Chapter 1

THE PROBLEM

1.1 INTRODUCTION

1.1.1 There is no denying that during the four decades of planning there has been important developments in the Indian national economy. We have to acknowledge that colossal investments took place in the public sector of industries, in public utilities and in defence industries. Despite the forebodings of the dependency theorists, India has appeared as or has thrown off portents to appear as a major agricultural power of the world. Unfortunately, however, due to ad hocism pursued so far by the statesmen of the Republic of 1950 the bulk of the increase of agricultural production of the second phase (Sarkar, 1966, 1999, 1994) of our planning was raised from specially selected regions. The planning for the poor which gathered perceptible speed during the latter phase was not only half-hearted but has also evolved merely as a supplementary programme. Although landlordism of one kind was loudly eleminated in the very first phase of this development planning, legislation on ceiling of lands and some amount of evasion has allowed the growth of large farms especially in western areas and the rise of the big farmers' lobby in politics has by itself thwarted the case for balanced investments and hence balanced and equitable development in the country.

1.1.2 Naturally a demand has been raised for a thorough restructuring of the development planning of the Indian type. Both centralisation and consequent ad hocism are being sought to be dispensed with. A hypothesis has been put forward that a national economic plan formulated through the aggregation of autonomous plans of grass-root economies is a better substitute of a plan which is conceived at the central planning authority and then broken into arbitrary regional shares (Sarkar 1989). In this scheme of restructuring it has been argued that forty years of national planning conceived at the centre and implemented with the journey beginning from the centre have indeed neglected the most productive land and water resources of the country. The Mahalanobis foundations in the first phase of ~~the country~~ planning has also been ~~misconceived~~ misconstructed in substantial ways by neglecting the faster use of agricultural endowments like land and labour power. There are enough reasons why the development of agriculture throughout the country cannot proceed and reach its height without the non-agricultural sector serving it continuously not only through the supply of various fixed and current inputs and infrastructural facilities but also by ceaselessly reorienting itself on the basis of using the agricultural produces of renovated agriculture both for internal consumption as well as for exports. It is a sound claim ably put forward (Sarkar 1989) that a decisive lead sector for a country of India's size and resources cannot be discovered with much of its agricultural sector still by and large untransformed.

1.1.3 There is thus a strong case of testing the hypothesis that autonomous planning for grass-root rural area economies is a means of speedy development of agriculture and therefore, of the whole national economy. This case has not only been strengthened in the writings of Prof. P.C. Sarkar and tested in the Ph.D. programmes now being supervised by him, but also has been widely supported by plea for decentralised planning (which in content is distinct from the plea for autonomous grass-root rural area planning) put forward in different variants by divergent groups of economists or social scientists.

1.1.4 Professor Jan Tinbergen the pioneer among the development planners of the world attracted the attention of the academic community of the world to the need of using accounting price for maximising the use of nationally cheap resource like labour (Tinbergen 1954). Tinbergen was basically interested in creating more output and employment or in optimising output and employment with a given amount of investible capital. Professor Sarkar accepted some kind of agricultural fundamentalism in formulating the hypothesis that faster use of nationally cheap resources like labour as well as land is a sine-que-non for truely balanced development. His ~~hypothesis~~ view that an integration of autonomous plans of grass-root rural area economies into a national rural plan would make fast growth of output per capita more or less automatic stems directly from this hypothesis.

1.1.5 Outside as well as between the periods of these ideas numerous ideas were expressed and numerous investigations were carried out on the use as well as role of labour in various economic systems. The question of unemployment and disguised unemployment of labour has been steadily haunting the economists since the thirties. We are obliged to make a selective mention of some. In her article entitled "Disguised Unemployment" in Economic Journal, June, 1936 Joan Robinson defined disguised unemployment as a situation where workers make a positive but low contribution to output. D. Warriner's Economics of Peasant Farming, Rosenstein's-Rodan's "Problems of Industrialization of Eastern and South-Eastern Europe" in Economic Journal, June-September, 1943, K. Mandelbaum's The Industrialisation of Backward Areas, 1945, the 1951 report of the United Nations group of experts including T.W. Schultz, D.R. Gadgil, W.A.Lewis, Leibenstein's article "The theory of unemployment in Backward Economics" in the Journal of Political Economy, April 1957 and his book Economic Backwardness and Economic Growth published in 1957, Viner's article "Some Reflections on the concept of Disguised Unemployment" in the Indian Journal of Economics in July, 1957 and his book International Trade and Economic Development, Rosenstein-Rodan's article "Disguised Unemployment in Agriculture" in monthly Bulletin of Agricultural Economics and Statistics, July-August, 1957 covered varying views on the problem. Theoretically considered, Nurkse, Lewis, Rostow, Libenstein, Ranis and Fei and Jorgenson have, among others, made important contributions.

1.1.6 A number of theoretical and emperical studies have been undertaken in the late eighties. Gustav Ranis' theoretical work Macro Policies, the Terms of Trade and the special Dimension of Balanced Growth exhibits his anxiety for refinements of his own previous grand model incorporating further details of sectoral interaction. Although he does not plead as yet for autonomous planning of grass-root rural area economies, his researches re-inforce the case formulation as well as for testing of the hypothesis of autonomous grass-root rural area planning. The "Concurrent Growth" hypothesis of Okhawa and compared the "Preceding Growth" hypothesis of Nakamura have drawn attention of various investigators in the late eighties for verification. One such study is Rural Resource Mobility and Intersectoral Balance in Early Modern Growth by H. Kaneda of the University of California (Davis, California). We also mention selectively two case studies which, along with others which we cannot mention just to avoid making this research production unwieldy, which strengthen the study of our problem. They are : The Role of Non-farm Activities in the Rural Economy by Kilby and Liedholm and Economic policy and productivity change in Industry and Agriculture : An International Comparison by Nishimizu and Page. All the undated works referred to in this paragraph were presented at the World Congress of International Economic Association held in New Delhi in December 1986.

1.2 THE PROBLEM

1.2.1 We take up in this study the case of grass-root rural area economy in the district of Koch Behar. The basic hypothesis we want to test is that the over-centralised planning that we experienced in the first four decades in this country has left a great deal of our nationally inexpensive resources like land and labour unused in this grass-root rural economy. An equally important hypothesis that we seek to test is that an autonomous conception of designing of a plan for a grass-root rural economy like the one we study, the integration of plans of all such rural areas and finally balancing the total agricultural plan so formulated by proximity or non-proximity support of the overall non-agricultural sector is a faster device to usher in an economic demographic equilibrium than the macro-plan executed from the top.

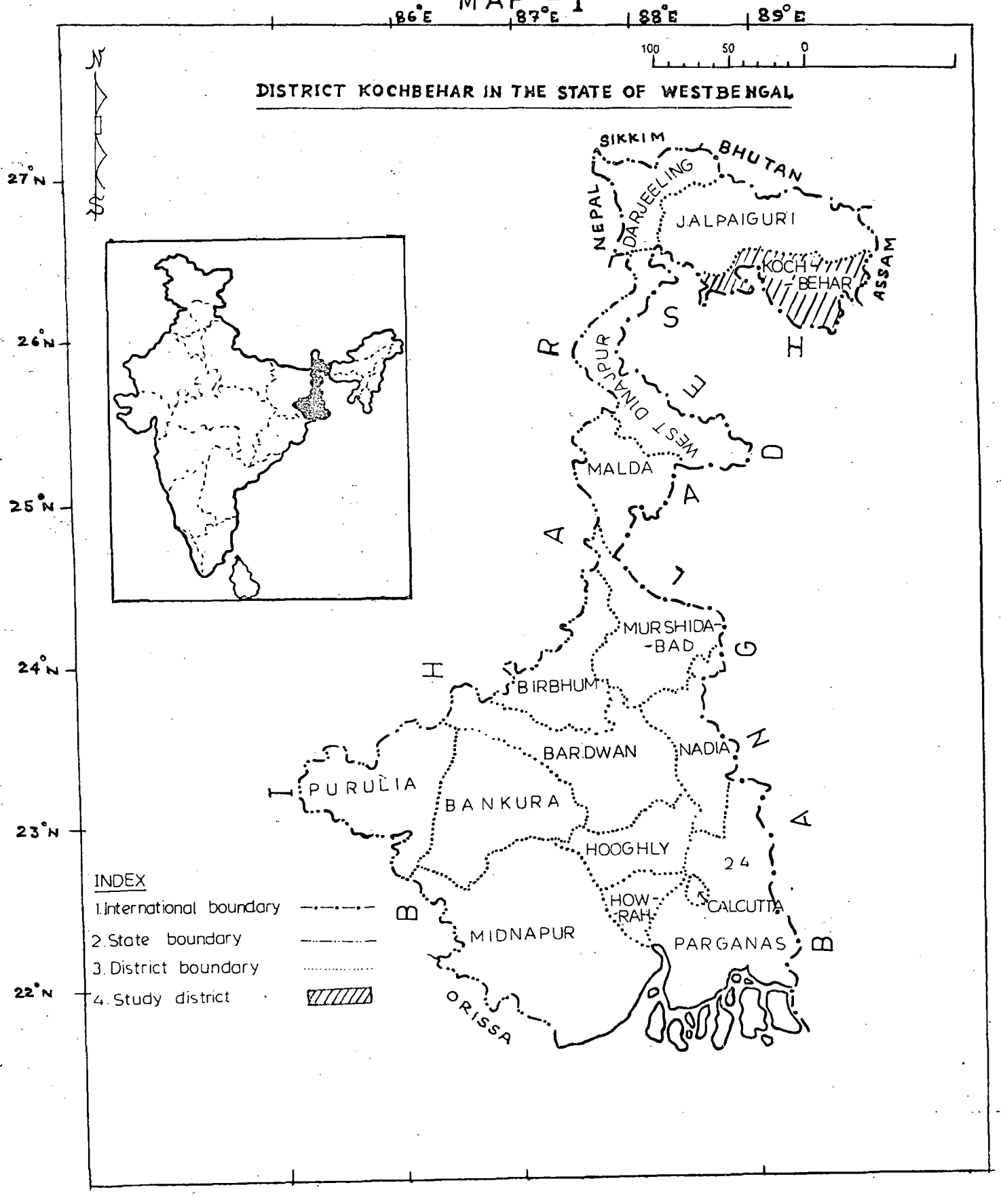
1.2.2 The study, although entitled "Use of Land and Labour in the Sub-divisional Economy of Dinhata", measures the present extent of the use of land and labour in the rural economy of Dinhata and plans for the future use of these resources in the same rural economy. The delineation of the grass-root rural area economies of a district for the purpose is determined on the one hand by specific and distinct agro-climatic characteristics and on the other by the consideration of management and intensive care.

1.2.3 Most areas of the district have height around 30 metres above the mean-sea level. There is no plateau, peaks or hills in the district. The expanse is flat and monotonous. Some small

area in Pargana Lalbazar on two sides of the river Jaldhaka has greater height caused, as many people believe, by construction activities including fortifications undertaken by a medieval King Niladhyaya (Mazumdar 1977). As a result of growing demand for soil to fill in depressions in neighbouring country towns, land of this relatively small area is gradually being levelled. But on the flows of the rivers in the district demonstrate, the land of the district slopes from the north-west to the south-east. We can see from Map No.2 that the river basins are more or less uniformly distributed throughout the district. The soil of the entire district is formed by deposits carried by the Himalayan streams via Jalpaiguri in the north. So the sand grains are finer in this district than in Jalpaiguri. Clay loam and sandy clay loan dominates the soil content.[1]

1.2.4 The district is situated above the 26th parallel north. In the northern limit the latitude is 26°57'40" N whereas the southern limit is 26°32'20"N. Being just outside the zone of tropics, it is expected that the temperature in winter months would be somewhat lower than in the zone of the tropics. In addition the nearness of the eastern Himalayas dominated by some of the world's highest peaks lower further the heat of the district in winter months. Because a hill breeze from the Himalayan hills to this district via the district of Jalpaiguri is a normal phenomenon in the months beyond the principal monsoon (or rather during the return monsoons). The lowest minimum temperature in the district during winter is 3.9°C. The highest

MAP - 1


86°E
87°E
88°E
89°E
100
50
0
N
DISTRICT KOCHBEHAR IN THE STATE OF WESTBENGAL
27°N
26°N
25°N
24°N
23°N
22°N
SIKKIM
BHUTAN
NEPAL
DARJEELING
JALPAIGURI
KOCH BEHAR
ASSAM
WEST DINAJPUR
MALDA
MURSHIDA-BAD
BIRBHUM
BARDWAN
NADIA
PURULIA
BANKURA
HOOGHLY
24 PARGANAS
HOW-RAH
CALCUTTA
MIDNAPUR
ORISSA
INDEX
1. International boundary
2. State boundary
3. District boundary
4. Study district

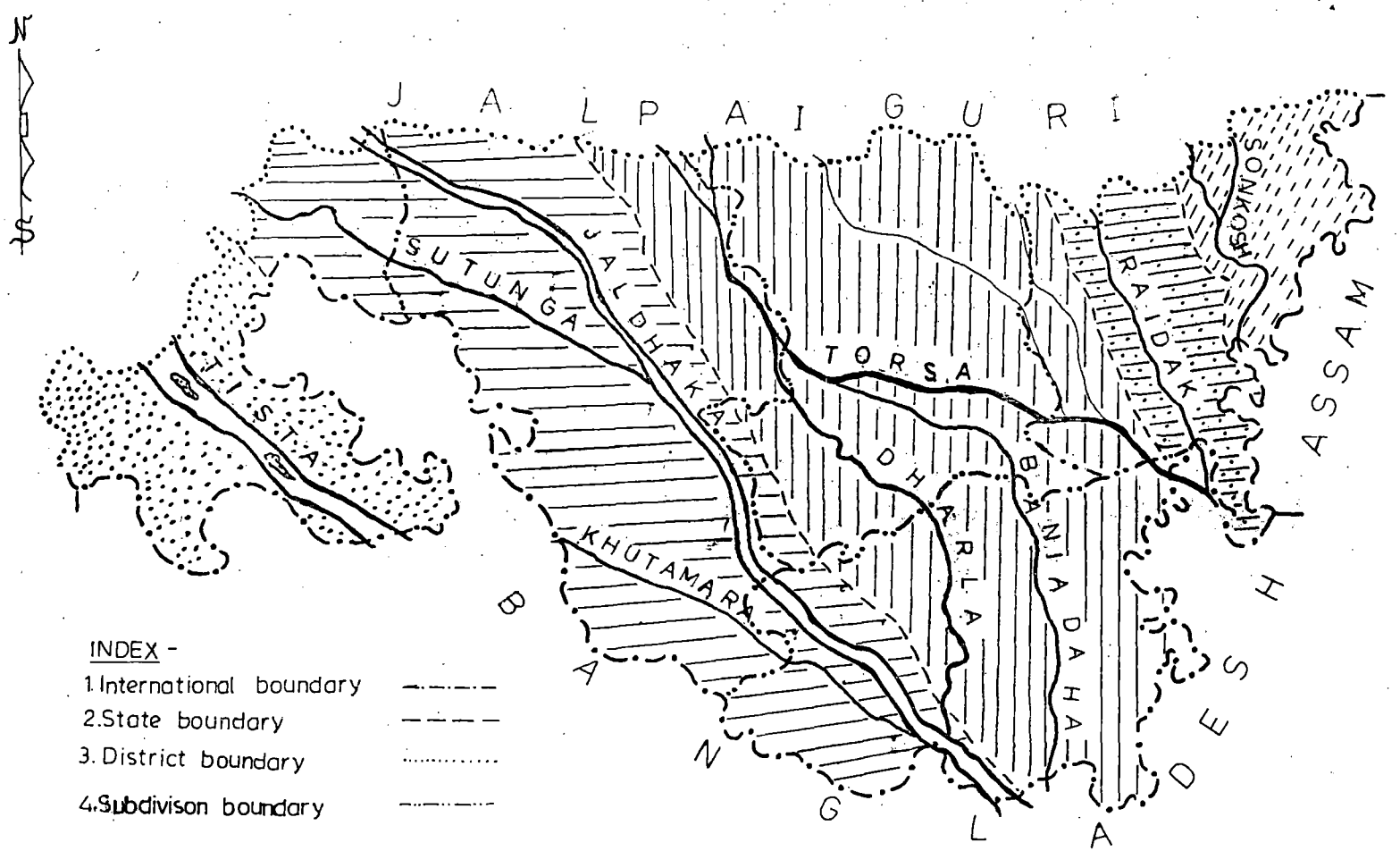
MAP -2

89°E

RIVER SYSTEM OF THE DISTRICT

SCALE, 1" TO 8 MILES

8 0 8



26°N

NOTE - Enclaves on either sides have been neglected.

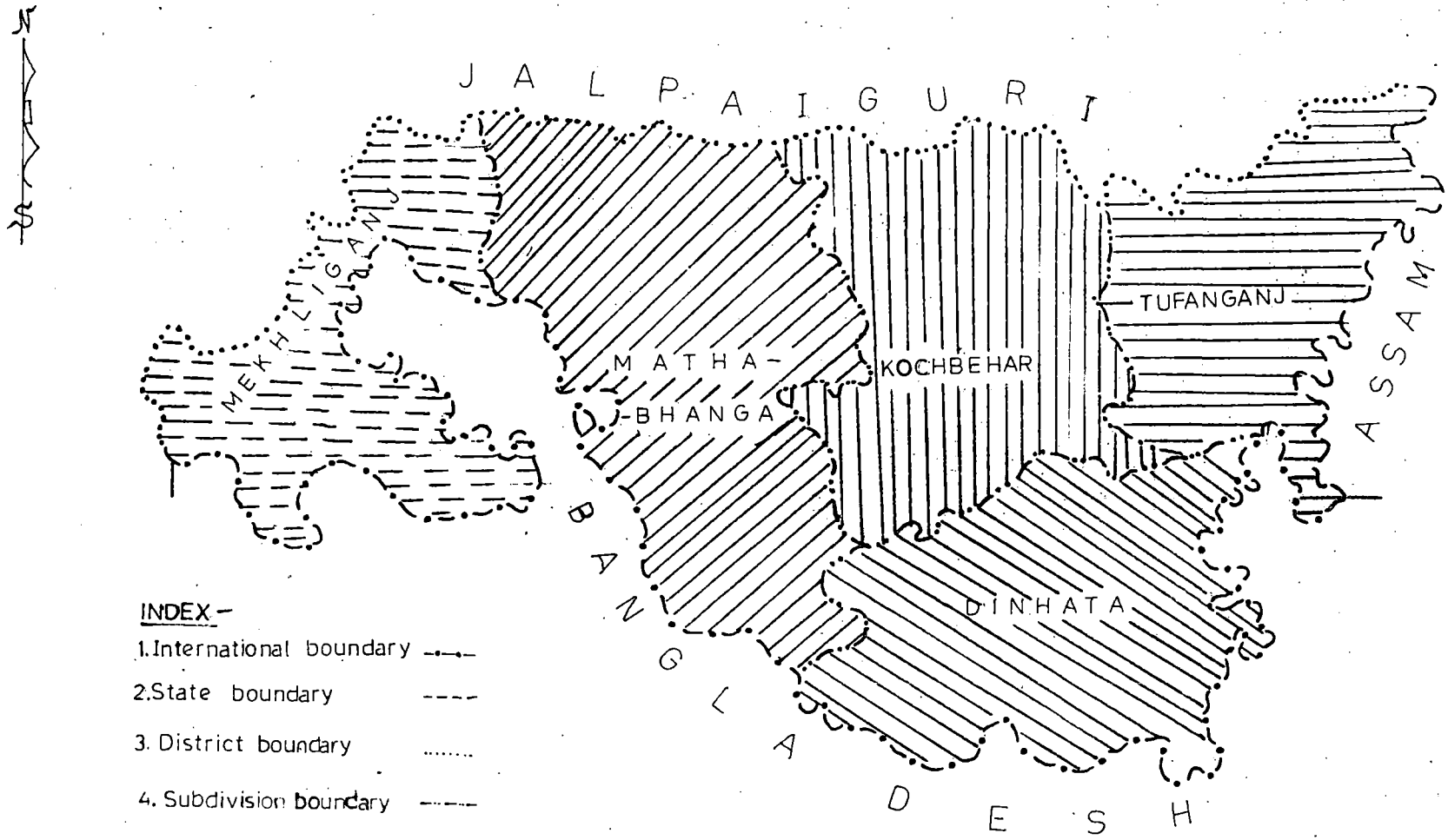
89°E

MAP - 3

AGRO - CLIMATIC ZONE OF THE DISTRICT

SCALE - 1" TO 8 MILES

8 0 4 8

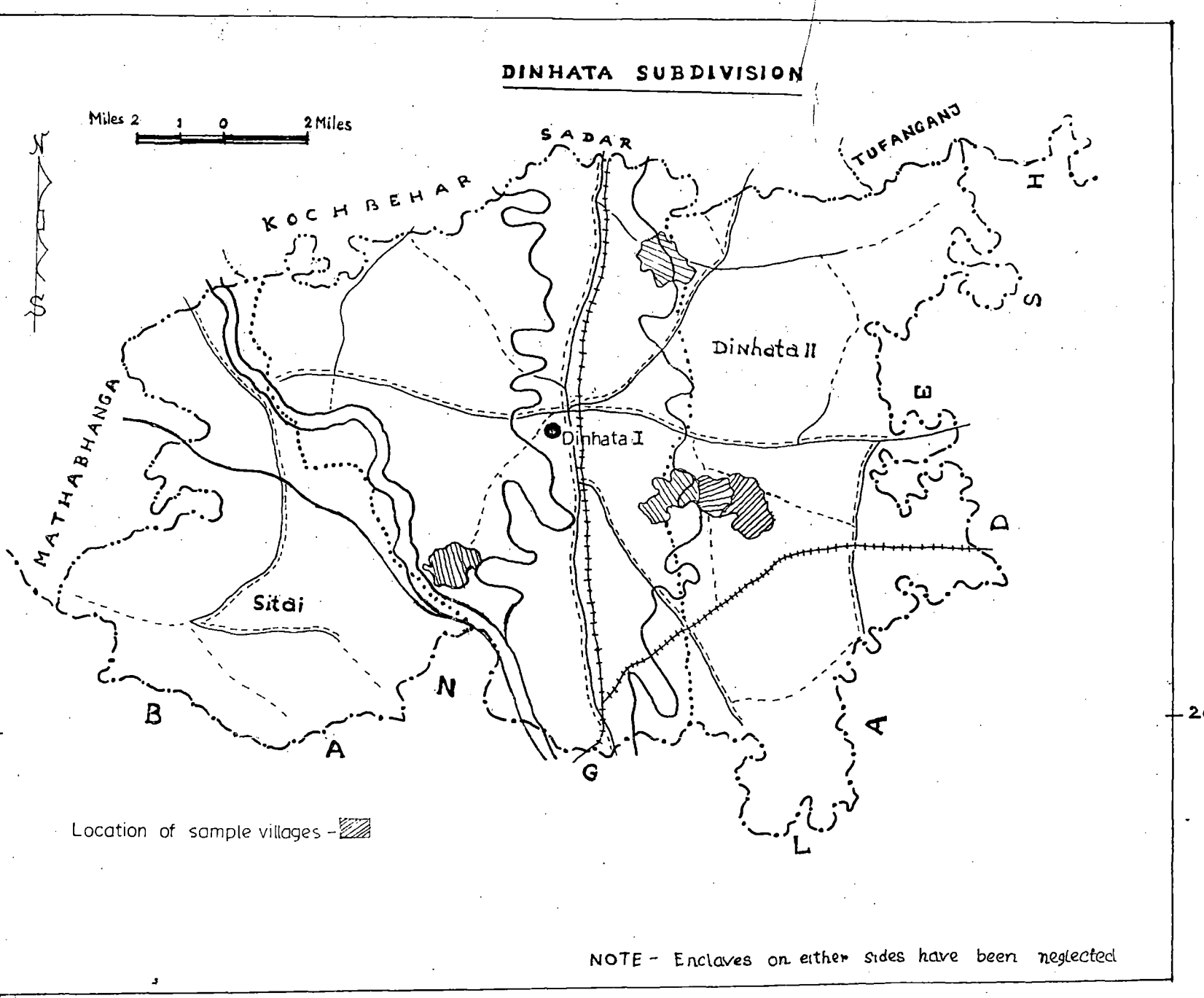


INDEX -

1. International boundary -•-•-
2. State boundary ----
3. District boundary .....
4. Subdivision boundary ----

26°N

NOTE - Enclaves on either sides have been neglected.


DINHATA SUBDIVISION
Miles 2 1 0 2 Miles
SADAR
KOCH BEHAR
TUFANGANJ
H
S
E
D
A
L
A
G
N
A
B
MATHABHANGA
Dinhata II
Dinhata I
Sitai
26°N
Location of sample villages -
NOTE - Enclaves on either sides have been neglected

maximum temperature in summer months is 39.9°C. The mean daily minimum temperature in January is 10.4°C and the mean daily maximum temperature during the same month is 24.1°C.

1.2.5 The rainfall statistics of the district are summarised in Charts 1-4. The figures for the last twenty years have been collected from the District Seed Farm in Koch Behar and the Tobacco Research Station in Dinhata. On the basis of the data collected in the decade of the fifties about the humidity of the district (Mazumdar 1977) it is found that the humidity throughout the district is high. Even in February and March the humidity almost never falls below 60 per cent. On average dust storms occur on average in 0.5 days of the year. It is necessary that cropping pattern be determined in such a way that the devastations caused to top soils by these dust-storms are altogether prevented or minimised. Similarly, squalls during which hails fall take on average 0.3 days on each of the three months of March, April and May. This fact is also to be taken account of in the planning of crops so that crops which are most liable to be damaged by hails do not remain on fields during these months. Records collected on windspeed in the district show that the wind speed in Km/hr is low throughout the district and throughout the year. Although no special account has to be taken of this fact for the planning of crops, the use of wind power for irrigation and small projects of drinking water supply in the villages is ruled out.

1.2.6 Within the areas not available for cultivation 5248 hectares are used up by swamps, marshes and tanks or ponds. These watery areas are also sources for minor irrigation in the neighbourhood. The breakdown of these areas in two main categories is found in table 1.1.

Table 1.1

Area (hectares) Under Marshes and Swamps

Name of the block	Swamps and Marshes	Tanks and ponds	Total
Dinhata I	863	714	1577
Dinhata II	2660	530	3190
Sitai	400	81	481
Total	3923	1325	5248

Table 1.2

Ground Water Potential for Present and Future Development

Name of the block	Total ground water available (MCM)	Agricultural draft (MCM)	Domestic draft (MCM)	Potential available for future development (MCM)
Dinhata I	244.67	36.23	5.10	203.34
Dinhata II	224.56	7.75	4.15	212.66
Sitai	128.45	11.85	1.90	114.70
Total	597.68	55.83	11.15	530.70

Source : Technical Report : Series D.

A hydrogeology and ground water potential report[2] prepared by the Central Ground Water Board, Ministry of Irrigation supports the evidence of huge ground water in the region.[3] The picture pointed by them can be seen in table 1.2.

1.2.7 The incidence of these agro-climatic characteristics is uniform throughout the district. The division of the district into agro-climatic zones may, therefore, solely depend on considerations of convenience and manageability of the conception and implementation of plans of grass-root rural area economies. Since on average each sub-division of the district has only 2.4 blocks, so the rural economy of a sub-division is taken as a distinct grass-root rural area economy.

1.2.8 The reason why we select the rural economy of the sub-division of Dinhata for This Study is that the investigator is now living in the sub-division. This gives him two main advantages. In the first place, ~~he~~ the hazardous field work can be done without staying in the villages for a long period. The visits can be made every day with a lunch packet. In the second place, being a permanent resident in the locality he has already built up a large acquaintance with officials and members of various local agencies of development, panchayats, banks, seed farms, tobacco research station and permanent citizens of the area. This has been of considerable help in winning the confidence of various informants both at the levels of households as well as of the institutions.

Chart - I

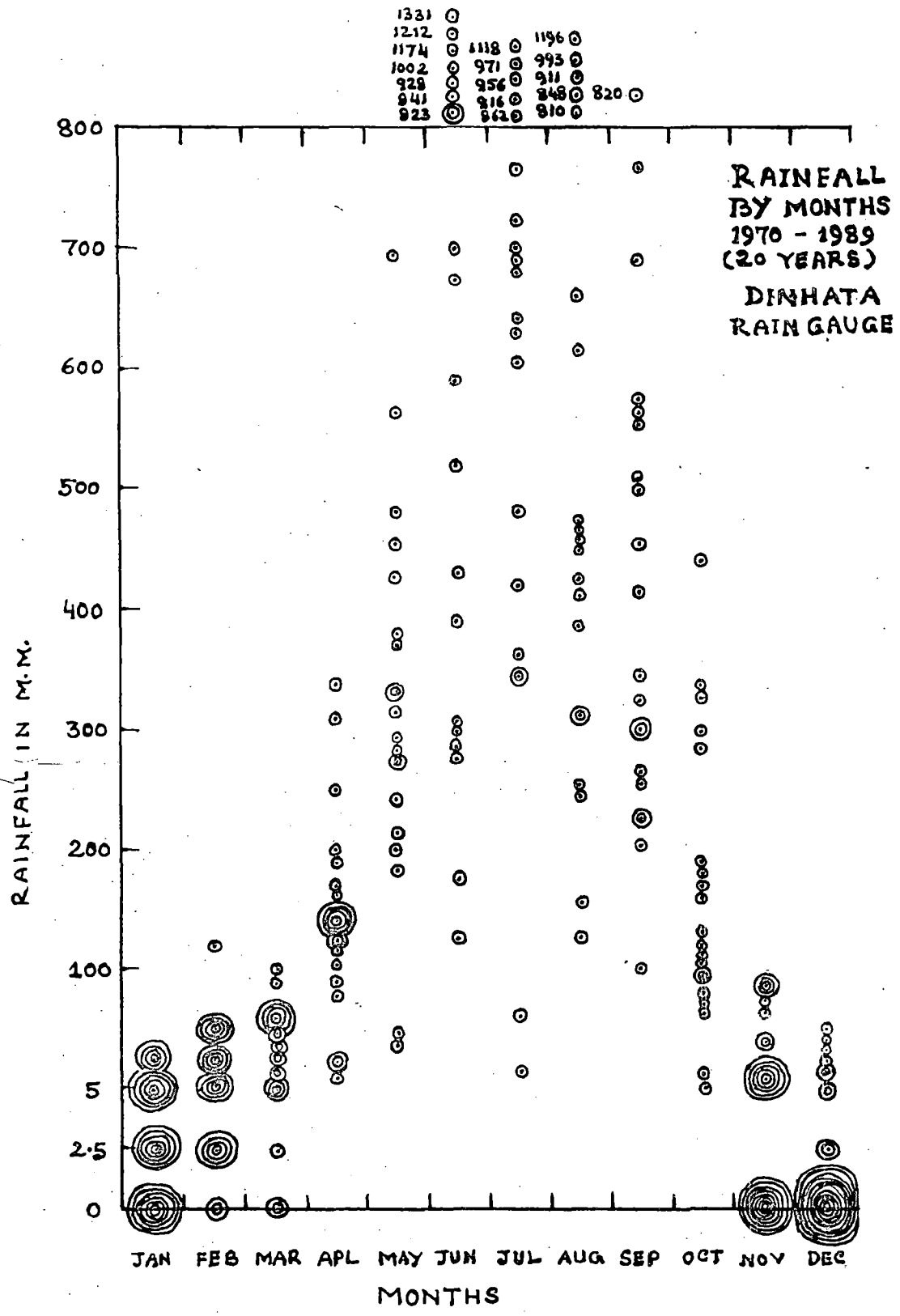


Chart - 2

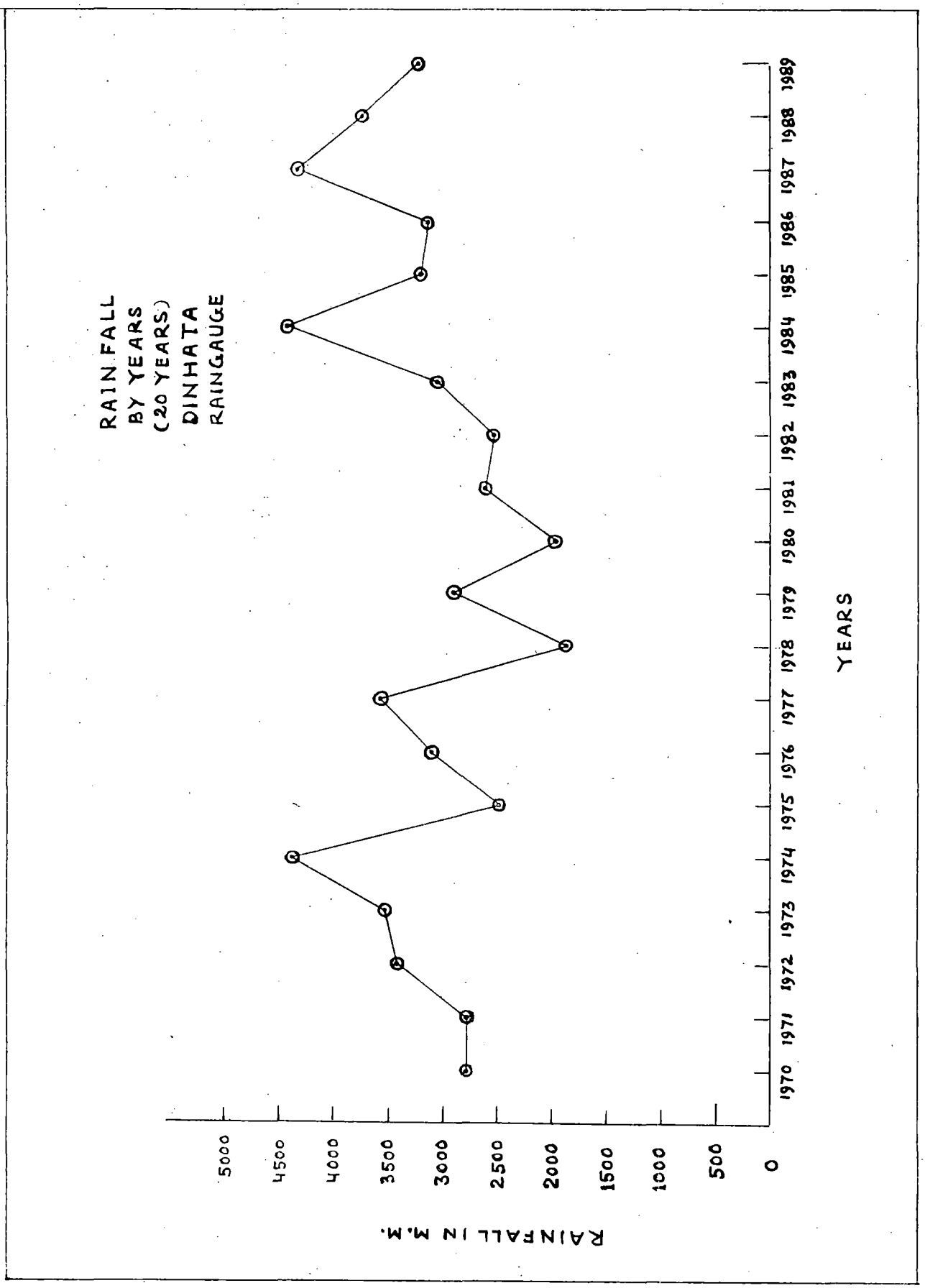

RAIN FALL
BY YEARS
(20 YEARS)
DINHATA
RAINGAUGE
RAINFALL IN M.M.
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989
YEARS

Chart - 3

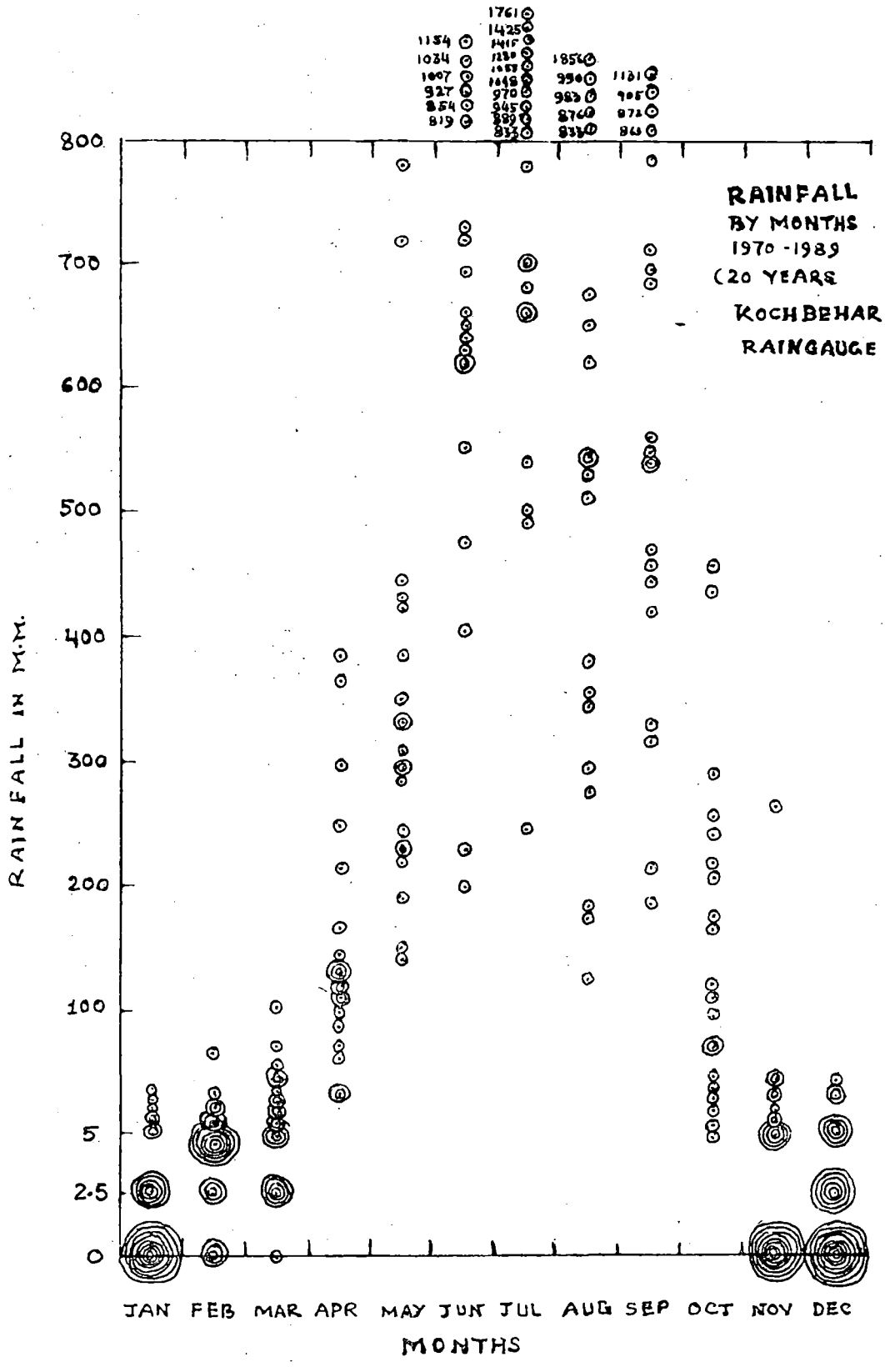
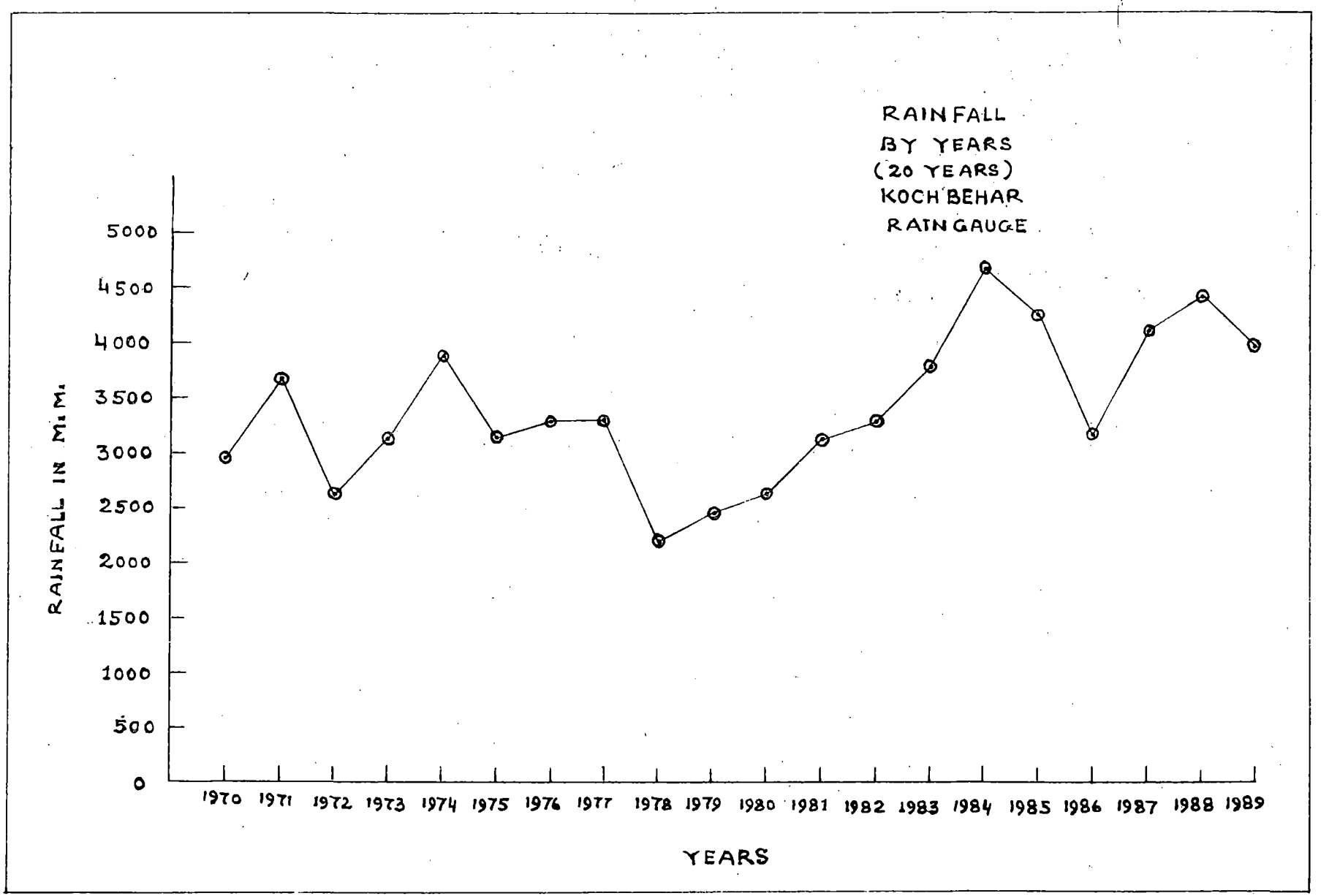

RAINFALL
BY MONTHS
1970 - 1989
(20 YEARS
KOCH BEHAR
RAINGAUGE
RAIN FALL IN M.M.
800
700
600
500
400
300
200
100
5
2.5
0
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
MONTHS

Chart - 4


RAINFALL
BY YEARS
(20 YEARS)
KOCH BEHAR
RAIN GAUGE
RAINFALL IN M.M.
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989
YEARS

1.3 METHODOLOGY

1.3.1 It is beyond the power of a single investigator to survey all the households living with in the grass-root area of Dinhata. Even if the study was undertaken by an official agency on official cost such a census survey of all households, all enterprises and all institutions is hardly advisable on grounds of ~~the strong case for sample survey~~ high costs and low care for details. We have considered both surveying sample households spread throughout the rural economy of the sub-division as well as surveying the whole of some selected sample villages. Since village is a unit of interaction among households and household productive activities, there is an initial argument in favour of taking a village rather than a household as unit of the sample. Besides, to overcome this shortcoming of the households as a unit it is at least necessary that the households are selected from multi stage strata to let the sample of households represent fairly the various characters or indicators we want to study for this rural economy. For this purpose either we should have a first phase survey of the whole economy collecting all details for the required stratification or we may take two or three clusters of adjacent households of sufficient number and then have stratified sample from each. But the use of either of these methods is so time consuming that both are prohibitive for a research enterprise of a single investigator.

1.3.2 Consequently a decision has been made to ~~conclude~~ recognise that the percentage of irrigated area to the net cultivable area is a

very powerful differentiator of villages. Unfortunately, however, the statistics recorded by official agencies concerning this differentiator is far from perfect. However, since it is not possible for us to verify this information for every mouza of the sub-division we have no other way than to select our sample villages on the basis of this officially collected percentage of irrigated area to the net cultivable area. Three villages having the same percentage of irrigated area to net cultivable area for the whole sub-division have been included in the list of sample villages. A fourth village has been selected where the percentage of irrigated area to the net cultivable area is less than that for the entire sub-division. A fifth village where the percentage is greater than that of the sub-division is also included. These five villages comprise 827 households and 511 farms. Apart from filling in the specially prepared household schedules for each household surveyed in each of the villages, a village schedule has also been filled in for each of the five sample villages.

1.3.3 Fortunately in the State of West Bengal there has been on the whole a fair implementation of a set of land reforms throughout the State. As a result the incidence of some sort of a ruling or central (centre) village being surrounded by subject (periphery) villages is nearly non-existent. At the same time villages are now here never reserved for just one class of productive workers. Our villages are all class villages. There

is hardly any village which is cent per cent labourer's village or cent per cent farmers' village. On the other hand if we have some new technology in one village, the neighbouring villages can hardly stay off from such technologies. So even if the design of our sampling might have been different, peculiarities of the area so well known to us suggest that the results of the study could not have ^ been in any way different.