhabitant characteristics and the nature of the settlement/housing facility, the following propositions seem to hold:

i) The older the presence in Dewas of the inhabitant, the greater is the likelihood of the inhabitant having a residential arrangement that is currently superior in terms of the location factor, the provision of utilities, the quality of housing and the security of plot-occupation.

ii) If one ranges occupations according to the volume and stability of income generated and according to status, it is more likely that persons with superior occupations/sources of livelihood occupy superior slums/houses. In our range of occupations, untied construction labour and coolies occupy the bottom rung while permanent employment in

government offices and ownership of sources of livelihood such as autorickshaws or small shops occupy the top rung.

These propositions would hold because the following are the main determinants of what a prospective squatter can provide for himself: i) the timing of initial occupation ii) private resources earmarked for investment on housing facilities and iii) extent of familiarity, with local condition and influence on local administration: the greater the extent of these, the more likely is the dwelling (and the slum, if the slum consists of such individuals) to be relatively secure in its occupation of land (either by procuring pattas or by getting the relevant enforcement agency to softpedal the slum eradication drives) and to be the beneficiary of investment in utilities by government agencies.

### 3.3 THE THREE LOCALITIES

#### 3.3.1 Nai Abadi

It is a little difficult to date the coming of the first settlers in Nai Abadi. One version runs thus : one of the Puars granted plots of land to a few Mahetars and poor Muslims - some say this was out of magnanimity; some others view this as merely a resettlement of communities whose earlier location was either inconvenient to the powers - that - were or was intended to be used differently. Nai

Abadi slowly got inhabited by a stream of families migrating out of the old town. The settlements were along streets arranged in a regular pattern. Apart from Chamars and Kumhars, Thakurs and Brahmins too moved in, attracted by the lowpriced land - which was fallow land owned by the Municipality. Caste hierarchies were observed, insisted upon at least by the superior castes. So, one had Chamar Gali, Thakur Gali, and so on. For the initial settlers from the old town, Nai Abadi meant less cramped space; many built themselves larger houses than would have been possible in the old town. It is worthy of note that none of the traders nor any of either the erstwhile nobility or the employees of the princely state with any pretensions moved into Nai Abadi. Nai Abadi has a physical exterior similar to that of any of the poorer localities of the old town. There have been a few instances of the original settlers selling off their property in Nai Abadi preparatory to emigrating from Dewas. The statistics relating to the period covered by the Property tax Assessment Registers bear out the similarity with the poorer localities in the old town we have noted above - the same initially high rental market index decreasing a little over the years, and a smaller than average size of houses with the size increasing a little. The number of houses increased steadily, the main cause being subdivisions of property. The size of the houses

increased rapidly enough to result in the increased average size of the increasing number of houses.

### **3.3.2 Karmachari Colony**

This was a cooperative housing society formed in 1954 with membership initially restricted to government employees. It was only in the early 60s that land was purchased from the state government and developed (metal roads, kutcha drains and culverts built, water supply arranged for; the electricity connections were regularised only in the early 70s. There were 120 plots in the beginning offered at Rs. 0.25 per square foot. There were few buyers for what was then a mix of pasture, lime kiln and graveyard. The layout was altered; the number of plots was increased in the mid 60s, the restrictions on membership were removed in an effort to woo buyers. By the end of the 60s, all the plots were bought up, some by speculators, some by those who intended to bring the plots into use only after several years. The steady increase in plot prices accelerated after the mid 70s. Construction of houses began in the mid 60s but a large majority of the houses got constructed in the 70s and after. It is only now that this colony has got saturated with houses construction except for a few plots awaiting resale or use. On construction many of the smaller plots was stretched over years, partially constructed houses being used for own residence or renting

out, the investment being staggered as owners accumulate resources.

Rental rates rose from Rs. 20/- per room per month in the late sixties to Rs. 175/- now, making this colony one of the most sought after locations. The rental market index had been low enough to start with; it got further lowered in the past decade confirming its prime status in the rental market. It is one of the few areas that combines a good geographical location with an adequate provisions of utilities and a well spaced out housing pattern.

### **3.3.3 Vishram Baug**

Adjacent to Radhaganj, this was once part of the Dewas (Sr.)'s garden estate. It was transferred to the state government with an understanding that the land use would not alter. The municipality in the mid 50s, decided to colonize it. It created 100 plots of 1500 square feet, each priced at Rs. 100/-per plot. It took a few years for the plots to be bought up. Most of the buyers were employees either in government offices or commercial establishments. The 60s saw several plots changing hands, some more than once. Some of the buyers (original ones too) were from Indore. There was a mildly speculative interest but the stakes were not high, when compared with today's speculative activity in land. By 1966, only 6 houses had been built. A decade later, 10 additional houses had come up. It was only in the 80s, that

this colony got rapidly saturated with houses. The houses that were constructed till the mid 70s were designed as unitary houses, which could be rented out partially only at some inconvenience. On the contrary, several of the houses that came up in the 80s were designed to facilitate the renting out of portions. Since the late 70s, a number of employees of the nearby Bank Note Press have either bought or rented in housing space here. The significant fall in the rental market index has been mainly due to an increase in partial renting arrangements.

#### 3.4 CONCLUDING

The old town with its committed and mixed land use, entrenched ownership pattern, evolved network of relationships among inhabitants, is quite different from the intermediate town, with Nai Abadi coming closest to the old town. But this intermediate town cannot be equated to the new town though it came into existence following a process of colonizing. The rate at which the intermediate town formed was much slower, a little closer to the pace at which non-speculative demand for land increased. There was a little speculative activity but nowhere near that in the new town in terms of scale, and of expected returns. The colonizing itself, it must be noted, was undertaken by the government or by an avowedly non speculative group of promoters of a cooperative housing society.

## 4.0 THE NEW TOWN

### 4.1 INTRODUCTORY

The new town comprises those areas which have been getting converted into use for housing since the mid 70s. Under the Town and Country Planning (M.P.). Act 1973, all such conversion is regulated and thus, a formal process has to be undergone. This is commonly called colonizing. Apart from colonies, the new town includes all those squatter settlements which have come up outside the intermediate town. These have already been looked at in the sector on the intermediate town. There are two somewhat distinct phases of development of the new town. The first phase is that of colonization, whereby land is rendered usable (legally and infrastructure-wise) for urban use. The second phase is the investment in housing etc. and the moving in of housing. It is to this second phase that we turn first, following it up with a discussion on colonization.

At the risk of repetition, we remind the reader that though other areas of the town, especially the intermediate town did witness investment in housing, it is in the new town that, since very recent times, most such investment is taking place and this importance will only increase in the future. Furthermore, the new town would exist merely as plots of land were it not for new housing.



## 4.2 INVESTMENT IN NEW HOUSING

Investment in housing <sup>14</sup> in Dewas has by and large been undertaken by individual house owners financed either by own funds or by borrowing from the informal sector.

4.2.1 The District Administration constructed, in the fifties and sixties, a few houses in the Civil Lines and the Police Lines. Since then, despite a phenomenal increase in the number of government employees residing in Dewas, there has been no further investment by any government agency in the provision of 'quarters' for its employees. The public sector Bank Note Press (employment: nearly 2800 in 1987) has constructed 965 quarters on its campus. Gajra Gears has bought 62 houses from the Housing Board. The Standard Mills has constructed some houses mainly for its senior staff. All these are rented to a privileged few presumably at subsidised rates. Among the 11504 houses in existence in 1984 as per the Municipal Corporation's Property Tax Register, only 627 houses were constructed by the Madhya Pradesh Housing Board (MPHB) and none by the Dewas Development Authority (DDA). By March 1988, the situation

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14. Investment in housing took the form not only of purchase of existing units or en bloc construction of new houses but also of piecemeal construction of new houses (in effect staggering investment in housing, sometimes to synchronise with the flow of own funds) and of alteration to existing houses. Our discussion here is largely restricted to construction of houses ab novo. This, in the 80s has been largely a new town phenomenon.

has improved slightly with the two having made ready a total of 1257 houses and 47 plots and having proposed/floated schemes covering an additional 710 houses, 829 plots and 261 'skeleton houses'<sup>15</sup> (for details, see Table A.3.6). That ends the rather small inventory of housing arrangements in the provision of which the agent (in these cases, either government agencies or industrial units) was not primarily moved by the narrow returns-on-investment calculation.

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15. These agencies have been receiving credit from 'external' sources such as the HUDCO, the World Bank (under its 'sites and services' scheme, which partly met the credit requirements of the first major scheme floated by a government agency in Dewas, which provided developed plots instead of constructed houses) and the Central Government under the Integrated Development of Small and Medium Towns (IDSMT) scheme. Under the IDSMT scheme, credit is provided to the relevant agency (in our case, the DDA) to develop infrastructure and other essential facilities so that the small and medium towns may be able to act as growth and service centres and deflect migration away from metropolitan areas. We present a table mentioning the projects undertaken under the IDSMT scheme and the total cost estimated.

<u>Project</u>	<u>Total cost in Rs.Lakhs</u>
Vijay Nagar Housing scheme part I (for details see table 8)	38.5
Two shopping complexes and one office block	37.85
Traffic and transportation	8.43
The priorities underlying the central assistance are clearly:	
(i) to facilitate commercial activities and vehicular transport (ii) to provide housing for the relatively affluent.	

The formal conditions to enable schemes to be partially financed by Central Government under the IDSMT is a little more open ended when it comes to schemes for land acquisition and development, (see p. 4, guidelines, Ministry of Works and Housing, 1985). However there is no reason to expect the Dewas schemes to be atypical.

either, these arrangements are either part of a broader employer - employee relationship or are in fulfilment of the state's 'commitment' to provide housing at controlled costs. The bulk of the housing construction has been undertaken by small scale investors.

4.2.2 We will now look at how small scale investors finance their investment. A majority of the houses constructed on plots developed by the MPHB and the DDA are offered on a payment- by - instalment basis. The APEX bank offers loans to cooperative housing societies<sup>16</sup> to be extended to members to partially meet the financial requirement for housing.

Several employers(mainly government agencies and industrial units) provide loans to employees for the purpose of constructing houses -- these arrangements being part of the employer-employee relationship(in some industrial units, such assistance is explicitly presented as an inducement to loyalty and obedience). The market rate of return does not dictate the terms of contract. Those who have availed of the above arrangements of finance would form a small proportion of the total number of households which housed themselves in Dewas at any point of time during our decade.

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16. 59 cooperative housing societies have been formed in Dewas, almost all after 1975. The section on colonizing by cooperative societies, that appears below will adequately underscore the increasing importance of cooperative housing societies. Such finance is available for the construction of new houses.

For a majority of those investing in housing in Dewas, the only source of finance apart from own savings would have been expensive sources of informal credit. In the purchase of plots, credit was offered by colonizers as part of their attempts to woo buyers. For a few of those who had relatively low or uncertain savings (by 'savings' we mean those funds which have been earmarked for outlay on housing - towards rent payment or towards creation of own housing) or who were credit constrained (who find prohibitive the cost of converting their meagre future savings flow into present day resources), there were certain features which opened up the possibility of investment in new housing. One feature is the availability of mere plots of developed land (i.e. without any commitment to physical structure).<sup>17</sup><sub>&18</sub> This leaves to the discretion of the investor the timing and volume of investment in housing. There exists no regulation as to the size of the houses or the kind of material used. The option of staggering investment in houses drives down the minimum initial outlay  
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17. The MPH B has in two of its most recent schemes, undertaken to provide developed plots as against the earlier tendency to provide constructed houses (see table A.3.6.) . In both these schemes it is the plots that are meant for low income groups and economically weaker sections that dominate in number.

18. One prominent 'colonizer' (refer to section on colonizing ), the Dewas Land and Finance Co. faced with a slump in demand, attempted to scrape the bottom layer of the market by getting the layout of the colony formally altered to make possible the offer of plots smaller than those as per the original layout

on own housing and permits investment to synchronise with own savings flows (the latter being very significant for credit-constrained sections of the population). Besides it is possible for several household to, while undertaking a piecemeal construction of houses, bring the house into use even while it is far from complete. As we have seen in the section on the rental market, a large number of poor households are forced to seek rental accomodation despite these possibilities of minimising outlay (initial and eventual) and staggering investment.

#### 4.3 THE COLONIZING PROCEDURE

The barest essentials of the procedure existing at present are as follows : the owner of the land is to get the proposed land use approved by the concerned town and country planning office (along with the land use, the proposed layout too has to be sanctioned) and follow that up with an application at the District Administration offices for diversion of land use. Such land then would come in for enhanced revenue assessment. After this diversion, the colonizer is to submit plans for land development i.e. making the land fit for use as housing sites subject to stipulations laid down by the municipal authority and the town and country planning office. This implies that a major portion of the capital costs of provision of infrastructure is to be borne by the purchasers of the sites to whom the

cost is bound to be passed on by the colonizer. Apart from this, the colonizer is to pay the relevant agency a stipulated amount for 'external development' - a contribution to the expenditure that is undertaken by public agencies to keep a growing town running.

The colonizer is permitted to sell plots of land once the land use gets diverted. The permission to build houses is granted only after the relevant government agency satisfies itself with the way the land development work is progressing. The colonizing process is formally completed only after the municipal authority assumes the responsibility of the provision of utilities i.e. the 'taking over' of the colony by the municipal authority.

The formal regulations regarding colonizing have been changing over the years in an attempt to tighten government control. We will be mentioning the important changes here. In July 1978, the state government issued a directive requiring all colonizers to deposit 10% (in cash or as mortgaged plots) of the planned land development outlay with the Development Authority (or its equivalent). 2% of the outlay had to be paid as supervision charges to the Development Authority. Also, charges to be collected by the Development Authority for 'external development' were fixed. In December 1982, it was made mandatory for colonizers to set aside 5% of the total land proposed to

be colonised to be taken over by the Slum Clearance Board for settling slumdwellers. The M.P. state government's new housing policy declared in October 1981, directed colonizers to make available a fixed number of plots of land at the price of underdeveloped land, for housing domestic servants. In October 1985, the responsibility of the supervision of development internal to the colony was shifted to the municipal authority from the relevant urban development authority. In August 1987, a directive altered the provision for domestic servants/workers in the informal sector from the reservation of plots to reservation of 15% of the total land to be colonized to be taken over by the Slum Clearance Board at the price paid by the colonizer for that land. The Madhya Pradesh Prevention of Specific Corruption (registration and development of colonies) Rules 1982 (henceforth M P Rules 1982) require that every colonizer has to obtain a licence from the District Collector. The collector is to satisfy himself that the colonizer is capable of satisfactorily undertaking the task of colonizing. The rules empower the Collector to seize any land on which illegitimate colonizing is taking place.

#### 4.4 DATA BASE

The major source of information on the phenomenon of colonizing is the register at the Dewas Development Authority (D.D.A.) in which are entered details about every

colony that has commenced the process of coming into existence in 1980 or later, the act of commencement being the initial approval of the layout by the town and country planning authority. The register offers colonywise details such as the names/addresses of colonizers, the area of the colony, the proposed number of plots, an estimate of the cost of land development, the amount paid towards supervision charges, the dates on which the Town & Country Planning Office granted approval of the proposed layout (this sanction is granted for one year renewable every year for two successive years. If the colonizer is unable to fully develop the colony within this period, the option of beginning this layout approval process all over again is available for just one more three year period. The relevant authority cannot certify the completion of the land development work unless the sanction by the T & CPD is currently alive).

The register begins in 1980 because the DDA came into existence only then. The register is maintained because till October 1985, it was the responsibility of the DDA to supervise land development and to collect the charges for external development., The former function has since been shifted to the Municipal Corporation but the register continue to be maintained because the latter function remains vested in the DDA. The DDA register is forced to



be our only source on colonizers though records are also maintained both at the T & CPO and the Municipal Corporation. Records in the T & CPO which performed these functions prior to the formation of the DDA in 1980 are chaotic and incomplete even for limited time periods. The municipal authority merely maintains individual files for each of the colonies, the files being unreliable, moth eaten and difficult to make meaning of. For data on extent of conversion of village agricultural land for residential use, we have another data source. The Revenue Department at the District Collectorate maintains a revenue-villagewise record of the land which has been subject to revenue reassessment following diversion of land use from the revenue year 1982-83. This gives us information about the date of such diversion, the area and location of the land subjected to such diversion and the name of the owner of the land (in our case the colonizer). Information prior to 82-83 was to be gleaned from the records of patwaries of the different villages, a task which was rendered virtually impossible by the nature of the records. The Collector's office is expected to maintain records under M.P .Rules 1982, these merely duplicating what the DDA register offers us. We only have sketchy information about colonization before 1980 because of the inadequacy of all our sources.

## 4.5 COLONIES, COLONIZERS AND COLONIZATION

### 4.5.1 Government and Non-government Agencies as Colonizers

Colonies have been floated either by some government agency (the MPHB or the DDA) or by non-governmental colonizers (cooperative housing societies, private colonizers-individuals and firms). Table A.3.6 contains details of all the schemes that have been proposed, floated (but incomplete) or completed by the MPHB and the DDA. The houses, plots and skeleton houses in all the schemes proposed by the MPHB & DDA number 1964, 876 and 261 respectively adding up to 3104 (non-governmental colonizers have since 1980 proposed the development of more than 10913 plots: see below) of which by March 1988, 1257 houses and 47 plots were ready for use. (According to the Assessment Register, the number of houses in Dewas in 1984-85 was 11504). The two major colonies completed (or nearly so) have influenced the housing market much more than is suggested by the numbers. Houses in both command high rentals, though Vijaynagar does not yet rank among the top localities possibly because it is yet only partially constructed upon and its location is relatively unfavourable. These colonies would have influenced expectations of potential customers of private colonizers regarding land development. Despite restrictions on resale

of houses/plots and a claim staked by of the MPH B and DDA for their respective colonies on the capital gains realised through resale (as explicitly mentioned in the contract of original sale), we were told by officials at these two agencies as well as by owners/residents in the colonies floated by these that there are many instances of resale within a short timespan after the original purchase. Thus, these colonies too attract speculative attention. However, even at a time when speculative interest in non--governmental colonies had waned, the major colonies floated by the MPH B and DDA since 1986 have had to face a rush of buyers. This points to the likelihood of the initiative by the MPH B/DDA gaining in importance relative to private initiative.

The bulk of colonizing has been done by non-governmental initiative. Since 1980, 132 such colonies have had their layouts approved by the T & CPO, of which till March 1988, only 24 have obtained clearance (the No-Objection Certificate, henceforth NOC) from either the DDA or the Municipal Authority (between whom this responsibility has shuttled ) for the construction of houses. These formed only 18 distinct colonies (since some had been floated in parts), two of which are extensions of colonies floated before 1980. A total of 39 colonies have obtained the NOC; 20 of these had obtained the T&CPO approval prior to 1980 and hence do not feature in the DDA

register, except for the extensions of two colonies. 16 have been floated entirely in the 1980s by private enterprises and cooperative societies. The remaining three have been floated by the MPHB/DDA. However, quite a few colonies apart from these have had houses constructed on plots (some of these colonies were floated before 1980) thereby being of questionable legitimacy. 117 of these 132 colonies have together provided for the creation of 10913 plots, data for the remaining 15 not being available. This is likely to be an underestimate of the actual number as the example of Triloknagar cooperative society shows. Triloknagar had been registered for 389 plots but we were told by the promoters that about 540 plots have been actually sold and that the membership in the cooperative is presently around 750. 10913 is a staggering figure especially when put against the total number of housing units in Dewas town enumerated in the M.C's Assessment Register at 11504. From among these, the colonies that have obtained the NOC cover 2531 plots.

Non-governmental agencies floating colonies were either private profit seeking enterprises or cooperative housing societies, the former of which will be examined first. 94 of the 132 colonies which have had their layouts approved by the T & CPO since 1980 have been floated by private profit - seeking agents (henceforth 'private colonizers'). There are two useful distinctions that we would like to establish at the outset.

i) Buoyant markets and stagnant markets : Going by several indicators, the colonizing business seems to have peaked in 1982. We could perhaps distinguish between the buoyant period in the market and the stagnant period (the post 1982 slump). In the first period, speculative activity was at a feverish high. In the second, though speculative interest in land did exist, its intensity was nowhere near that in the previous period.

ii) Active colonizers and idle colonizers : Colonizers can be broadly classified into 'active' and 'idle' colonizers depending on what they rely on to cause an increase in the value of the land colonized. The 'idle' ones are close to pure speculators in that they rely on the speculative cornering and holding of land and favourable external developments (over which speculators are at times able to exert influence) to cause 'windfall gains'. The 'active' ones however scout around for relatively favourably located land and rely on apart from the above mentioned speculative holding, the colony recommending itself by virtue of containing relatively well developed infrastructure, of being well located and of having undergone a legitimately completed colonization process (which facilitates the extension to the colony, of services provided by the municipal authority) within a short timespan. We therefore come across colonies with varying trajectories of development e.g. of the 17 colonies floated in 1980, only

two had obtained NOCs by March 1988. Since no direct index of the extent of development work completed in colonies is available, we will create two indirect indices of the extent of interest shown by the colonizers in the completion of the colonization process:

(i) If the colony is to obtain the NOC, it has to keep alive the layout sanction from the T & CPO. Permitting the sanction to lapse could indicate the disinterest of the colonizer in completing the process of colonizing. This index is not entirely satisfactory because some of the colonies which did obtain the NOC had allowed the sanction to lapse and had to get the colony sanctioned anew just prior to applying for the NOC

(ii) Non-payment of even a single instalment towards 'supervision charges' levied by the relevant agency (DDA/municipal authority) for a long period of time could indicate the same disinterestedness. 8 of the 17 colonies floated in 1980 and 24 of the 52 floated in 1981 have not renewed the layout approval after the initial sanction (which is for a period of one year) and have not obtained the NOC either. Five of the colonies floated in 1980 and 22 of those floated in 1981 had not, till March 1981 paid any amount towards supervision charges. The overlap between the two indices is five colonies floated in 1980 and twenty floated in 1981. That these indices, though indicative to

some extent of the 'idleness' of the colonizer, cannot be infallible is demonstrated by Triloknagar which despite not having renewed the layout approval even once and not having paid anything towards supervision charges, has grown into quite a large colony, 540 plots being fully paid up for by the buyers and registered in their names (this being far in excess of the initial sanction) and 20 houses constructed by March 1988.

#### 4.5.2 Small and Large Private Colonizers

With these distinctions in mind, we move to examining the operations of private colonizers. Colonizing attracted people with a wide range of seed capital. On one hand, the size of colonies (going by the number of plots according to the layout sanctioned) varied. We are using the number of plots as an indicator of the size of the colony with the following reservations :

i) The plot size does vary across colonies. A majority of the colonies, however, especially those floated in the buoyant period contained plots mainly of the following two sizes : 1500 sq. feet (30' x 50') or 2400 square feet (40' x 60')

ii) Even if the plot size were uniform, the number of plots in a colony does not indicate the extent of investment in land or in 'development' work. The '8-Bungalow Colony'

proposes to create 8 plots and an expenditure of Rs. 1.63 lakhs on land development. Matruchaya colony proposes 21 plots and an expenditure of Rs. 0.52 lakhs on land development.

There were twelve colonies which proposed less than 20 plots each and eight colonies which proposed more than 200 plots each. Table A.3.4 contains a detailed distribution of colonies according to number-of-plots-wise size categories. The smallest proposed to contain just six plots the largest proposed 567 plots. On the other hand, while most colonizers have floated just a single colony since 1980, twelve colonizers have each floated more than one colony since 1980. These have together floated 39 colonies (including two cooperative housing societies which have someone from among these as their secretaries) which account for more than 2739 plots (The DDA register does not inform us about the number of plots proposed by six of these colonies). Among those who have floated just a single colony in the years after 1979 are eleven colonizers whose colonies have proposed more than 140 plots. These colonizers will be regarded as large colonizers (this list would not include large colonizers who floated colonies prior to 1980 and who have either not floated a new colony in the 80s or have floated colonies containing less than 140 plots. Prem Syndicate, Indore, is one such example; it has floated only



Kalani Bagh Part 3 (93 plots) in the 80s. However this colony is an extension of a much larger one developed by Prem Syndicate in the 70s).

A majority of the 'active' private colonizers would belong to this group. All of the private colonies floated since 1980 which have obtained the NOC have been floated by one among the following; Dewas Land & Finance Co., Anand Land and Finance Co., Subhash Jain, Prem Syndicate and Ishwarsingh Chaudhuri. These dominate the private colonizers in terms of number of colonies floated, no. of plots developed and in the speed of completion of colonization projects. It is these private colonizers who have proceeded with land development and other legal procedures which comprise the colonization process in the face of a stagnant market in the post 1982 period. All the NOCs have been obtained in 1984 or later. It cannot however be said that all 'large' colonizers have displayed the same inclination. Several of them come closer to being 'idle' colonizers. Thus among the 50 colonies floated by these 'large' colonizers, in the context of 14 colonies each, nothing has been paid towards supervision charges and the layout approval has lapsed without having been renewed more than once (the overlap between the two indices is considerable but not total). Among the smaller colonizers, though none have completed the colonization process, a few

have paid up the supervision charges and have kept the layout sanction alive by regular renewal.

The dominance of the large private colonizers is accentuated when the market is stagnant. As we shall discuss presently, by 1983, speculative interest in land seems to have declined, the land market cooling off after the feverish activity that it witnessed in 1981 and 1982. Of the 29 colonies floated since 1983, 11 are cooperative societies. Of the remaining 18, eleven have been floated by large colonizers.

#### **4.5.3 Origin of the colonizers**

All the colonizers were based either in Dewas or Indore. Colonizers from Indore floated eight colonies in Dewas in the 80s. Notable among these is Prem Syndicate which floated Kalani Bag Part -3 in 1982. This firm had bought up the Durga Bag estate of the Puar (Jr.) Raja in the mid 70s. This estate was situated along the Indore Road just beyond what were till 1982 the boundaries of Dewas town. Another coup was brought off by Varsha Construction Co. Indore which 'colonized' the Puar (Jr.) Rajbada in the heart of old Dewas. The origins of most of the colonizing enterprise thus lay in Dewas. A few of them were owners of cultivated land or estates in and around Dewas. These 'colonized their own holdings (e.g. Bhonsle and Pachunkar, the ancestors of whom were jagirdars in the erstwhile

princely states of Dewas, floated colonies in the late 70s. Martand Bag estate was converted into small colony by the family to whom it had been granted by the raja).

A majority of the 'large' colonizers of the 80s belonged to families entrenched and dominant in the traditional trades of cloth, jewellery, moneylending & utensils (e.g. the three partners of Dewas Land & Finance Co. which is by far the largest & most active of the colonizers of the 80s; Subhash Jain; Ishwarsingh Choudhuri). A few are employees of industrial units. Senior employees of Tata Exports, Gajra Gears, Steel Tubes and S.Kumars have been named as colonizers in connection with six colonies. Relatively lower-level employees of the Bank Note Press have engaged in the colonizing business. The rest are drawn mainly from a wide variety of trading/commercial activity (ranging from owners of shops selling sweetmeats or consumer durables to those of auto repair workshops and dry grocers). With a few from the professions and employment in government offices.

There were several possibilities to augment the resources at hand which encouraged those with small seed capital to enter the colonizing business. They entered into partnership arrangements, thereby being able to float larger colonies. Land bought to be colonized could be paid for in instalments. Land development too could be phased

out over time. The 'down payment' and subsequent instalments paid by purchasers of plots could be used to partly meet the phased-out outlay on land purchase and infrastructure.

#### **4.5.4 Performance of different types of private colonizers**

Given that i) the returns from the colonizing business are crucially dependent on (a) keeping in touch with movements in land prices and with the property market, (b) maintaining contacts with local contractors undertaking 'land development' work and with the local level government officials related to the apparatus that regulates colonizing activity (c) being able to time the sale of plots i.e. to bear the cost of withholding plots from the market and (iv) investing in land development and in securing land with a good location, thereby enabling the colonizer to address the premium market segment, and that (ii) the element of risk in the rate of return is somewhat ameliorated by (a) an ability to bide one's time while selling plots (b) having an established track record in terms of land development to confront the increasing, discrimination that customers exercise in a 'stagnant' market, that colonizer would be better off (i) for whom the cost of capital is relatively low, (ii) who is familiar with local conditions and local

people and (iii) who has relatively well-developed colonies to his credit already.

Given that the financial requirements of any speculative venture vary rapidly and widely across time in response to changing market situations and expectations, an avenue of flexible capital deployment ready at hand would make finance to a limited extent more readily accessible and idle capital relatively easier to deploy (such avenues should require little fixed investment and should be able to absorb/release capital quickly). For small colonizers, sources of livelihood other than the colonizing venture render the household relatively independent of the fortunes of the high risk venture.

When the market loses its buoyancy, (i) the 'idle' colonizers would be forced to either accept lower returns or alter their strategy as the clientele becomes discriminating<sup>19</sup> (even the speculators would have to come to terms with the fact that it is no longer possible to expect that by investing in just any plot of land high

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19. One would expect that the idle colonizers would now compensate for a lower level of infrastructural development and for greater uncertainty and delay in the obtaining of NOC, by lowering prices. Though it has not been possible to get information on this count, it is possible to assert that a number of 'idle' colonies are facing the problems of unsold plots and of instalments towards plot prices not being forthcoming. One could speculate that the prices have not been brought down far enough. Land prices even in 'inferior' colonies have just about been increasing at

returns would be ensured) and (ii) those colonizers who expected to fund the colonizing venture with the proceeds of the sale of plots would find themselves in deep waters as the proceeds stop flowing in, either because there are no buyers or because speculative buyers are freezing their investment in an asset now of dubious value and therefore stop paying instalments.

This analysis is meant to shed light on what we have noticed in Dewas: small and idle colonizers entering the colonizing business in hordes, riding the crest of the boom till 1982 and then the exit of many; the stagnation experienced by others; the rise to dominance of a colonizer such as the Dewas Land & Finance Co.; the limited participation of entrepreneurs from outside Dewas and that most colonizers are simultaneously engaged in trade or employment.

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Footnote 19 Contd...

a slower rate or have remained constant. The reluctance on the part of 'idle' colonizers to use the price argument more strongly may be reflective of (i) an assessment on their part that the price elasticity of demand (within a small neighbourhood of the present price) for plots even in inferior colonies is low or (ii) a continued expectation of an upturn in the market in the near future which would compensate them for the cost of holding on to the land. The post-1982 decline has shown itself therefore not so much in terms of price adjustment as in terms of declining revenues from plot sales to idle colonizers and decline in the attractiveness of the colonizing business as a speculative venture (and therefore, fewer 'idle' and 'small' entrants).

#### 4.5.5 Cooperatives Societies as Colonizers

##### 4.5.5.1 Introducing

38 of the entries in the DDA register were cooperative housing societies. 37 of these provide for 4034 plots. This, when compared with the 80 private colonies providing 6879 plots, tells us that a cooperative housing society is on the average, larger than private colonies. Looking at the plotwise distribution, the above conclusion is strengthened. There are only 3 cooperative housing societies in the 0-40 plot range whereas there are 28 private colonies in the same range. 2 cooperative societies provide for more than 200 plots. The largest of colonies (non-governmental) which contains 567 plots is a cooperative housing society. Nine of the 18 distinct colonies which have obtained NOCs after having been floated either entirely or in part in the 80s, are cooperative housing societies.

Even among cooperative housing societies, many are idle (that the indices we are using are not infallible in indicating idleness, is mentioned in ~~the~~ note on pg ( ) with Triloknagar, a cooperative housing society as an example). Of the four entries in 1980, three (including Triloknagar) have not renewed the layout sanction even once; two of these have not paid even a single instalment towards supervision charges. Of the 17 entries in 1981, six have

not renewed their layout sanction of which five have not paid anything towards supervision charges. From 1982 however, the situation with regard to idleness improves. Of the 17 entries since then, seven have obtained NOCs and only three are defaulters going by either of our 'idleness' indicators. Thus, on the whole, cooperative housing societies seem to have been more 'active' with the post-1981 entries displaying a vastly superior performance. Since 1983, following the decline in speculative interest, cooperative housing societies have rivalled large private colonizers in keeping colonizing activity alive. 11 cooperative housing societies have been floated since then.

#### 4.5.5.2 Typology

At the risk of oversimplification, we will classify the societies into two groups. One group would comprise of all those societies (i) which are promoted either by professionals or by a group active enough and intent on seeing the colonizing process through in as little time as possible and (ii) whose members too are interested in a quick completion of the colonizing process and therefore are forthcoming in meeting financial requirements and are continuously pressurising the promoters. Societies belonging to the second group would have as a decisive group among its members either those



with a primarily speculative interest in land or those whose intention to construct housing is not characterised by much urgency (which could be due to a shortage of funds).

Speculative calculation may impel a speedy completion of the development work. On the other hand, if the markets' lack of buoyancy hikes expectations, speculative interest may push for minimising present outlay on land development. The first group of societies are conspicuous in the speed with which the colonizing work is completed (and thereby attracting members & funds too) even at a time when societies of the second category would be floundering for want of funds, initiative and members. The promoters of Anukulnagar initiated colonization work in 1984 when many others were languishing, and completed it within 3 years . Farooknagar presents a contrast. Though the layout was initially approved of in 1981, till March 1988, neither had the colonizing been completed nor had a single house come up.

Instances of professional promoters of cooperative societies are numerous, attracted as they are by the opportunities that controlling a process such as colonization (which involves, the purchase of land, land development, allocation of plots ) may provide for pecuniary & other benefits. Employees of the Bank Note Press deserve special mention. 19 of the 38 societies have

employees of the B.N.P. as their secretaries. Many of the secretaries and 'active' members own or use houses not belonging to the societies they promote and regard themselves as professional promoters of such societies. It is not necessary that such professionalism result in speedy completion of the colonizing work for (i) some promoters-qua-speculators may not be particularly keen on speedy completion and (ii) the response from members in terms of funds or pressure may be inadequate.

#### **4.5.6 Inter Temporal Trends in Colonizing**

A look at Table A.3.5 tells us that business peaked in 1982 if one takes into account the number of colonies floated and the number of plots to be created thereby. That we do not have data for the pre 1980 period need not detain us here for there is unanimous opinion of a rising trend till 1982. Earlier in this section, we have seen that in the post-1982 period, of the 29 colonies floated, 11 were cooperative housing societies while 11 were floated by large colonisers. Of the former, six have obtained NOCs and of the latter, four have made the grade. Thus, the post-1982 period saw the declining importance of small and 'idle' colonizers who as we had reasoned out, would be most affected by a shrinking market, unless they strengthen the price argument.

Table A.3.5 confirms accounts provided to us by colonizers and other residents of Dewas. Several developments seem to have affected the colonizing business:

i) Government regulation of land colonization was stepped up. The DDA began operating in 1980, undertaking the responsibility of supervising the land development work. The DDA issued a set of guidelines regarding land development. All of this in itself need not have made the supervision stricter, given the possibility of discretionary exercise of supervisory authorities. Directives from the state government (as mentioned in the beginning of this chapter) made it mandatory for the colonisers to set aside land for slums/houses for domestic servants. The 1987 amendment to these directives providing for compensation to the colonizer for the land set aside thus is evidence of pressure exerted by the colonizers in response. The M. P. Prevention of Specific Corruption Rules 1982 introduced some more regulatory devices.

ii) In just the years 1980-82, 102 colonies had been floated proposing on the aggregate to create 9048 plots. This was in addition to the colonies floated before 1980. Apart from the sheer quantitative weight of such developments on the market for plots of land in Dewas, it is also likely that these colonies occupied a large portion of those areas which were likely to be preferred for housing

(we will look at this proposition in some detail below), thereby making such land scarce for newer colonies some of which might be pushed to more remote areas. Also, such a rapid development is bound to have increased the expectations of those who would be prospective sellers of such land to colonizers. We were told that in Balgadh, the price of farm land in some areas shot up from Rs. 20,000 per acre to Rs. 50,000 per acre in the period between 1981 and 1986, the buyers being colonizers. Prices of farmland belonging formerly to other nearby villages such as Itawa and Mendkichuk describe similar trajectories over the same period.

iii) The availability of plot (the widening of choice) and the spate of publicity to and government regulation of the aspect of land development has made prospective buyers more discriminating thereby making the extent of land development undertaken reflect more closely on the prices of plots.

iv) The Housing Board had already floated the Jawaharnagar & Civil Lines Scheme, providing an additional 729 houses and 47 plots. Plans were afoot at the DDA in the early 80s to undertake housing schemes and in 1983 the Vijaynagar scheme was announced. This deflected some of the demand for housing away from colonies floated by private colonizers especially when people expected both these agencies to

undertake more schemes. These schemes also set standards in land development.

v) Speculative interest in land declined as expectations of a sustained rapid rise in land prices had to be toned down. Speculative investment by people mainly from Dewas & Indore provided a sizeable source of demand for plots in Dewas. The rise of Pithampur as an industrial centre was expected to divert industrial investment away from Dewas. Thus, the growth impetus provided to Dewas town by increasing industrial activity, was expected to slacken over time. This and the developments described above meant a lower volume of investment in land by speculators. We are told that in some colonies, in most cases of purchase by instalment, buyers have ceased to pay instalments and further that some buyers despite having paid the entire cost are reluctant to have the land registered in their name because they expect that it would be necessary to hold on to the plot of land for far longer than what they had initially bargained for in order to realise acceptable margins. This reluctance is because a transfer of ownership registration would mean a transfer of liabilities such as having to pay property tax/land revenue at rates for land under non-agricultural use.

We are not presenting an independent section on intertemporal movements in plot prices because of the

paucity of reliable time-series. Rather than construct series out of scanty information, which we feel are justified by our data base and observations, we briefly present the trends which we feel are justified by our data base and observations: Plot prices have been rising continuously but at different rates of growth across colonies categorised by quality (which a mix of the various factors discussed in our 'location element' -- of importance are the reliability of the colonizer and the actual location). There seems to be little evidence of a slackening in the increase in prices at which transactions are settled. The transactions are however getting fewer, with the speculative interest slackening and with the high prices deterring some poor investors. The adjustment is thus more of a quantity adjustment. Speculators are unwilling to lower prices. We offer the following hypothesis: the speculators have not lowered expectations, probably viewing the present the present trough as temporary. Further, the present speculative holders of land may have acquired the holding after the lands' having passed through several hands, a mark-up at each level. This creates a ratchet effect, as speculators at each level, given minimum optimism, may insist on a maximum return and not sell, despite lowered expectations.

#### 4.5.7 Spatial Aspect of Colonizing

If we look at the arc between Mill Road going southwards from the old town and the Agra Road going north east we would notice that there has been virtually no colonizing in this area. As we had described earlier, some land to the south of the town came into use for housing purposes not by way of the colonizing described above but in an irregular manner, with a few individuals buying plots of undeveloped land and a few more squatting. A look at Table 3.5 will tell us that in Rajoda, Jetpura and Bilawli villages which occupy most of this arc, there has been negligible diversion of land use in the five years between 1982-83 and 1986-87. If one extends the arc further beyond Bilawli to Brahmankhedi, Kalukhedi and Nausherabad, one encounters a similarly negligible extent of land diversion in Brahmankhedi and Nausherabad. However, in Kalukhedi 10.72 hectares of land have had their use formally diverted to non-agricultural purpose. A part of Brahmankhedi and Kalukhedi villages is occupied by the Bank Note Press and a few other factories. Dewas town has not yet expanded beyond these factories in the north. That leaves the arc between Itawa (to the northwest) and Mill Road (to the south). Land use on 198.52 hectares of land in villages located in this arc has been diverted to non-agricultural purposes in the period between April 1982 and March 1987.

**TABLE 3.5 :** DETAILS OF LAND DIVERTED TO NON AGRICULTURAL USES, REVENUE-VILLAGE WISE, YEAR WISE (IN HECTARES).

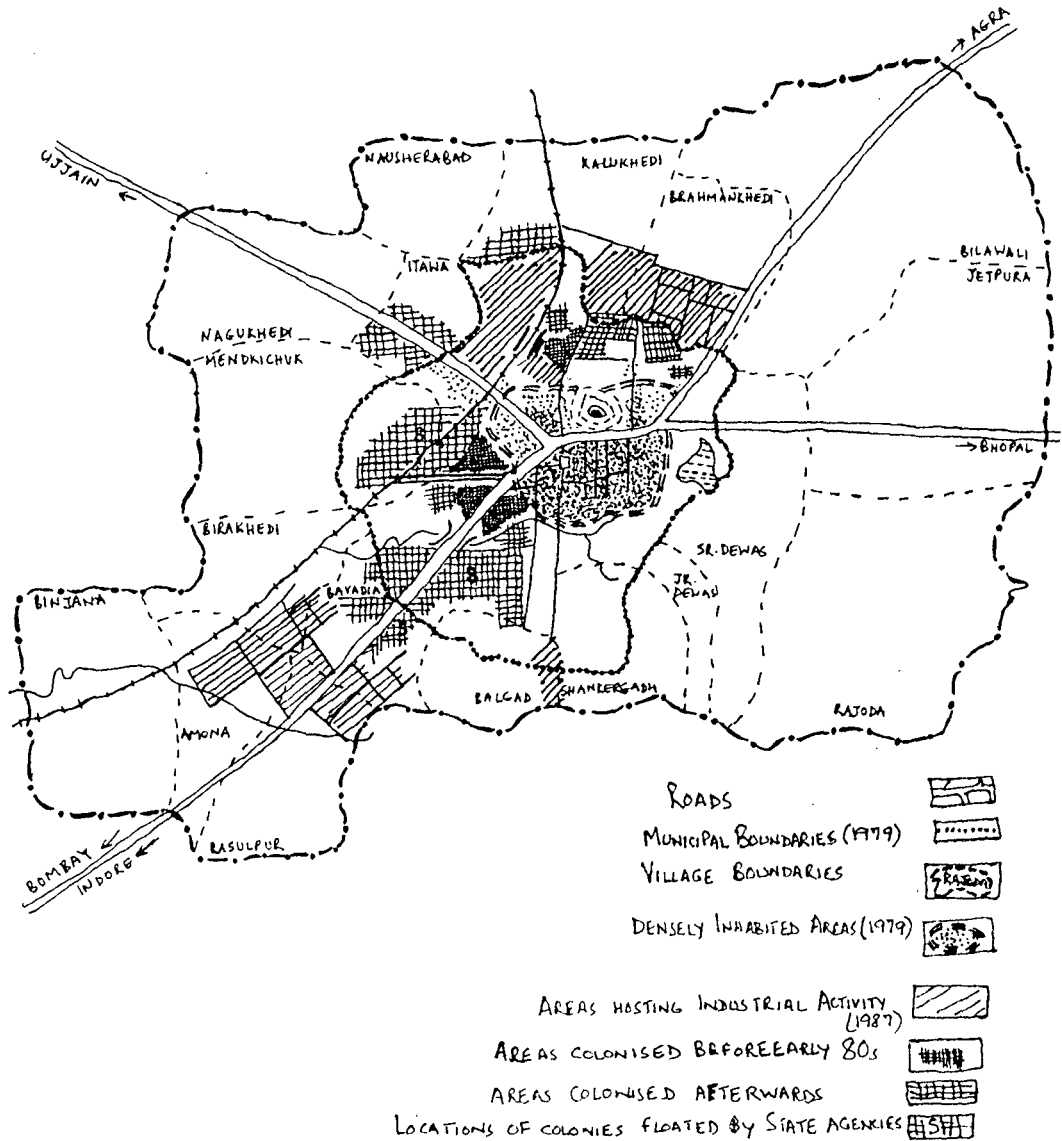
	1982-83	1983-84	1984-85	1985-86	1986-87	Total
Dewas Jr.	4.499	9.520	40.468	-	1.134	65.621
Balgadh	0.162	5.233	8.255	-	-	13.504
Etawah	0.324	2.644	22.088	-	2.426	27.476
Amona	3.695	-	1.458	20.541	0.363	26.057
Dewas Sr.	1.060	4.705	19.942	1.056	0.243	27.006
Bavadia	-	2.218	6.431	-	0.235	8.884
Mendki	-	0.026	7.099	12.019	10.830	29.974
Brahmankhedhi	-	-	2.578	-	-	2.578
Nagukhedhi	-	-	1.449	-	0.465	1.914
Jetpura	-	-	-	0.045	-	0.045
Kalukhedhi	-	-	-	2.363	8.418	10.721

**Source :** The Revenue Office, District Administration, Dewas.



# MAP

## DEWAS: SPATIAL SPREAD



The attached map shows i) the areas colonized marked by the period of colonization ii) colonies on which a significant number of houses have come up iii) large government projects, industrial estates, other factories and iv) large private colonizing projects.

This spatial tendency was because it was expected that the town would grow in the direction of Indore, an expectation that was fuelled by the growth of Indore and by the creation of an industrial estate a little way along the road to Indore. So, speculative attention was focussed more on land in the general direction towards Indore & more specifically on land adjacent to Indore Road. The importance of roads is underscored by the extent of colonizing in areas adjacent to not only Indore Road but also Ujjain Road and Mendki Road. In contrast, on the areas away from main roads, colonies formed a penumbra contiguous with already settled parts of the town (such as the Civil Lines and Moti Bunglow). Thrusts in new directions have been undertaken by and large under government auspices. Speculator interest is reflected not merely in that the town has expanded broadly in the direction in Indore and disproportionately so, given that land much closer to the old town in the east and the south & therefore much more favourably located relative to the present spatial disposition. It is reflected also in that in general land in colonies in the arc from the north-west

to the south of the town commands a premium by virtue of their mere location in this arc.

#### 4.5.8 The Urban Sprawl: Idle 'Developed Land'

The Municipal Corporation Property Tax Assessment Register records at end-1987, 1143 houses and 346 plots in the 47 non-governmental (including cooperative housing societies) colonies that have come up since the early 70s. [This is likely to be an underestimate because the updating since the most recent survey (1984-85) gets done at the instance of the owner of the house/plot. Further, the list of 47 colonies does contain several which are not listed either by the Municipal Corporation or the DDA as colonies which have been granted the NOC (the listing could very well be incomplete, going by the shoddy maintenance of records at these offices). It is expected that houses constructed on several colonies which have not been granted the NOC, would not, enter the Registers, because of the illegality involved in the construction of the houses].

This is a very small proportion of the number of plots that are supposed to have come into existence with the progress of colonizing activity.<sup>20</sup> There could be

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20. 117 of the 132 colonies which have been floated since 1980 provide for the creation of 10913 plots. The 24 of these which have obtained NOCs cover 2531 plots. The 1143 houses in the non government colonies in the

several reasons for this: i) Most of the plots might have remain unsold with the colonizer. This might have been either unanticipated or anticipated but with the cost of the capital looked up this being outweighed by the expected price differential to be thereby realized . ii) The plots might have been sold to those whose primary interest in the asset might be speculative. Such purchasers might either not have paid the entire price of the plot (as a result of which the ownership would continue to be vested in the colonizer) or might not be interested in the process of formal registration as owners as part of an attempt to minimise transaction cost. This would result in the plots registered officially in the buyers name being an underestimation of the plots sold by colonizers. In the short run, it is possible for sometime to elapse before such plots find their way into the hands of those who would be using the land to construct houses since the speculator may be waiting a favourable turn in the market. iii) Several of the buyers whose interest in the asset is primarily non-speculative, might be wanting to stagger investment in housing. So, they might either not have paid all the investments towards the price of the plots or after having made full payments, might take sometime before commencing construction of the house.

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Footnote 20 Contd...

new towns as at the end of 1987 are in 47 colonies. Some of these belong to the above 24, some had obtained the NOC prior to 1980 and the rest are colonies which have not completed the process of colonizing.

The 117 of the 132 colonies have proposed the creation of 10913 plots. If we consider the average plot size to be 1800 square feet (a cautious assumption, according to our exposure to Dewas), the area covered by plots would be roughly 1.82 square kilometres. If we assume that half the land in each colony is allotable as plots (which is reasonable, given the regulations on layouts), these colonies cover an area, interspersed with the colonies, is reserved for public roads and other forms of public use etc, the area covered by this sprawl becomes 7.28 square kilometres. The colonies are not just one contiguous formation. Some intervening land lies uncolonized and some is unusable (streams, etc). 10913 plots and an area of 17.36 square kilometres, when set against the 1981 Dewas municipal population of 14191 households and municipal area of 17.36 square kilometres amounts to the virtual creation of a new town of equivalent size within the span of a decade. Small wonder then that most of the colonized or semi-colonized land lies idle especially since a majority of the population cannot afford own housing, however low the initial or eventual outlay.

This sprawl represents on one hand an idle investment of real resources in partially or fully completed land development (and a further loss due to agricultural land being rendered unfit for cultivation and kept idle) and on the other, a preemptive cornering of land by

speculators, with the resultant price inflation driving yet more households into the rental market or into more remote areas for own housing. It will be interesting to know the impact of government regulation on such and other developments.

#### 4.5.9 Government Regulation

Government regulation on the developments in the housing market in general and in the colonizing phenomenon seems to have been either ineffective or purposeless. In Dewas, the regulations that had a presence however slight were in the forms of :

i) Threatening (and sometimes executing the threats) squatter settlements with slum clearance drives or granting these settlements legitimacy, whichever is dictated by political expediency.

ii) Zoning regulation controlling land use in the new town (almost no regulated change was felt necessary for the old town except marginal change to facilitate traffic flow) which formed a part of the Development Plan for Dewas town prepared by the Town and Country Planning Office (T & CPO) (henceforth the 'Master Plan'). This plan was approved only after the plan area was increased by 82% and the area of the proposed residential zones doubled, thereby facilitating the conversion of more land into non-

agricultural uses bringing such land into the speculative orbit<sub>21</sub> (refer to Table A.3.2 ). The area covered by the

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21. This seems to be the only major impact of the Master Plan or the Town Planning Agency thus far. The Master Plan and the town planning effort are directed primarily at the aspects of 'proper land utilization and land use control' (Dewas Development Authority 1979 pg iii). The Master Plan works out the space requirement for commercial activities on the basis of some normative requirement per capita; no explanation has been offered as to how the norm has been arrived at. The following comment is typical:
- "The present rate of utilization of land for industries is quite abnormal..... it indicates that the town does not require reservation of any land for industrial use " (p77, *ibid*). There is little reasoning to support the location of major unifunctional 'land use' zones (see pp 78-79, *ibid*). The land use pattern proposed is intended to bring about 'functional efficiency' (p 87, *ibid*). The plan proposes to use the zoning instrument to 'provide residential land' which in view of the 'housing backlog ' and future requirements will ensure a desirable density . The plan however does not envisage any further intervention in the housing market. The Master Plan works out a 'circulation' pattern and provides for road linkages of various categories to facilitate vehicular movement and access for residents to non-residential nodes. It is a little difficult to evaluate the plan because it has had little impact on development in the housing sector as will be evident in our presentation below. The Dewas experience is not unique. Qadeer finds that in Pakistan, the development of town planning " produced master plans for various cities, but this function was so unimportant that most of these plans remain unapproved and unread"(Qadeer,1983, p256). Conceptually, the plan is imitative and is not informed by any understanding of the detailed working out of private initiative in both housing and non-housing spheres. The metaphor of urban planning dominant in Indian efforts seems imitative of American models of suburban development, incorporating unifunctional zones(with homogeneous land use), spaced out residential arrangements, shopping districts and wide roads suited for speedy vehicular traffic. The only justification offered for such transposition is that if the antecedent spatial patterns are so altered it would ensure an efficient working of the urban system.

original and the approved proposals was 1410 hectares and 4357 hectares respectively.<sup>22</sup>

iii) Regulation on the process of colonizing: guidelines have been laid down for a minimum infrastructural development; these would have to be met for land use to acquire a legitimate status. All the 'No Objection Certificates' (NOC's), that have been granted thus far (the NOC being tantamount to legitimization of land use), have demonstrated how the above guidelines are flexible, for the NOCs have been granted despite the infrastructural development being 'incomplete' thereby forcing the NOCs to stipulate that they are provisional in nature. As is immediately obviously the old and intermediate towns, but for squatter settlements, have been untouched by these regulations.

## 5.0 CONCLUDING

### 5.1 INTRODUCING

Before moving on to i) a brief resume of the major developments in the housing sector and ii) the issue of -----

22. The area within the municipal limits was 1735 hectares in 1981, which increased in 1982 to 11757 hectares following an expansion of municipal limits. The proposal approved in 1987 thus covered only 37% of the municipal limits. The expansion in the municipal limits seems to have been driven more by the consideration of including the industrial areas along Indore Road rather than the consideration of extending municipal authority and services to those areas which would be put to urban use in the medium period.



housing for the poorest, we will in brief, make explicit some of the thematic continuity between the previous chapter and this one.

(a) In this chapter, we have studied the consequences of the logic of privatised accumulation. Accumulation in the form of rent or speculative profits was the direct consequence of the participation of the agents of this logic. An indirect consequence was intended by some participants in the form of a resultant creation of a more favourable environment for accumulation - qua - manufacturing trade-services. Deviant behaviour or behaviour with points of reference other than the logic of accumulation does exist, in complementary forms such as the willingness to pay more for 'premier' locations and in contradictory forms such as the stubborn unwillingness to sell property on the part of some owners or the political influence of squatters who have occupied favoured land

(b) The continued importance of the old town in terms of housing and as a locus of commercial activity can be partly attributable to 'agglomeration economies' as our discussion suggests.

(c) The Indore influence is strong here too, its pull causing a highly disproportionate spatial expansion of Dewas in its direction.

## 5.2 A CONCISE PRESENTATION OF THE MAJOR DEVELOPMENTS

In every broad terms in the period between the mid-seventies and the mid-eighties there were three developments:

i) The large number of relatively poorer migrants were accommodated in (a) single/double room small dwellings with shared services in some of the poorer localities in the old and intermediate town; these localities being relatively more congested and with strained infrastructural facilities and low quality housing; the accommodation being largely rented space and (b) in squatter settlements in interstitial locations in the intermediate town (such as the slopes of the Tekri or some vacant public land) and in uncolonized publicly owned land in the new town (along minor roads around the Industrial Estate or in the outlying villages which were absorbed into the municipal limits in 1982)

ii) The town expanded geographically, the 'sprawl' coming about as colonizers-cum-speculators brought land which was previously in agricultural use, into the urban orbit. This was facilitated by the immense formal expansion of the limits of the Municipal Authority. The formal expansion and the colonized sprawl extended the town mainly towards Indore. Colonizers-cum-speculators moved in anticipation of a demand for land from an expanding population. However,

there seems to have been at least a premature, if not an unnecessary expansion and much land awaits use (by present owners) or purchase (by potential users). The speculative interest in land and the absence of significant state involvement in land development caused land prices to soar beyond the reach of a large number of those who needed land. Effective demand was then low and land hunger took the forms of overcrowding and squatting. The land market began adjusting in the mid-eighties through quantity changes and not price changes.

iii) The relatively affluent were housed in a) some of the traditionally affluent sections of the old town (these households were by and large the pre-boom elite, many of which prospered, due to an expansion in the trades they were traditionally engaged in, b) scattered houses in poorer localities in the old town, these houses standing out, amidst poverty as symbols of recently acquired affluence -- their owners experiencing rapid upward economic mobility and c) most localities in the intermediate and the new towns -- many of these households belonged to the 'salaried' elite among the migrants while some other were those who had shifted out of own/rented premises in the old town. It needs to be mentioned here that some of the affluent households participating directly in Dewas' economy, maintained residence in Indore and commuted

regularly to Dewas. These households were mainly elite employees in corporate units and entrepreneurs originally based in Indore.

### 5.3 AN EXAMINATION OF ATTEMPTS TO PROVIDE HOUSING FOR THE POOR

The most frequent planning practice in the housing sector has been the estimation of present and future housing needs, assessment of housing 'deficits' relative to need and in the light of these deficits, to issue calls for a shift of real resources from other economic sectors to housing'. [Chatterjee, 1981, p. 169]. The shift of real resources called for here is rarely intended to take the form of direct state investment in the housing sector (the World Bank, among others, insists that developing countries should rely on the private sector initiative too, given the resource crises the states are face with. See World Bank, 1975 ). Rather, the state often attempts to induce a shift of private sector resources through subsidies. Such reliance on private initiative and the nature of the limited investment by the government in housing prompts the comment, 'when resource shifts were partially forthcoming in the form of subsidies, they led to superior housing for the favoured few ' (Chatterjee, 1981, p. 169)

In any case, reliance on private sector initiative for the supply of houses is hardly a solution for the problem remains that a real demand for housing space cannot be converted into effective demand due to the lack of ability to pay. Large numbers in most major cities of the Third World cannot afford even the cheapest of dwellings available (see World Bank, 1975,p.14. Also L. Chatterjee, 1981). It is inconceivable that increased investment by profit oriented private sector investment will make a mass of housing available at costs lower than the cheapest housing facility available at present. Further, if the costs are to be driven down subsidising the profit oriented private housing suppliers, it seems to be a roundabout way to provide housing to the poor.

The government bearing the entire cost of land development of all land brought to urban use thereby leaving only the investment in the house proper and on the plot to the user, would also be inadequate even if one assumed the availability of credit on easy options. This blanket bearing of costs routes the subsidy to the relatively affluent too and given the nature of the land market, perhaps predominantly to the affluent.

There are thus no feasible options which do not require a direct intervention in the land market. Suppose the government assistance took the form of earmarking some

land for housing for the poor and then this land was developed by the government<sup>23</sup>. This is the major thrust of the World Bank policy. It recommends 'sites and services' projects (which is what we have just described above), and legitimizing and upgrading (provision of infrastructural facilities to) existing squatter settlements and slums, leaving the investment in the house proper to the user (self-help) and giving the user much leeway by lowering quality standards. If the new squatter settlements are to occupy not too remote locations, the program would run into much resistance since such land would be sought by the relatively affluent too for both residential and non-residential purposes. The development plan drawn up by municipal planning departments can only be realised if they are subordinated to the interests of developers' (Lamarche 1976, pp.103-104).

Even if such a policy could be implemented, for long term coverage, land would have to be reserved in

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23. A directive issued by the Housing Department of the M.P. State government in 1982 required all colonies to transfer 5% of the developed land within the colony to the Slum Clearance Board for use by the latter as sites for houses for the poor. The transfer was to be made free of cost. Thus, the cost of development and purchase of land was to be borne by the colonizer.

This requirement has not been fulfilled by any of the colonies in Dewas. The housing policy declaration by the M.P. State government in 1985 does not mention this even while it discusses the need to reserve land for residential use by the poor.

anticipation of future inflow of migrants and then has to be a willingness to continually legitimise squatter settlements. Thus, the government's intervention in the land market has to be continued in keeping with this virtual guarantee to all comers that developed land would be available at controlled prices. Intervention in such a large scale and on a continual basis (the acquisition of land at frequent intervals, by the governments) would be a blow to the sanctity of the institution of private property, the formal basis for the existence of the land market<sup>24</sup> as is evident in the of repeated comment, If all one has to do to stake a claim on developed land within a reasonable distance from the nodal points in the town, is squat then why should any one 'buy' plots of land?'

Such dissent remains relatively quiet though restive since the legitimisation drives are infrequent and since government involvement on 'sites and services' projects has not yet acquired significant proportions.

For the effects of such a policy to reach the most disadvantaged sections, the government would have to be prepared to 'sell' at least a part of the land reserved and developed for 'self help' houses at nominal prices to

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24. Squatter settlements constitute a major 'problem' for the authorities in so far as their commitment towards maintaining existing juridical structures is concerned. (Sarin 1982, pg. 105).

enable the unemployed and those employed in casual/irregular jobs yielding low and uncertain incomes, to 'buy' the plots that they would occupy. Else, the government should be prepared to rent these plots at nominal charges. The coverage would be total only if this use is 'costless' to users who have income barely adequate for essential requirements other than shelter.

For such a program to be successful, it has to be integrated with (i) macro policy of the inter-urban and inter-regional distribution of employment opportunities ( a tool to influencing the magnitude of migration) and (ii) a micro level policy of regulating land use and planning of the spatial ordering of activities . We will comment on the latter in the next paragraph. Whether the municipal agency can reserve land in favourable locations for residential use by poor settlers , is in grave doubt.

Lamarche (1976) and others (e.g. Harvey ) feel that the city planning process cannot go counter to the impulses forcing the creation of a favourable built environment for the accumulation of capital. Property developers are the first order agents driven by the accumulation motive and an anticipation of the spatial order favourable to the second order agents. Second order agents are those seeking favourably located residences (and able to 'pay' for it) and those engaged in the tertiary



or secondary sectors seeking a favourable built environment and a micro-level spatial order that facilitates capital accumulation. "City planning has become central to the property market, in that large windfall gains can be reaped only by working through the city planning organization" (Qadeer 1983, p. 241). Evidence of the influence of the second-order agents on intra-urban land use is available from several analysts of urban issues. E.g. Engels observes that towns have to undergo considerable alterations if their "building arrangement does not conform to the conditions of the new large-scale industry and corresponding traffic". (Engels 1977, p. 295).

Even in the extremely unlikely event of reservation of adequate, developed land in favourable locations for the poor, the housing quality accessible to the poor is not entirely independent of their 'ability to pay'. Agencies such as the World Bank are resigned to this, as is evident in their criticism of the 'refusal to accept existing low quality housing as at least an intermediate solution' (World Bank, 1975, p.15).

## APPENDIX I

### *Select details on a few localities in the old town.*

This appendix contains the profiles of several localities. These localities have been selected such that a wide variety of features can be covered. Thus, the localities include rich ones and poor ones, those in the centre of the old town and ones at the periphery, stagnant ones and dynamic ones, localities that host considerable commercial activity as well as those that are predominantly residential, localities which have a strong caste/religious based identity and others which do not. The profiles of the localities concentrate on what the characteristics such as the above imply for the possible changes in the locality in the context of the rapid expansionary trend that Dewas experienced. Quantitative information on the localities culled from the Assessment Register is presented in Table A.3.2. Most of the discussion that follows is based on an intimate knowledge (only partially reflected in the profiles of these and other localities). This is acknowledged only at times in the discussion when explicit mention is made of the localities in our sample.

We now introduce our major unit of analysis in this section—the locality—indicating the need for care in interpreting an analysis based on this unit. The 'locality' will be one of our units of analysis because (i) in the past, many of these localities displayed homogeneity in terms of socio-economic characteristics of inhabitants and in terms of housing conditions, both features bearing considerable influence on subsequent developments and (ii) certain things can be best understood at the level of the locality—the specific nature of land use is influenced strongly by the general character of the containing neighbourhood: the characteristics of the inhabitants and owners, the nature of physical structures and public utilities that are available, existing land use, the

location of the locality vis-a-vis work places/shopping places, etc.

It is not that every locality will display homogeneity of some kind, even if the delineation is done keeping in mind as much of the above as possible. Even if it were homogenous at some point in time, subsequent developments could have altered the nature and extent of homogeneity. A locality may be heterogenous in an overall sense but may have internally homogenous constituent segments.

Within each locality, our treatment will be discretionary, restricted to some phenomena that bring out most distinctly the relationship between the characteristics of the locality and the changes that it underwent in the decade under consideration. The choice of localities and our treatment of the same has also been dictated by our intention to illustrate the important developments in the old town. Our choice can be called representative only in the sense that the overall impression conveyed by our treatment of the localities can be considered to hold for the old town in its entirety.

### **MIRZA BAKHAL**

This neighbourhood located in the heart of what is now the old town, can claim an existence since more than a century. It was originally a neighbourhood of poor people engaged in various occupations ranging from employment in the lower rungs of the state apparatus to engagement in petty trade. The houses were, till quite recently, constructed of material other than pucca brick-plaster-cement. Till the early 70s, most of the houses had empty yards attached, either vacant or used to store material and house domestic animals. Even now, households with relatively small income from non-house-rent sources own large plots of land, some of which is yet unconstructed

upon. This seems incongruous since some of the surrounding areas are now prime commercial areas. This can be explained by the following facts: i) most of the families who are presently owners can trace their stake on land to a period when the pressure on land was considerably lower, ii) few sales have been affected; many of the present owner-residents attach a high premium to their ownership, given that sale of the property would mean considerable upheaval in their lives. The purchasers who have been willing to pay this premium have been interested primarily in land at the outskirts of the Bakhal, bordering the neighbouring prime commercial areas. Such purchasers have altered the property significantly, sometimes creating it anew, for self-occupation as well as letting out space for shops & residence. A majority of the transfers have been subdivisions of the property among coowners.

This decade saw the housing units increase from 28 to 84. The same decade also saw an increase in the number of tenant households. In the five years between 1979-80 and 1984-85, this number increased from 34 to 78. These tenants were housed mainly in one-room or two-room dwellings. Despite a significant increase in the number of resident households, the number of rooms per household has registered a marginal increase from 2.38 to 2.44 between 1979-80 and 1984-85. This implies that there has been considerable investment in expanding housing space, mainly by extending existing houses, with much of the privately held open spaces being constructed upon.

### **SHANTIPURA**

This locality forms part of the southern boundary of the old town. The majority of its owner - inhabitants belong to three castes - the Garhi (traditionally goatherds), the Sutar and the Choudhari (traditionally small-medium cultivators) castes. As the town grew, many from this locality sought highly prized employment in

subordinate posts albeit, in government offices and factories. Between 1976-77 and 1979-80, this locality took in a large number of tenants (the tenant households increasing from 40 to 133), with almost no change in the number of housing units. Between 1979-80 and 1984-85, the number of housing units increased substantially, with a higher than proportionate increase in the number of rooms. The above mentioned employment opportunities would have contributed to the generation of funds for such investment. Though not all of the increase could be accounted for by the creation of altogether new houses, this neighbourhood did extend spatially, bringing land previously fallow or under agricultural use into use for housing, without formally colonizing such land. Unlike in Mirza Bakhal, here the extensive limits to land use for housing had not been reached. Malipura and Bherugarh, strung out along an arc on the southern fringes of the contiguous old town, also experienced notable growth in the number of housing units contained, presumably extending their boundaries southwards and outwards by way of individuals constructing houses on previously vacant land. Most of the tenant households in Shanti pura ( numbering 250 in 1984-85) have been housed in small, poorly serviced dwellings just as in Mirza Bakhal. The houses in this locality, prior to the boom in the 70s, were predominantly kutchcha. The locality now contains some houses made of different, relatively more expensive material, with some of the old houses being rebuilt and some of the new ones even initially being built with such materials.

#### **REWA BAUG**

This neighbourhood grew in terms of both the number of housing units as well as the number of rooms. Rewa Baug, situated on the south eastern outskirts, extended beyond its former boundaries as well as witnessed intensifying land use as space attached to houses or that interspersed with houses got built upon. Rewa Baug's

strong association with underprivileged Hindu castes does seem to affect the choice of Rewa Baug as a residential location. The overall effect is unclear as many tenants choose Rewa Baug because of caste affinities just as others reject it on the same ground.

### **KUMHAR GALI**

This gali, as the name suggests, was inhabited mainly by the Kumhars, the houses serving as workplaces as well as retailing outlets for own produce. Many from the younger generation have opted out of the craft of making earthenware, partly lured by employment elsewhere, partly pushed out as their craft suffered a relative decline. Changes in economic fortunes of families have not been uniform; what was formerly an uniform row of single storeyed mud houses, has now become one punctuated with brick-cement constructions with tiled floors, often double-storeyed. Such heterogeneity occurs in other poor localities and is often associated with a quick rise in the fortunes of some households via an involvement in any of the boom trades which requires little by way of seed capital and more by way of local rootedness or contacts. In Kumhar gali, the incidence of rented out space is low. There has been an increase in the size of houses accompanied by a more than proportionate increase in the number of rooms per resident household. Though this neighbourhood is contained in the rough rectangle along which trading activity congregates, Kumhar gali has not become just another street lined with shops,. This owes no little extent to the following: shops are not likely to come up in isolation in localities not traditionally associated with generalized commercial activity. Kumhar gali is not a unique example as our discussion of Sutar Bakhhal shows. This isolation among commercial streets is not immutable since considerable alteration in the ownership pattern and in physical facilities could change the image of such a locality.

### **LALA LAJPAT RAI MARG**

This skirts the Puar (Jr.) Rajbada. This road housed a heterogeneous lot in the days of old: some courtiers, some traders, some officials and some labourers. This heterogeneity continues. This locality is interesting because just a single event—that of the Puar Rajbada being sold to private colonisers who in turn sold it to individual users—resulted in a jump in the number of housing units. Further, a temple trust sold a part of its holding of open land along this road. These contributed to the increase in housing units from 114 in 1979-80 to 140 in 1984-85 and to the more than proportionate increase in the number of rooms in the same period.

### **KAVI KALIDAS MARG**

The inappropriateness of treating this as a unitary entity is striking for the sections of this road on either side of Jawahar Chowk are markedly different from each other. One of these sections is a continuous row of shops., The other is a predominantly residential area. Many of those who own property on this road are traders varying in terms of size of operation and nature of trade. This locality registers an impressive growth in the number of houses in the period between 1979 and 1985. But the average number of rooms per housing units has fallen significantly. This road along with MG Road, Sutar Bakhhal and Krishnapura (all of which contain an above average size of houses) has an above average ratio of occupying households to housing unit.

### **JOSHIPURA**

This locality, during the rule of the Puars, housed middle level officials of the state, mainly Brahmins. It continues to provide the town with white-collar

employees. In the mid -70s, about three quarters of the houses did not take on any tenant. By the mid-80s this proportion had fallen to less than a half. The number of tenant households rose rapidly from 17 in 1976-77 to 94 in 1984-85; in the same period, the number of housing units rose from 38 to 62.

#### **JAYA PRAKASH MARG**

This is a street lined by double storeyed houses with the groundfloor fronts being shops, many of them of longstanding. Many of these shops deal in hardware and related trades, the owners of many houses here being hardware traders operating from shops on the ground floor of their houses. In the recent period, the shops reflect a wider diversity as traders originally in the hardware trade expanded and diversified into other trades, still operating from own premises. Also more shops were formed on the ground floor and rented out to traders involved in other lines of business.

#### **SUTAR BAKHAL**

The name is derived from what was once the core of this locality : a few important Sutar families. This locality was always a mixed locality, with salaried persons and people engaged in small/medium scale trades forming the multitude. Arranged along regular streets, the houses are placed in an almost continuous row. This, and that the houses have been predominantly of pucca construction for some time now, set this locality apart from others such as Shantipura which, at least prior to the boom, had a decidedly rural aura about them. Sutar Bakhal attracted many whitecollared but relatively less affluent households. Between 1976-77 and 1979-80, the number of housing units rose from 104 to 139. Between 1979-80 and 1984-85, though this number was virtually constant, the number of rooms increased from 875 to 972. The limits to such expansion of



existing houses would be presumably set by the following : the extent of modification needed to expand the housing unit, resources available to the current owners and market pressures in terms of demand for rented spaces and for property. Between 1979-80 and 1984-85, the number of tenant households increased by 120 which set against the number of housing units in Sutar Bakhal in 1984-85 (134) is remarkable.

### **MAHATMA GANDHI ROAD**

On this is the major concentration of trading activity. The road's rise to prominence as the location for trading activity dates back to more than a century. Apart from shops (several of which were part of the owner-trader's residence), several badas lined the road in some sections, with smaller dwellings making up the numerous remainder. Till a few years ago, apart from the existence of shops dealing in cloth-utensils-jewellery-pawnbroking (the traditional elite trades) the road was also littered with shops dealing in dry groceries. The past decade has witnessed a rapid expansion in the number of shops with a change in composition of shops. Now, there are many shops in the glossier trades of consumer durables, medicine and sweetmeats. This expansion has spilled into streets leading off M.G.Road. An interesting development is that of the conversion of a few large house into "shopping complexes". A typical feature at present is the use of all ground floor street fronts as shops (own or rented out) with the rest of the house being used for residential purpose. The number of housing units on M.G. Road has not changed much in the past decade, the number of rooms too has increased relatively little, indicating a temporary saturation on both counts.

### **KRISHNAPURA**

This is a locality that came into existence around the beginning of this century, with the local nobility being

settled here in badas by the Raja. Many of the badas still exist often owned by the same family-the exceptional instances of sale arising due to the seller families winding up their interests in Dewas. Most of the badas have been rented out in portions after being suitably modified. Of the houses which had equal to or more than ten rooms, none were entirely owner-occupied. Three out of the thirteen such houses in 1979 and three out of the nineteen of the same in 1984 were rented out (in all cases to more than one tenant) without the owners continuing to stay in the badas. The rest had owners making do with portions of own premises, renting out the rest. This has to be understood against the context of the relative decline in the fortunes of most of the erstwhile nobility. Of those who demanded rented housing space in Krishnapura there were none who were willing to rent such badas en bloc. The only instances of tenants having rented badas (in other localities such as Radhaganj and Moti Bungalow) en bloc have been of some large corporate units (industrial and otherwise).

APPENDIX II : Some Tables

TABLE A.3.1 : OCCUPANCY AND TENANCY AND DETAILS OF SOME SAMPLE LOCALITIES IN THE OLD AND INTERMEDIATE TOWNS

Neighbourhood	Year	No. of houses	S(1)	S(2)	S( 2)	R(1)	R(2)	R( 2)	No. of rooms	Size of houses in terms of rooms per house	Rental market index col 4/ Col 3	No. of resident house-holds	No. of rooms per reside-house-holds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Mirza Bakhal	1976	27	17	1	7		2	0	-	-	.63	48	-
	1980	26	16	2	6	1	0	1	138	5.31	.615	58	2.38
	1987	68	30	11	14	1	0	4	357	5.25	.44	146	2.44
Rewa Bagh	1976	154	117	8	15		-2	2	-	-	.76	205	-
	1980	167	136	5	22	1	0	3	531	3.18	.81	271	1.96
	1987	232	158	14	47	7	1	5	937	4.04	.68	426	2.2
Kumhar Gali	1976	35	30	2	2		0	1	-	-	.86	45	-
	1979	35	28	2	3	0	1	1	153	4.37	.8	50	3.06
	1987	43	36	0	2	3	0	2	209	4.42	.84	53	3.94
Shantipura	1976	139	101	18	5		2	4	-	-	.73	164	-
	1979	140	87	23	14	8	2	6	605	4.32	.62	257	2.35
	1987	225	130	29	46	5	4	11	995	4.42	.58	455	2.14
L.L. Marg	1976	92	55	21	8		6	2	-	-	.60	130	-
	1979	114	71	18	19	2	1	3	519	5.08	.62	209	2.77
	1987	140	79	27	28	0	2	4	809	5.78	.56	306	2.64
K.K. Marg	1976	81	21	17	31		4	8	-	-	.26	179	-
	1979	92	24	18	30	3	4	13	631	6.86	.26	295	2.14
	1987	132	45	19	30	21	7	10	669	5.07	.34	353	1.90

contd.

Table A.3.1 contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Joshi Pura	1976	38	28	3	4		2	1	-	-	.74	52	-
	1979	40	22	7	8	1	1	1	220	5.5	.55	77	2.86
	1987	62	28	11	18	2	0	3	348	5.61	.45	151	2.30
J.P. Marg	1976	138	71	31	25		5	6	-	-	.51	201	-
	1979	133	56	16	30	16	2	13	767	5.77	.37	332	2.31
	1987	126	56	14	35	7	3	11	857	6.8	.44	358	2.39
Sutar Bakhal	1976	106	45	18	22		13	8	-	-	.42	204	-
	1979	139	53	25	32	11	6	12	875	6.3	.38	327	2.67
	1987	134	49	29	39	3	3	11	972	7.25	.37	454	2.14
M.G. Marg	1976	245	72	65	59		26	20	-	-	.29	548	-
	1979	216	63	24	95	8	4	22	1804	8.35	.29	756	2.39
	1987	242	73	40	81	17	8	23	1969	8.13	.30	765	2.57
Krishna Pura	1976	51	13	14	11		9	4	-	-	.15	104	-
	1979	53	16	13	15	1	3	5	409	7.72	.30	154	2.66
	1987	61	22	11	18	2	3	5	509	8.34	.36	188	2.71
Nai Abadi (Intermediate town)	1976	261	163	38	28		19	13	-	-	.62	419	-
	1979	290	168	43	47	5	9	18	1245	4.3	.58	574	2.17
	1987	320	188	37	56	17	7	15	1587	4.96	.59	627	2.53
Karamachari Colony (Inter- mediate town)	1976	72	27	14	7		21	3	-	-	.38	120	-
	1979	109	39	21	27	9	13	10	667	6.12	.36	207	3.22
	1987	184	57	46	36	28	8	9	1186	6.45	.31	374	3.17
Vishram Bagh (Intermediate town)	1976	14	8	3	0		3	0	-	-	.58	20	-
	1979	30	12	-	-	-	-	-	150	-	-	60	2.50
	1987	40	4	10	10	2	2	2	201	5.03	.35	87	2.31

contd.

Table A.3.1 contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
All of our sample localities in old town (No.1 to 11)	1976	1106	571	-	-		71	56	-	-	-	-	-
	1979	1155	572	-	-	52	24	75	6712	5.81	-	2786	2.41
	1987	1465	706	-	-	68	31	89	8631	5.89	-	3655	2.36
All of our sample localities in the intermediate town	1976	347	197	-	-		43	16	-	-	-	559	-
	1979	429	219	-	-	14	21	28	2062	-	-	841	2.45
	1987	544	259	-	-	47	17	26	2974	-	-	1088	2.73

Source : The Municipal Corporation Registers.

- NOTE**
1. S(x) denotes number of owner occupied houses (fully or partly owner occupied); x being the number of occupier households, all but one of which will be tenant households.
  2. R(x) denotes number of houses not occupied by owners; x being the number of households, all of which are tenant households.
  3. The houses in our sample as a proportion (in % terms) of the total No. of houses in the respective areas is given below :
- |  |      |      |      |
|--|------|------|------|
| Houses in our sample of localities in the old town as a proportion of houses in all of the old town                    | 1976 | 1979 | 1987 |
|  | 30   | 24   | 26   |
| Houses in our sample of localities in the intermediate town as a proportion of houses in all of the intermediate town. | 36   | 51   | 43   |

**TABLE A.3.1a: TENANCY STATUS IN SOME COLONIES IN NEW DEWAS IN 1986-87**

	Number of housing units							Remarks
	Total No. of houses	Total No. of households	Total tenant households	Wholly rented out	Of which houses with one tenant household	Wholly owner occupied	Partially rented out Partially owner occupied	
Kalani Bag	42	53	21	10	7	24	8	Private Colony. No house has more than two occupied households.
Gayatri Nagar	41	60	29	10	3	22	9	Private Colony. 12 houses have more than two occupied households.
Adarsh Nagar	50	77	36	9	4	26	15	Private colony 10 houses have more than 2 occupied households.
Panchshil Nagar	51	82	51	20	8	14	17	Private Colony 8 houses are occupied by more than 2 households.

*Contd.*

Table A.3.1a contd.

Jawahar Nagar									Colony constructed by the MPHB.
MIG	73	76	43	40	37	33	0		This is a colony floated by the MPHB.
LIG	264	270	116	110	105	154	0		All the houses have been designed and constructed by MPHB.
EWS	218	218	82	82	-	136	0		
Agrasen Nagar	48	82	40	6	1	22	20		Private Colony 3 houses have more than two occupied households.
Sarvhara Colony	1033	1164	430	12	-	234	0		Squatter Settlement. This is a squatter settlement. A majority of its occupier granted legitimate occupancy status as per the MP Slum Act, 1984

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Source : The Municipal Corporation Property Tax Assessment Registers

**TABLE A.3.2 :** EXISTING LAND USE PATTERN AND THE PROPOSED LAND-USE (ZONING)

Land use	Existing <sup>1</sup>		Proposed Originally <sup>1</sup>		Revised & approved Proposal <sup>2</sup>	
	Area (in hectares)	Percentage	Area (in hectares)	Percentage	Area (in hectares)	Percentage
Residential	164	43.2	540	38.3	2022	46.41
Commercial	15	4.0	50	3.5	108	2.48
Industrial	78	20.5	400	28.4	1239	28.44
Public, Semi-public & public utilities	27	7.1	112	7.9	90	2.06
Recreational	7	1.8	98	7.0	140	3.21
Transportation	89	23.4	210	14.9	758	17.4
<b>Total</b>	<b>380</b>	<b>100.00</b>	<b>1410</b>	<b>100.00</b>	<b>4357</b>	<b>100.00</b>

**Source :** Dewas Development Plan : Draft Report, T & CPO Bhopal 1979 and the T & CPO , Ujjain for the revised proposals.

1 This information appears on p. 87, 'Dewas Development Plan: Draft Report' T & CPO, Bhopal 1979. The 'existing' situation could be taken to mean the situation in either the early or mid 70s, going by the use of the term elsewhere in the book (the report does not indicate anything in this regard). The original zoning proposal was presented in the Draft report.

2 The Original proposal was revised several times before assuming its final shape in 1987 on having been 'approved of'. This revised proposal has not yet been published.



**TABLE A.3.3 :** REPRESENTATIVE RENTAL RATES CONFRONTING THOSE WHO SEEK RENTED PREMISES IN VARIOUS NEIGHBOURHOODS IN END 1987

Locality	Average size of house (1984)	No.of rooms per resident household	Rental rate per month per standard room (in Rs.)	Range of rooms offered as rented premises	Rental per month/household (in Rs.)	Ratio of tenant households to total households (1984)
Jawaharnagar	2.7	2.7	200	3-4	600-800	0.43
Karmachari Colony	6.45	3.17	225-175	2-5	500-1000	0.63
Radhaganj	-	-	250-175	3-6	600-1200	0.61
Vishram Bagh	5.03	2.31	200-150	2-4	400-800	0.61
Tarani Colony	-	-	200-150	3-5	500-800	0.61
Krishnapura	8.34	2.71	175-150	2-4	300-800	0.73
Sutar Bakhhal	7.25	2.14	150	2-3	300-500	0.74
Nai Abadi	4.96	2.53	150-100	1-3	100-450	0.55
Rewa Baug	4.04	2.2	125-100	1-2	100-350	0.49
Bhosle Colony (a large section)	-	-	125	2-3	125-250.	

contd.

Table A.3.3 *contd*

Mahakal Colony	-	-	100	1-2	100-200	
Some squatter settlements close to the old town and single rooms bathroom-sharing units in 'slums' such as Mirza Bakhal.	5.25 <sup>a</sup>	2.44 <sup>a</sup>	75-50	1-2	50-150	0.56 <sup>a</sup>

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**Source :** Enquiries by author, end 1987.

**Notes :** a- Mirza Bakhal data

**TABLE A.3.4 :** DISTRIBUTION OF COLONIES ACCORDING TO THE NUMBER OF PLOTS IN THESE COLONIES AND THE YEAR OF GRANT OF INITIAL APPROVAL OF LAYOUT.

Number of Plots provided for by the colony in the layout	Year of initial approval of layout						Total
	1980	1981	1982	1983	1984	1985	
Upto 39	3	14	8	2	2	2	31
40 to 79	2	13	8	3	3	0	29
80 to 139	4	15	8	3	2	1	33
140 to 199	2	6	4	1	1	0	14
200 and above	2	4	2	0	0	0	8

**Source :** The D.D.A's register of colonies who have got their layout approved by the Town & Country Planning Department, M.P.

**Note :** The year-wise totals here may not match the year-wise number of colony layout approvals by the T & CPO because some of the entries in the source do not specify the number of plots provided for. Further, the table does not contain information for the years 1986 and 1987 because the D.D.A. Register does not inform us of the number of plots proposed by colonies floated in those years.

**TABLE A.3.5 : YEAR-OF-SANCTION-OF-INITIAL-LAYOUT-APPROVAL-WISE AND LOCATION-WISE NUMBER OF COLONIES.**

Location of colony	Year of initial layout sanction								Total
	1980	1981	1982	1983	1984	1985	1986	1987	
Ujjain Road	4	16	15	3	-	-	-	1	39
Indore Road	3	4	2	1	-	2	1	-	13
Gwalior Raod	-	-	-	1	1	-	-	-	2
Civil Lines/ Mendki	3	5	2	2	3	2	-	1	18
Mill Road Balgadh	4	14	10	-	1	-	-	-	29
Old town	-	2	1	-	-	-	-	-	3
MR 3	-	4	1	-	-	-	-	-	5
Jawaharnagar (near)	-	4	-	-	-	-	-	-	4
Radhaganj & nearby areas (including the Chamunda Pahadi and areas close to the B.N.P.)	-	3	2	2	3	1	1	1	13
Station Road	1	2	-	-	-	-	-	-	3
Bhopal Road	-	-	-	1	1	-	-	-	2
<b>Total</b>	<b>15</b>	<b>54</b>	<b>33</b>	<b>10</b>	<b>9</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>131</b>

Source : The DDA Records

**TABLE A.3.6 :** DETAILS ON HOUSING COLONIES FLOATED BY GOVERNMENT AGENCIES i.e. THE MADHYA PRADESH HOUSING BOARD (MPHB) AND DEWAS DEVELOPMENT AUTHORITY (DDA)

Scheme	Agency	Houses	Number of		Completed	If incomplete
			Plots	Skeleton	in/over	status till
				houses		March 1988
Radhaganj	MPHB	5M 20L	- -	- -	1950s 1950s	- -
Jawahar-nagar	MPHB	81M 350L 218E	- - -	- - -	1983-85	
Civil Lines	MPHB	80L	47M	-	1984-86	
Bavadia	MPHB	-	21H 48M 215L 250E	261E	-	Floated in 1987. oversubscribed
Balgadh	MPHB	-	148E	-	-	Applications not yet called for.
Vijaynagar	DDA	25H 71M 147L 150E	147U			Partially comp- leted. Several houses have been handed over
Chamunda	DDA	25H			1987	
Jainagar	DDA	26M			-	To be completed by end 1988.

*contd.*

Table A.3.6. contd.

Scheme	Agency	Houses	Number of Plots	Skeleton houses	Completed in/over	If incomplete status till March 1988
Bavadia (Vikas Nagar)	DDA	318E 393L 42M 16H				Subscribed for in 1987. Oversubscribed
			147U			
		66H	21H			
		225M	95M			
Total		990L 686E	215L 398E	261E		
of which ready for use (till March 1988)		50H 390M 524L 293E	47M	-		Assume half of Vijaynagar's M, L, E categories completed

**Source :** MPHB & DDA Offices, Dewas and Ujjain.

**Key :** H: High Income Group, M: Middle Income Group, L: Low Income Group, E: Economically Weaker Sections, U: Unspecified.

## CHAPTER 4 : WATER

### 1.0 CRISIS IN WATER

#### 1.1 INTRODUCTION

In the growth and development of any community, water plays an obviously crucial role particularly so when it is rapidly industrialising. In Dewas, it is the restricted availability of water that has exerted influence. This constraint of availability is itself dependent on the level of exploitation of water resources, a level which seems to be approaching precipitous heights in Dewas in the mid-80's after more than a decade of rapid growth in industrial activity, population and agricultural output. We proceed to understand this inter-relatedness of urban and industrial growth and water resources by beginning with a presentation of the magnitude of water supply shortage faced by Dewas town and by establishing that the shortage is due to over-exploitation of ground water resources concomitant to the growth that Dewas town experienced, and not due to the 'natural' cause of meteorological drought. We follow this up with a description in general of the elements present in the process of depletion of water resources. The third section contains an analysis of the specific crisis of water shortage faced by Dewas town and the responses to it from various participants like industry, the consuming public and the municipal and supra-municipal governments.

## 1.2 DEPENDENCE ON GROUND WATER; DEPLETION OF GROUND WATER RESOURCES; SHORTFALLS IN SUPPLY

### 1.2.1 A Brief Historical Account of Water Supply Arrangements in Dewas

The town in the pre-independence period secured its entire water supply from shallow wells, scattered all over the town, operated manually and from the pipeline network fed by motorised water extraction mechanisms exploiting a couple of shallow wells. In the 1950s, the Municipal Corporation was finding it difficult to supply adequate water from these sources. On the one hand was an increasing population and on the other, falling yields. A proposal was mooted for the construction of a reservoir on the river Sipra about 13 km away<sup>1</sup>. It was felt that the reservoir would be a permanent solution, quantitywise, to the water supply problem faced by Dewas. Authorities at the Municipal Corporation therefore found it more worthwhile to discuss the chemical qualities of water from Sipra and

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1. Once upon a time, the Sipra was almost a perennial stream. 'We walked first, along the banks of the Sipra, a deep green river, haunted by sweet chirping birds' (letter written by EM Forster dated April 6, 1921 appearing on p. 35, Forster, 1983). Needless to say, Malwa has not been insulated from processes causing environmental degradation. Thus, though whether there has been a secular decline in the volume of precipitation is a moot point, the effect of loss of forest and vegetative cover, change in agricultural regimes and physical intervention in the landscape had all caused the surrounding countryside to drain itself less gradually into the Sipra.



whether the reliance on the Sipra would cause a deterioration in the quality of water supplied. The Sipra reservoir became operative in the early 70s. In 1976, it supplied around 2.5 lakh gallons per day to Dewas (Public Health Engineering Department, Dewas) while the ground water sources supplied another two lakh gallons. Since then the efforts at augmenting supply have largely concentrated on ground water.

Since the early 70s, industrial activity in Dewas grew and so did the town's population. In 1982, the total population of Dewas city crossed the one lakh mark. In 1987, 47 large and medium scale manufacturing units and more than 125 small scale units were engaged in production. The town as we have mentioned above was, by and large, dependent on ground water. In the mid-70s, the first major project for exploitation of ground water, was commissioned. The tubewells tapped an aquifer at the depth range of between 120 and 160 feet and were located in Rasulpur, a village close to the major 'Industrial Areas' on Indore Road. In the 1980s, especially since 1985, the Municipal Corporation has drilled a number of tubewells in the outlying villages of Rasulpur, Amona, Binjana, Nagda, Siya etc. While the average depth of tubewells was around 150-200 feet in 1985, in 1987, the average depth was around 250-300 feet. Most of the shallow wells had meanwhile either dried up or become polluted. The Madhya Pradesh Laghu Udyog Nigam (MPLUN) too

saddled as it was with the responsibility of water supply to factories, invested in an additional number of tubewells.

### **1.2.2 The Contemporary Crisis**

In 1987-88, the peak water supply by the Municipal Corporation through the centralised circuit (fed by the Sipra reservoir and the abovementioned tubewell complexes) was between 14 and 17 lakh gallons per day. By January 1988, the reservoir stopped yielding water and the yield from the tubewells feeding the centralised circuit dropped to roughly three to five lakh gallons per day. This was complemented by decentralised arrangements (the Municipal Corporation invested in tubewells within residential areas of the town, each tubewell supplying water to a small area surrounding it. Further, several hand pumps tapping the shallow aquifers had been installed all over the town), which together were estimated to yield a maximum of three lakh gallons a day. The MPLUN supplied about 2.3 lakh gallons per day to the factories in 1986-87, a little more than one-third of its daily supply in 1983-84 (see Table 4.1). In 1983-84, the factories demanded in the aggregate, 15 lakh gallons per day, the demand increasing to 17 lakh gallons per day in 1986-87. In addition to the shortfall in terms of the daily supply averaged out over the year, there are seasonal shortages as the volumes supplied by the MPLUN fluctuate over the year (See Table 4.2).

**TABLE 4.1 :** YEARLY AVERAGE OF DAILY WATER SUPPLY BY MPLUN TO DEWAS

Year	Average Daily Water Supply in Gallons
1982-83	406526
1983-84	638730
1984-85	680265
1985-86	364400
1986-87	233502

**Source :** Water Department, MPLUN, Dewas.

**TABLE 4.2 :** SEASONAL VARIATION IN TOTAL WATER SUPPLY TO DEWAS BY MPLUN.

Period	Average Daily Water Supply in Gallons
July 1986 - Aug. 1986	99132
Sept 1986 - Mar. 1987	315126
Apr. 1987 - Jun 1987	90457

**Source :** Water Department, MPLUN, Dewas.

The Dewas Development Authority (DDA) sets a norm of 40 gallons per day 'covering domestic, industrial and other requirements' (DDA, p.79, 1979). The 17 lakh gallons per day demanded by the factories from the MPLUN in 1986-87

averages to 14 gallons per capita per day if one takes the 1987 population of the contiguous areas of Dewas to be 1.2 lakhs. Thus, the demand for industrial use forms 35 percent of the total demand as per the norm set by the DDA. The rest, 26 gallons per capita per day could be assumed as the demand for domestic use. The demand for domestic use in Dewas town could thus be estimated to be around 31 lakh gallons per day in 1987 and the supply by the Municipal Corporation in 1987 ranged from eight gallons per day to 20 gallons per day per capita. There was thus a shortfall in supply for domestic use ranging from three fourths to one-thirds of demand. To a small extent, this shortfall was covered by privately owned tubewells and some shallow wells. The rationing process was biased in favour of the affluent and the influential and the shortfall was therefore borne unevenly across sections of Dewas' populace. For industrial users, in 1987, against a demand of 17 lakh gallons per day, the shortfall thus ranged from 94 percent to 47 percent of demand. There have been no reports of curtailment of production or the introduction of water-saving equipment/processes. Thus, the shortfall was almost entirely covered by private tubewells owned by the industrial units and by purchase of water from farmers (owning tubewells) in the neighbouring countryside.

### 1.3 PARALLEL DEVELOPMENTS IN AGRICULTURE IN DEWAS DISTRICT: INCREASING EXPLOITATION OF GROUND WATER

The crisis cannot be viewed independently of developments in agriculture in the neighbouring area. If one assumes that the lateral spread of the aquifers<sup>2</sup> underlying Dewas city and its neighbouring areas extends to cover a part of the tehsil at least, if not the district, then in our examination of the crisis with regard to water supply in Dewas, information on the exploitation of groundwater for agricultural use becomes relevant and cultivators using modern water extraction mechanisms (WEMs) become pertinent as major users.

**TABLE 4.3 :** AREA UNDER CROPS: DEWAS DISTRICT (in 1000 hectares)

Year	NSA	GSA	Jowar	Wheat	Pulses	Cotton	Soyabean	NIA
1960-61	282	287	98	66	37	50	-	4
1980-81	349	384	125	53	54	38	30	39
1985-86	356	423	97	50	60	42	93	56

**Source :**

**Note :** NSA: Net Sown Area; GSA: Gross Sown Area; NIA: Net Irrigated Area.

2. Aquifers are water-bearing layers below the top soil.

Table 4.3 reveals the picture in the 80s: a rapid growth in net irrigated areas as well as increase in soybean acreage largely at the expense of jowar. The soyabean crop when compared with jowar is less drought resistant and more water intensive.

The information on cropping pattern does not reveal the significant shift in Dewas tehsil towards HYVs of jowar and wheat. It is widely considered that HYVs introduce a more water - intensive regime. Most of the HYVs are more input intensive than traditional varieties. Since the adoption of HYVs is accompanied by increased investment at least in fertilizers and pesticides, there would be felt an increased need to hedge against inadequate rainfall --the HYV, not being known to be particularly more drought resistant and in most instances being less drought resistant than indigenous strains. These together result in the conjunctive spread of HYVs and irrigation facilities.

Table 4.4 records the rapid growth in the extent of exploitation of groundwater. Electric motors are used to operate tubewells as well as to extract water from dug wells. In December 1986, the Department of Irrigation of the State Government categorised Dewas tehsil as a 'dark area' thereby signalling that the exploitation of ground water in Dewas was approaching what it regarded as the maximum sustainable level.

**TABLE 4.4 :** SPREAD OF TUBEWELLS AND ELECTRIC MOTORS IN DEWAS DISTRICT.

Year	TUBEWELLS		ELECTRIC MOTORS	
	Dewas Tehsil	Dewas Distt.	Dewas Tehsil	Dewas Distt.
1980-81	104	161	4341	13685
1983-84	177	349	5859	17081
1985-86	501	920	5984	19860
1986-87	869	1686	6163	21273

**Source :** Land Records Office, District Collectorate, Dewas

#### 1.4 THE IMBALANCE : EVALUATION OF 'CAUSAL' HYPOTHESIS: EXCESS DRAFT OR DEFICIENT RECHARGE?

Our presentation seems to suggest, albeit implicitly, that it is the rapidly increasing draft on ground water resources that has caused this depletion of ground water resources underlying Dewas town and its neighbouring areas. This increase has accelerated in the 80s owing to (i) the increasing levels of manufacturing activity, (ii) the shifts in cropping patterns with irrigation, with ground water exploitation being increasingly taken recourse to for augmenting water supply and safeguarding against water scarcity, and (iii) a larger population resident in Dewas town. Here we intend to explicitly explore our above hypothesis.

The imbalance does exist. It could have been caused either by excess draft or shortfalls in recharge. Recharge for the groundwater system as a whole would depend on rainfall, evapotranspirational 'losses' and surface flows. If one looks at specific aquifers, ground water flows (both inter and intra aquifer) and the rate of gravity - impelled seepage of water from the layers intervening between the aquifer and the land surface also become important. We could compress these elements into just two : rainfall and a composite infiltration index (which comprises all the elements except rainfall and which is specific to the depth range and geographical location of each aquifer). We intend to examine data on rainfall in Dewas and the post-monsoon water levels in 10 shallow scattered wells over Dewas tehsil<sup>3</sup>. We admit that given some conditions regarding surface flows and groundwater lateral flows, ground water recharge in Dewas tehsil may also depend on rainfall elsewhere. However, we restrict ourselves to using data on rainfall over just Dewas town.

To examine the relationship between rainfall and ground water recharge, we choose the shallowest of aquifers (which is tapped by these open wells) because here is where we expect the relationship between post-monsoon water levels

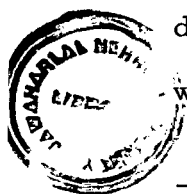
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3. The information was collected by the Geohydrological survey office attached to the Irrigation Department of the Government of Madhya Pradesh. The observations pertain to 10 observation wells appointed by this office in Dewas tehsil.



and rainfall to be the strongest for two reasons: 1) the infiltration index pertaining to the shallow aquifers would be higher when compared to deeper aquifers given that there are fewer intermediate layers and 2) manufacturing activity in Dewas and supplies arranged by the Municipal Corporation tap deeper aquifers. So their draft will interfere less with water levels in deeper aquifers.

The observations are presented in Table 4.5 and 4.6. Comparing 1982 and 1986, rainfall in 1986 was 36 percent higher than in the former year. The increase in monsoon rainfall is even higher at 69 percent. However the water levels in eight wells are significantly<sup>4</sup> lower in 1986 as compared to those in 1982, while in the remaining two wells, the water level has increased significantly. Between 1982 and 1983, despite rainfall increasing from 798 mm to 1239mm, there is a significant decline in water level in one well while eight wells show either an insignificant increase or an insignificant decline. Between 1984 and 1986, despite an increase in rainfall from 736 mm to 1082 mm, there has been a significant decline in three wells, an insignificant decline in three wells and insignificant increases in three wells.



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4. We have chosen as a significance threshold, an arbitrary level of 20 percent change from the earlier observation.

This data reveals that in shallow wells, where one expects to find a positive relationship between post-monsoon water levels and levels of rainfall to be the strongest, changes in post-monsoon water levels across years attributable to changes in levels of rainfall are overshadowed by a secular decline in water levels. This, of course, is for the period 1982-86 for Dewas tehsil. As reasoned above, this holds, a fortiori, for deeper aquifers. It can thus be said that the imbalance in ground water resources is caused by the sharp increase in ground water exploitation in the 80s.

**TABLE 4.5 :** RAINFALL IN DEWAS TOWN : 1982-86

Year	Monsoon rainfall (mm)	Non-Monsoon rainfall (mm)	Total rain- fall (mm)
1982	630.44	167.5	797.94
1983	1216.3	22.9	1239.2
1984	736.13	-	736.13
1985	622.4	-	622.4
1986	1065.8	16.3	1082.1

**Source :** Returns to the Irrigation Department, M.P. State, submitted by the Geohydrological Survey Office, Dewas

**TABLE 4.6 :** DEPTH OF WELL WATER LEVEL IN POST MONSOON SEASON IN DEWAS TEHSIL : 1982-86.

Well Station	1982	1983	1984	1985	1986
Sabukhedi	4.00	3.85	7.00	8.5	7.35
Sirgawada	4.8	6.8	8.7	10.55	7.65
Narangipur	5.5	6.15	7.6	9.5	9.4
Kshipra	5.6	5.85	5.7	5.2	6.8
Dewas	5.7	6.4	4.9	10.8	7.4
Palnagar	3.3	3.22	N.R.	2.9	2.6
Jamgod	2.8	3.15	3.00	3.14	2.15
Barotha	2.7	2.45	2.65	1.6	4.1
Chhota-Malsapur	6.4	5.83	8.75	9.00	9.00
Double Chowki	5.25	4.48	10.3	12.65	N.R.

**Source :** Returns to the Irrigation Department, M.P.State submitted by the Geohydrological office, Dewas.

**Note :** 1) N.R. implies 'not recorded'.

2) The depth is measured in metres .

## 2.0 SOME RELEVANT ASPECTS OF GROUND WATER EXPLOITATION

### 2.1 INTRODUCTORY

This second section discusses phenomena pertaining to groundwater exploitation in general because they have a significant bearing on the specific developments in Dewas. Firstly, there is the emergence of the need for rapid,

massive and spatially concentrated withdrawals of ground water. This arises due to the emergence of activities which consume large volumes of water and due to a spatial concentration of small users of water. Secondly, there is the technology that makes possible such rapid, massive and concentrated withdrawals of water. Thirdly, there is a peculiarity about an urban context. This makes for a spatial concentration of ground water resource exploitation, two important implications of which will be drawn in this section. Fourthly, such withdrawals of water can cause an imbalance leading to negative contemporary and intergenerational externalities. To recognise the imbalance and the empirical evidence for such imbalance, it is necessary to examine how it manifests itself. To that end, we have attempted a brief presentation of the nature of aquifers and the shape that the imbalance might take. Lastly, we take a look at the Indian legalities with respect to water appropriation and use. They are such that an individual user does not compensate for the negative externality of his extraction or appropriation of ground water.

## 2.2 USERS OF GROUNDWATER : CATEGORISATION

We will categorise water users into three groups:

i) Minor users: This group would include all those who use water for domestic purposes and all petty private enterprise

such as artisans, potters and dyers or those providing personal services such as dhobis. Such users depend either on traditional water extraction mechanisms (WEMs) or on a relatively centralised supply system controlled by the government, or in the rare instance by some association of users.

ii) Major users: This group manages to appropriate large amounts of this resource. Such users are controllers of water intensive agricultural or manufacturing activity. These users have captive sources and modern WEMs enabling rapid and massive withdrawals of water for the individual user or for an association of users and/or purchase water from private owners of water and/or from modern WEMs installed and operated by some governmental agency.

iii) Those farmers whose activities could be suitably altered to absorb larger volumes of water but are prevented from doing so (and therefore cannot be a part of the group of major users) due to a capital constraint. Such farmers fall back upon traditional WEMs or the relatively more expensive purchasing of water.

### 2.3 TECHNOLOGICAL POSSIBILITIES FOR EXPLOITATION OF GROUND WATER

We now turn to an examination of modern WEMs. Modern WEMs are distinct from traditional arrangements in

that they permit (i) rapid and massive withdrawals of water at relative ease from sources inaccessible to traditional WEMs -- such as deep aquifers. In India, subject only to a few and usually ineffective regulations, modern WEMs can be installed at will and operated entitling the owner to as much water as can be extracted via the WEMs, without having to bear any other cost for the act of appropriation than the direct cost of extraction.

### **2.3.1 Purposes of Massive Groundwater Exploitation**

Through the use of modern WEMs, groundwater is subjected to massive and rapid withdrawals for two purposes. i) For use in some major user process, agricultural or industrial, which is a manifestation of 'capital accumulation' (this term is used in an extremely restricted sense. Ignoring the state-sponsored projects -- these would be only a minor theoretical complication -- it can be said that these activities are undertaken presumably on a continuous basis with a view to expand the magnitude of socialwealth controlled by those who undertake these activities. The benefits accruing out of such use of water are privatised). The ownership of the WEMs may be vested in the users themselves (individually or as an association) or in some intermediary. This intermediary could be either a private agent (who could supply at cost of extraction + distribution + mark-up) or some governmental agency (which

could be pressurised to provide water at the cost of extraction + distribution less subsidy) ii) For minor users: if the minor users (mainly households using water for domestic purposes or for petty livelihood) are concentrated spatially, a centralised supply system usually run by some governmental agency might use modern WEMs to supply water to a large number of such minor users.

#### 2.4 THE MODERN URBAN CONTEXT: IMPLICATIONS ON GROUNDWATER EXPLOITATION

An urban context such as Dewas town is a spatial concentration of users - both major industrial ones and minor ones. Two implications follow. The first is that a centralised water supply system becomes more feasible. Usually the municipal authority undertakes to supply water to the minor users. For the major users, the feasibility of a centralized water supply system strengthens their attempts to get a government agency to undertake this function, thereby opening one more avenue to seek subsidies. This is more so when the spatial location of major users is sought to be influenced by the government. Thus major users who locate their manufacturing facilities in industrial areas sponsored by the government expect the latter to supply them water at 'reasonable' rates. As we shall see below, the making of such attempts to influence the availability and cost of access to water is not confined to major users.

Minor users too use wealth and privilege to claim larger shares of the resource partly directly and in an urban context, partly indirectly by acting through the municipal authority. (ii) The second implication is the necessity of a spatial concentration of several modern WEMs. The consequent rapid and massive withdrawal from a closely connected complex of ground water resources could cause stress on these groundwater resources. We shall consider this aspect in some detail below.

## 2.5 THE NATURE OF 'IMBALANCE' IN GROUND WATER RESOURCES -- ITS FORMS AND CONSEQUENT EXTERNALITIES

Any water-bearing layer below the top soil is an aquifer. Unless the transmissivity (loosely, the ease and speed with which water flows within an aquifer) happens to be very low, the cumulative effect of extraction of water from that specific aquifer by a major user could affect what the aquifer yields to other users<sup>5</sup>. The initial effect could be expected to take the forms of falling yields and occasional instances of 'well interference' (i.e. when the flow gets interrupted). The imbalance may be temporary with

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5. One is using the parameter of depth only as an ordinal index of recharge and that too for a ranking of only a vertical cross section of aquifers under a point on the land surface. Misgivings which persist nevertheless are overlooked because our involvement with this aspect of aquifers is limited.



a seasonal excessive draft being compensated by the monsoon recharge. On the other hand, the imbalance could be persistent and cumulative leading, if unchecked, to an exhaustion of the aquifer and in some cases, to a permanent impairment to the water-bearing capacity of the aquifer (if the structure of the aquifer alters) or to a change in the quality of water (as in the case of saline intrusion into a sweet water aquifer). The emergence of such effects could often be postponed if the aquifer has an actualised water-bearing capacity which is large enough to reduce the spatially concentrated draft by major users to insignificance. Such a capacity may have been filled by an accumulation of surplus recharges over time or by continuous recharge from other reservoirs (of ground or surface water).

It is possible that at different depth ranges, one would encounter different aquifers, the shallowest of aquifers being those that are usually tapped by open dugwells. The imbalance mentioned above and the draft recharge is to an extent specific to each aquifer. Or as it appears to us, it is specific to the depth range of the water-bearing layer that is being tapped. If one examines a vertical cross-section of aquifers at any point on the land surface, it is likely that the deeper the aquifer, the lower the recharge because much of the replenishment depends on percolation of water from the land surface through

intermediate layers<sup>6</sup>. Thus, the deeper the aquifer brought into the orbit of exploitation, the less replenishable are the resources that are being exploited with the phenomenon beginning to resemble 'the mining' of groundwater, sometimes of 'fossil' groundwater<sup>7</sup>.

In Dewas the 'usual' depth range of aquifers tapped by tubewells has been increasing phenomenally since 1983 as was seen in a preceding section. This however has failed to assure an adequate supply for the town.

## 2.6 DISTRIBUTIONAL IMPLICATIONS OF MODERN TECHNOLOGICAL POSSIBILITIES

Modern WEMs facilitate the appropriation of the resource by private users at, as we have mentioned earlier, merely the direct costs of extraction. Such modern WEMs involve a much higher initial outlay than do traditional WEMs<sup>8</sup>. The ownership of modern WEMs is the prerogative of a

6. The depth-specific aspect has been entirely missed out in governmental studies such as those conducted by the Geohydrological Survey and the Irrigation department of the government of Madhya Pradesh.
7. Ordinarily, the deeper the aquifer, the more expensive is the installation of a WEM. Hence, given uniformity in the quality of water in the various aquifers the deeper aquifers will be tapped as a response to the inadequacy or uncertainty in the yields of shallower aquifers.
8. The absence of any credit constraint and the possibility of a competitive or cooperative spreading of costs - via-distribution-of-yield could make the ownership of such WEMs independent of the user's capital access and in-house demand. However, such a hypothesis is irrelevant.

few. Compared to traditional WEMs, these modern WEMs permit water to be drawn up at a much faster rate and permit access to deeper aquifers. Given the effects of rapid and massive withdrawals of water made possible by modern WEMs, it is as if the owners of modern WEMs compete with owners of traditional WEMs. If both tap the same aquifer, the interrelatedness is immediately discernible. Even if modern WEMs were exploiting deeper aquifers, inter-aquifer gravity impelled vertical flows could be accelerated (this is possible under some assumption about the permeability of the intermediate layers) leading to a 'draining out' of the shallow aquifers which are accessible to users of traditional WEMs.

## 2.7 FALLACY IN CONTEMPORARY INDIAN GROUNDWATER APPROPRIATION RIGHTS

Groundwater existed in a social form prior to the act of private appropriation. It can be amenable to becoming someone's private property in a strict sense only if it has some fixed dimensions prior to it being appropriated -- e.g. if the potential appropriator has the right to appropriate only a fixed volume of ground water and then goes about making the arrangements to extract it. The present property rights in India, on the contrary, entitle the owner of an installed WEM to as much water as can be extracted; its volume is not determined prior to the determination of the

property right<sup>9</sup>. Even if the arrangement mentioned above -- that of fixing the characteristics (here, the volume) of an object prior to it being appropriated -- were to take the form of a costless allocation of a fixed volume to the user, it would be more in keeping with the nature of the groundwater resource than the extant property right.

The above discussion becomes of social and contemporary relevance because under the present arrangement, a major user impinges upon the conditions governing the appropriation of water i.e., the private property right of other users/owners of WEMs. Sudden and massive withdrawals of groundwater in a situation such as contemporary Dewas, where the ground water resources are not too bountiful, by one user or by a clique of users results in higher costs and lower accessibility for all users -- a case of negative externality which could well become even an inter-generational negative externality.

Groundwater can thus be 'legitimately' appropriated only if (i) the characteristics of the property are fixed prior to its appropriation i.e. potential appropriations are allotted fixed volumes, and (ii) this

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9. As a contrast, in Israel -- a water scarce country -- all water, surface and ground is the property of the state until the user acquires the right to use. The exploitation of all water resources -- surface and ground- is controlled by the state. Potential users are allocated the right to use specified volumes of water, with no right of resale (Arnon 1972,p 171).

allotment is done in a manner which incorporates the negative externality inherent in groundwater extraction.

### 3.0 RESPONSES TO THE WATER CRISIS IN DEWAS

#### 3.1 INTRODUCTORY

In this section we will be looking at, in some detail, the intensification of groundwater exploitation in Dewas city and its neighbouring area, the emerging crisis and at how the various arrangements of supply of water are coping with the crisis. The importance of the crisis is not in terms of it forcing major consumers of water to relocate themselves or curtail output as a means of reducing consumption of water or in terms of altering the relative consumption of water or in terms of altering the relative attractiveness of Dewas as a place to reside in. From the viewpoint of the manufacturing units, the crisis is within manageable proportions because the availability of water is still responsive to the investment/expenditure of resources<sup>10</sup>. Further, there is always the possibility of shifting this additional cost burden onto the state. As we

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10. The relatively low significance attached to expenditure on securing water by many manufacturing units (and correspondingly to the increase in cost which is an increase from an initial insignificant level) belies the crucial role played by water in the production process. However, that there is concern is evident from the frequent representation made to the authorities by industry individually and through the Association of Industry, Dewas.

shall see, there have been attempts in Dewas in this direction. For domestic users the extra activity on securing water supply takes the form of either investment of financial resources or the investment of more time and effort. It is this latter form -- an absorption of the cost by that nearly 'invisible' sector i.e. effort by household members in domestic reproduction -- that makes the crisis most significant for and yet not too apparent to mainstream economics. This partly explains the relative neglect of this genre of issues by mainstream economics.

### 3.2 DATA BASE

It has not been possible to adduce accurate information on certain aspects. As an explanation, we turn to the problems faced in data collection. Since the group of major users in our context--the industrial units--are not required to submit information to any agency on the amount of water actually consumed, we are left only with the information on the quantity of water supplied to these units by MPLUN, a government agency. As the crisis intensified, industrial units met more of their requirements from sources other than the MPLUN. So the discrepancy between our data on water supplied by the MPLUN and the volumes actually consumed by industry could only be expected to widen with time. Only a portion of the requirements of minor users in the town is met by

piped water supply from the centralised system controlled by the Municipal Corporation. The other sources are dugwells operated by traditional WEMs and decentralised arrangements (modern WEMs) of piped water supply, some of which are controlled by the Municipal Corporation and others by associations of users (such as cooperative housing societies or property developers and colonizers). No information is available on these. On the centralised water distribution system information is available at two points --the amount of water collected daily in the storage-cum-distribution tanks and on the amount pumped into these tanks from the various WEMs attached to the unit. However, procuring and collecting information from these points has been a task, that involves effort which rises exponentially as one tries to ensure accuracy or a respectable time series. Summaries of the Municipal Corporation's accounts do not clearly distinguish between capital and revenue expenditure; thus for satisfactorily authentic figures on what the Corporation has been spending to enhance physical capacity to supply water, one would have to plough through the details of several accounts. Be that as it may, we present below whatever could be culled from the available sources.

### 3.3 RESPONSES

#### 3.3. Responses to the Crisis: The Municipal Corporation

Expenditure by the Municipal Corporation (MC) on water supply has increased from Rs. 33 lakhs in 1982-83 to a proposed 140 lakhs in 1988-89. Expenditure under the specific head of 'New works and temporary water scarcity' has increased from Rs. 6 lakhs in 1982-83 to a proposed Rs. 60 lakhs in 1988-89. The total expenditure proposed in the budget for the year 1988-89 amount to Rs. 640 lakhs, the expenditure on water supply thereby being 22 percent of the total<sup>11</sup>. Of this Rs. 640 lakhs, Rs. 361 lakhs deficit would have to be covered by unspecified borrowings. In addition, the State government at times finds it politically prudent to announce high profile bailouts such as a Rs. 20 lakh emergency grant to the MC (Dewas) in March 1988 to enable it to meet the burgeoning water crisis. Such grants are unanticipated and usually announced near the end of the fiscal year.<sup>12</sup>

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11. The water crisis dwarfs all other problems that the city may be facing if one goes by the resources devoted to this problem. This causes a relative neglect of issues such as minimum shelter, drainage and waste disposal, roads and public transport. As we shall see below, the response of the MC could be said to have actually exacerbated the situation. However, that too seems to be overlooked by the populace which is overwhelmed by the sheer daily experience of coping with water scarcity.

12. The finances of the state-level corporation MPLUN which supplies water to the Industrial Estate are independent of the MC's finances.



We will now look at how the MC has been investing these financial resources to shore up its declining water supplies.<sup>13</sup> The capacity of the reservoir on the river Sipra has been declining. The MC in December 1983 forwarded a scheme to the State government which included an expenditure of Rs. 38.50 lakhs on deepening the reservoir (AID Newsletter dated December 14, 1987). A new project has been proposed to construct a small dam on nearby Lodhrinullah. The most recent of the series of proposals envisages an expenditure of Rs. 15.78 crores for a supply of 10.55 million gallons per day after a five year gestation period. This supply is to meet the requirements of the major industrialised users also. One of the earliest proposals (submitted in 1982) involved an outlay of only Rs. 3.41 crores.<sup>14</sup>

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13. The MPLUN invested in 9 tubewells since April 1983 to supplement supply from the preexisting 11 tubewells. Eight of these tubewells were completely dry by December 1987. Table 1 indicates that despite the near doubling of physical facilities to extract water, the volume of water supplied in 1986-87 is only one-third of what it was in 1983-84.
14. Such schemes to tap surface water (apart from those mentioned above, there is one mooted by articulate sections in Dewas which visualises drawing upon the waters of the Narmada, approximately 100 km away ) would shift the burden of the crisis to the State government since such projects do not have to be financed, except in a minor way, out of the MC's regular income. This aid would be in addition to the already considerable assistance (financial and technical) from the State Government in the exploitation of ground water.

Most of the capital expenditure on increasing water supply has gone towards the installation of facilities to exploit groundwater. It would be worthy to note that whereas before 1986 the 'usual' depth range was 150-200 feet, in 1987 it had increased to 150-300 feet. Between 1.1.85 and 31.12.87, the MC had completed the drilling of 119 borewells. Of these, at least 20 have been failures from the very outset while 50 yielded insignificant amounts of water and had to be fitted with only handpumps. The emergency grant of Rs. 20 lakhs announced in end February 1988 was spent on the Alipur tubewell project (eight tubewells and the feeder system) and on an unspecified number of borewells at various locations in the city. In March 1988, the Siya water supply scheme which supplemented the other sources of supply was formally taken over by the MC from the Public Health Engineering department. Rs. 72 lakhs had been spent on this scheme (17 tubewells of which only 12 were 'successful' and the facility for feeding the central storage tank with the water yielded by these), Instead of the originally targetted supply of one million gallons per day from the Siya scheme alone, the actual peak supply was six to seven lakh gallons per day which has decreased to one lakh gallons per day by end March 1988. The distribution of water was sought to be improved by introducing small stationary and mobile tankers.

This manner of investing resources for water supply augmentation has justifiably given rise to the charge of adhocism against the MC. Discussions with officials reveal that the primary concern is almost a day-to-day alleviation of the crisis in water supply. Decisions regarding the drilling of tubewells or the distribution of water through tankers are taken more in response to sectional pressures and short term demands. What is more, corruption is believed to be rampant, further reducing the benefits from the investments. The testing of sites and drilling of tubewells is entrusted to private contractors. It is widely known that local drilling rig owners have formed a cartel insofar as government contracts are concerned, sometimes resorting to violence to keep out 'outsiders'. The rate at which the government gets its tubewells drilled is about one-third higher than the rate paid by private users. At least some of the low yields and high failure rates associated with the emergency drilling efforts contracted out by the MC can be attributed to malpractices by private contractors. If information on yields and failure rates of ground water exploration contracted out by private major users (under presumably more stringent supervision) were available, the above malpractices could be substantiated. However, the seriousness of the situation can be inferred from the fact that the State government in March 1988, transferred the

Municipal Commissioner of Dewas and instructed the District Administration to conduct an enquiry on these allegations of malpractices arising due to the system of contracting work to private agents.

### **3.3.2 Responses to the Crisis From Minor Users: Small Investments and Attempts to Influence Distribution**

With the Municipal Corporation failing in its task, users are forced to rely on whatever device is accessible. Minor users see sectional solutions in times of crisis -- when the supply of water is limited and when the efforts to augment supply are hamstrung by the exhaustion of aquifers, the limited availability of finances and malpractices in the execution of works. The sectional solution takes the form of altering the distribution of water<sup>15</sup>.

We turn to the actual distribution system to see what it offers for such sectional solutions. There is a

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15. Even in normal circumstances, infrastructural provision by the government (of which water is an example) is not evenly distributed. Thus squatter settlements have access to piped water supply only by queueing up before some public installations of clusters of pipe outlets, these not necessarily located in the neighbourhood. Even in non-squatter housing, several houses are occupied by more than one household, the occupants sharing a common water 'source'. On the other hand, getting a neighbourhood connected with the main distribution system through a pipeline of a larger diameter is a matter of bringing adequate influence to bear upon the Municipal Corporation. Further, most of the affluent households have large captive storage arrangements.

centralised water distribution system with pipelines heading out of two main storage - cum - distribution tanks. These tanks are fed by water from the Sipra reservoir and the clusters of tubewells located in different villages adjoining the city. The network of pipelines is regulated by a system of valves which makes it possible for some neighbourhoods to secure larger shares of the water 'issuing forth' from the distribution tanks. The emergency tubewells drilled within the city are meant to serve small neighbourhoods, with the size of this hinterland being dependent on the yield of the tubewell. The water supply to such neighbourhoods is thus isolated from the water supply to the rest of the city. Sectional alleviation can be actively brought about by influencing the location of such installations.

Many of the newer areas of the city are not served by the centralised system. The new colonies can gain a legitimate status only if the colonizers have developed own sources of water. Several such colonies on having exhausted their own sources, turn to the MC (upon which the responsibility of water supply shifts, once the colony's legitimate status has been acknowledged by the MC) for assistance in the form of investment in tubewells.

For the inhabitants of Dewas, the water crisis is of primary relevance. The minor users in the city are now

almost entirely dependent on piped water and on the handpumps installed by the MC. Till the early 70s (population in 1971 was 53000), the town was entirely dependent on dug wells. The piped water system fed water into these shallow wells. Public and private wells operated manually were very much in use.

Almost all the public dug wells are now unusable. Some of them have been filled up by the MC to make way for markets and roads. Some have been used as dumping ground for rubbish thereby polluting the aquifer while others have been rendered unfit by neglect.

The residents adopt several strategies to cope with the crisis. There is an inequality inherent in the situation due to a skewed distribution of economic power and differentiated influence on the state machinery. The differentiated access to water in normal circumstances (noted above) gets exacerbated in times of crisis, subject to limits set by, say, a socially determined minimum which even the most underprivileged would have access to. So, some handpumps and storage tanks do get installed in poorer neighbourhoods to supplement the trickle from the community taps.

Those households which can choose the location of residence, use the availability of water as an important criterion. This becomes operational only because water

supply is not uniform across even affluent neighbourhoods --- given the decentralised nature of arrangements.

Areas such as Radhaganj and Karmachari Colony were affluent neighbourhoods favoured with a larger than average share of water from the centralised system. Jawaharnagar was dependent on its own tubewells -- an elevated central distribution tank and a distribution network were all set up by the Madhya Pradesh Housing Board (MPHB). The residents of Jawaharnagar were, till 1988, insulated from the water shortage plaguing the other parts of the town. In 1988, however, the yields of the tubewells in Jawaharnagar fell drastically. Some other colonies, or groups of houses too, have a decentralised and privately owned water distribution system. However, most tubewells are affected by falling yields.

In the poor localities of Rewabaug and Bherugarh, a municipal pipeline yielded little water. The residents augment this supply by queueing up before handpumps and small public storage tanks, both installed by the MC. Relatively affluent localities such as Krishnapura, Bada Bazaar and a section of Kavi Kalidas Marg, are situated amidst poorer localities and their residents do not get much water from the centralised pipeline. The residents however, are more successful in matters such as getting a tubewell installed by the MC in their locality to serve them.

Households seek to augment their neighbourhoods' access to water by influencing the MC's decisions on the location of tubewells and stationary tankers and on the route of mobile tankers. Captive tubewells have been installed by individual or groups of households. Other individualised solutions are also attempted. Households attach pumps to their pipelines to draw out more water than what would have been their due otherwise. This, in combination with large captive storage capacity, helps some households insulate themselves from the general condition of water scarcity. Others dig pits to decrease the height of captive outlets to make the most of dwindling flows. These last two arrangements would not make any difference if all the households resort to them in the same measure. However that does not happen, because the arrangements require investment. Also both are prohibited and therefore liable to attract penalties.

### **3.3.3 Response to the Crisis : Major Users**

We now turn to the response of major users, which in Dewas town are the factories. They meet their requirements partly with the water supplied by the MPLUN with the deficit being met out of captive sources (own WEMs)



or the purchase of water<sup>16</sup>. As shown in Table 1, the former source is becoming increasingly unreliable and inadequate. Apart from the overall deficits, the high seasonal fluctuations in water supply by the MPLUN (see Table 2) is also of importance to the factories as they go about arranging alternative sources of water because the water requirements may not be subject to the same seasonal fluctuations. Many factories have developed captive sources to meet only a part of the shortfall presumably that regarded as permanent. Seasonal shortfalls are met partly by purchase of water. Thus sale of water has become an important source of income for farmers owning modern WEMs and for small factories with surplus water. One SSI unit is known to be surviving just on the proceeds from sale of water from a captive tubewell of abundant yield. Investment in water tankers and personnel for the transportation of this water is in some cases undertaken by the owners of these sources and in some, by petty entrepreneurs from Dewas, many of whom have interests in passenger and goods transportation too. As the factories are forced to procure more of their water requirement (the water requirements of several would be increasing with an increasing production

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16. Thus at one level the supplies to minor users is independent of the supplies to major users. However, this obscures the inter-relatedness arising because all (MC, the MPLUN and the manufacturing units) exploit a common reservoir, shared to the extent of interconnectedness of aquifers.

given that, except in one factory, no significant attempt had been made anywhere to reduce water consumption or recycle water), they are exposed to manifestations of the crisis other than decreasing supplies from the MPLUN: falling yields, well failures and the need to tap deeper aquifers at higher initial outlays. (At least two factories have explored aquifers at the depth range of 600-800 feet. The usual depth range for tubewells in Dewas is 150-300 feet).

Faced with the prospect of rapidly increasing expenditure to meet own water requirements (this expenditure, to recapitulate, is the cost of the mere extraction of water with the act of appropriation, a costless concomitant of the act of extraction. Confronted by the increasing cost of extraction, the MPLUN had in 1986 increased the rate at which it supplies water to the industrial units from 87 ps. to Rs. 2.20 per 1000 litres), the factories have been putting pressure on the municipal, district and state governments to absorb these increasing costs. Among the specific suggestions (which appeared in the newsletters of the Association of Industries, Dewas (AID) in the past three years and which have the substance of various petitions submitted by the major industrial users to the various levels of the government) are (i) harnessing the water resources of the Narmada River (ii) a larger share of the water that is to be supplied from the proposed Lodhri

reservoir, (iii) supply of water to the factories by the MC to meet the drinking water requirements of the factory workers, (iv) financial and technical assistance from the state government in the tapping of deep aquifers and (v) More investment by the MPLUN in tubewells so as to meet the water requirements of the factories. The water rate revision has been challenged in the MP High Court by these major users with several insisting on paying their bills at the pre-revision rates. The AID newsletters remind the government that the major users had invested in Dewas, categorised as a backward district by the MP government, with the expectation that the Government would arrange for the provision of infrastructure at concessional rates, this being one of the forms in which state subsidy is to compensate for the disadvantages that location in a backward district is supposed to confer upon the industrial unit.

#### **3.3.4 Responses to the Crisis : Supra Municipal Government**

The last actor in this drama is the supra municipal government fulfilling mainly a regulatory and monitoring function. We will be looking at two instances : (i) the functioning of the Geohydrological Survey and its impact on groundwater exploitation and (ii) the implication of the 1986 Act and the experience of its implementation in

Dewas.

3.3.4.1 The Geohydrological Survey monitors the extent of exploitation of groundwater. However it is not authorised to collect information on private groundwater exploitation for industrial and domestic use. It collects information from its parent body -- the Irrigation Department. The office is concerned with the maintenance of a balance between the exploitation of groundwater and the recharge of aquifers. The only groundwater survey conducted by this office (Geohydrological Report of Dewas Block, Field Season 1976-77, Ground Water Survey, Irrigation Department, Government of Madhya Pradesh, Bhopal, 1979, henceforth in this chapter referred to as the Report) can be faulted on several counts, only the most important of which we shall mention here :

i) As mentioned in Section 2.5, for any vertical cross - section of aquifers, recharge is specific to each aquifer, each being characterised by a depth range. The 'infiltration index' used in the Report to relate rainfall to recharge of groundwater resource is a standard one for the aggregate groundwater resource. Actually it would vary for different aquifers depending on the geological and geomorphological characteristics of the layers intervening between the specific aquifers at various depth levels (which even if permitted by highly permeable intermediate rock strata, would mean only a one-way connectedness, given the

predominantly gravity - impelled downward direction of inter-aquifer flow). It would be more relevant to introduce accuracy by studying the exploitation and recharge of each aquifer rather than of the aggregate of groundwater resources. This 'depth range' aspect however finds no mention in the Report, in which groundwater resources are treated as if one monolith.

ii) This Report considers only annual flows. But the accumulation of past surplus recharges within each aquifer is significant. Whether they do represent 'safely' exploitable stocks and to what extent such stocks can be drawn down, are policy decisions of great import. However, such decisions are not taken and such information is not collected by the survey.

iii) The Report is ineffective because even on its signalling in December 1986 that groundwater in Dewas district has reached its 'sustainable' limits of exploitation, the only resultant action was the stoppage of financing of tubewells by the Land Development Bank. The latter is supposed to finance medium and small farmers. Big farmers who are able to finance tubewells from own funds are unaffected by this stricture. Thus it merely strengthens the restricted access to groundwater that existing owners or potential owners (who, with the withdrawal of the Land Development Bank's financing facility, will be only big

farmers) have.

3.3.4.2 Under the 1986 Act (The Madhya Pradesh Peya Jal Parirakshan Adhiniyam 1986), the District Collector is empowered to prohibit, if considered necessary to maintain adequate supply or equitable distribution of water to the public, (i) the use of water for any purpose other than domestic from any water resource and (ii) the digging of tubewells within the zone of interference of any tubewell maintained by some government agency for supplying water to the public for domestic purposes (The Act explains that this 'zone of interference' could be taken to be the area within a 150 mts radius from the existing tubewell). In April 1987, the District Collector, Dewas brought the second of these provisions into effect. The prohibition was lifted in July 1987 with the onset of the monsoon only to be put into force again by October 1987, the monsoons having failed. Between July 1987 and October 1987, there were no restrictions on the installation of tubewells. The definition of the 'zone of interference' is arbitrary and does not take into account the specificity of the geohydrological situation in different places. To assert that there would be an interrelatedness of aquifer exploitation of different users only if the users are within the 'zone of interference' as defined above, is to make very restrictive assumptions about the lateral spread and transmissivity of aquifers. Further,

by restrictions on the use of existing tubewells, all that happens is the restriction of the right to appropriate groundwater to owners of existing tubewells (a premium being bestowed thus on ownership of tubewells to the disadvantages of potential owners). It need not restrict the exploitation of groundwater for the existing tubewells could simply be made to extract more groundwater.

#### **4.0 OPTIONS**

It is clear that the responses in Dewas town to the restricted availability of water do not point towards a long-term solution. It appears as if the town can support growth in industrial activity and population only by either tapping deeper aquifers or by tapping a distant surface water reservoir. Both are expensive solutions and both involve significant negative externalities. Going by the present efforts, the financial burden is likely to be borne by the government and the externalities are likely to be unheeded.

The increasing exploitation of natural resources contributes on one hand, directly to a privatised accumulation process which, given the likelihood of shifting of the cost impact to the government, may continue unhindered and on the other hand, to making impossible the reproduction of conditions of life for the population of Dewas. Some development theorists would view this process

with equanimity, claiming that ecological degradation and adverse circumstances of life (the increasing difficulty faced by much of the population in meeting its water requirements) are aspects which are compensated for by the creation of social wealth (or social capital -- production capacity). Others may demur and point out that since such creation of 'social capital' is simultaneously the creation of wealth in private hands (the 'social capital' is an element in the process of private capital accumulation), the matter should be redressed with some progressive distributive measures, taking the form perhaps of taxing the private accumulation process and compensating for the increasing difficulty encountered by people in their every day lives. Yet others would like to build in a provision for the simultaneous maintenance of ecological balance. They would insist that the redistributive intervention envisaged in the form of taxes and subsidies, should also be an intervention that ensures ecologically sustainable development. Thus, the taxes should not only shift the burden onto the private industrial users but should take the specific form so that this process becomes sensitive to ecological factors. Thus the taxes should be such as to make the availability of water an important criterion in the location decision. Further, the taxes should impel the development of technology which is less resource - intensive (in our case, water - input intensive).



The recommendations of the latter two schools are tinged with an air of the unreal. Suppose one were to consider the possibility of a pricing system which would make the large-scale private accumulators - qua-industrial investors bear the negative externalities of water consumed in the production process (the 'consumption' might merely mean that the water that is released by the factory is more polluted than the water that enters it), one would perhaps have to consider 'demand responses' to price increases which would in all likelihood, be very low at the initial stage, given the insignificant initial proportion of the expenditure on water in the per unit cost of production. However, examining 'demand responses' is relatively futile because (i) in Dewas, the price-setters have no control over supply quantity. The users can invest in tubewells and extract water, without such extraction even being monitored, leave alone regulated, by the price-implementer. The users then continue to bear merely the cost of extraction and (ii) such an attempt to make the accumulators bear this burden is likely to be resisted strongly and effectively. Even the present efforts by the MPLUN to recover the increased burden of merely the cost of extraction is being resisted, despite the outlay on water occupying a relatively insignificant position in the total cost structure.

If one were to go ahead and assume that it would be feasible to implement a price structure that makes

private accumulators bear the negative externalities of water use, several consequences seem possible. If the increase in outlay on water becomes significant, existing industrial units may consider relocation or the introduction of water-saving techniques. Potential entrants may be dissuaded from locating in Dewas. However, if in other locations too, feasible prices reflected negative externalities, Dewas would not lose its attractiveness for industrial processes which are not water input-intensive.

Among the population, if it were feasible to prohibit private exploitation of groundwater, and to prevent households from procuring disproportionate shares of public supplies, the rationing systems of queues and taps yielding mere trickles seem effective in curbing consumption. In the context of Dewas, whether such a reduction in consumption is desirable is open to question.

## CONCLUSION

The form and function of individual cities change depending on the historical context they are embedded in. The growth rate of towns relative to the growth of other towns, depends by and large, on what role they play in the dominant logic governing contemporary society (or in the contending logics.).

At the turn of this century, Dewas town was the capital of two princely states, its size and stability linked with , in order of vastly declining importance, the state, trade (either transshipment or for internal consumption ) in goods with the hinterland and the sale of minor artisanal produce and services to the hinterland. The first two represent somewhat undiluted versions of surplus absorption from the hinterland by the city. Manufacturing activity was of little importance either as a source of employment, income and surplus generation or as a source of consumer or intermediate goods (the staple items of consumption were produced to a considerable extent outside factories). Dewas served mainly as a seat of political power and to a lesser extent as a trading town. Its importance on an All India basis was predicated upon the importance of the Dewas princely states on an all India basis. These states were minor subservient states and Dewas was a minor town tucked

away in Central India gaining prominence more by what its quaintness offered to the likes of Forster.

Within the town, as we have already seen, the spatial order was influenced by the dominant political order and by the caste system. The palimpsest (we owe the use of this somewhat impressive and revealing metaphor to Martin, 1968) that the spatial order always is except in totalitarian contexts, and the tensions between the influences prevented the outcome from being a true impression of any one influence. The dominant mode of surplus realisation -state surplus, was predicated upon, not so much the absolute control over the means of production as political control (if we may use 'political' in a narrow sense). Urban space and urban forms were significant not so much because they facilitated the expanded reproduction of capital (which could be either the production process or the circulation process) as how they facilitated and regulated informal and formal social intercourse and of how they emphasised status differences. Urban land was not yet 'commoditised' its significance not viewed in terms of its exchange value. Resident's titles to land was either formally granted by the rajas or implicitly acknowledged (the latter more true for the underprivileged - provided some norms flowing from the political order and the caste systems, were not violated). The provision of public utilities was largely the responsibility of the state, and

depended on the wealth the state had access to and the inclinations of the supreme arbiter - the rajas. Dewas, by being the capital of the princely states, was relatively favourably placed in this regard.

We now present a stylised version of some aspects of post - Independence India. After Independence, India became a political democracy. The relatively centralised state commanded considerable resources and engaged itself in 'developing' the country. It depended heavily on private investment in this 'development' process. Its investment was largely to facilitate private accumulation. State investment was largely in basic industries/industrial infrastructure and in other areas facilitating private accumulation (either directly or through creating social infrastructure so that the cost of reproducing the industrial labour force and of maintaining conditions favourable for industrial and other - such as agricultural - accumulation was not borne entirely by the accumulators). The specific form that such state investment assumed (including the spatial disposition) was informed often by the exigencies of political democracy. Some populist measures had to be undertaken and the ruling party and its important constituencies had to be pampered. These, though often touted as 'socialist' measures, did not necessarily cause deviations from the basic thrust mentioned above.

The Indian economy got increasingly internally articulated post 1947. The markets for, and spatial dispersal of, industries and firms were widening and local monopolies were breaking down. There is a tendency for firms to respond to this widening of markets and opportunities by spatial dispersion of production locations. On the other hand, burgeoning cities have caused industrial activity to wake up to the emerging diseconomies of agglomeration such as high real estate values, strained public infrastructure and labour militancy.

In a not entirely unrelated development, the state has awakened to regional imbalances this is partly a matter of political exigency, but there is also a concern about the dislocation caused by massive long-distance migration.

Growth of towns in the post-Independence era have a number of causes. Firstly, there are towns which grew directly as a result of state investment carried out either to extend the reach of the administrative apparatus (the 'development process' includes the spectacle of the creation ab novo of 'capitals') or as location of specific heavy industry and other 'facilitative' investment such as railways. Secondly, certain locations have offered favourable conditions for private industrial accumulation. And, thirdly, others have grown because they served prospering agricultural hinterlands. Towns could offer

favourable conditions by way of agglomeration economies, transport considerations - especially where transport is a large part of input costs in a context where transportation infrastructure is not uniformly developed where inputs are more bulky than outputs, and where input sources are spatially concentrated-, the economies of a 'virgin' location (the obverse of agglomeration economies e.g. docile labour, lower social costs of reproducing the labour force, cheap land, little local competition) and of late, as a means to route more state assistance to private accumulators (through direct subsidies and state investment infrastructure).

With the abolition of the princely states, Dewas suffered a decline as it was transformed from being the capital of two princely states to occupying merely a lower rung in the hierarchy of the post-Independence Indian state. It was the headquarters of a newly formed district and there was little else of significance in Dewas. Elsewhere, industrial activity and state investment were causing many urban areas to grow faster than Dewas. Dewas seems to have offered little then to the logic of accumulation through industrial activity.

By the late 50s, the winds of change started blowing. By virtue of proximity to Indore, a railway line was laid which connected Dewas to Indore and Ujjain. Dewas

grew in the 60s and more rapidly in the 70s primarily because of what it offered to industrial accumulators. In the 60s just a few investors found Dewas favourable-it was a virgin location, the cheap land, pliant labour and an obliging local government; it was close to Indore, familiar ground for Indore's investors, there was easy access to Indore's offerings; it was on the trunk road and rail routes. In the 70s came the rush, with Dewas' trump card being laid out - state assistance. This state investment came Dewas' way ostensibly because Dewas was backward. But given that there were other more backward areas which had been neglected, it appears as if two arguments could have favoured Dewas i) Dewas offered some favourable conditions independent of state investment and therefore could make state investment more efficacious in terms of attracting industrial investment. This argument could be read differently. The choice of Dewas as against more backward areas meant that industrial investors could combine the benefits of state assistance and a virgin location without having to suffer the disadvantages of a remote location. ii) Dewas was the constituency of a political figure who was influential in the 70s. It was only to be expected that it would be pampered. Thus, the initial disadvantage of being incorporated into a political setup where the controls were placed away from Dewas (relative to the pre-Independence era when Dewas was the seat of near absolutist monarchies)



became an advantage as Dewas could now draw upon resources which would have been far beyond the wherewithal of those princely states.

With Dewas now being favoured by the dominant logic, its rate of growth once again exceeded the average rate of growth as in some decades of the pre-Independence period. But by the mid-80s, the near capricious attentions of the state shifted elsewhere. Dewas once again suffered a relative decline. But this time, it contained some commitment by investors. Whether Dewas continues to grow depends on what favours it can continue bestowing upon industrial investors. There are signs of some agglomeration economies having developed within Dewas, apart from the ones close at hand in Indore. But Indore is close to Pithampur too, where the dollops of state assistance are larger (and all over India, several such strong rivals which combine location in the proximity of an agglomeration with larger state assistance and at least as good rail-road links). Nonetheless, it is possible (but by no means certain) that, because there are by now certain interests which have committed much to industrial investment in Dewas, they would see Dewas through the trough.

Within Dewas, in the 70s as compared with the pre-Independence period, urban land and urban form had acquired a different meaning. Dewas in the period after the mid-70s,

has been the locus of accumulation at a feverish pace. Trade expanded partly to provision a growing town and expanding local industry and to a smaller extent to serve a prospering hinterland. Industrial services as well as other services have been expanding. These activities exerted an influence through the land market to alter the use of space and the forms that occupy this space. The extra market force of the state is just beginning to be felt with the land -use planning, squatter settlement eradication and direct investment in infrastructure and real estate(as under the Integrated development of small and medium towns program). The exertion influenced by the market, over which those who have a superior ability to pay hold sway, is essentially to alter the environment to make it more suitable not only for industry but also for secondary forms of accumulation(through trade and services). A favourable form could mean easy intra urban transport of commodities and people , the possibility to congregate and to congregate in specific places( auto service shops along the highway, minor machine shops adjacent to industrial units near the station, timber depots in central located areas where large plots are available, retail trade in 'shopping goods' along prime commercial streets...).

The other major development through the market was the pressure to create favourable built environment for consumption. This is not entirely unrelated to the dominant

logic of accumulation. For most non-corporate participants in the accumulation process whose commitment is not to accumulation per se but to the increasing consumer satisfaction that successful participation could result in, the ability of the market to cause conditions for higher consumer satisfaction bolsters their commitment to the logic of accumulation and the sanctity of private property. Here too, state is invoked at times. The state's investment in social infrastructure is known to have an elitist bias. The state at times directly intervenes in the land market to make it more responsive to the 'ability to pay' .

The above implications of space and built form paves the way for the entry of one major dramatis persona : the property developer. He either anticipates the development of the urban form or, especially if large (see Lamarche, 1976 quoted above), causes specific development. He anticipates the growing need for space for commercial activity in certain areas and creates, as in Dewas, shopping complexes etc.. Else, he anticipates what the requirements of a favourable location for residence are, and, in the case of Dewas this has meant colonising land in the direction of Indore or along major roads. The participation of such an intermediary, if large is facilitated all the more if those who desire a more favourable environment are small and act atomistically. The developer claims his share of the

surplus by virtue of his investment, his anticipation of market movement, and his 'contribution' if large, to altering the environment-this last being distinct from mere investment or speculation and available usually to large intermediaries. His claims are sometimes contested (the state is moved to regulate speculation) but more often is yielded to by both those whose accumulation activities are facilitated and by those who derive more consumer satisfaction thereby. Those with relatively little ability to pay either yield without demur or fall by the wayside.

The specific outcome of these combined exertions cannot be preordained (the spatial models developed by Christaller, Burgess et al are to be interpreted in the light of what follows this ~~paragraph~~ the limitations that these models share with models in general is that they explicitly - if the modelling is honest- or implicitly assume very specific antecedent situations), for several reasons . What we mentioned in the somewhat different context of the political hierarchy and the caste system exerting to create a spatial order, holds with as much force here.

Firstly, the spatial order is a palimpsest. The antecedent situation has to be taken into contention. As we have stated in our section on the spatial disposition of commercial activities in Dewas, the antecedent situatioin

causes peculiar agglomeration economies to exist in each context, this influencing what would be considered a favourable urban environment by accumulators of different kinds and by those engaged in increasing own satisfaction levels. Secondly though the various agents / categories of agents working through the market share the drive to facilitate either accumulation or consumption, their requirements vary because the specific forms of accumulation (e.g. trade or rather trade in a commodity of a certain kind) or of consumption are not uniform. Therefore, their exertion need not be complementary and each would have to contend with the others. Thirdly, the exigencies of a political democracy, especially a populist one, necessitate periodic gestures to those who are overlooked by the market but who nonetheless retain some political presence. Such gestures could go contrary to the exertions of the major participants in our market. In contemporary India however, it cannot be hoped that such intervention can be significant. Lastly, there is a minor deviant murmur from those who do not heed the voice of the market and do not respond to market signals (e.g. the behaviour of many in the old town in terms of sale of land or alteration of land use/physical structure). It can be argued however that either the voice of the market was not loud enough, or these groups were wealthy enough to continue to express their locational preferences in face of the market's pulls.

The provision of social infrastructure in cities remains largely the responsibility of the state and to the extent it is not, the infrastructure is the privilege of the affluent. Though the state did invest considerably in making Dewas favourable to industrial investors, it has not been as forthcoming in investing in social infrastructure. Dewas suffers for want of a proper drainage system, adequate water supply and minimum housing. Its educational facilities and the medical services are inadequate, unimaginative and of a poor quality. Our stylised version of the Indian state does not in any case provide for any heightened concern for the condition of reproduction of life of the majority of the population.

We end with a comment on the plight of those who cannot participate effectively in the market process due to an inadequate ability to pay and who cannot expect much relief from the state. Can the problems of congested housing, often badly located, then be associated with urban size ? Our investigation of the land and property market and the water supply situation in Dewas tells us otherwise. It was possible for the situation to have been different even in the context of a town of Dewas' size and its rapid growth performance. Developed land in favourable locations could have been reserved for the indigent and subsidies could have been provided for housing. The industrial activity that Dewas hosts could have been more in keeping

with Dewas' scarce water resources. The draught on ground water resources could have been lower if the industry composition was different so as to include less water intensive units, or if existing ones had incorporated water-saving technology. Such alternative scenarios in both housing and water would have, however, interfered with the accumulation process as was unfolded in Dewas in the 70s and the 80s.

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