CHAPTER V

STATE OF INDUSTRIAL ESTATES IN NEPAL

(An Account of the Performance of the Existing Industrial Estates)

Introduction

The growing interest towards the Industrial Estates Programme in most of the developing countries is the result of their increasing realisation of the fact that it could be a most effective tool to foster industrial development on a decentralised pattern. It has been recognised that it is one of the most effective institutional arrangements for encouraging and assisting the creation, expansion and modernisation of small scale industries. This is because industrial estates not only provide factory accommodation at suitable sites with common facilities to small industrialists, but also provide technical guidance. Moreover, industrial estates encourage the use of domestic raw materials as also generate local employment. Thus the Industrial Estates Programme helps in making available numerous facilities to industrial units. This enables the small industrialists to reduce production cost. This apart, the programme enables the Government to prevent haphazard growth of industries.

For the planned industrialisation in the country, Nepal launched the Industrial Estates Programme in 1960. At

the end of 1982-83, 7 industrial estates were operating in the country and 2 estates were under construction.

This chapter attempts to review the performance of the existing industrial estates in Nepal. The performance will be judged in the context of the following objectives:

(a) the creation of more employment opportunities.

(b) the mobilisation of local capital, skills and resources.

In the process of examining these aspects, in this chapter we will try to:

(a) ascertain whether the industrial estates programme has encouraged local entrepreneurs to set up industrial units;

(b) find out whether the programme has been instrumental in generating substantial local employment;

(c) find out to what extent the units under the programme have utilised the locally available raw materials; and

(d) find out how far industrial estates have contributed to the growth of cottage and small scale industries in the country.

Growth of Industrial Estates Programme

(a) Establishment of Industrial Estates in Nepal

The first industrial estate that was set up in Nepal was in Balaju, known as the Balaju Industrial District. It was located at a distance of only 3.5 kms. from Kathmandu the capital city of Nepal. This was followed by Hetauda Industrial District which was set up in Makwanpur district of Narayani Anchal in 1963. It may be noted that both these estates were located in Central Development Region and were sponsored jointly by HMG/N and USAID. In 1964, another industrial estate known as Patan Industrial Estate was established in Kathmandu itself under the joint sponsorship of HMG/N and Indian Cooperation Mission. It is worth pointing out that each of these three industrial estates was meantfor different types of industrial units. Thus, BID was to contain small and medium scale units only; HID to contain only medium and large scale units and PIE was to contain cottage and small scale units. In the beginning, when these estates were established, industrial units as mentioned earlier, were given preference by the concerned industrial estates. However, subsequently there was no such rigid preference for specific type of industrial units and accordingly, these three industrial estates started having all types of industrial units.

As mentioned in Chapter III, the Third Five year Plan (1965-70) of Nepal envisaged the establishment of five industrial

estates in different parts of the country. However,not even a single estate was established during that period. The proposed sites were: Sunsari at Dharan (eastern Nepal), Kaski in Pokhara (Western Central Nepal), Jhapa in Chandragadhi (Far eastern Nepal) and Kapilvastu in Krishnanagar (Western Central Nepal). The failure to establish industrial estates as planned can be attributed to the laxity on the part of the Government. However, it turned out to be a blessing in disguise. During this period when no estate was set up, the Government got an opportunity to closely watch the development of the three industrial estates set up earlier. In view of the experience gained by observing the progress ofthe existing industrial estates, certain changes in the number and location of proposed industrial estates were made in the Fourth Five Year Plan (1970-75). Three industrial estates, namely, Dharan Industrial District in Eastern Development Region, Nepalgunj Industrial Estate in Mid Western Development Region and Pokhara Industrial District in Western Development Region were established all under the sponsorship of ICM.

During the Fifth Five Year Plan period, Butwal Industrial District was established in 1976 by HMG/N under the direct management of Industrial Services Centre (ISC).

It may be noted that since the establishment of the ISC in 1975, all the industrial estates in the country were

handed over to it.[1] and since then they are being run under the direct management and control of this Institution. In 1981, promotional work regarding two additional industrial estates was initiated and these estates viz. Surkhet Prime Mover Industries Project in Mid-Western Development Region and Small Scale Industrial Area, Bhaktapur in Kathmandu are now in existence. It may be pointed out that the first one is managed by ISC while the second one is managed by the project office of Bhaktapur Town Planning.

Table 5.1 gives data in respect of 3 industrial estates. A point worth emphasizing here is that the Ist three industrial estates were set up during the period 1960-64 and the next four industrial estates during the period 1972 to 1976. Thus, during the intervening period i.e. 1964-65 to 1971-72, no industrial estate was set up. It has already been mentioned that the laxity on the part of the Government was mainly responsible for the delay in the construction of industrial estates and that this period was utilised by the government in observing closely the performance of the first three industrial estates. As a result, the Government changed somewhat its approach to the setting up of the industrial estates. It is, therefore, more appropriate to discuss the performance of the industrial estates in Nepal in two parts - the first part comprising the first three industrial estates

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1. An account of ISC is given in chapter IV of this thesis.

Table 5.1

Total Land Area And Number Of Industrial Units in Ist Three Estates

(By the end of July 1984)

S.N.	Names of Industrial Estates	Gross Area (Hectares)	Total land Leased (Hectares)	No.of units in operation	Sick units or Non-operating units	No.of units under construction	No.of units for which land has been leased	Total No. of units to be situated
1.	BID (estd.1960)	35.41	22.3 (63)	45 (78.9)	3 (5.2)	4 (7.0)	5 (8.7)	57
2.	HID (estd.1962-63)	132.00	52.8 (40)	24 (72.7)	3 (9.0)	1 (3.0)	5 (15.1)	33
3.	PIE (est .1963-64)	14.00	9.9 (71)	53 (64.6)	13 (15.8)	-	16 (19.5)	82
	Total:	181.41 (100)	85.0 (46.8)	122 (70.9)	19 (11.1)	5 (2.9)	26 (15.1)	172 (100)

Source: Present Status of Industries in Industrial Districts in Nepal, Pub. by ISC July 1984.

Note: Figures in parentheses indicate percentages.

Figure 5·1

TOTAL NUMBER OF INDUSTRIAL UNITS IN EACH ESTATE

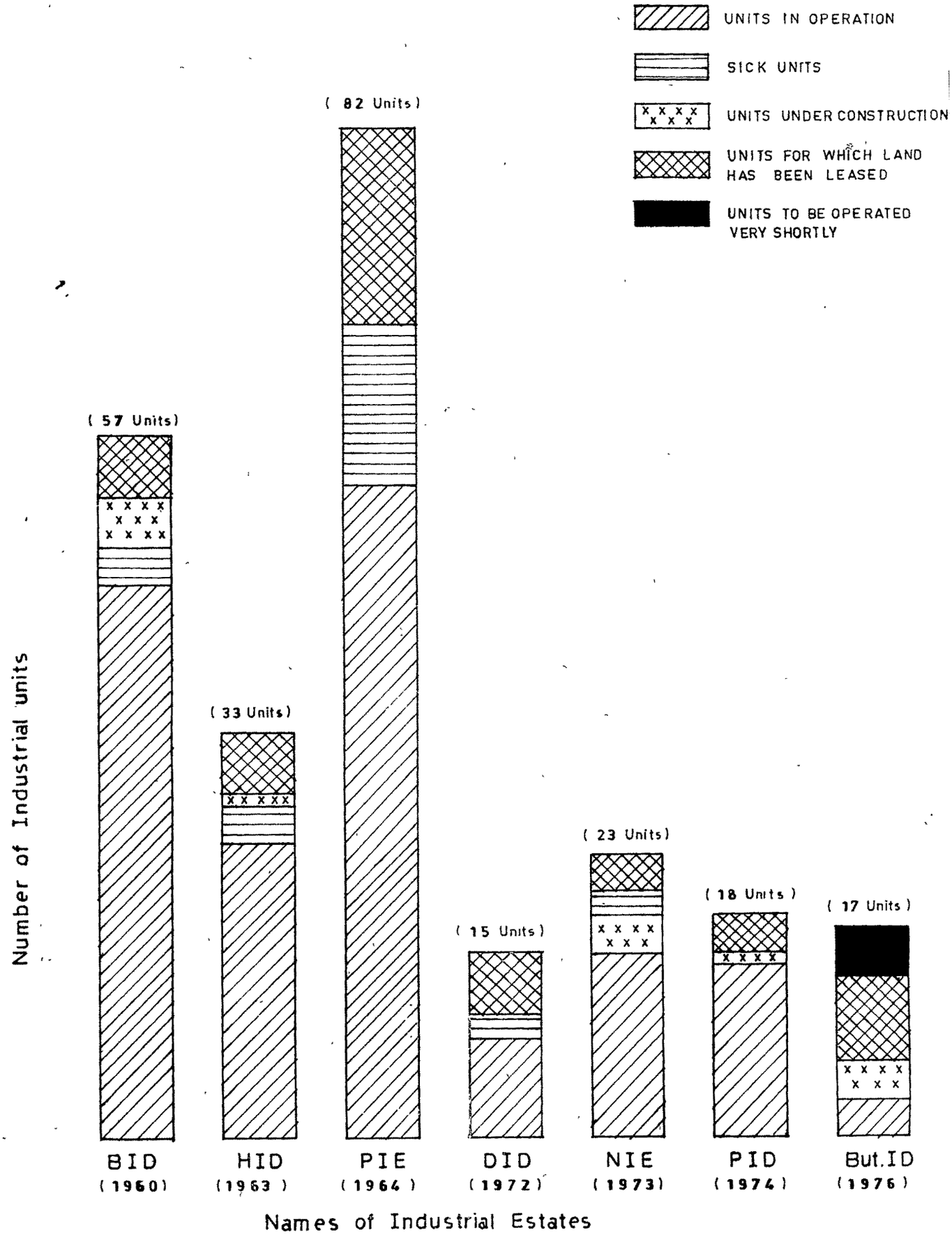
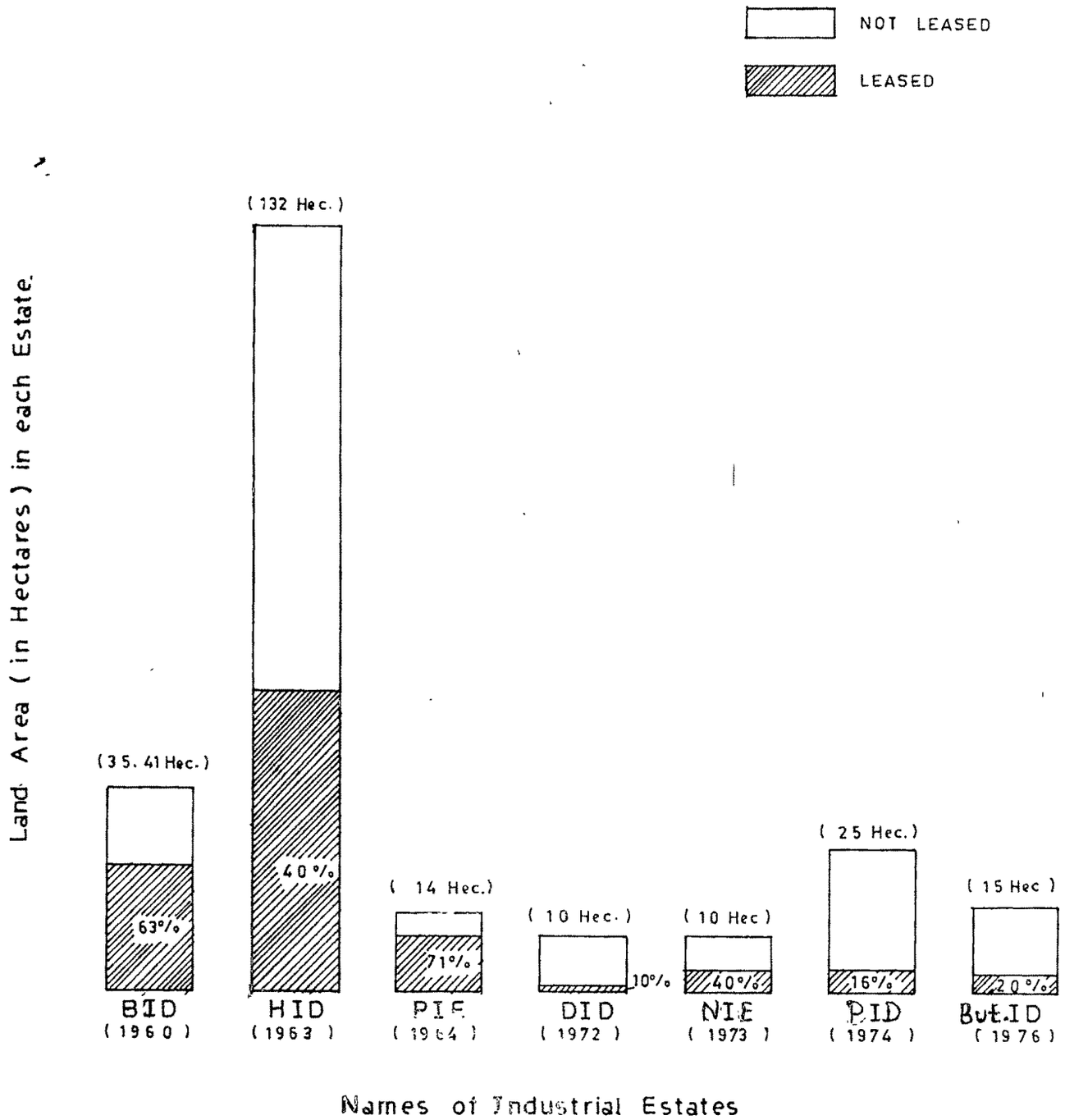


Figure 5.2

TOTAL LAND AREA AND TOTAL LAND LEASED IN EACH ESTATE



and the second part the next four industrial estates. Accordingly, an attempt is made to discuss these industrial estates separately. For the sake of convenience, the first part of the study will be referred to as a first phase and likewise the second part of the study as the second phase.

Industrial Estates Programme in the First Phase

1. Occupation of Land

Since their establishment in 1960, 1963 and 1964, BID, HID and PIE respectively had been able to lease out 63, 40 and 71 percent of their leasable land area by the end of 1984. The average occupancy rate of these three estates was 47 per cent of the total land. PIE showed spectacular result in the sense that it had been fully occupied. The non-leased part of the total land area had been used for building roads, side roads, infrastructures for water and electricity supply, show-room for general use and administrative buildings for industrial estate management. The Estate Authority was even planning to expand the estate by acquiring adjacent land area at the time the data were being collected. BID and HID had been placed in second and third position respectively in this respect. The difference in the extent of land-occupancy occured mainly because BID and HID are comparatively bigger estates than PIE.

The total amount of leased land as shown in Table 4.1 in each estate, were actually leased to 57, 33, and 82 units in BID, HID and PIE respectively. However, only 45 units in BID, 24 units in HID and 53 units in PIE were actually in operation.

The average occupancy rate in these estates indicated that these estates are being occupied slowly and steadily by the industrial units, as 122 out of 172 units in these estates were also operating after occupying the land in the respective estates. This finding is supported by the experience gained by the Expert Group on "Evaluation of the Effectiveness of Industrial Estates In Developing Countries" sponsored by UNIDO in 1978.[1] According to the statement made by the Expert Group,: "The time needed to develop estates in rural or backward areas, and probably in least developed countries as well, may be much longer than was originally thought. A period of 10 to 15 years does not seem excessive. In the case of urban estates the development period may be expected to be much shorter".

2. Relative Position of Local Entrepreneurs

Table 5.2 depicts the number of entrepreneurs belonging to local and non-local group in the three industrial estates during 1982-83. It shows that for every six local entrepreneurs, there was only one non-local entrepreneur

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1. UNIDO: The Effectiveness of Industrial Estates in Developing Countries, 1978. Chapter IV.

Table 5.2

Number of Local And Non-Local Entrepreneurs in BID, HID and PIE

(1982-83)

S.N.	Particulars	Number of Entrepreneurs in			
		BID	HID	PIE	Total
1.	Local Entrepreneurs	41 (86)	5 (15)	59 (90)	105 (74.4)
2.	Non-Local Entrepreneurs	7 (14)	22 (85)	7 (10)	36 (25.6)
		48	27	66	141
	Ratio of Local to Non-Local	6:1	1:4	8:1	

in BID. Similarly, for every 8 local entrepreneurs, there was only one entrepreneur belonging to non-local group in PIE. Thus, in BID and PIE more local persons were attracted towards setting up industrial units. This phenomenon of local persons setting up industrial units in the vicinity of their places has become possible on account of industrial estates programme. Had these industrial estates not been set up, these persons would not have got any opportunity of setting up industrial units. However, this observation is not applicable to HID, where few local people seemed to have been attracted towards industrial sector and the ratio of local to non-local entrepreneurs was 1:4. This can be attributed to the undeveloped state of Hetauda town. It was, in fact, a forest area until 1954 and is still sparcely populated, where local population is very meagre. Most of the entrepreneurs in HID are from Kathmandu and Birgunj.

Taking the three estates together, the average ratio of local to non-local entrepreneurs was 3:1 indicating that industrial estates programme has been able to attract more local people than others.

3. Age-composition of Entrepreneurs

As shown in Table 5.3(A), average age of entrepreneurs in BID was 45 years while it was 37 and 35 years in HID and PIE. The study attempted to find out whether these

Table 5.3(A)

Average Age of Entrepreneurs in BID, HID & PIE

(As at the end of 1983)

S.N.	Particulars	Names of Industrial Estates		
		BID	HID	PIE
1.	Average Age	45	37	35
2.	Number of Responding Entrepreneurs	17	7	20

Source: Based on the survey.

Table 5.3(B)

Distribution of Entrepreneurs by Age-Group in BID,HID & PIE

(1982-83)

S.N.	Age Group	Number of Entrepreneurs in			Total
		BID	HID	PIE	
	Years				
1.	25 - 30	3	-	4	7
2.	30 - 35	1	3	5	9
	Sub Total:	4	3	9	16
3.	35 - 40	3	2	6	11
4.	40 - 45	5	2	2	9
5.	45 - 50	-	-	-	-
6.	50 & over	5	-	3	8
	Sub Total:	13	4	11	28
	Grand Total:	17	7	20	44

Source: Based on the survey.

Note: The statistics shown here relate to those sample units which respondend to the questionnaire.

estates had attracted the younger people, within the age-group of 25 to 35 years, to set up industrial units. But the average age of the entrepreneurs in these estates was 39 years. Moreover, (as shown in Table 5.3B) only 16 respondent entrepreneurs from amongst the total of 44 entrepreneurs in three estates belonged to younger age-group. This indicated that in all these estates, several industrial units were being operated by older persons. However, this tendency may be attributed to such interrelated factors as the length of period for which the industrial estate has been in existence, the number of large and medium scale units which need managers with long experience, and the ownership factor i.e. whether the units belonged to private or public sector. In case of the public sector, more experienced persons are preferred.

4. Educational Background and Experiences of Entrepreneurs

Table 5.4 shows the break-up of entrepreneurs by type of education-technical and non-technical. It will be seen from the table that as many as 39 out of the total number of 44 respondent entrepreneurs did not have any technical qualification. They held degrees in Social Sciences. Only 5 entrepreneurs mentioned that they had some sort of technical qualification. The overall ratio of technical to non-technical education amongst entrepreneurs is 1:7.8 which indicates that

Table 5.4

Educational Background of Entrepreneurs in BID, HID and PIE

(1982-83)

S.N.	Names of Industrial Estates	Total No. of Respondents	Educational Background of Entrepreneurs		Proportion (Non-technical to Technical
			Non-Technical	Technical	
1.	BID	17	15	2	7.5:1
2.	HID	7	5	2	2.5:1
3.	PIE	20	19	1	19:1
	Total:	44	39	5	7.8:1

Source: Based on the survey.

Table 5.5

Number of Entrepreneurs with Previous Experiences in BID,HID & PIE

(1982-83)

S.N.	Length of previous Experience (Years)	Number of Entrepreneurs in			Total
		BID	HID	PIE	
1.	Less than 3	-	1	-	1
2.	3 - 6	2	1	1	4
3.	6 - 9	3	2	1	6
4.	9 - 12	4	2	9	15
5.	12 - 15	4	-	2	6
6.	15 - 18	3	-	3	6
7.	18 - 21	-	-	-	-
8.	21 - 23	-	1	-	1
9.	23 - 26	1	-	4	5
	Total	17	7	20	44

Source: Based on the survey.

against 8 non-technical entrepreneurs there was only one technically qualified entrepreneur. This may be regarded as an eye-opener in the sense that the three industrial estates were unable to attract a good number of technical graduates.

Apart from educational qualifications, the length of experience is an important factor contributing to the success of an entrepreneur. Accordingly, it would be interesting to ascertain as to how much experience the entrepreneurs of these three estates possessed. Table 5.5 shows the break-up of entrepreneurs with experience in previous jobs of varying time durations.

Table 5.6 presents the break-up of entrepreneurs by length of experience in their present entreprises i.e. in the existing industrial estates. It will be seen that most of the entrepreneurs had an experience of either 3 to 9 years. Those who had less than 3 years' experience were only 5. Unlike the previous table, this does not indicate a categorical break-up of entrepreneurs by length of experience.

It can be seen from the figures in Table 5.5 that most of the entrepreneurs had long experience before setting up industrial units in these three industrial estates.

Table 5.6

Number of Entrepreneurs Experienced in Present Job in BID, HID & PIE

(1982-83)

S.N.	Experience in Present Job (Years)	Number of Entrepreneurs in			Total
		BID	HID	PIE	
1.	Less than 3	1	1	3	5
2.	3 - 6	4	2	9	15
3.	6 - 9	5	4	4	13
4.	9 - 12	1	-	3	4
5.	12 - 15	2	-	1	3
6.	15 - 18	-	-	-	-
7.	18 - 21	4	-	-	4
	Total:	17	7	20	44

Source: Based on the survey.

There was only one out of 44 entrepreneurs possessing less than 3 years of previous experience. Entrepreneurs having not more than 9 years of experience were only 11 out of 44. This shows that only one-fourth of the total number of entrepreneurs had up to 9 years of experience before they came to industrial estates to start their own units. Further, we find from Table 5.7 that 70 percent of the entrepreneurs in BID, 85 percent in HID and 86 percent in PIE were having previous job experience. The last three columns of the same Table show the percentages of entrepreneurs with no previous experience and their break up as technical graduates, commerce graduates and others. It will be seen from these figures that 30% of entrepreneurs in BID, 15 percent in HID and 14 percent in PIE had no previous experience but had some degree qualifications. A small number of these non-experienced entrepreneurs, however, had some technical qualifications. Thus 10% of such entrepreneurs in BID and 5 percent each in HID and PIE were graduates in engineering, technology etc. This gives an overall 5.1 percent of non-experienced entrepreneurs holding technical qualifications, which by any norm is a very small percentage and substantiates our earlier observation that these three estates had not been able to attract technically qualified persons to set up industrial units. However, it is worth mentioning that these three estates had attracted majority of persons from trading and business community. This seems to be an interesting feature.

Table 5.7

Percentages of Industrialists with Previous Job-experience and without Experience in BID, HID & PIE

(1982-83)

S.N.	Names of Industrial Estates	Total No. of Entrepreneurs	P.C. of Entrepreneurs with Previous experience in				P.C. of Entrepreneurs with no previous experience		
			Farming	Trade or Business	Service Govt./ Pvt	Service Defence/ Police	Young Degree Holders	Commerce Graduates	Others
1.	BID	48	-	60	5	5	10	10	10
2.	HID	27	5	80	-	-	5	5	5
3.	PIE	66	-	86	-	-	5	5	4
W.M. of Percentages			0.9	76.0	1.7	1.8	6.7	6.7	6.2

Source: Responses to the Questionnaires issued to Industrial Estate Managers.

Note: (a) The column 3, in this Table includes industrialists of sick units too.

(b) W.M. of percentage of Entrepreneurs with previous experience was 80.3% and with no experience was 19.7%

5. Types and Organisation of Industrial Units

Since industrial estates programme is expected to encourage the small and cottage industrial units, the study tried to find out how far this objective had been achieved. Almost 81.4 percent of the total operating units in all the estates in the country belonged to cottage and small scale category by the end of July 1983.

Table 5.8 depicts the number of industrial units under different scales of operation in three industrial estates. Excluding the sick units as also those which were under construction at the time of the field survey, the total number of industrial units in BID, HID and PIE stood at 45, 24 and 53 units respectively. Of these, 30 in BID, 11 in HID and 53 in PIE were cottage and small scale units. Such units formed 77 percent of the total units in these estates. This indicates that the industrial estates programme has been able to encourage the small and cottage industrial units inspite of the fact that BID and HID were not open to small and cottage units earlier i.e. before 1972.

The proportion of medium and large scale to cottage and small scale industrial units in BID was 1:2. It is considered to be an ideal proportion in case of mixed industrial estates in developing countries, if the type of

Table 5.8

Distribution of Total Industrial Units
By The Scale of Operation

(1982-83)

S.N.	Scale of Operation	Number of Industrial Units in			Total
		BID	HID	PIE	
1.	Cottage Scale	26	8	47	81
2.	Small Scale	4	3	6	13
	Total:	30	11	53	94 (77.0)
3.	Medium Scale	11	8	-	19
4.	Large Scale	4	5	-	9
	Total:	15	13	-	28 (23.0)

Source: Based on the survey.

Note: (a) This table excludes sick units and units under construction in each estate.

(b) Figures in parentheses denote percentages.

Table 5.9

Distribution of Total Industrial Units
By Sector in BID, HID and PIE

(By the end of 1984)

S.N.	Sector	Number of Industrial Units in			Total
		BID	HID	PIE	
1.	Private Sector	45 (93.7)	22 (73.3)	65 (98.4)	132 (91.6)
2.	Public Sector	3 (6.3)	8 (26.7)	1 (1.6)	12 (8.4)
	Total:	48	30	66	144

Source: Based on the survey.

Note: Total industrial units included sick units & units not in operation.

Table 5.10

Distribution of Sample Industrial Units by the Types of Organisation in BID, HID and PIE

(1982-83)

S.N.	Names of the Estates	Proprietorship	Cooperative	Partnership	Private Limited Company	Public Limited Company	Total
1.	BID	-	-	-	15 (88.2)	2 (11.8)	17
2.	HID	-	-	-	5 (71.4)	2 (28.6)	7
3.	PIE	7 (35.0)	1 (5.0)	1 (5.0)	11 (55.0)	-	20
	Total:	7 (16.2)	1 (2.2)	1 (2.2)	31 (70.4)	4 (9.0)	44 (100)

Source: Based on the Survey.

Note: Figures in parentheses are percentages.

products are of interdependent nature.[1]

It may be worth while to find out whether the industrial units were in the public or private sector. Table 5.9 shows that the total number of units in the private sector were as many as 132 in comparison with only 12 units in the public sector.

Table 5.10 shows the break-up of industrial units by forms of organisation. The most preferred form of organisation was the private limited company. 31 out of 44 units belonged to this category. This was followed by proprietory organisation which accounted for 7 units. Other forms of organisation were not commonly used by entrepreneurs.

6. Investment

Table 5.11 shows the investment of industrial units in BID, HID and PIE to the tune of 77, 91 and 70 percent of the total investment respectively. The overall investment by industrial units formed 85 percent as compared to about 15 percent by the industrial estate administration. The meagre investment by industrial estate administration was mainly because of the fact that it concentrated on a few things like development of land, construction of roads and arrangement of

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1. R.L. Sanghvi: Role of Industrial Estates In a Developing Economy; (Bombay Multi-Tech. Publishing Co), 1979, p.40.

Table 5.11

Total Investment Being Made in BID, HID and PIE

(Rs. in Lacs) (As at the end of July 1982)

S.N.	Names of Industrial Estates	Investment Made by I.E. Administration	Investment made by Industrial Units	Total Investment
1.	BID	233 (23.0)	774 (77.0)	1007 (100)
2.	HID	229 (8.6)	2103 (91.4)	2332 (100)
3.	PIE	69 (29.8)	162 (70.2)	231 (100)
	Total:	531 (14.8)	3039 (85.2)	3570 (100)

Source: Present status of Industries in Industrial District in Nepal, Pub. by ISC, July 1984.

Note: Figures in parentheses indicate percentages.

infrastructural facilities like water and electricity. On the other hand, industrial units especially the bigger ones made huge investment in the construction of factory buildings.

7. Growth of Industrial Units And Production

Table 5.12 depicts the break-up of number of industrial units, production and production per unit for the period 1975 to 1983. It will be seen from these figures that in 1975-76, BID had 37 units, HID 14 units and PIE 29 units respectively. In 1982-83, these estates had 54, 33 and 82 industrial units respectively. In other words, the new units set up in these estates during this period were 17 in BID, 19 in HID and 53 in PIE. Thus, on an average only 2 units in BID, 3 units in HID and 8 units in PIE were set up each year. A point worth mentioning is that the progress in BID and HID in this respect was disappointing, while PIE showed a highly commendable result. (refer Fig 5.3 & 5.4)

A number of reasons can be attributed to this slow progress in the setting up of new units in the pioneer estates like BID and HID, viz:

(i) Nepal is a country which is still not exposed to industrial culture. As a result of this, many persons had not come forward to set up units even though several facilities were available to them within the industrial estates.

Table 5.12

Growth Of Industrial Units And Production in BID, HID and PIE

(Amount in Rs.000) (During the period 1975 to 1983)

Fiscal Year	BID			HID			PIE		
	Number of Industrial units	Volume of Production (Amt.)	Production per unit (Amt.)	Number of Industrial Units	Volume of Production (Amt.)	Production per unit (Amt.)	Number of Industrial units	Volume of production (Amt.)	Production per unit (Amt.)
1975-76	37 (100)	42129 (100)	1139 (100)	14 (100)	64680 (100)	4620 (100)	29 (100)	10772 (100)	371 (100)
1976-77	41 (109)	52564 (125)	1282 (112.5)	18 (129)	67513 (104)	3751 (81.1)	33 (114)	10702 (99)	324 (87.3)
1977-78	46 (124)	74704 (175)	1624 (142.5)	21 (150)	50000 (77)	2381 (51.5)	36 (124)	13465 (125)	373 (100.5)
1978-79	50 (135)	60087 (143)	1202 (105.5)	24 (171)	56043 (86)	2335 (50.5)	39 (134)	NA	NA
1979-80	52 (141)	56976 (135)	1096 (96.2)	31 (221)	33822 (52)	1091 (23.6)	41 (141)	NA	NA
1980-81	52 (141)	119802 (284)	2304 (202)	31 (221)	87054 (135)	2809 (60.8)	51 (176)	16158 (150)	317 (85.4)
1981-82	54 (145)	149435 (355)	2767 (243)	33 (235)	84741 (131)	2568 (55.6)	67 (231)	21544 (200)	322 (87)
1982-83	54 (145)	195463 (464)	3620 (318)	33 (235)	179928 (279)	5452 (118)	82 (283)	33931 (315)	413 (111)
Annual Growth Rate(P.C)	5.45	24.55	18.0	12.98	15.85	2.54	15.99	17.81	1.37

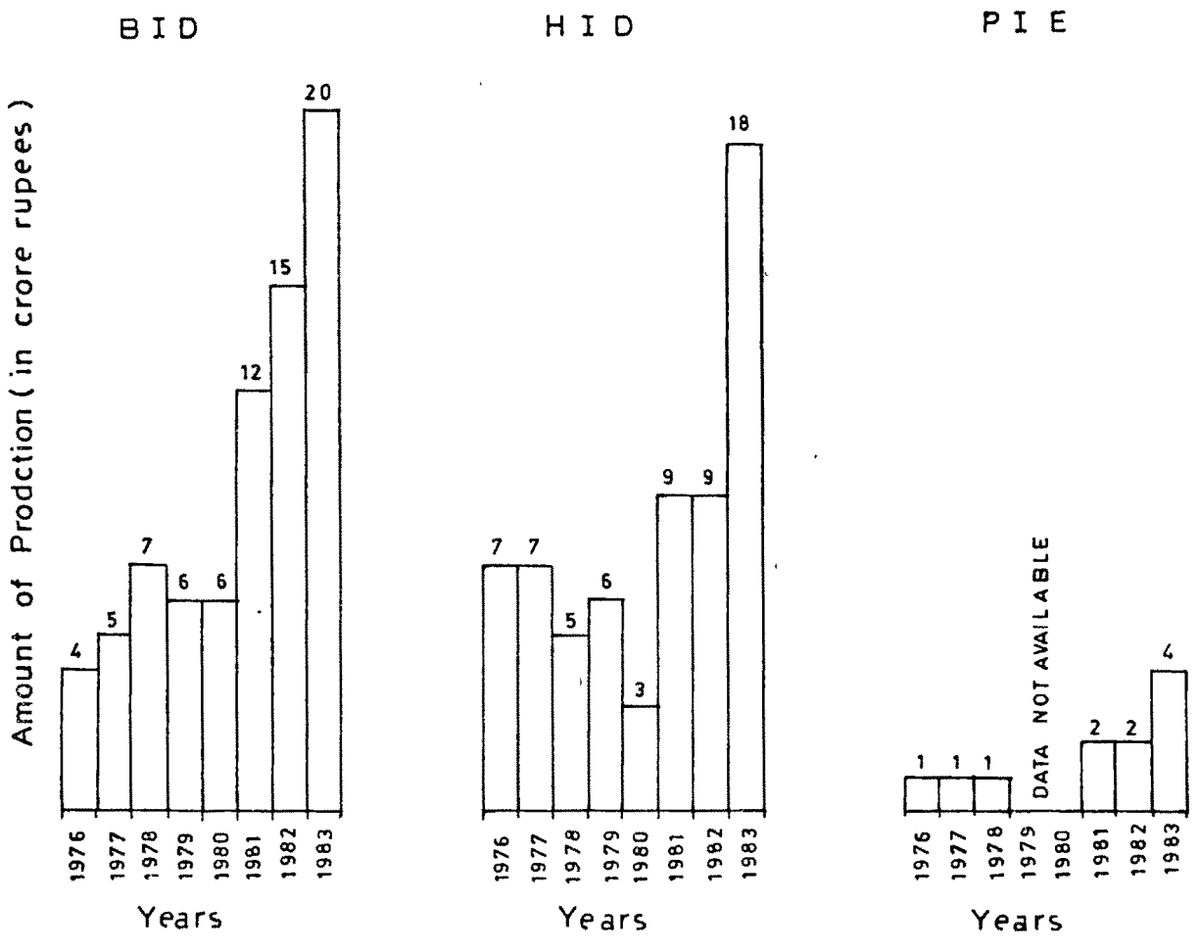
Source: (a) Industrial Profiles. (b) Present Status of Industries In Industrial Districts in Nepal, Pub. by ISC. 1984.

Note: (a) Figures in Parentheses are growth indices. (b) Total number of units includes sick units and units under construction.

Figure 5.3

GROWTH OF PRODUCTION IN **BID, HID & PIE.**

During the period of 1975 to 1983



(ii) The per capita income of Nepal is extremely low being about $ 170 per annum. This means that the domestic market is also extremely limited and does not offer good opportunities to entrepreneurs to manufacture consumer goods on a relatively large scale.

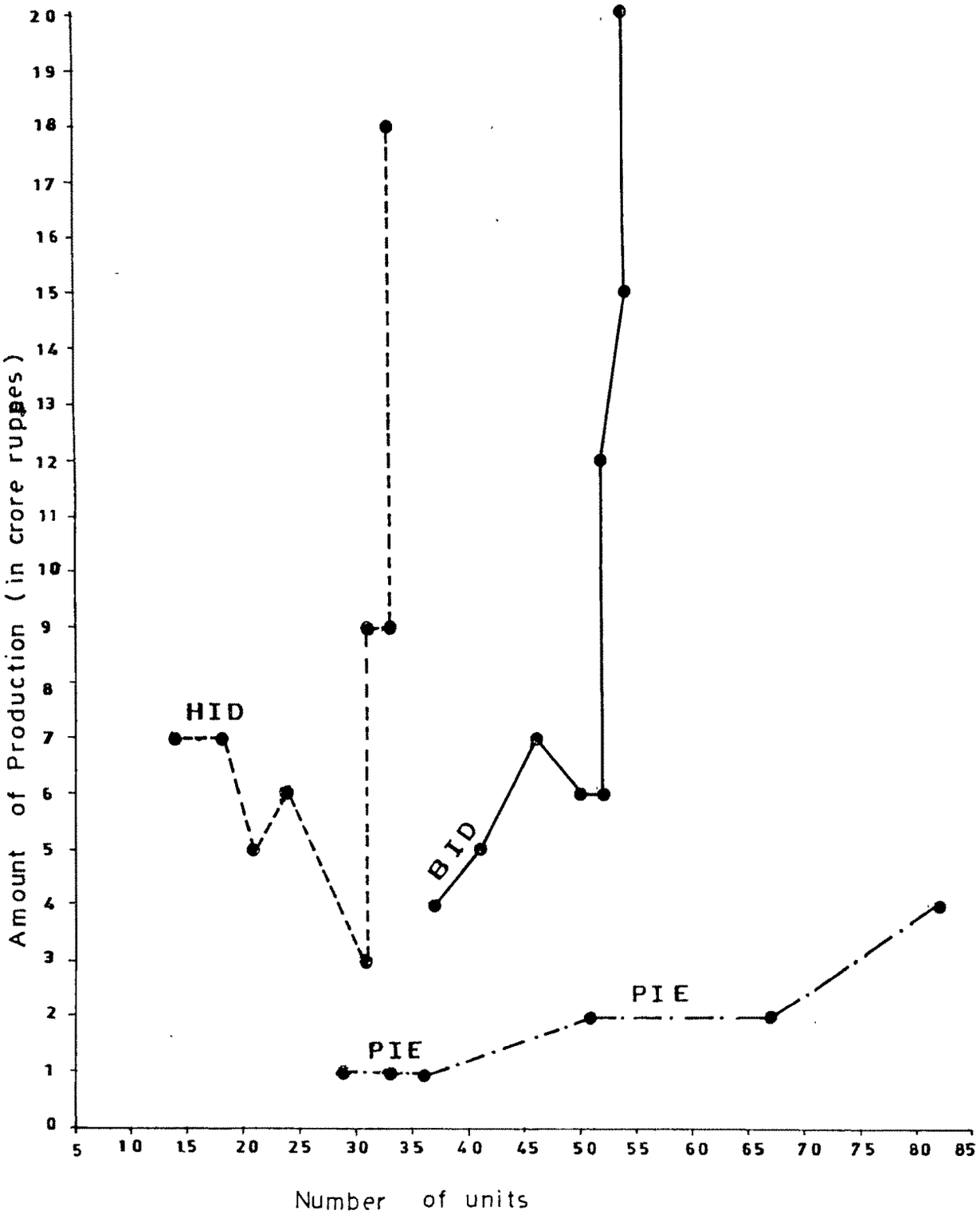
(iii) The Government's industrial policies have not been conducive for repid growth of industrial units. Apart from lack of stability in industrial policy, there is hardly any coordination amongst the concerned departments. As a result, entrepreneurs are not in a position to obtain adequate facilities.

(iv) Finally, the Government's import policy too is not very helpful, as it lacks consistency even during a short period. On account of this, imported goods of all varieties ppse a serious competition for indigenously manufactured goods.

During the course of survey of industrial estates, several entrepreneurs in these estates were contacted and their considered views on the industrial estates programme were obtained. Their responses had been presented in the Annexure 5.3 to this chapter. These responses will confirm the above observation regarding the slow growth in the setting up of new units in the estates.

Figure 5.4

LINEAR RELATIONSHIP IN VOLUME OF PRODUCTION AND NUMBER OF UNITS ESTABLISHED During 1975 to 1983



The production in BID, HID and PIE rose at the annual rate of 25, 16 and 17 per cent respectively. However, it is worth mentioning that during the period 1977 to 1980, HID had negative-growth rate in production, with the direct impact on production per unit too, which continued to decline even up to the year 1982. While probing into the reasons behind this situation in HID, it was found that the period under review was marked by frequent labour strikes and unrests. Because of the existence of a large number of labourers in medium and large scale units and a strong labour union formed by them, labour unrest had been a frequent feature of this estate. Since the time this estate had been made a mixed one by admitting cottage and small scale units, the situation worsened as the labourers in small and cottage units also started demanding such facilities which were beyond the capacity of their employers to grant.

As observed during personal interviews, the small and cottage scale entrepreneurs in this estate did not appreciate the concept of mixed estate being applied in HID. According to them, this concept helped to aggravate the already existing bad situation. Strikes in large units for longer time used to take most of the units in their grip, hindering the production. Moreover, once the demands were fulfilled in large units, strikes used to start in small units because of the non-fulfilment of certain demands, which could be met by only large units. Further, HID, had 8 public sector

enterprises, managed on different principles and provided such facilities to their employees, which could not be provided by the private sector enterprises, irrespective of their size or scale of operation. However, the situation improved after 1980 and onwards regarding volume of production with slight improvement in production per unit only in 1982-83.

In case of PIE too, production per unit did not rise upto the end of the fiscal year 1981-82. But the condition improved slightly in 1982-83.

In case of BID, a point worth noting is that production per unit had followed the growth in total volume of production.

8. Number of Units Earning Profits

Table 5.13 shows the break-up of responding industrial units into two categories: Units earning profits and not earning profits for the year 1982-83. It will be seen that of the total number of 44 units which responded to our questionnaire, 23 units forming 52 percent of the total, earned profit and the other 21 units sustained losses. The break-up of these units by industrial estates shows that in the PIE the proportion of units which could not earn profits was very high - for every five units existing in this

Table 5.13

Industrial Units Earning Profit and No-Profit During 1982-83 in BID, HID and PIE

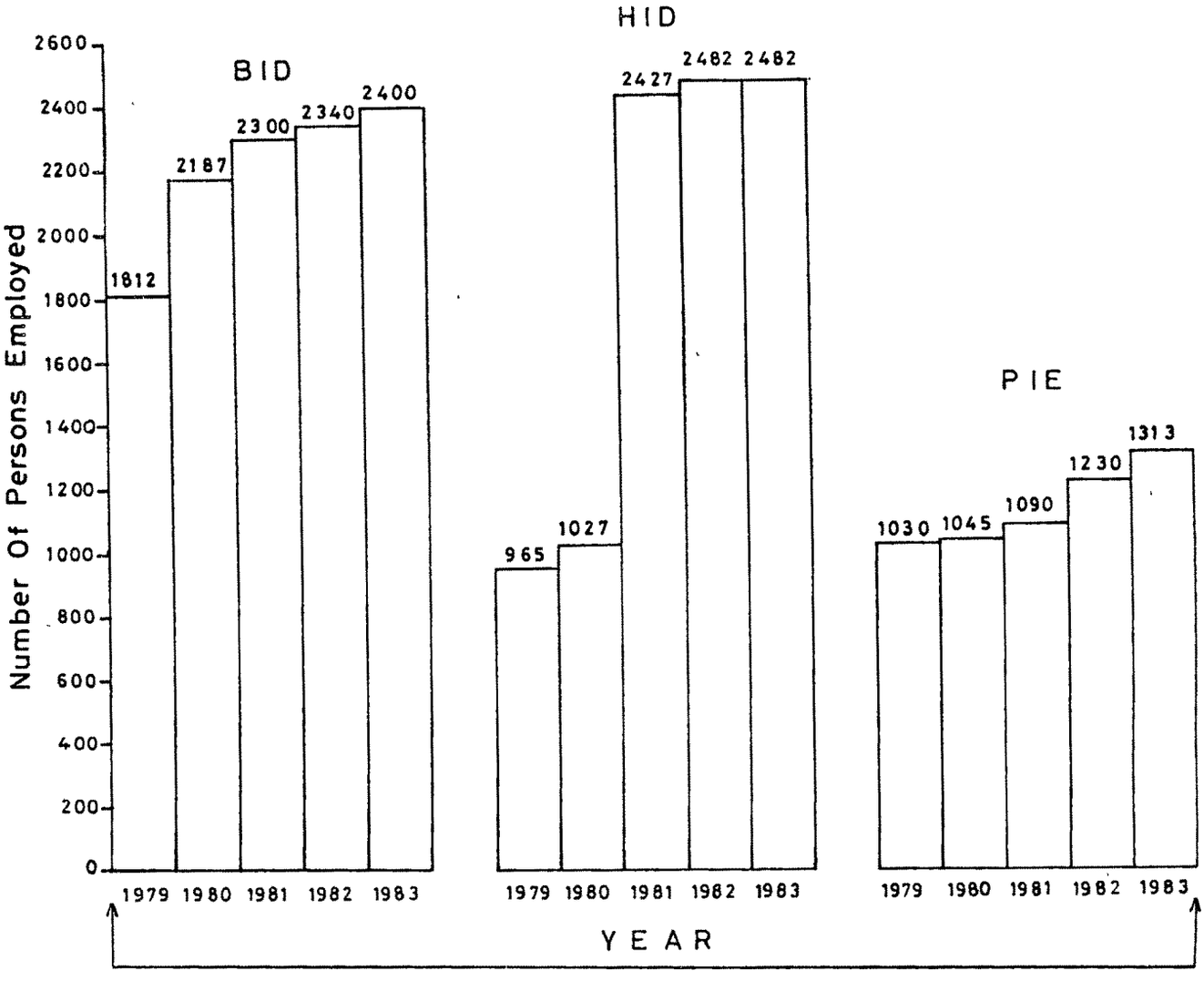
S.N.	Names of Industrial Estates	Number of Units Earning Profit	Number of Units Earning Non-Profit	Total Responding Units
1.	BID	11 (65.0)	6 (35.0)	17 (100)
2.	HID	4 (57.0)	3 (43.0)	7 (100)
3.	PIE	8 (40.0)	12 (60.0)	20 (100)
	Total:	23 (52.2)	21 (47.8)	44 (100)

Source: Based on the survey.

Note: Figures in parentheses denoted percentages.

Figure 5.5

TOTAL EMPLOYMENT GENERATED (1979-1983)



estate, 3 units sustained losses and only two units earned some profit. The other two estates were in a better position.

One of the possible reasons for relatively large proportion of units not earning profit in PIE was that this industrial estate contained only cottage and small scale units. Since such units are run on a relatively very small scale, their profits too are meagre.

9. Employment Generation

As shown in Table 5.14, 2400 persons in BID, 2482 persons in HID and 1313 persons in PIE were employed by the end of 1982-83. During the period 1978-79 to 1982-83 the employment opportunities in these estates grew at the annual rate of 7.15 percent in BID, 26.56 percent in HID and 6.16 percent in PIE.

In case of BID and PIE, employment opportunities grew steadily over the period. But in HID, there was a sudden rise of 145 percent in employment opportunities in 1980-81. This had occurred mainly because during this period 3 large scale units, 1 medium scale unit and 4 small scale units started trial or/and commercial production even though

Table 5.14

Employment Trend in BID, HID and PIE

(During the period 1978 to 1982-83)

Fiscal Year	BID			HID			PIE		
	Employment Generated.	Total commulative Employment	Index	Employment Generated	Total Commulative Employment	Index	Employment Generated	Total Cumulative Employment	Index
1978-79	N.A.	1812	100	-	965	100	-	1030	100
1979-80	375	2187	120	62	1027	106	15	1045	101
1980-81	113	2300	126	1400	2427	251	45	1090	105
1981-82	40	2340	129	55	2482	257	140	1230	119
1982-83	60	2400	132	-	2482	257	83	1313	127
Annual Growth Rate(PC)		7.19			26.56			6.16	

Source: Industrial Profiles of all estates.

they were established before some years.[1]

Sources of Skilled and Highly Skilled Direct Labour

As shown in Table 5.15 the responding units in all the estates were in a position to fulfill their requirements of skilled and highly skilled direct labour from the local sources. Of the total number of persons employed 96 percent of direct labour belonged to local group in BID, 73 percent in HID and again 96 percent in PIE. This indicates that the three industrial estates could get a good number of skilled and highly skilled labour from the neighbouring areas. Besides this, a point worth emphasizing here is that many of these labourers working in industrial units in HID belong to border towns of India. Strictly speaking they are Indian citizens, but somehow they have managed to get Nepali citizenship, as without having Nepali citizenship, no person can get an employment in an industrial establishment in Nepal.

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1. Source: Industrial Profile of HID (1982-83)

Names of the units:

Large Scale	(i)	Cable and Plastics(Pvt.) Ltd..
	(ii)	Shree Hetauda Leather Industries Ltd..
	(iii)	Shree Nepal vegetable Ghee Industries Ltd..
Medium Scale:	(i)	Shree Nepal Cast Iron Industries(P)Ltd.
Small Scale:	(i)	Shree Narayani Match Factory(Pvt.) Ltd..
	(ii)	Shree Digvijay Products (P.) Ltd..
	(iii)	Shree Quality Concrete Products(P.)Ltd..
	(iv)	Narayani Feed Industries.

Table 5.15

Sources of Skilled And Highly Skilled Direct Labour Employed in BID, HID and PIE

(1982-83)

S.N.	Names of Industrial Estates	Number of Local Skilled and Highly Skilled Labour	Number of Foreign Skilled & Highly Skilled Labour
1.	BID	202 (96.2)	8 (3.8)
2.	HID	139 (73.2)	51 (26.8)
3.	PIE	141 (95.9)	6 (4.1)
	Total:	482 (88.2)	65 (11.8)

Source: Based on the survey.

Note: Figures in parentheses denoted percentages.

Impact on Tertiary Occupations

It would have been an interesting study to find out as to how much employment in the tertiary sector resulted on account of the setting up of these industrial estates. However, this would have involved considerable amount of work in the collection of data. Due to the paucity of time, it was not possible to collect this sort of data. Accordingly, this aspect could not be taken up for study. All the same, some estimates of work done elsewhere are available.[1] Thus a study of the Udhna Industrial Estate in India held that the ratio of tertiary employment to direct employment in that estate was 1:1. Another study relating to the U.K. had estimated that the ratio of tertiary employment to direct employment was 3:1.[2] It is very difficult to choose a particular ratio in the absence of reliable information. One can only say that the ratio may be broadly 1:1 as is found in the Udhna Industrial Estate.

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1. SISI: Pace & Pattern of Growth of Udhna Industrial Estate, Industrial Estate Series No.1, Ahmedabad.

2. Bandopadhyaya, Kalyani: Industrialization Through Industrial Estates, (Calcutta, Book Land Pvt. Ltd), 1969.

10. Sources of Raw Materials

Table 5.16 depicts the sources from where the respondent industrial units acquired the raw materials. HID showed exceptionally high percentage, i.e. 71.4 percent of industrial units were using raw materials available locally. Out of the total industrial units in BID only 47.3 percent and 30 percent in PIE were found using locally available raw materials. Thus the presumption that industrial estates cause the maximum utilization of locally available raw materials has proved true only to some extent in case of these estates.

11. Types of Machineries Installed By Industrial Units

Table 5.17 shows thenumber of sample industrial units having machines of different types to carry on their operations. The break-up of the units showed that more of BID and HID units had installed automatic machines, while PIE had more number of industrial units installing semi-automatic and hand-operated machines. This phenomenon can be considered a natural outcome as BID and HID contained such large and medium scale units (along with small and cottage scale units), which could invest in automatic machines for their operation, while PIE contained only small and cottage scale units capable of acquiring only semi-automatic and hand-operated machines. This indicated that the industrial

Table 5.16

Sources of Raw Materials Used By Industrial Units in BID,HID and PIE

(1982-83)

S.N.	Names of Industrial Estates	Total No. of Units in Operation	No. of Respondents	No. of Units Acquiring Raw Materials from					
				Local Source	%	Local+ Foreign Source	%	Foreign Source	%
1.	BID	45	17	8	47.3	2	11.7	7	41.0
2.	HID	24	7	5	71.4	-	-	2	28.6
3.	PIE	53	20	6	30.0	4	20.0	10	50.0
	Total:	122	44	19	43.2	6	13.6	19	43.2

Source: Based on the Survey.

Note: "Total Units" did not include sick units and units not in operation at the time of data collection.

Table 5.17

Types of Machineries Installed By Industrial Units in BID, HID and PIE

(1982-83)

S.N.	Names of Industrial Estates	Number of Units which Installed			Total No. of Respondent Units	Remarks
		Automatic Machines	Semi-Automatic Machines	Hand operated Machines		
1.	BID	4 (57.1)	3 (42.9)	-	7 (100)	5 units installed First hand and 2 second hand machines.
2.	HID	9 (52.9)	3 (17.7)	5 (29.4)	17 (100)	14 units installed First hand and rest installed Second hand machines.
3.	PIE	3 (15.0)	12 (60.0)	5 (25.0)	20 (100)	17 installed First hand and 3 units Second hand machines.
	Total:	16 (36.4)	18 (40.9)	10 (22.7)	44 (100)	

Source : Based on the survey.

Note: Figures in parentheses denote percentages.

units in all these estates had selected the type of machine on the basis of their volume of production to be achieved.

Moreover, the figures in Table 5.17 also give the impression that more sample units in BID and HID were opting for capital-intensive methods of production, which generate relatively less employment opportunities. In this regard, PIE industrial units seemed to be using more labour-intensive methods of production as 12 units out of 20 had installed semi-automatic machine. Besides, hand-operated machines were installed in 5 industrial units, leaving only 3 units opting for automatic machines.

An Account of Industrial Estates Established in The Second Phase

1. Occupation of Land

As shown in Table 5.18, DID, NIE, PID and ButID were established during the period 1972-1976. As compared to the industrial estates established during the first phase of the industrial estates programme in Nepal, all of these are small estates having gross area ranging from 10 to 25 hectares. Since their establishment, DID, NIE, PID and But ID could lease out approximately one hectare out of 10, 4 hectares out of 10, 4 hectares out of 25 and 3 hectares out of 15 respectively to their industrial units. Land had been leased out so far to 15 units in DID, 23 units in NIE, 18 units in PID and 17 units in But ID. However, only 8 units in DID, 15 units in NIE, 14 units in PID and 3 units in But ID were in operation at the time of data collection for this study.

A notable feature of these estates is that they are growing at a very slow pace in terms of working units, as only 40 units amongst 73 units to be situated were in operation by the end of July 1984. This indicated that even after the occupation of land by the industrial units, nearly 38 percent of the total industrial units could not start their production early.

Table 5.18

Total Land Area And Number Of Industrial Units in Industrial Estates
(Established in Second Phase)

(As at the end of July 1984)

S.N.	Names of Industrial Estates	Gross Area (Hectares)	Total land leased (Hectares)	No.of Units in operation.	Sick units or Non-operating units.	No.of units to be operated very shortly.	No.of units under construction	No. of Units for which land has been leased.	Total No. of units to be situated.
1.	DID (Estd.1972-73)	10.18	1.08 (10)	8 (53.3)	2 (13.3)	-	-	5	15
2.	NIE (Estd.1973-74)	10.31	4.12 (40)	15 (65.3)	3 (13.0)	-	2 (8.7)	3 (13.0)	23
3.	PID (Estd.1975)	25.20	4.03 (16)	14 (77.8)	-	-	1 (5.5)	3 (16.7)	18
4.	But ID (1976)	15.24	3.04 (20)	3 (17.7)	-	4 (23.5)	3 (17.7)	7 (41.1)	17
	Total:	60.93	12.27 (20.1)	40	5	4	6	18	73

Source: Present Status of Industries in Industrial Districts in Nepal, Pub. by ISC July 1984.

Note: Figures in parentheses denote percentages.
(Refer Fig 5.1 and Fig 5.2)

2. Relative Position Of Local Entrepreneurs

Table 5.19 depicts the number of entrepreneurs belonging to local and non-local group in these four estates, during 1982-83, It shows that the ratio of local to non-local entrepreneurs for all the four industrial estates was 2.4:1 though there were variations in individual estates. This indicates that relatively more local persons were attracted to set up industrial units in the estates. Perhaps it would not be wrong to presume that had there been no industrial estates, these local persons would not have taken initiative on their own to set up industrial units.

3. Age Composition of Entrepreneurs

As shown in Table 5.20, 14 out of 24 respondent entrepreneurs in these estates belonged to younger age-group. This is a good sign that these estates have been able to attract younger people to the industrial sector.

4. Educational Background and Experience of Entrepreneurs

Table 5.21 shows the break-up of entrepreneurs by type of education-technical and non-technical. It will be seen from the Table that of the total number of 24 respondent entrepreneurs, as many as 18 did not have technical qualification. Most of them held degrees in social sciences. Only 6 entrepreneurs belonged to the category having technical

Table 5.19

Number of Local And Non-Local Entrepreneurs in DID, NIE, PID and But ID

(1982-83)

S.N.	Particulars	Number of Entrepreneurs in					Remarks
		DID	NIE	PID	But ID	Total	
1.	Local Entrepreneurs	7 (67)	15 (85)	8 (56)	1 (50)	31 (70.5)	
2.	Non-local Entrepreneurs	3 (33)	3 (15)	6 (44)	1 (50)	13 (29.5)	
		10	18	14	2	44	
	Ratio of local to Non-local	2.3:1	5:1	1.3:1	1:1	2.4:1	

Source: Based on the survey.

Note: (a) Figures in parentheses denote percentages.

(b) Total industrial units also included sick units.

Table 5.20

Distribution of Entrepreneurs by Age-Group in DID, NIE, PID and But ID

(1982-83)

S.N.	Age-group	Number of Entrepreneurs in				Total
		DID	NIE	PID	BUt ID	
	Years					
1.	25 - 30	4	3	-	-	7
2.	30 - 35	-	2	4	1	7
	Sub-Total:	4	5	4	1	14
3.	35 - 40	-	2	3	1	6
4.	40 - 45	2	-	2	-	4
5.	45 - 50	-	-	-	-	-
6.	50 & over	-	-	-	-	-
	Sub-Total:	2	2	5	1	10
	Grand Total:	6	7	9	2	24

Source: Based on the survey.

Note: Number of entrepreneurs shown here were only from the sample units responding the questionnaire.

Table 5.21

Educational Background of Entrepreneurs or Managers in Four Industrial Estates

(1982-83)

S.N.	Names of Industrial Estates	Total No. of Respondents	Educational Background of Entrepreneurs		Proportion of Non-technical to Technical
			Non-Technical	Technical	
1.	DID	6	5	1	5:1
2.	NIE	7	4	3	1.3:1
3.	PID	9	8	1	8:1
4.	But ID	2	1	1	1:1
	Total:	24	18	6	

Source: Based on the survey.

educational qualification. The overall ratio of technical to non-technical education amongst entrepreneurs was 1:3.This indicates that these industrial estates have not been able to attract technical graduates for setting up units to the extent they were expected to.

Apart from the educational qualifications, the length of experience of entrepreneur is an important factor contributing to the success of an enterprise. Hence, it would be interesting to ascertain as to how much experience the entrepreneurs of these estates possessed.

Table 5.22 shows the break-up of entrepreneurs with experience in previous jobs, of varying time-durations. It can be seen from the figures in the Table that most of the entrepreneurs were having experience of 3 to 9 years in previous jobs before setting up industrial units in these estates. There were two entrepreneurs having 15 to 18 years' experience and 6 having 12 to 15 years' experience in previous jobs.

We find from Table 5.23 that 80 percent of the entrepreneurs in DID, 75 per cent in NIE, 90 per cent in PID and 80 per cent in But ID were having previous job experience. The last three columns of the same table show the percentages

Table 5.22

Number of Entrepreneurs with Previous Experience in DID, NIE, PID and But ID

(1982-83)

S.N.	Length of Previous experience(Years).	Number of Entrepreneurs in				Total
		DID	NIE	DID	But ID	
1.	Less than 3	-	-	-	-	-
2.	3 - 6	1	6	-	-	7
3.	6 - 9	4	-	3	-	7
4.	9 - 12	1	-	-	1	2
5.	12 - 15	-	-	5	1	6
6.	15 - 18	-	1	1	-	2
7.	18 - 21	-	-	-	-	-
8.	21 - 23	-	-	-	-	-
9.	23 - 26	-	-	-	-	-
	Total:	6	7	9	2	24

Source: Based on the survey.

Table 5.23

Percentages of Industrialists With Previous Job Experience and Without Experience in Four Industrial Estates.

(1982-83)

S.N.	Names of Industrial Estates	Total No. of Industrialists	P.C. of Entrepreneurs with Previous Experience in				P.C. of Entrepreneurs with no experience		
			Farming	Trade or Business	Service Govt.or Private	Service Defence/ Police	Young Degree Holder	Commerce Graduates	Others
1.	DID	10	20	60	-	-	10	5	5
2.	NIE	18	-	75	-	-	20	5	-
3.	PIE	14	-	90	-	-	-	-	10
4.	But ID	3	-	80	-	-	20	-	-
	Total:	45	-	-	-	-	-	-	-
W.M. of percentages			4.4	76.7	-	-	11.6	3.1	4.2

Source: Responses to questionnaires issuedto Industrial Estate Managers.

Note: The Column 3 in this Table includes industrialists of sick units too.

of entrepreneurs with no previous experience and their break-up as technical graduates, commerce graduates and others. It will be seen from these figures that 20 percent of entrepreneurs in DID, 25 percent in NIE, 10 percent in PID and 20 percent in But ID had no previous experience but had some degree qualifications. A few entrepreneurs from the non-experienced group had some technical qualifications. Thus 10 per cent of such entrepreneurs in DID, 20 percent each in NIE and But ID were graduates in engineering and other related technical subjects. As was mentioned in case of older estates, these estates also had not been able to attract technically qualified persons to set up industrial units to an appreciable extent. However, it is worth mentioning that all of these estates had attracted majority of persons from trading and business community as was the case with older industrial estates in the country.

5. Types And Organisation Of Industrial Units

Since industrial estates programme is expected to encourage the small and cottage scale industrial units, the study tried to find out how far this objective had been achieved.

Table 5.24 depicts the number of industrial units under different scales of operation in four industrial estates established in the second phase of the programme. Excluding

Table 5.24

Distribution of Total Industrial Units By The Scale Of Operation

(1982-83)

S.N.	Type of Industry	Number of Industrial Units in				Total
		DID	NIE	PIE	But. ID	
1.	Cottage Scale	7	9	10	3	29
2.	Small Scale	1	5	3	-	9
	Total	8 (100)	14 (93.3)	13 (92.9)	3 (100)	38 (95)
3.	Medium Scale	-	1	1	-	2
4.	Large Scale	-	-	-	-	-
	Total	-	1 (6.7)	1 (7.1)	-	2 (5)

Source: Based on the survey

Note: (a) This Table excludes sick units and units under construction in each estate.

(b) Figures in parentheses denote percentages.

the sick units and those under construction at the time of the field survey, the total number of industrial units in DID, NIE, PID and But ID stood at 8, 15, 14 and 3 units respectively. Of these, 8 in DID, 14 in NIE, 13 in PID and 3 in But ID were cottage and small scale units. Such units formed 95 percent of the total units in these estates. This indicates that the industrial estates programme has been able to encourage the small and cottage scale industrial units to the maximum level, even if the total number of industrial units established in each estate were very few.

It may be worth while to find out whether the industrial units were in the public or private sector.

Table 5.25 shows that the total number of industrial units in the private sector were as many as 47 in comparison with only 5 units in the public sector.

Table 5.26 shows the break-up of industrial units by forms of organisation. The most preferred form of organisation was the private limited company followed by proprietorship organisation. 11 units out of 24 belonged to private limited company category and 8 units were proprietory. Thus, units in other categories namely public limited company and partnership were very few.

Table 5.25

Distribution Of Total Industrial Units By Sector in DID, NIE, PID and But ID

(By the end of 1984)

S.N.	Sector	Number of Industrial Units in				Total
		DID	NIE	PID	But ID	
1.	Private Sector	12 (80)	18 (100)	12 (85.7)	5 (100)	47 (90.3)
2.	Public Sector	3 (20.0)	-	2 (14.3)	-	5 (9.7)
	Total	15	18	14	5	52

Source: Based on the survey.

Note: (a) Total industrial units included sick units and units not in operation.

(b) Figures in parentheses denote percentages.

Table 5.26

Distribution of Sample Industrial Units By the Type Of Organisation in DID, NIE, PID and But ID

(1982-83)

S.N.	Names of the Estate	Proprietorship	Cooperative	Partnership	Private Limited Company	Public Limited Company	Total
1.	DID	3 (50.0)	-	2 (33.3)	1 (16.7)	-	6
2.	NIE	2 (28.6)	-	-	5 (71.4)	-	7
3.	PID	3 (33.3)	-	-	3 (33.3)	3 (33. 4)	9
4.	But ID	-	-	-	2 (100)	-	2
	Total:	8 (33.3)	-	2 (8.3)	11 (45.9)	3 (12.5)	24 (100)

Source: Based on the survey.

Note: Figures in parentheses are percentages.

6. Investment

Table 5.27 shows the investment made in four estates by the end of July 1982. Investment made by industrial units in DID, NIE and PID had reached the extent of 43, 50 and 70 percent of the total investment made in each industrial estate, the rest being shared by Industrial Estate Administration in each estate. However, But ID did not have any investment made by industrial units.

The overall investment made by industrial units in these estates excluding But ID formed 53.7 percent of the total investment made in industrial estates so far, the rest of the investment was made by Industrial Estate Administration.

7. Growth Of Industrial Units And Production

Table 5.28 shows the break-up of number of industrial units, volume of production and production per unit for the period 1977 to 1983. In the year 1977-78, there were only 4 units in DID, 1 unit in NIE, 4 units in PID and 3 units in But ID which had increased to 15 units, 20 units, 18 units and 5 units in each estate respectively by the end of 1983. Keeping in mind the short period of their existence and their sizes, these estates can be considered as rapidly growing estates in relation to volume of production and production per unit too. (refer Fig 5.7) It will be pertinent here to remind that all of

Table 5.27

Total Investment in DID, NIE, PID and But ID

(Rs. in Lacs) (By the end of July 1982)

S.N.	Names of Industrial Estates	Investment made by I.E. Administration	Investment made by Industrial Units	Total Investment
1.	DID	67 (57.2)	50 (42.8)	117
2.	NIE	67 (50.3)	66 (49.7)	133
3.	PID	87 (29.6)	209 (70.4)	296
4.	But ID	59 (100)	-	59
	Total:	280 (46.3)	325 (53.7)	605

Source: Present Status of Industries in Industrial Districts in Nepal, Pub. by ISC, July 1984.

Note: Figures in parentheses indicate percentages.

Table 5.28

Growth Of Industrial Units And Production in DID,NIE,PID and But ID

(Amount in Rs.000) (During the period 1977 to 1983)

Fiscal Year	DID			NIE			PID			But ID		
	Number of Industrial Units	Volume of Production (Amt.)	Prodn. per Unit (Amt.)	Number of Industrial Units	Volume of Production (Amt.)	Prodn. per unit (Amt)	Number of Industrial Units	Volume of Production (Amt)	Prodn. per Unit (Amt)	Number of Industrial Units	Volume of Production (Amt)	Production per Unit (Amt)
1977-78	4 (100)	380 (100)	95 (100)	1 (100)	124 (100)	124 (100)	4 (100)	2831 (100)	708 (100)	3 (100)	-	-
1978-79	11 (275)	3209 (840)	292 (307)	8 (800)	671 (541)	84 (68)	5 (125)	4667 (165)	933 (132)	4 (133)	-	-
1979-80	15 (375)	NA -	NA -	15 (1500)	2598 (2095)	173 (140)	12 (300)	4209 (149)	351 (50)	5 (166)	-	-
1980-81	15	4332 (1140)	289 (304)	16 (1600)	2998 (2417)	187 (151)	14 (350)	4974 (176)	355 (50)	5	-	-
1981-82	15	66015 (17372)	440 (463)	18 (1800)	3597 (2900)	199 (160)	16 (400)	7398 (261)	462 (65)	5	-	-
1982-83	15	1891 (498)	126 (132)	20 (2000)	4596 (3706)	229 (185)	18 (450)	9946 (351)	552 (78)	5	-	-

Source: (a) Industrial Profiles.
(b) Present Status of Industries In Industrial Districts In Nepal,Pub. by ISC, 1984.

Note: (a) Figures in Parentheses are growth indices.
(b) Total number of units includes sick units and units under construction.
(c) In But ID, all the units were either under construction or under trial-production stage.

Figure 5.6

GROWTH OF PRODCTION IN DID, NIE & PID

During the period of 1977 to 1983.

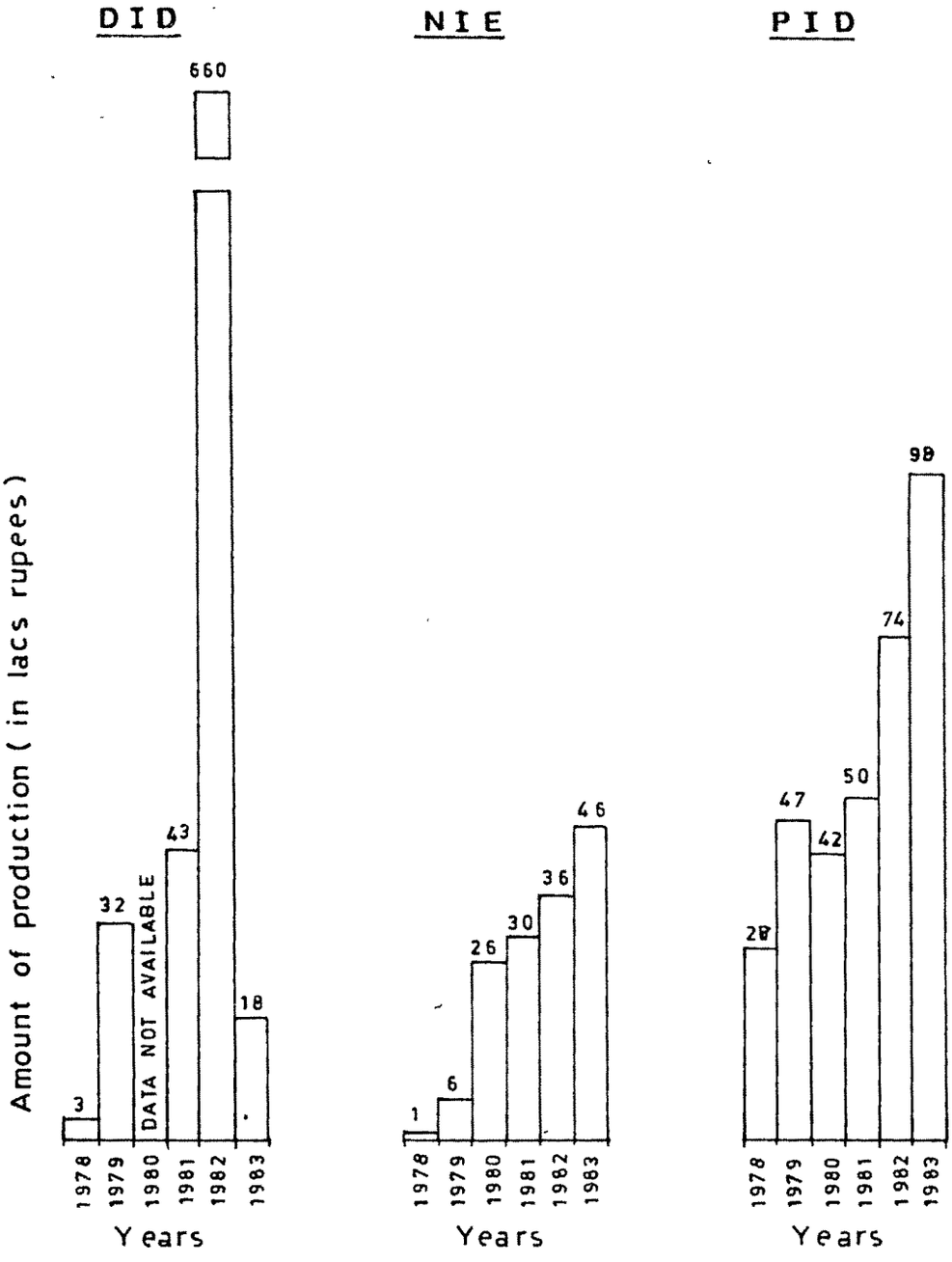
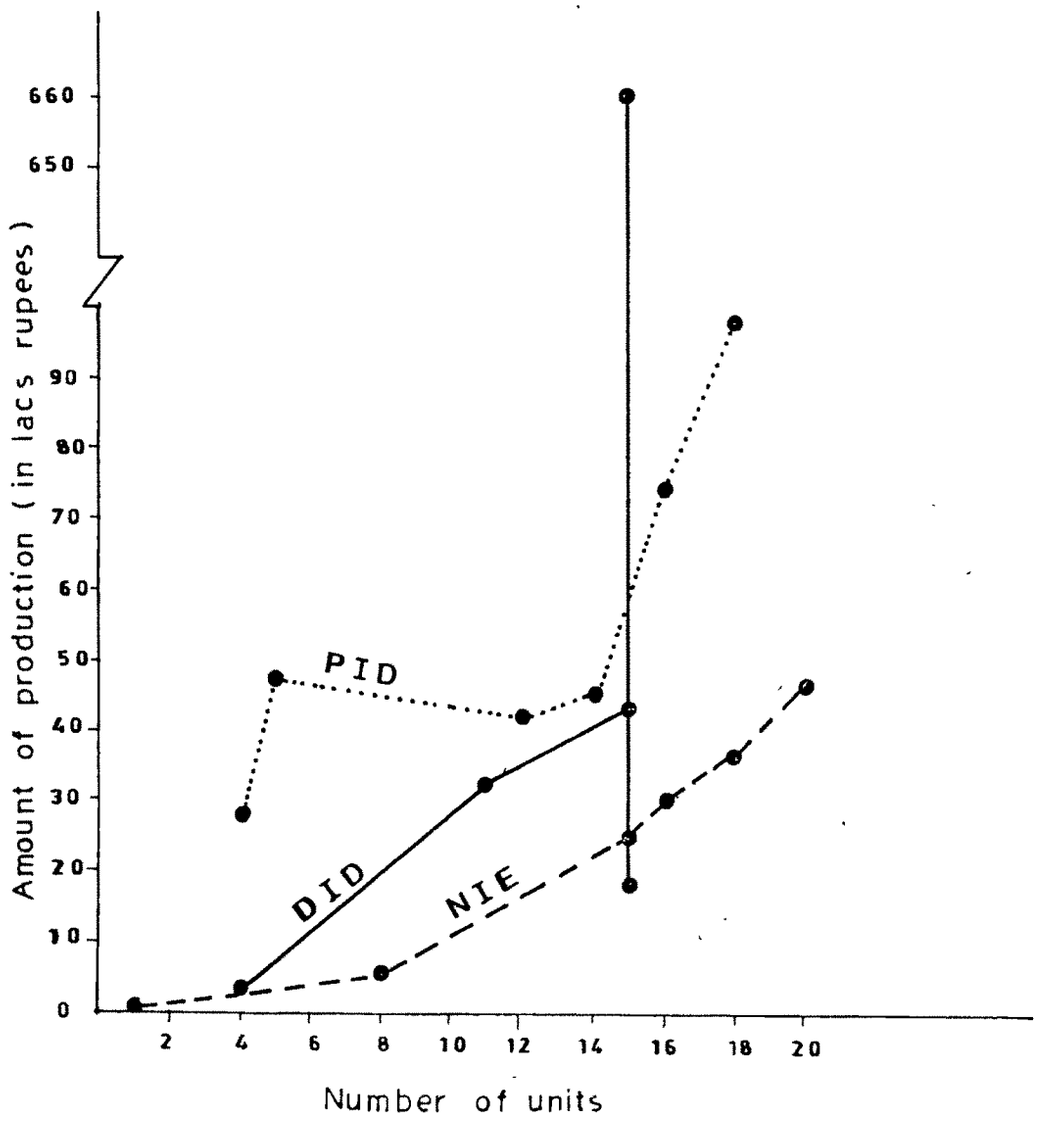


Figure 5.7

LINEAR RELATIONSHIP IN VOLUME OF PRODCTION AND NUMBER OF UNITS ESTABLISHED, During 1977 to 1983



these estates are small sized estates having the gross area ranging from 10 to 25 hectares only.

8. Number of Units Earning Profits

Table 5.29 shows the break-up of responding industrial units into two categories, units earning profits and not earning profits forthe year 1982-83. It will beseen that, of the total number of 24 units which responded to our questionnaire in these four estates, 13 units forming 54 percent of the total, earned profit and the other 11 units sustained losses. The break-up of units by industrial estates shows that in the PID the proportion of units which could not earn profits was very high i.e. 7 out of 9 units sustained losses. The other three estates were in a better position in the sense that 4 units out of 6 in DID, 5 units out of 7 in NIE and both the units in But ID earned profits during the period under review.

One of the possible reasons for relatively large proportion of units not earning profits in PID and nearly one third of the total units in DID and NIE was that these industrial estates contained only cottage and small scale units with few exceptions. As is commonly known, cottage and small scale units are run on a relatively very small scale and are unable to compete with similar goods produced by large units. Moreover, the indiscriminate imports of similar

Table 5.29

Statement of Industrial Units Earning Profit and No Profit in DID, NIE, PID and But ID

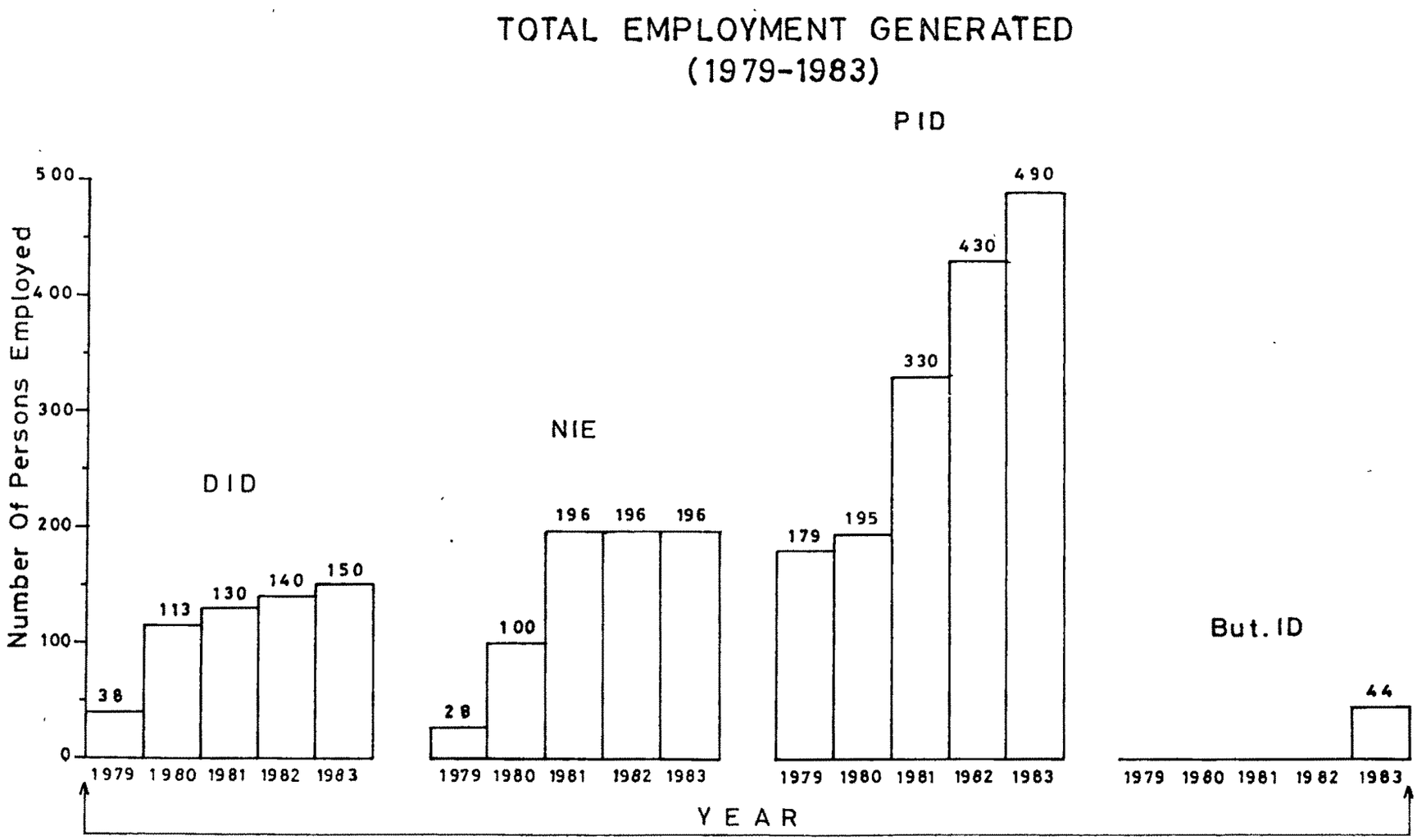
(During 1982-83)

S.N.	Names of Industrial Estates	Number of Units Earning Profit	Number of units earning No-Profit	Total Responding Units
1.	DID	4 (67.0)	2 (33.0)	6
2.	NIE	5 (71.4)	2 (28.6)	7
3.	PID	2 (22.2)	7 (77.8)	9
4.	But ID	2 (100.0)	-	2
	Total:	13 (54.2)	11 (45.8)	24

Source: Based on the survey.

Note: Figures in parentheses denote percentages.

Figure 5·8


TOTAL EMPLOYMENT GENERATED
(1979-1983)
Number Of Persons Employed
500
400
300
200
100
0
DID
38
113
130
140
150
NIE
28
100
196
196
196
PID
179
195
330
430
490
But. ID
44
1979 1980 1981 1982 1983
YEAR

goods, which are also produced in the country has caused slow growth of small industrial units in addition to other constraints.

9. Employment Generation

As shown in Table 5.30 total number of persons employed in DID, NIE, PID and But ID were 150, 196, 491 and 44 respectively. During the period 1978-79 to 1982-83, the employment opportunities grew at the annual rate of 40.97 percent in DID, 63.49 percent in NIE and 28.58 percent in PID respectively. In But ID industrial units were not being properly operated by that time.

The increment in thetotal number of employment opportunities in these estates has indicated that, these estates could provide additional jobs at an increasing rate, though they are a few.

Sources of Skilled and Highly Skilled Direct Labour

As shown in Table 5.31, of the total number of persons employed 54 percent in DID, 70 percent in NIE, 84 percent in PID and 100 percent in But ID, belonged to local group. With the exception of DID, the units in the remaining estates were in a position to get most of their requirement of skilled and highly skilled direct labour fulfilled from

Table 5.30

Employment Trend in DID, NIE, PID and But ID

(During the period 1978 to 1982-83)

Fiscal Year	DID			NIE			PID			But ID		
	Employment Generated	Total Cumulative Employment	Index	Employment Generated	Total Cumulative Employment	Index	Employment Generated	Total Cumulative Employment	Index	Employment Generated	Total Cumulative Employment	Index
1978-79	-	38	100	-	28	100	-	179	100	-	-	-
1979-80	75	113	297	72	100	357	16	195	108	-	-	-
1980-81	17	130	342	96	196	700	138	333	186	-	-	-
1981-82	10	140	368	-	196	700	100	433	241	-	-	-
1982-83	10	150	394	-	196	700	58	491	275	44	44	100
Annual Growth-rate.(P.C.)		40.97			63.49			28.58			-	

Source: Industrial Profiles.

Table 5.31

Sources of Skilled And Highly Skilled Direct Labour Employed in DID, NIE, PID and But ID

(1982-83)

S.N.	Names of Industrial Estates	Number of local Skilled & Highly Skilled labour	Number of foreign skilled & Highly skilled labour
1.	DID	20 (54.1)	17 (45.9)
2.	NIE	35 (70.0)	15 (30.0)
3.	PID	36 (83.73)	7 (16.2)
4.	But ID	17 (100)	- (0)
	Total:	108 (73.4)	39 (26.6)

Source: Based on the Survey.

Note: Figures in parentheses denote percentages.

local sources. Moreover, a notable feature in relation to the foreign workers is that, almost all of them belonged to India.

10. Sources of Raw Materials

Table 5.32 depicts different sources from where the respondent units in these four estates acquired their raw materials. In DID, 4 units out of 6 were using both locally available and imported raw materials, while one unit depended on locally available materials and the other one on totally imported raw materials. In NIE, of the 7 units only one unit was using locally available raw materials, while only 4 industrial units out of 9 were using local resources as raw materials for their final product. These details simply showed that only one third of the total responding units were using local raw materials.

11. Types of Machineries Installed By Industrial Units

Table 5.33 shows that all of the industrial units in DID, NIE, PID and But ID had installed either semi-automatic or hand-operated machines for processing their products. Of the 24 sample units in all these estates, 17 installed semi-automatic machines, and the rest had opted for hand-operated machineries. This indicated that, more or less all the industrial units had selected appropriate techniques of production suitable to their sizes and capital investment, as all of these estates were having only small and cottage scale industrial units during the period under review.

Table 5.32

Sources of Raw Materials Used By Industrial Units in DID, NIE, PID and But ID

(By the end of 1982-83)

S.N.	Names of Industrial Estates	Total Number of units in Operation	Number of Respondent	Number of Units Acquiring Raw Materials From					
				Local Source	P.C.	Local + foreign source	P. C.	Foreign Source	P.C.
1.	DID	8	6	1	16.6	4	66.7	1	16.7
2.	NIE	15	7	1	14.3	-	-	6	85.7
3.	PID	14	9	4	44.4	3	33.3	2	22.3
4.	But ID	3	2	1	50.0	-	-	1	50.0
	Total:	40	24	7	29.2	7	29.2	10	41.6

Source: Based on the Survey.

Note: "Total Units" did not include sick units and units not in operation at the time of data collection.

Table 5.33

Types of Machineries Installed By Industrial Units in DID, NIE, PID and But ID

(By the end of 1982-83)

S.N.	Names of Industrial Estates	Number of units which Installed			Total Number of Respondent units	Remarks
		Automatic Machines	Semi-Automatic Machines	Hand Operated Machines		
1.	DID	-	4	2	6	5 units installed First hand and 1 unit installed second hand machine.
2.	NIE	-	5	2	7	4 installed First hand and 3 units installed second hand machine.
3.	PID	-	6	3	9	6 units installed First hand and 3 units installed second hand machines.
4.	But ID	-	2	-	2	First hand machines were installed by both the units.
	Total	-	17 (70.8)	7 (29.2)	24 (100)	

Source: Based on the Survey.

Summing-up

As discussed above, this chapter has made an attempt to analyse the situation prevailing in the existing industrial estates in relation to the aspects closely linked with the objectives of this study. It is to be noted that the informations analysed here relates to the period up to 1983-84, as they were collected during the period 1983-1984 for this study. The total number of industrial estates under study has been divided into two groups on the basis of the period or time of their establishments. Hence, all the aspects of the programme touched herewith have been analysed separately. Naturally, the outcomes have differed in some or the other respect. To give a clearcut picture of the aspects analysed in relation to both the group of estates, this summing-up is being presented here. Moreover, for an easy assessment of the prevailing situation in both the group at a glance, a sort of comparative presentation has been made, as enumerated below:-

Occupation of Land - Industrial estates established in the first phase of the programme in Nepal indicated that these estates are being occupied slowly and steadily by the industrial units, the average occupancy rate being 47 percent of the total land. PIE had been fully occupied by the end of July, 1984 (refer Fig 5.1).

Four estates established in the second phase i.e. after the year 1972, had the ocupancy rate of 20 percent of the total leasable land in average. This apart, these estates are growing at a very slow pace in terms of working units as only 40 units amongst 73 units to be situated were in operation by the end of July 1984. This indicated that even after the occupation of land by the industrial units, nearly 38 percent of the total industrial units could not start their production early.

Relative Position of Local Entrepreneurs

In BID and PIE, more local persons were attracted towards setting-up industrial units. While in HID, very few i.e. to the extent of 5 local entrepreneurs amongst the total of 22 seemed to have been attracted towards industrial sector. However, the ratio of local to non-local entrepreneurs in these three estates in combined form comes to 3:1 indicating that industrial estates programme has been able to attract more local people than others to set up units.

The ratio of local to non-local entrepreneurs in the estates established in the second phase was 2.4:1, though there were variations in individual estates. This indicates that relatively more local persons were attracted to set-up industrial units in these estates too. In other words, it

would not be wrong to presume that had there been no industrial estates, these local persons would not have taken initiative on their own to set-up industrial units.

Age-composition of Entrepreneurs

In the industrial estates established in the first phase, most of the industrial units were found to be managed by older persons within the age-group of 35 to 50 and over. While the estates of second phase had more number of entrepreneurs belonging to younger age-group. Thus, only the estates established after 1972 were found to have been able to attract younger people towards industrial sector.

Educational Background and Experience of Entrepreneurs

The first three industrial estates were unable to attract technically educated persons towards industrial sector, as the ratio of technical to non-technical education amongst entrepreneurs was 1:7.8 While the overall ratio of technical to non-technical education amongst entrepreneurs in the remaining four estates was 1:3, still indicating that these estates also have not been able to attract technical graduates for setting up units to the extent they were expected to.

Most of the entrepreneurs in the first group of industrial estates had long experience i.e. beyond 9 years before setting up industrial units. In contrast, most of the entrepreneurs in industrial estates set-up in the second phase were having experience of 3 to 9 years in previous jobs. These are appropriate outcomes, when considered with the average age-groups of the entrepreneurs in these estates.

Most of the entrepreneurs in both the groups of estates had 3 to 9 year's experience in their present enterprises.

All the estates had been successful in attracting majority of entrepreneurs from trading and business community.

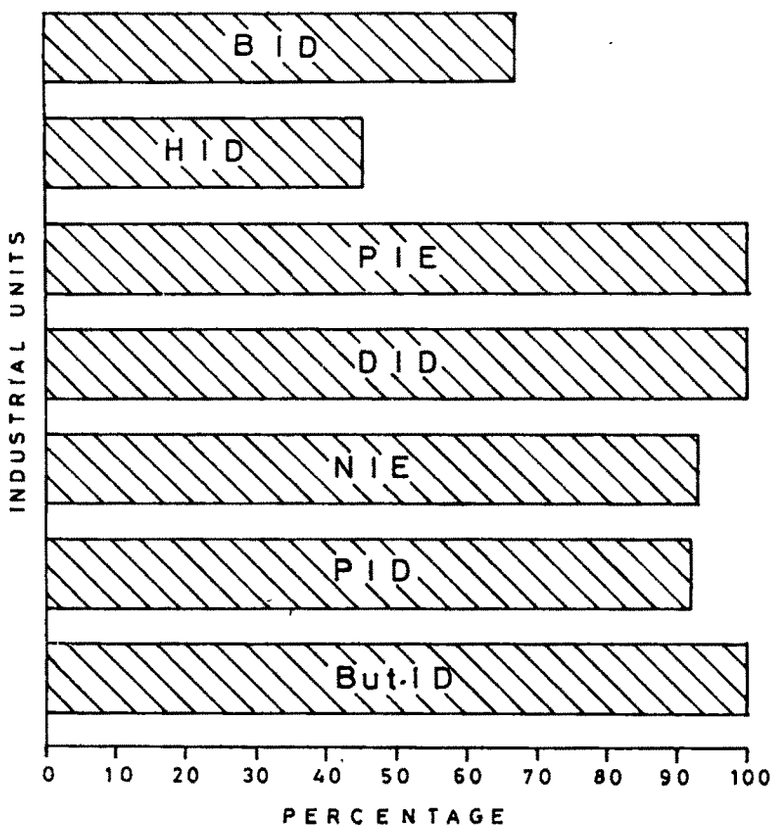
Types and Organisation of Industrial Units

(a) 77 percent of the total units in first three estates were cottage and small scale units, while 95 percent of the total units in four other estates belonged to this category. This is an indicator to the fact that the industrial estates programme has been able to encourage the small and cottage scale industrial units to the maximum level in the country.

(b) Majority of the industrial units in all the estates were being run in private sector.Out of 196 industrial

Figure 5.9

PERCENTAGE OF COTTAGE AND SMALL SCALE INDUSTRIAL UNITS (1982-1983)



units in all the estates, only 17 units belonged to public sector.

(c) 70.4 percent and 46 percent of the sample units in the first group of industrial estates and second group of industrial estates respectively were being run under private limited form of organisation. This indicated tremendous popularity of this form of organisation amongst the general entrepreneurs. Proprietorship was the second most-preferred form of organisational set up, while very few sample units were being run under partnership form and public limited company form of organisation.

Investment

The percentage of investment made by industrial units and industrial estate administration in first three estates stood at 85 and 15 respectively. The low percentage of investment made by industrial estate administrations indicated that they did not increase their share of investment in their respective estates beyond the preliminary or basic investment in items like acquiring plots of land and developing them along with constructing a few factory sheds or buildings in the initial stages. While the growing amount of investment made by industrial units indicated that they have been contributing a lot towards expansionary works of the old units along with the new units constructing their buildings, during the period under review.

In case of the industrial estates established in second phase, 46.3 percent of the total investments is being shared by industrial estates administration. The rest being invested by industrial units. This feature indicated that the estates in general are being still developed by the estate administrations. The industrial units could invest up to the extent of 53.7 percent, indicating that they are also growing in number and sizes along with the development of the industrial estates.

Growth of Industrial Units and Production

The growth rates in relation to the number of additional units, volume of production and production per unit were not impressive enough, as industrial units grew at an annual rate of 5, 13, and 16 percent per year, and production grew at the rate of 25, 16 and 18 per year in BID, HID and PIE respectively. Production per unit in all of these estates grew very slowly as most of the units were not utilising their total capacity to produce (refer Fig 6.1)

Keeping in view the short period of their existence and their sizes, the industrial estates of second phase can be considered as rapidly growing estates in relation to the number of units, volume of production and production per unit.

Number of Units Earning Profits

Of the total number of 44 respondent units in the first phase estates, 23 units earned profit and the other 21 units sustained losses. In PIE, the proportion of units sustaining losses was very high - for every five units existing in this estate, 3 units sustained losses, whereas the other two estates were in better position in this regard.

In case of second-phase industrial estates, PID had largest number of sample units (i.e. 7 out of 9 units) sustaining losses while DID, NIE and But ID were in a better position in this regard as 67, 71 and 100 per cent of the sample units respectively were earning profits.

Employment Generation

In case of BID and PIE, employment opportunities grew steadily over the period. But in HID, there was sudden rise of 145 percent in employment opportunities in 1980-81. Moreover, all the units in all the estates were in a position to fulfill their requirement of skilled and highly skilled direct labour from the local sources. The local employment of workers in both BID and PIE formed 96 percent while in HID it was 76 percent. This indicated that these estates could get a good number of skilled and highly skilled labour from the neighbouring areas.

In the estates established in second phase of the programme, generally the units provided employment opportunities at an increasing rate, though they were limited. During the period 1978-79 to 1982-83, the employment opportunities grew at an annual rate of 40.94 per cent in DID, 73.56 per cent in NIE and 28.58 percent in PID. Units in But ID were not operating properly by that time.

As is the case with the first phase estates, the units in the second phase estates excluding DID also did not face the shortage of local skilled and highly skilled direct labourer during the time of study.

Sources of Raw Materials

The presumption that industrial estates cause the maximum utilisation of locally available raw materials has proved true only to some extent i.e., only 43 percent of the total units in the industrial estates established in the first phase and 29 percent of the units in second-phase industrial estates were found to be using locally available raw materials.

Type of machineries being used

The industrial units in BID and HID showed the preference for automatic machineries for their operation,

which indicated that they were opting for more capital-intensive methods of production. PIE units had installed more of semi-automatic and hand-operated machines, suitable to their sizes.

However, all the industrial units in second group of industrial estates had selected semi-automatic and hand-operated machines as appropriate techniques of production.