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A GEOGRAPHICAL STUDY OF THE REFUGEE POPULATION AND SOME OF ITS PROBLEMS

BY

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In the present century during the period following the first world war large scale migrations of population have taken place under the stress of political, racial and religious considerations. There has been expulsion and flight of people on the formation of new states as that of the Arabs from Israel, or changes in the boundaries of the new states as that of the Germans from Czechoslovakia. There has been expulsions of people on racial considerations as that of the Jews from Germany during the Hitler's regime or interchange of population as between Greece and Turkey in 1922-24. There have been a large number of political refugees in Europe as a consequence of World War II, specially in Germany where are found, apart from about 12½ millions expelled Germans, about 1½ million refugees who fled from the Soviet zone into western Germany. The migration of Indian Muslims to Pakistan and that of Hindus, Sikhs and some other non-Muslims to India, consequent on the partition of the sub-continent in 1947, was political-religious and, though on a scale somewhat less than that of the Germans, it took place under conditions much more severe than those in Germany which had much greater resources, national and international at its disposal. Interchange of population between Turkey and Greece of about two million people was spread over a period of about two years, but here taking Punjab alone it was a question of the exchange of about 39,59,000 non-Muslims of West Punjab with 53,90,000 Muslims of East Punjab which meant a movement of more than nine thousand people which was effected within a few weeks. And war in Kashmir which began in October, 1947, forced another two lakh of people to migrate from Kashmir. In addition there were people coming from disturbed areas in U. P. Rajputana States and some other parts of India.

The transfer of population has taken place on a scale much larger than expected, and the bulk of it in too short a period and in a manner which could

not be foreseen. All suggestions before partition of the exchange of population were simply ruled out as quite impracticable. There could therefore be no question of previous planning. The problem arose so suddenly after partition that there was complete chaos, a mass of destitutes moving into Pakistan, struggling for life.

The following table shows the number of Muslims and Non-Muslims in Pakistan according to the census of 1941-51.

TABLE I

| <i>Province and States</i> | <i>Muslims (000s)</i> | | | <i>Non-Muslims (000s)</i> | | |
|--------------------------------------|-----------------------|--------------|--------------|---------------------------|--------------|--------------|
| | <i>1941</i> | <i>1951</i> | <i>Diff.</i> | <i>1941</i> | <i>1951</i> | <i>Diff.</i> |
| West Pakistan. | | | | | | |
| Punjab ... | 11843 | 18393 | | 3959 | 422 | |
| Sind+ ... | 3208 | 4149 | | 1327 | 457 | |
| Karachi ... | | 1078 | | | 45 | |
| N.W.F.P. ... | 2788 | 3217 | | 250 | 6 | |
| Baluchistan ... | 438 | 594 | | 63 | 8 | |
| Total Provinces ... | 18277 | 27431 | | 5599 | 938 | |
| East Pakistan. | | | | | | |
| Bahawalpur ... | 1099 | 10808 | | 242 | 14 | |
| Khairpur ... | 254 | 309 | | 52 | 10 | |
| N.W.F.P. Agencies ... | 2350 | 2641 | | 28 | 1 | |
| Baluchistan States ... | 346 | 543 | | 10 | 9 | |
| Total States and agencies ... | 4090 | 14301 | | 322 | 34 | |
| Total West Pakistan ... | 22326 | 32732 | | 5930 | 972 | |
| East Pakistan. | | | | | | |
| East Bengal ... | 27691 | 32227 | 4536 | 11421 | 9705 | 1716 |
| Sylhet ... | 1690 | | | 1043 | | |
| Total East Pakistan ... | 29381 | 32227 | 2846 | 12464 | 9705 | 2759 |
| Grand Total .. | 51707 | 64959 | | 18395 | 10677 | |

TABLE II

Proportion of Muhajir Population in Total Population.

| <i>Province and State</i> | <i>Population (1000)s</i> | <i>Muhajirs (1000)s</i> | <i>Percentage of Muhajirs.</i> |
|-----------------------------|-------------------------------|-----------------------------|------------------------------------|
| Pakistan | ... 73,880 | 7,226 | 9.8 |
| Baluchistan and State Union | ... 1,154 | 28 | 2.4 |
| Districts | ... 602 | 28 | 4.7 |
| States Union | ... 551 | ... | ... |
| East Bengal | ... 41,932 | 699 | 1.7 |
| Federal Area Karachi | ... 1,122 | 617 | 55.0 |
| N.W.F.P. | ... 3,222 | 51 | 1.6 |
| Panjab and Bahawalpur | ... 20,636 | 5,281 | 25.6 |
| Districts | ... 18,814 | 4,908 | 26.1 |
| Bahawalpur State | ... 1,822 | 372 | 20.4 |
| Sind and Khairpur State | ... 4,925 | 550 | 11.2 |
| Districts | ... 4,665 | 540 | 11.7 |
| Khairpur State | ... 319 | 10 | 3.1 |
| West Pakistan | ... 31,948 | 6,527 | 20.4 |

A comparative study of these figures in tables I and II shows that there were approximately 59,30,000 (20 %) non-Muslims in 1941, in the area now contained in West Pakistan. The total number of non-Muslims in 1951 was 9,72,000. Neglecting the natural increase or decrease of population, it implies that between 1941 and 1951 there has been a decrease of about 49,58,000 non-Muslims in West Pakistan against an influx of 65,27,000 Muhajirs an addition of about 15,69,000 more Muhajirs in West Pakistan than the non-Muslims evacuees.

In the case of East Pakistan the non-Muslim population shows a decrease of 27,59,000 between 1941 and 1951, while the number of refugees enumerated in 1951 is 6,99,000 or 20,60,000 less. This shows that East Bengal with less opportunities of trade and industry and with fewer cities and towns offered less attraction to Muhajir immigrants from West Bengal, Bihar and Assam than West Pakistan to the people of U.P. and other parts of India.

The figures of Muhajirs, as given in the Census of 1951, do not give a correct picture of the people who actually migrated to Pakistan. There were frightful mass acres and a number of unfortunate ones perished in the way or died soon after crossing the border.

The refugee influx still continues through Khokhrapar in a smaller or greater degree. The number fluctuates according to political conditions and communal disturbances in India. It has been estimated that since Liaquat-Nehru pact till the end of October, 1954, 5,17,238 Muslims migrated to Pakistan from India Via Khokhrapar, the largest number being from U. P., Rajasthan and Hyderabad.

Quite a good number of Muslims in Bharat have been forced to migrate to Pakistan partly because of their political ideologies or past association with the Muslim League. In many parts opportunities have been denied to them for a decent living and there was the cultural and linguistic difference fast coming into relief after the partition. There has not only been a sense of insecurity but also a realisation of the position that at best they could be third rate unwelcome residents amidst an embittered population. Of course many of the immigrants from outside "agreed areas" are those who saw in Pakistan a chance to grow rich and richer. Only a few of those who had large estates or big business came to this side.

The recent abrogation of evacuee property laws by Bharat, though obviously meant to create confidence in the Muslim population and reduce political and communal tension, in fact is likely to create a greater refugee problem of this country. That is likely to induce the Muslim population to migrate to Pakistan after selling their property. It cannot be denied that for many families who have stayed back in India, property has been the main consideration.

The unfairness of the Radcliffe award has to a certain extent added to the refugee problem. Apart from the fact that Muslim majority areas were given to India, the communal balance was not maintained. There are 1,06,77,000 non-muslims in Pakistan against 35.4 million Muslims which are left in India. As religion was the main basis of partition, if all the Muslims could be not transferred, Pakistan should have been given so much territory as contained non-muslims equal in number with the Muslim which remained in India. This would make the voluntary exchange of population and their rehabilitation so easy.

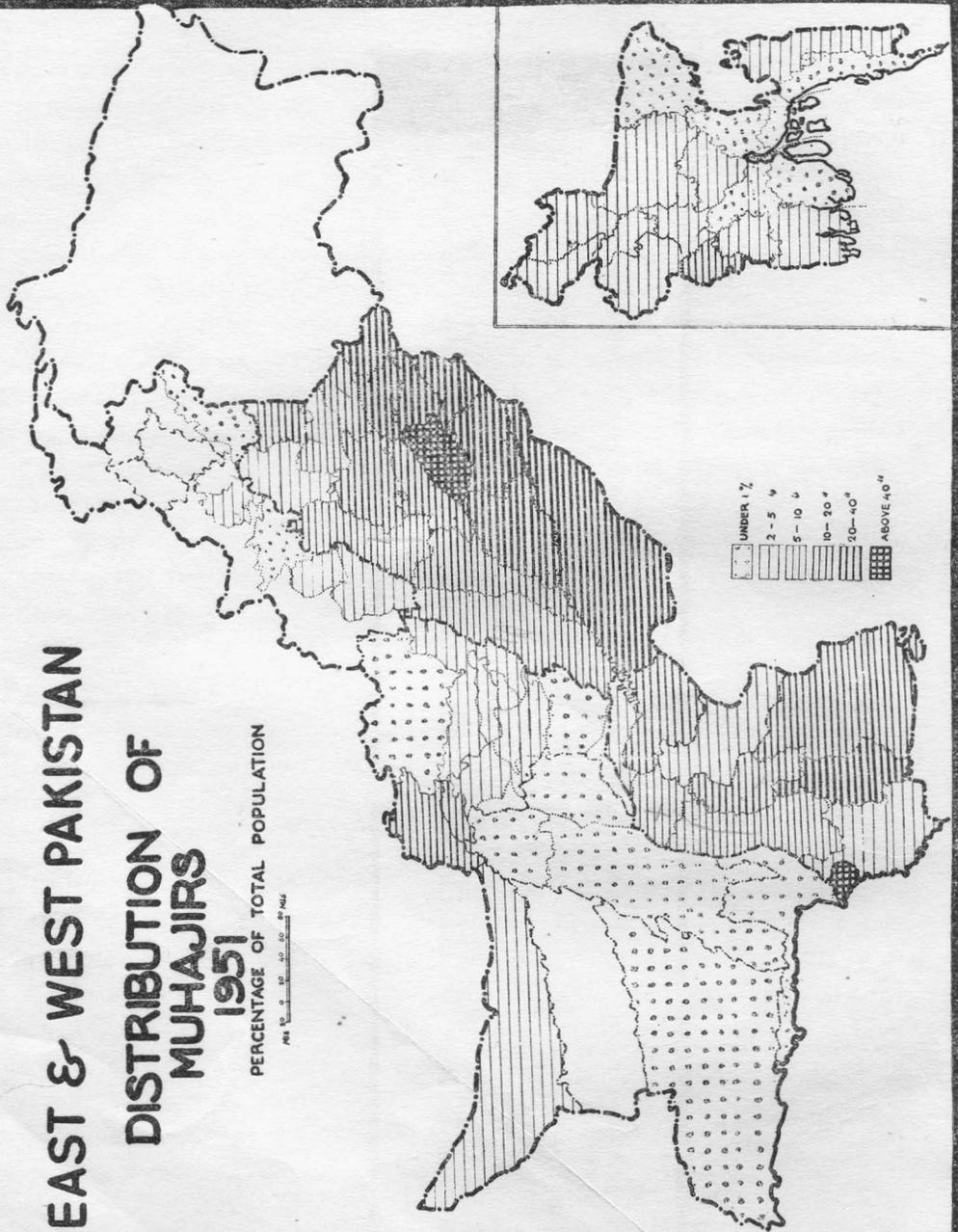
The award has affected the refugee problem in another way as well. It ignored Geography in the drawing of the boundary line. Bari Doab which is one geographical unit, and has long been developed as such with a unified system of irrigation, was cut into two. The head and the body fell in two different countries, thereby creating the problem of water supply and making the rehabilitation of refugees more difficult. The river Sutlej now wraps round

EAST & WEST PAKISTAN

DISTRIBUTION OF MUHAJIRS 1951

PERCENTAGE OF TOTAL POPULATION

0% 5% 10% 20% 40%



the Indo-Pak boundary, entering and leaving it several times. If, from the point of junction of the Sutlej with the Beas to where it enters Bahawalpur, the boundary line ran along the middle of the river, there might have been no shortage of water in the canals of the Sutlej Valley Project on our side.

Distribution of Refugee

The distribution of the Muhajir population in the two wings is shown in the map. Their distribution in Pakistan has been governed by a variety of factors (i) distance from the common frontier between Pakistan and Bharat from which the refugees came (ii) Rail and road lines between Pakistan and the neighbouring parts of Bharat (iii) the availability of houses (iv) the productivity of agriculture lands (v) opportunities for trade and industry (vi) the number of non-muslim evacuees and (vii) the attitude of the local population. The unequal distribution of Muhajirs has also been partly due to the lack of co-ordination and planning. In West Pakistan the area of the highest concentration is east of the Jhelum, Chenab-Sutlej line. This is nearest to East Panjab and was well connected with rail and road. It contains a large area of fertile irrigated land. It had also a larger number of townships than in the rest of West Pakistan, with corresponding facilities in housing, accommodation and trade. The mode of life of the local population was also almost similar to that of the refugee immigrants and they were better treated. It is estimated that about 48% of the total Muhajir population of Pakistan have settled in this area.

The Federal Capital area of Karachi had in 1951, a Muhajir population of 616,906 which is 55% of a total of 1122406, the highest percentage in Pakistan. This is in the main due to the fact that it is the seat of the federal Government with opportunities for trade and industry and employment in offices and foreign and local establishments.

In Sind out of the total Muhajir population of 540278 Hyderabad City has a refugee population of 159805 and the district 205641. This works out to be 29% and 38% respectively. Hyderabad was directly connected by rail *via* Khokhrapar to Delhi. The District is well irrigated by the canals of the Sukkur Barrage. Nawabshah (93345), Sukkur (92739) and Tharparkar stand next to Hyderabad in the refugee population. They are also irrigated by these canals. The district of Tharparkar has 88765 Muhajirs. But by far the larger portion of the district being desert they have settled in the canal lands.

The number of Muhajirs gradually dwindles away towards the far west so much so that in Baluchistan and N.W.F.P. both their number and percentage is very low. Baluchistan has only 27,988 Muhajirs which is 2.4% of the total

population while N.W.F.P. has only 51,126 Muhajirs which is 1.6% of the total population. This is not only due to their distant position and lack of means of communication but also to the paucity of economic opportunities and the difference in the culture of the local and Muhajir population. The non-Muslim population of these provinces was also small, but only a fraction of the non-Muslim evacuees have been replaced by the Muhajirs as shown by the following table.

TABLE III

| <i>Province</i> | <i>Non-Muslims 1941</i> | <i>Non-Muslims 1951</i> | <i>Diff.</i> | <i>Muhajir 1951</i> |
|----------------------|-----------------------------|-----------------------------|--------------|-------------------------|
| Baluchistan | 72654 | 17000 | 55654 | 27988 |
| N.W.F.P. (districts) | 249270 | 6000 | 243270 | 51126 |

Muhajir figures for frontier regions not available.

In East Bengal the Muhajir population is rather small 6,99,079 out of 4,19,32,329 or only 1.7% of the total population. This is mainly due to the fact that the majority of non-Muslims have stayed on and there was less opportunity to the immigrants. Another reason is that the environment of the province was not agreeable to the Muslim Muhajirs from outside West Bengal, Bihar and Assam. Between 1941 and 1951, there has been a decrease of only 27,59,000 in non-Muslim population. The Muhajirs therefore represent only 25.3% of the decrease in non-Muslim population. A larger number of Muhajirs have settled in the western border districts Kushtia accommodates the highest number (137321) as well as the highest percentage in East Pakistan (15.51). Formerly it was a Tehsil of the Krishanagar district half of which has gone to Bharat. It therefore appears that quite a large number of the old district have receded into this Pakistani section of the district. Outside Kushtia the percentage of Muhajirs varies from .06% of the Bakarganj district to 3.44 percent of the Rajshahi, a border district.

Urban Ratio.

The percentage of Muhajir population in the urban areas is given in the map. It covers cities and only those towns the population of which is given in the census of 1951. These urban settlements where there are no muhajirs have been left out in this map. It will be seen that the Muhajirs constitute a great percentage of the urban population in the Federal Capital of Karachi, Punjab, and Sind. They have not only replaced the non-Muslim minority which formed a good proportion of the urban population but have also settled in still greater numbers. These areas were nearest to the migrants from India

and Hindus had left large urban property. The more prosperous towns and cities of fertile irrigated tracts, with a dense net of communications, show a much high percentage.

Even in Baluchistan and N.W.F.P. the percentage of the Muhajir population to the total population in Peshawar and other towns is much higher than that of the province as a whole. In Quetta the percentage of Muhajir population is 22.42. The town of Dera Ismail Khan in N.W.F.P. has a Muhajir population 17.29 percent. Bannu and Abbottabad each have more than 12% Peshawar has 9.4 percent and Kohat and Mardan more than 4% each. The percentage of Muhajirs in these towns is, however, much less than the percentage of non-Muslims in the prepartition days. A good number of the houses of Evacuee non-Muslims have either been damaged so as to become uninhabitable or have been occupied by the locals.

It is interesting to note that in the cantonments of Risalpur Nowshera and Cherat the percentage of Muhajir population rises to 14.4%, 24.2% and 26.6%, respectively. The chief attraction to these towns appears to be the feeling of protection and safety.

The towns and cities, the Muhajir population of which is more than 60 % are given below :—

Punjab :—

| | | |
|--------------|-----|------|
| Nankana | ... | 68 % |
| Lyallpur | ... | 68 % |
| Jhang | ... | 62 % |
| Chak Jhumra | ... | 62 % |
| Jaranwala | ... | 69 % |
| Samundri | ... | 71 % |
| Tobateksingh | ... | 66 % |
| Gujra | ... | 65 % |
| Montgomery | ... | 62 % |
| Chichawatni | ... | 66 % |
| Okara | ... | 68 % |
| Arifwala | ... | 72 % |
| Khanewal | ... | 64 % |
| Tulamba | ... | 62 % |
| Mailsi town | ... | 68 % |
| Addu | ... | 62 % |
| Sargodha | ... | 69 % |
| Sillanwali | ... | 71 % |

Bahawalpur :—

| | | |
|--------------|-----|------|
| Bahawalnagar | ... | 72 % |
| Sadiqqanj | ... | 64 % |

Sind :—

| | | |
|-------------|-----|------|
| Hyderabad | ... | 66 % |
| Tando Adam | ... | 61 % |
| Mirpur Khas | ... | 67 % |

Thus the towns, Arifwala (district Montgomery) and Bahawalnagar have the highest percentage of Muhajir population (72 %) each. Amongst the cities Hyderabad has 66 % and Karachi 61 %. The reason for higher percentage of Muhajir population in Hyderabad and Karachi have already been explained above.

In East Pakistan again the highest percentage of the Muhajirs is found in the border districts, Barbatipur (Distt. Dinajpur) and Saidpur town (Distt. Rangpur) have the highest percentage 62 % and 63 % respectively. The former is a railway junction and the latter has a big railway colony. Dacca has only 2 % and Chittagong 11 % Muhajirs.

Economic Status.

The following table shows the distribution of Muhajir population according to economic status :—

TABLE IV

| Province and State. | Total. | Self-supporting | | | Dependants. | |
|----------------------------------|-----------|---------------------------|-----------|---------------------|-------------------|----------------------|
| | | Civilian labour force. | | Not in civ. Lab. | Under 12 Years | 12 Years and over |
| | | Agricultural ¹ | Non-agri. | | | |
| ALL PERSONS | | | | | | |
| Pakistan ... | 72,26,584 | 13,01,324 | 11,08,998 | 64,915 | 21,14,429 | 26,36,918 |
| Baluchistan and States Union ... | 27,988 | 1,251 | 8,943 | 3,010 | 5,852 | 8,932 |
| Districts ... | 27,610 | 1,241 | 8,797 | 3,005 | 5,762 | 8,805 |
| States Union ... | 378 | 10 | 146 | 5 | 90 | 127 |
| East Bengal ... | 6,99,079 | 1,09,386 | 1,00,918 | 3,246 | 2,24,894 | 2,60,615 |
| Federal Capital Area Karachi ... | 6,16,906 | 1,790 | 2,17,733 | 5,369 | 1,54,758 | 2,37,256 |
| N. W. F. P. ... | 51,126 | 7,838 | 7,693 | 4,360 | 12,964 | 18,271 |
| Punjab and Bahawalpur State ... | 52,81,194 | 11,22,782 | 6,43,591 | 45,438 | 15,66,812 | 19,02,571 |
| Districts ... | 49,08,328 | 10,42,301 | 5,92,622 | 43,218 | 14,56,621 | 17,73,566 |
| Bahawalpur State ... | 3,72,866 | 80,481 | 50,969 | 2,220 | 1,10,191 | 1,29,005 |
| Sind and Khairpur State ... | 5,50,291 | 58,277 | 1,30,120 | 3,472 | 1,49,149 | 2,09,273 |
| Districts ... | 5,40,278 | 57,215 | 1,28,279 | 3,259 | 1,46,256 | 2,05,269 |
| Khairpur State ... | 10,013 | 1,062 | 1,841 | 213 | 2,893 | 4,004 |

Dependents.

Throughout West and East Pakistan and practically in each district the dependents constitute about two thirds of the population. In West Pakistan the percentage of the dependents is lowest in the district of Quetta. This appears to be due to very low population of females to males (only 51%) and the high percentage of persons not in civilian labour force, which includes defence services. In East Pakistan their number is lowest in district of Noakhali which is partly due to a very high percentage of their employment in agricultural labour.

The civilian labour population, constitutes 30.7 % of the total population of Pakistan of which agricultural labour shares 24 % and non-agricultural labour 6.7 % respectively.

The agricultural labour force includes all persons whose usual occupation was cultivation, who were engaged or seeking work in cultivation, stock raising, hunting and game propagation or some other occupation associated with the agricultural industry, but not generally those engaged in forestry and fishing. Non-agricultural civilian labour force includes all self-supporting persons who were engaged in public service (except the armed forces), personal service, trade, commerce, transportation or any industry other than agriculture but including forestry and fishing. It also includes persons who sought work in non-agricultural occupation.

TABLE V
Economic Distribution of Total Population.

| | <i>West Pakistan.</i> | | | <i>East Bengal.</i> | | |
|--|-----------------------|-------------|---------------|---------------------|-------------|---------------|
| | <i>Total</i> | <i>Male</i> | <i>Female</i> | <i>Total</i> | <i>Male</i> | <i>Female</i> |
| Population | 100 | 53.9 | 46.1 | 100 | 52.3 | 47.7 |
| Civilian labour force | 30.7 | 29.7 | 1.0 | 30.7 | 28.3 | 2.4 |
| Agricultural | 20.1 | 19.4 | 0.7 | 25.6 | 23.6 | 2.0 |
| Non-Agricultural | 10.6 | 10.3 | 0.3 | 5.1 | 4.7 | 0.4 |
| Self supporting persons not in Civ. labour force | 0.9 | 0.9 | ... | 0.3 | 0.2 | 0.1 |
| Dependents | 64.4 | 23.3 | 45.1 | 69.0 | 23.8 | 45.2 |
| Children under 12 years | 36.2 | 18.6 | 17.2 | 36.3 | 18.7 | 17.6 |
| Persons aged 12 years and above | 32.6 | 4.3 | 27.9 | 32.7 | 5.1 | 27.6 |

TABLE VI

Proportions of Economic Categories among Muhajirs
(Total Muhajirs—100).

| | West Pakistan. | | | East Pakistan. | | |
|--|----------------|------|--------|----------------|------|--------|
| | Total | Male | Female | Total | Male | Female |
| Population ... | 100 | 54.2 | 45.8 | 100 | 54.6 | 45.4 |
| Civilian labour force ... | 30.7 | 33.0 | 0.7 | 30.1 | 29.1 | 0.9 |
| Agricultural ... | 18.3 | 17.8 | 0.5 | 15.7 | 15.2 | 0.5 |
| Non-Agricultural ... | 15.4 | 15.2 | 0.2 | 14.4 | 14.0 | 0.4 |
| Self-supporting not in Civ. labour force ... | 0.9 | 0.9 | ... | 0.5 | 0.4 | 0.1 |
| Dependents ... | 65.4 | 20.3 | 45.1 | 69.4 | 25.0 | 44.4 |
| Children under 12 years ... | 29.0 | 15.2 | 13.8 | 32.2 | 16.7 | 15.5 |
| Persons of 12 years and over ... | 36.4 | 5.1 | 31.3 | 37.2 | 8.3 | 28.9 |

In West Pakistan, 20.1% of population or about one fifth is agricultural, and 10.6 % or about one-tenth is non-agricultural. In East Pakistan Agricultural labour shares 25 % and non-agricultural as 5.1 %. But of Muhajirs 18.3 % are agricultural and 15.4 % non-agricultural in West Pakistan, and 15.7 % agricultural and 14.4 % non-agricultural in East Pakistan. It implies that in both the wings Muhajirs have adopted a higher percentage of non-agricultural occupations than is normal for the area. This percentage is even higher in East Pakistan than in West Pakistan.

In West Pakistan the population of Muhajirs employed in agricultural labour is generally higher in Punjab (about 21 %) and decreases both westwards and Southwards. In N. W. F. P. the percentage as agrarian labour is 15 % and further west in Baluchistan it is to about 4½. In Sind the percentage is 10.

The District of Kohat shows an exceptionally high percentage, 54. This is due to the fact that the total population in that district is very low, 1867, of which 1006 are employed in agriculture. In general it may be said that in districts where the total population of Muhajirs is small their employment in agricultural or non-agricultural labour is quite variable.

In East Pakistan the proportion of Muhajirs in agricultural labour is 15.64 %. This percentage rises to 32 in Chittagong hill Tract and 44 in Noakhali, in which the total number of Muhajirs is only 1279 and 1146 respectively. In the districts of Bakerganj, Faridpur and Dacca the percentage is 6.6, 8.23 and 3.6 only.

Of the Muhajirs employed in non-agricultural labour in West Pakistan there is comparatively less variation with the same power but it differs from province to province, the percentage being 12.7 in Punjab, 15 in N.W.F.P. 23.47 in Sind and 32 in Baluchistan. It is comparatively higher in those parts where the percentage of agricultural labour is less.

In East Pakistan the percentage of non-agricultural labour is 14.3, but there is a great variation districts. Here again the percentage is higher where agricultural percentage is lower. The highest percentage is in the districts of Chittagong 34 and Dacca, 33, both of which have important industrial and commercial opportunities.

The category, not in civilian labour force, includes the members of defence services, and the several classes of self supporting persons who are regarded as economically inactive including retired persons, pensioners, students (partly or wholly self-supporting). Land owners other than those engaged in cultivation, service or industry, inmates of hospitals, asylums and jails who did not profess any occupation, beggars vagarants etc.

The Muhajirs, not in civilian labour force, are found only in a few districts, the percentage being highest in Quetta and Peshawar. It means that most of the military personal which opted for Pakistan is stationed in the cantonments of these two districts.

Sex Ratio.

The following table gives the proportion of males and females in the Muhajir population.

TABLE VII

Proportion of Muhajirs in population.

| <i>Province and State.</i> | <i>Males per Total</i> | <i>1000 females Muhajirs.</i> |
|------------------------------|----------------------------|-----------------------------------|
| Pakistan | 1,127 | 1,187 |
| Baluchistan and State Union | 1,215 | 1,800 |
| Districts | 1,239 | 1,300 |
| States Union | 1,139 | ... |
| East Bengal | 1,097 | 1,205 |
| Federal Capital area Karachi | 1,342 | 1,320 |
| N.W.F.P. | 1,117 | 1,429 |
| Punjab and Bahawalpur State | 1,152 | 1,167 |
| Districts | 1,149 | 1,164 |
| Bahawalpur State | 1,188 | 1,207 |
| Sind and Khairpur State | 1,220 | 1,165 |
| Districts | 1,218 | 1,169 |
| Khairpur State | 1,246 | 1,133 |

It shows that male immigrants exceed the females in all areas from 133 per thousand in Khairpur, 429 per thousand in N. W. F. P. to 800 per thousand in Baluchistan States Union. The more daring of them, without the encumbrance of a wife have gone to the last two distant provinces. Part of this higher male proportion may be due to the military population in these provinces. The ratio of male to the female in respect of Muhajirs is generally higher than that of the local population. It has therefore served to accentuate the already existing disparity between the sex ratio.

Rehabilitation.

One of the most difficult problems which Pakistan has had to face since partition is that of refugee rehabilitation. It is not easy to appreciate the enormous difficulties which were created by the arrival of these Muhajirs both for the Central and for Provincial and State Governments of Pakistan. They had to be provided with food, clothing and shelter in a country which had little industrial and financial resources to meet them. A large number of them were accommodated in camps before they were fully settled. About 30,000 Kashmir Muhajirs are still lying in camps and are being fed by the Government.

The influx of these Muhajirs has not been to invasion or conquest, it has been a movement partly voluntary but mainly under the compulsion of circumstances, undertaken not only for political freedom but also for economic, social and religious emancipation. Most of the migrant have been pushed and not pulled. The immigration has been mainly of groups and the best method of their rehabilitation was in homogeneous units. But except in a few cases that could not be done on account of disturbed conditions.

The fundamental problems of their rehabilitation are (i) gainful employment and (ii) housing accommodation. The former is linked up with the general economic development including agriculture and industry. Though quite a good progress has been made in both these fields as a result of semi-industrial or, one should say, "Agro-industrial" policy of the present Government to make the country self-sufficient as far as possible, it is not sufficient to meet the vast demand for employment both from the Muhajirs and locals. Agriculture has so far been the main avenue of gainful employment but the pressure of population on soil is already very great. Pakistan inherited 3,65,907 square miles but of it only about 7,72,001 square miles or one-fourth, are cultivated. On the basis of the average area under foodgrains for the terinium 1946-47—1948-49 per capital acreage works out to be .49 acres for the whole Pakistan and .51 and .48 for West and East Pakistan respectively. The shortage of food during 1952-53 emphasises the precariousness of the demographic balance. If the

Muhajirs continue to trickle through Khokrapar, the balance may be further disturbed. The Muhajir farmers, when they came had no agricultural implements and few animals. A large number of them came from Barani or rain-fed areas but settled on irrigated lands. Lacking experience they could not be very successful in such areas. Though they gained personally it must have caused a decrease in production.

Under the circumstances agriculture is one of those few subjects which needs particular attention both from the point of Muhajir rehabilitation and general economic progress.

Its development can take place partly in the direction of intensive farming which means more fertilizers and greater capital. Muhajirs generally possessing very limited means, it could only be done on a national scale. But new lands could also be brought under cultivation. Pakistan possesses 23.6 million acres of culturable waste. The bulk of it could be cultivated. This is seriously engaging the attention of the govt. Effort is being made to settle Muhajirs on such lands with suitable conditions to increase production. These culturable wastes have been granted to Muhajirs in Thal and other parts which are being developed as a result of the construction of new canals. Co-operative farming on Crown Lands was started in 1948 in Thal and other areas like Multan, Montgomery and Lyallpur for the rehabilitation of landless Muhajir tenants. The Co-operative farming societies, so formed, have helped poor Muhajirs to pool their resources for common good. There are large areas of vacant lands in Baluchistan which could absorb a large number of Muhajirs if water could be available. For that a thorough and extensive survey of under-ground water resources is necessary.

As regards the employment of the Muhajirs in commerce and industry they had a great opportunity in both of these professions, as they were mainly in the hands of the non-muslim emigrants who were also mostly the owners of the markets and of the few factories which lay in Pakistan. These factories were mostly allotted to refugees. They, however, made a very bad job of it. A large number of the refugee allottee did not know the work and tricks of the trade. Very few of them had the experience and requisite skill to run the factories and they did not try to commission them by the employment of suitable staff. On the other hand many of them sold away the machines and their parts to maintain themselves. The buildings of the factories were damaged. The rehabilitation was further handicaped by the paucity of raw

materials, shortage of capital and power. Provisional, temporary and short-term allotment of evacuee factories has given only a temporary relief and has neither solved the Muhajir problem nor that of the industry. Such allottees, who do not consider themselves permanently settled, are anxious to derive maximum benefit out of the concerns even though it may cause damage to them.

Even in the case of small scale industries the vacuum created by the emigrant non-muslims was not properly filled. The artisans were there and more of them came from Bharat. But there were few investors in industry. There was no money-lending class on which, good or bad, both the agricultural and small scale economy was based. Things are however, fast changing for the better. The pace of industrialisation has considerably increased and new factories are rapidly growing through Government encouragement, and economic and technical add of friendly powers. Shortage of coal is being met by the development of Hydroelectricity and thermal power, and Co-operative banks have taken the place of money-lenders.

It is not so much in large factories as in small establishments and cottage industries where the refugees could get opportunities of work to earn their living. Unfortunately many skilled artisans and craftsman who came to this country had to take to other occupations for want of capital and opportunity. In some cases they found their new employment more lucrative than their old craft and they are permanently settled in that work. For example the Woolweavers of Khem Karan, Arifwala and Montgomery discontinued their old craft in the respective area because trade in general commodities was found very profitable. But the refugees needed settlement in their own work. For this purpose, the Pakistan Muhajir rehabilitation Finance Corporation was established in March, 1948. It gives loan to Muhajir shopkeepers, cottage industry workers, artisans and agriculturists whether acting individually or with a co-operative society. It has helped homogeneous groups of refugee artisans to form limited companies and to settle them in industrial colonies set up by it. It has provided raw material to Muhajir artisans at cheap rates. It has supplied sewing machines to Muhajir women. These steps have been instrumental in rehabilitating a number of disorganised industries.

The corporation has also established industrial colonies in Multan (hand-loom weavers) Gujranwala (utensils), Shikarpur (Moradabadi brass utensils and leather works), Hyderabad (zari) Bholari (carpet and glue) and Karachi (Weavers etc.).

It has its branches in various provinces. The provincial governments are also giving all possible help partly out of their own resources and partly from

the share they received from the refugee tax and Qaid-e-Azam Relief Fund. As cotton and wool are two important industrial materials in Punjab, there is an important Muhajir weavers colony established at Lyallpur. They are producing cloth superior to that of Azamgarh and Bhagalpur. A wool-weaver's colony has been established in Jhang. Here the blanket weavers of Panipat have been settled in one group of about 1000 workers including about 600 families. About 16 miles from Karachi an Artisan Colony has been established at Landhi for Muhajir workers in metal, wool, leather and textiles. The N. W. F. P. Branch of the Corporation has established industrial colonies in suitable localities for a variety of industries. In East Bengal refugee artisans colonies have been established at Comila and Aminabad (Dacca).

Excepting in a few cases there has been a wasteful disposal of artisans, due to the lack of collective opportunities. This can be still mended by the formation, with substantial financial help and residential facilities, of small Cooperative Muhajir artisans societies for various industries. This is bound to help not only in the consolidation of various artisans groups but also in bringing together a team of worker engaged in the work of supplementary nature. This will mean better production, better marketing and general improvement of the condition of the artisan class.

The second great problem of rehabilitation is to provide housing accommodation. It has been estimated that of the total number of Muhajirs who have come to Pakistan nearly 30% represent the urban class. This percentage is slowly increasing. The majority as of those who have been coming through Khokrapar, belong to the Urban areas. Nearly all the bigger towns suffer from acute shortage of houses. Refugee Colonies have been built and planned but they have now been able to cope fully with the problem. Families have been huddled together in houses much beyond their capacity. The continued influx disturbs and dislocates the various schemes of rehabilitation and in a city like Karachi some new schemes become necessary before the old ones are complete. Lack of permanent allotment of evacuee houses and vacant Urban lands has further aggravated the problem. Many old houses have gone out of use for want of adequate repair and so many of them have been severely damaged by rains and floods. The refugees cannot invest any money on new construction in these houses and lands till they are permanently allotted to them.

Refugee Colonies.

The housing problem of the refugees has been solved to a certain extent by (i) making extensions to existing towns and cities including colonies and (ii) establishing new townships in places where employment is likely to be created

to support an Urban population. The work of construction has been slow for lack of building material and equipment and it has not been able to cope with the demand. A House Building Finance Corporation has been formed to advance loans for construction of houses on easy terms. Provincial Governments have formulated schemes for setting up satellite towns, portions of which are allocated to Muhajirs. The largest number of Muhajir colonies have grown in Karachi which had to house the largest number of urban Muhajirs. And still the housing problem is most acute as it is the main target of the new immigrants.

The main Muhajir colonies at Karachi include Nazimabad colony, Aurangabad colony, Lalu Khet colony, Drigh Village colony, Landhi artisans colony, Pakistan employees cooperative housing Society Ltd., Pir Ilahi Bakhsh Colony No. II, Bihar colony, Modern Muhajir colony, Razia Cooperative Housing Society, Hyderabad colony, Malir Colony, Drigh Road colony, Saudabad colony. Some of them are quite self sufficient with amenities such as public buildings, shops, markets, cinemas, dispensaries, maternity homes, schools. There is even a college in Nazimabad. Houses have been built by (i) Muhajirs themselves (ii) by the Government and Societies and other organisations on hire-purchase system or to let on small rents.

In Sind satellite towns are being built at Shah Latif Abad (Hyderabad), Mirpur Khas, and Nawabshah. In Punjab, Lahore, not only the capital of the province but also the seat of learning and culture, was a great attraction to Muhajirs. Here several colonies have been developed including Samanabad, Shahalmi Colony, Shad Bagh Muhajir colony, and Rifle range Refugee colony and Gulberg refugee colony. The last is one of the finest new townships in Pakistan.

Outside Lahore new Satellite towns are being built at Rawalpindi, Sialkot, Sargodha, Jhang, Lyallpur, Multan, Montgomery, Gujranwala, New townships of Jauharabad, Qaidabad and Liaqatabad have grown in the Thal area. Satellite towns are being built at Bahawalpur and Khairpur.

In East Bengal also there are some Muhajir colonies Aminabad (Dacca) Muhajir colony, Katchandpur Refugee colony, Puratan Qasba Refugee colony, Alampur Refugee colony, Jessore Ramnagar Refugee colony, Jessore, Baradi colony, Kushtia, Jhum Jhumpur refugee colony, Begnagar colony, Kushtia, Dasmal colony, Chandargan, Refugee artisan colony Commilla.

These Muhajir colonies and the new satellite towns provide only a partial relief. Hundreds and thousands of them are living in very congested conditions

and many have just a roof over them. The financial position of the refugees is very poor, and even if the evacuee urban lands are allotted to them. The housing problem cannot be properly solved unless their economic condition is improved or the construction is carried out on a national scale on a hire-purchase system.

It will be seen that this country has been faced with a stupendous problem. Limited as the resources are, both the Central and Provincial Governments are trying to solve it. But more drastic steps are indicated. The Muhajirs should be integrated into the society and economy of the country as soon as possible with free and equal opportunities. They should be properly compensated for the losses they have suffered. There should be equalisation of burden. Their rehabilitation is both a national and international problem and should be earnestly taken up at both these levels. All those who are able to pay should be made to contribute towards their quick and permanent settlement, so that the distinction between Muhajirs and non-Muhajirs be soon abolished. Continuance of this distinction shall stand in the way of national solidarity towards which we are now so actively trying.

At the international level our relations with Bharat need reorientation such that the influx of refugees is stopped and the question of evacuee property is finally settled without delay. The international Refugee Organisation should be approached for such help as may be possible.

LAND USE SURVEY OF CHUNIAN

(Distt. Lahore).

BY

Dr. Miss M. K. ELAHI. MY BEST TEACHER *ref*

In the south western part of Lahore district (Bari Doab) just where the old bed of Beas and Manjha uplands meet is the tehsil head quarters of Chunian of the same name. It is in the Bet-Bangar assessment circle formerly known as Hithar Utar assessment circle, and covers an area of 24.4 square miles. Being in the transition zone, partly comprised of Manjha land and partly of Hithar tract or old bed of Beas, it presents great contrasts though apparently the entire area is almost flat devoid of much relief. The dividing line is a high bank which forms the northern most extension of Beas when it used to flow in a separate channel through Lahore district.

Of the entire area under survey about $\frac{3}{5}$ is Manjha upland while the rest lies in the lowlying tract south of the high bank. Chunian settlement which happens to be one of the oldest in the district is on the high bank itself. The proximity of houses to the bank shows how reluctantly the people used to move back to the nearest unoccupied land as the river (Beas) encroached.

Manjha uplands are comprised of fertile loamy soil of varying thickness in different parts. It becomes drier in the west near Chunian than the Kasur Manjha and at places attains a reddish hue, but it nowhere becomes stiff for the ordinary plough. Chunian Manjha which is a continuation of Khara Kanjha of Kasur suffers from brakish underground water. Agriculture prior to the extension of upper Bari Doab canal was precarious. Very small percentage of land was under cultivation due to the brakish underground water while the amount of rainfall which is about 14" annually was insufficient for fair harvests. Conditions have rapidly changed since the importation of canal water and the value and fertility of the land have increased tenfold. Quality of water is also said to have improved a little though still no well—irrigation is yet in practice in Manjha area in spite of the high water table between 20-25'.

The Hithar tract lying below the bank, presents a varied relief. Though almost flat in appearance it is intersected with nallahs and lowlying depressions showing traces of old bed of Beas and its branches. Mostly the tract is built

of old alluvium and is remarkable for sudden changes of soil. Clay loam and sand follow in rapid succession and at places cultivation and waste are mixed in an extraordinary way, the latter is usually overgrown with river jungle or reed which serve as poor pastureland.

Most of the Banjar area lies in the Hithar tract in the west along the high bank where the alkali afflorescence and water seepage from below have rendered the land unfit for cultivation. Occasionally one comes across a highly Kallarathi tract or a salt—pan either covered with saline vegetation 'Lunak' or absolutely devoid of any overgrowth. Such salt pans and semi marshy tracts are found where Dingi Nala and Nili which are remnants of Ox-bow formations of Beas cross the Hithar land. The land immediately above and below the bank has also in many parts been rendered completely sterile under the erosive action of surface drainage which sweeps away the upper soil as it pours over the bank. The wells immediately below the bank are brine due to percolation of saline water.

Cultivated area of Hithar is served mainly by Chunian Distributary of Dipalpur canal while numerous wells in the central and eastern parts supplement the canal water supply. Generally the Water in the wells is plentiful and sweet. It is this part of Chunian that is more intensively cultivated than the Manjha uplands.

Climatically the area suffers from no handicap except insufficient rainfall which too has been overcome with the aid of irrigation. Minimum temperatures during winter always remain above freezing point—a condition which guarantees a fairly good winter harvest. During summers heat is rather discomforting but never too intense to stop the agricultural activities.

Rainfall received during the year is about 14", of which two third falls between July-September, while during the three winter months from December to February it usually remains under 2".

Insufficient and variable rainfall had always resulted in precarious agriculture before the development of irrigation system. Present day cultivation is almost free from the effects of meagre and unreliable rainfall because of abundant water supply from canals and wells.

Distribution of land.

Generally speaking, Chunian is in one of the most fertile tracts of Punjab, and most of the good orable land has already brought under cultivation.

Out of the total area of 15,641 acres (24.4 square miles) about 66% is

cultivated and about 11% is classed as impossible for cultivation. Only about 19% is wasteland that is mostly used as pastureland while 4% of the total area is rendered Sterile on account of Kallar. The area that serves as poor pastureland is mostly in Hithar where though the water supply is plentiful, soil is too alkali for profitable cultivation.

As it has been mentioned before, the amount of rainfall received during the year is meagre and uncertain, consequently there is very little 'Barani' land, Only 2.8% of the total cultivated acreage depends on rainfall while all the rest is irrigated.

On the average more than two third of the total cultivated area is sown, (6606 acres) the rest being left fallow. Slight variations in the sown acreage from year to year are only related to the amount of irrigation water supplied by canals. Extent of fallow in 1951-52 was 4,189 acres much above the average which is accounted for by the shortage of water supply from Sutlej inundation canals. Violent fluctuations are, however, absent as usually the water supply is fairly dependable.

The cropped area of the village is fairly well distributed over Rabi and Kharif, and inspite of the fact that about 97.2% of the total cropped area is irrigated, Rabi crops occupy a slightly larger acreage than Kharif (4791 and 4346 acres Respectively). Only under abnormal circumstances the order is reversed as in 1953—Rabi of that year was short of Kharif by about 1,000 acres, (4701 Kharif and 2546 Rabi). The main reason being shortage of water supply during the later half of 1952, at the time of Rabi sowings, which reduced the Rabi acreage to 2,546 from a normal average of 4,346 acres.

The extent of double-cropped area on the average amounts to about 2,531 acres which is roughly 27% of the total sown, The considerable amount of double-cropped acreage is particularly due to the plentiful water supply and general fertility of the soil. Plentiful use of manure ensures two harvests a year without the exhaustion of soil.

A careful study of the statistics shows that much of the land is still used for the cultivation of food crops, keeping in line with general pattern of land use in Pakistan, and almost all the countries in backward stage of agricultural development. About 4022 acres are put under all food grains, which form 45% of the total cultivated area, most of the food grains (75%) are produced in Rabi (winter) and occupy 71% of the Rabi acreage while only 25% of the food crops are given place in Kharif. Cash crops like cotton and sugarcane only share about 21% of the total cropped area but occupy 46% of Kharif acreage.

About two— third of these crops namely cotton and sugarcane are treated as annual crops remaining in the ground for 7-9 months. Fodder crops occupy a very important position as they occupy about 24% of the total cropped and form a part of the crop rotation. The acreage under fodder crops is almost equally distributed over Rabi and Kharif. About 10% of the land is put under miscellaneous crops of which vegetables, lentils and oil seeds occupy a major proportion.

Rabi Crops.

Important Rabi crop are Wheat, Barley, Grams and other mixed small grains (گوجی and بیجڑہ). *Wheat* is by far the most important from the point of view of acreage as well as production. It occupies the largest acreage, amounting to 1,958 acres which constitutes 22% of the total cropped area and 45% of the Rabi acreage. It covers about half of the total area under food grains and is the mainstay of the people.

The distribution of wheat in Chunian does not follow any particular pattern. It is fairly well distributed all over the Manjha as well as the Hithar tracts as it is least susceptible to slight to variations of soil present in this area. In the Manjha tracts more than half of the area under wheat is single cropped, wheat sown in winter, while during summers occasionally some fodder crops are grown, for the rest the land lies fallow. About two fifth of wheat is sown in double cropped land with cotton during summers or very rarely with sugarcane or maize. In the Hithar area about one third of it is grown on double cropped land where Rice, Maize or sugarcane are cultivated on the same land during Kharif. In the extreme south western parts of Chunian wheat becomes less important as the more saline soils are not favourable for its growth.

Most of the wheat lands are irrigated, only about 5% of its acreage depends on winter rains. Insufficient rainfall of under 2", allows only a poor harvest and barani wheat lands are never double cropped. A major proportion of wheat acreage about 1,215 acres, is irrigated by canals and about 549 acres are irrigated by wells. A very small acreage is irrigated both by canals and wells together.

In spite of a high percentage of irrigated wheat acreage, the area under this crop shows considerable fluctuations in some years. The variation in the last five years has been from 1,159 to 2984 acres in 1953 and 1954 respectively. This could easily be accounted for due to the shortage of water supply in canals

chiefly in Suttlej inundation canal in 1952 which lead to a curtailment in Rabi acreage. In 1954 the acreage under wheat registered a considerable increase of about 1,000 acres above the average.

Most of the wheat is an improved heavy yeilding variety known as Farmi Wheat. Only 15-acres are put under Desi verity. Yields of wheat vary from 12-13 maunds per acre on irrigated land, while it is reduced to 5-6 maunds on barani land and that too (a bad second) is uncertain due to the variability of winter rainfall.

Bajrah.

Occupies about 621 acres amounting to 13% of Rabi acreage. It is a form of mixed crop, grams and wheat being the main constituents. It is mostly cultivated in relatively inferior soil—rather sandy. It yields about 12.5 maunds of grain per acre and is important staple food for the poorer class.

Grams.

Occupy a very small acreage and cover an area of only 467 acres. This crop shares about 9 % of Rabi acreage and 5.5 % of the total cropped area. A larger proportion of gram acreage is irrigated yet a considerable area falls in Barani land as it accepts drier conditions. Its distribution in Chunian is associated with aerated sandy soil. The area under grame shows a good deal of fluctuations from year to year due to its susceptibility to drought and blight. In 1952 and 1953 its acreage fell to 174 and 92 respectively, the decrease was mainly due to failure of winter rains which allowed reduced barani land under grams accounting or a decrease of 200 acres. Conditions improved in 1954, when about 569 acres were put under grams. Grams yield less than wheat, the average being 8 maunds per acre on irrigated land. It is the only crop which yields better on Barani Land under normal conditions. On rain fed sandy loam yields are 10—11 maunds an acre—a reason which accounts for its larger proportion of unirrigated acreage than other crops.

Other less important food crops are Barley and Goji which account for 4 % of cultivated acreage in Rabi. Barely is a minor crop in Chunian as conditions are quite favourable for the large scale cultivation of superior grain like wheat. It only occupies only about 71 acres, mostly in canal irrigated area. It is sown in marginal land as it accepts inferior soil than wheat, but yields equally well, normally from 9-10 maunds per acre. Goji, a mixture of wheat and barley is only produced in very small quantities sown over 52 acres only.

Besides fodder crops, which occupy 23 % of Rabi acreage, largest after wheat, 6 % of the total cropped area is put under vegetables fruits and oil seeds. Tara mira occupies the largest acreage amounting to 139. Tobacco is grown over some 7 acres of land only for local use. Vegetables are grown on very small scale usually the tenants grow some vegetables like cauliflower, potatoes and carrots for their own use.

Kharif Crops.

Kharif crops occupy about 48 % of the total cropped area of Chunian. The entire Kharif acreage which on the average is about 4,346 acres is irrigated, only about 15 acres of Barani land is sown with Bajra. The amount of rainfall during summer is insufficient for the successful growth of Kharif crops without the aid of irrigation. The area under Kharif crops shows very little variation from year to year. During the last five years the smallest acreage has been 3901 and largest 4701 in 1952-53 respectively. Decrease in 1952, is associated with shortage of water supply from canals which brought about an around decrease in the cropped area.

A detailed study of the statistics in table III shows that a very small percentage of land is devoted to the cultivation of food crops during Kharif. A major proportion of Kharif acreage is put under cash crops namely cotton and sugarcane the former being more important.

Kharif food grains.

Rice covers 60 % of the Kharif food acreage and is the most important food crop of the season. About 500 acres are sown with rice every year. Unlike wheat which exhibits a universal distribution in the area, rice is much more localized in its distribution. It is almost unknown in the Manjha Land north of the high bank, but is a familiar crop in the Hithar tract. Rice with its heavy water demands is grown on Nahri and chahi land and a considerable acreage is served by canals and wells both together. Most of the rice acreage is associated with Kallarathi soil in Hithar tract.

About half of it is grown as single crop cultivated on the same fields year after year, while some vegetables and fodder crops may be cultivated occasionally during the interim period. The other half is sown in double cropped land where wheat is grown in Rabi. Rice yields are much higher than any other food grain, almost one and a half times of wheat. Normally about 13 to 14 maunds of rice are covered from one acre. Yields are highest on Nahri-chahi land being 15-16 maunds per acre as the abundant water supply is guaranteed.

Bajra.

A small grained crop, very well suited to marginal land and not exacting in its water demands, is a minor crop shown only over 235 acres. Its yields are low varying from 6-7 maunds per acre.

Maize.

It is interesting to note that in a highly irrigated area like Chunian, acreage under maize is surprisingly small. Only about 94 acres are sown under this crop. This small acreage is not due to any climatic or soil factor. Clay loams are well suited for its growth when water is plentiful. There are two reasons for this peculiar phenomena. In the presence of other food grains grown in rabi, cash crops like cotton and sugarcane compete for the land during kharif. The other, perhaps the more important factor is the presence of many Rakhs (forest stands) in the neighbourhood of Chunian, to the north and west. These forests reserves breed pigs and jackals great enemies to maize. Hence its susceptibility to the disaster caused by jackals does not allow a larger acreage to be put under this crop. It is equally true in case of sugarcane too.

Its distribution in the southern most part of Hithar tract is a testimony to this fact. In the south far removed from the Rakhs it is cultivated in a compact area for which a common guard is kept. Here is one example of cooperative farming governing the distribution of a crop.

Cash crops.

Cotton and sugarcane are the chief cash crops of Chunian—Both these crops are usually treated as annual crops as these remain in the ground for 7-10 months. A part of cotton and sugarcane are cultivated on land which have yielded a rabi harvest of wheat, in which case the land is left fallow for the following season after the kharif harvest.

Cotton covers the largest acreage in Kharif being sown over 1,494 acres as the average. The acreage under cotton shows an upward trend, when in 1-54 about 1,880 acres were cultivated under this crop. In 1952 acreage was low in keeping with the all-round decrease in the cultivated acreage.

The distribution of cotton shows that it is mostly confined to Manjha lands, wholly dependant on the waters of Upper Bari Doab canal, there being no wells in this part. Very little cotton acreage is found in Hithar tract mainly because other crops like Rice, Maize and Sugarcane occupy the ground during Kharif. About 2/3 cotton is grown as an annual crop sown in April and

May, picked in October, November and December. In the double cropped area, late sown wheat follows the cotton crop. Cotton fields are heavily manured and it is a common practice to sprinkle the Kallar—in the fields when the plants are about a foot high. Kallar is usually gathered from the Kallarathi waste lands.

There are two varieties of cotton commonly cultivated Desi, short staple cotton and American long staple cotton. The area under American cotton is only about a quarter of the total cotton acreage. Last five years record shows a successive decline in the acreage under American cotton, specially conspicuous during 1953 and 1954. In 1950 there were 760 acres put under American cotton while in 1954 it had dropped down to 160 against 1720 acres for Desi variety. This increase in favour of Desi cotton, inspite of its lower yields than the American variety is mainly because the Government has withdrawn restrictions on the area under Desi cotton. Formerly it was perforce, that a major proportion of irrigated land under cotton was put under American variety. Moreover people like to grow Desi variety which is less sensitive to fluctuations in water supply and is more suited to local conditions. Yields of cotton are high American variety on Nahri land where it yields about 7 maunds per acre (560 lbs). Returns are lower on Chahi land only about 5 maunds. Desi cotton yields less, usually under 5 maunds per acre. This crop is very profitable in an area where dairy farming is an allied occupation, secondary to agriculture. Cotton seeds form a very nourishing feed for cattle while the stumps are used as fuel.

Sugarcane.

Is cultivated over a small area of 356 acres, all of which is under the better variety farmi cane—mostly Gajri. As it has been mentioned before sugarcane is another crop, the cultivation of which is restricted by factors other than climate and soil. Its acreage is restricted mostly to the southern most parts of Chunian in the Hithar tract where rice and maize also compete for land. Sugarcane yields are high, varying from 18 maunds to 22.5 maunds (of raw sugar) on well irrigated and canal—irrigated tracts, almost all the sugarcane is treated as an annual crop.

Among fruits and vegetables grown in Kharif, chillies occupy the largest acreage covering about 33 acres.

Fodder crops.

Occupy a very important position in the land use pattern of Chunian. A considerable percentage put under fodder crops in rabi and kharif is

associated with the development of dairy farming .2250 acres are sown with various fodder crops, (24% of the total cropped) of which *chari* and Turnips are most important. Fodder crops play an important role in the rotation cycle. Usually the interim period between successive harvests of cotton, sugarcane, wheat or rice is utilised for the cultivation of fodder crops. So often more than one harvest is taken from fodder fields—first cutting takes place when crops are about a month and a half old, and then a second and final harvest. A part of wheat or barley crop is also utilized as green fodder.

Crop failures.

All the cropped area does not necessarily get to maturity as there are many a step between the sowing period and the harvest time. Chances of crop failure have been reduced considerably by the presence of plentiful water from canals and wells. About 7.6 % of the total cropped fails to mature. Failure percentage being higher in Kharif than rabi, (10 %) as the water demands are heavy during summers and little inconstancy in supply effects the crops adversely. In rabi season about 6 % of the crop fails to mature, occasion harm being done by abnormal cold wave or hailstorms in February or March. Percentage of failure, however, varies considerably from year to year both in Rabi and Kharif. 1952 recorded highest percentage of (about 15 %) of crop failure since 1949. In this year the failure of rabi was higher than Kharif, rather abnormal as it amounted to 18 % of the cropped acreage against 12 % in Kharif. The main cause was shortage of water supply from canals as well as failure of rains, though the latter is a less important factor in so highly irrigated a tract. In 1952 the amount of rainfall was only 89", about 5" below normal. A well distributed rainfall, however meagre it may be has an allowed good effect on the standing crop.

Cotton shows the highest percentage of failure taken individually varying from 8-10 % every year. This is due to its sensitiveness to any variations in water supply. Wheat is least effected by small encumbrances related to water supply as on the average only 4 % of the area sown under wheat fails to mature.

Production.

As is evident from the pattern of landuse, the settlement of Chunion is a prosperous one—being in the fertile irrigated tract of Bari Doab. It plenty of food grains and also produces considerable quantities of cotton, sugarcane and rice for marketing. Table V gives the average production of each crop in the village. The total production of food grains amounts to 46,419 maunds, out of which only less than $\frac{1}{3}$ is contributed by Kharif food grains. Wheat has the largest

share having 48% of the area under food grains and 40% of the production—Rice on the other hand occupies only 12% of the acreage under good crops and shares 17% of the production—a much more supporting crop than wheat for its heavier yields.

Cotton production amounts to about 7,856 maunds while sugar production is about 7,813 maunds—very little is consumed by the local population of 12,229 most of it is marketable.

The area is self sufficient in food grains while most of the cash crops are marketed.

Rotation and Manuring.

Rotation of crops and following are attended to on irrigated land. In most parts of Chunian about $\frac{1}{3}$ or $\frac{1}{4}$ th of the land is left vacant so that all the land gets a rest once every three or four years. Generally speaking more than half of wheat is sown in land cropped only once a year, occasionally followed by some fodder crops. The rest of the wheat acreage falls on double cropped land, with cotton in the Manjha and rice in the Hithar Tract. Most of the Rice is nearly always sown in the same land every year as the rice fields are usually in the lowlying area in the south where soil is saline, rather unfit for other crops. Cotton is generally sown in fallow land from which a light crop of Jowar or Chari has been cut. Sometimes it is sown in wheat lands after a slight manuring. Maize in Chunian is strictly sown in the same fields every year followed by some light fodder crop.

The amount of double cropping entirely depends on the size of the holdings and the amount of manuring. Just about a quarter of the total cropped area is sown more than once. This small percentage is mostly because of lack of extensive use of manure.

It is curious to find that not even yet the absolute necessity of re-invigorating their irrigated land every now and then with plenty of manure come home to the cultivators. Of late they have been taking to it more but even now a larger proportion of cow dung is used as fuel, while widespread use of chemical manures is yet to be learned. This indifference to the problem of proper manuring is mainly due to a very high percentage of tenant cultivators who are not very interested in the improvement of the agricultural land.

Maize is always heavily manured while sugarcane also does well on soil well worked and fertilized. Wheat and Cotton fields are manured very lightly, the former often left without any.

The quantity of manure varies from 40-100 maunds an acre depending on the crop. Usually it is worked in the soil before the seeds are sown. Another method of manuring is by sprinkling a top dressing over the crop when plants are about a foot high. The dressing usually consists of either pulverised manure or of Kallar. Green—manuring is almost unknown. Sugar-cane and cotton are usually treated in this way. Vegetables demand a very heavily manured soil and those are mostly grown on fields near the village which are fertilized by the village waste.

On the whole the system of rotation is not satisfactory and manuring is not done on any scientific basis.

Sources of water supply.

As it has been mentioned before, Chunian has a very high percentage of irrigated land about 97.2% of its cultivated acreage is irrigated. The irrigation water in the area is supplied by two main sources :

1. Canals.
2. Wells.

Canals irrigate a major portion of the total cropped acreage. All the Manjha uplands are irrigated by distributaries of upper Bari Doab canal. Here no wells exist inspite of plentiful Sub soil water which is found in most parts at a depth of 20-25'. The main cause of absence of wells here is the brakish water. Before the extension of the Upper Bari Doab, the area usually suffered from a very precarious agriculture. Meagre amount of rainfall did not allow any cropping in Kharif while only Rabi crops were sown in years of good rainfall. Now, under irrigation most of the good cultivable land has been brought under cultivation.

In the Hithar area in about 75% of the cropped area water is supplied by Chunian Distributory of Sutlej inundation canal. Rice, maize and sugarcane in Hithar depend on these canals for their water supply.

Wells are an important supplement to canals in the hithar tract. There are about 100 wells out of which 69 are in working order. Almost all of these wells are in the northern and central part of Hithar. It is here that most of the double—cropped area of Hithar is located as plentiful water supply is ensured. The total area irrigated by these wells is about 1400 acres, which gives an average of 20 acres per well. Usually these wells are worked during the day—only in some cases in Kharif when rice is being planted, night shift also follows.

Rainfall in the area which is about 14" annually is too little to ensure even a good Rabi harvest as its regime is such that only about 2" falls in

December, January, and February. During summers too it is too little even for Bajra which is a dry Kharif crop. In spite of its being insufficient for widespread sowings it is an important source of moisture. Its failure during winters slightly lowers the yields of irrigated wheat, while a heavy shower of rains just after the seed is sown, may prove to be very injurious. In late March and early April, heavy showers may shrivel the grain. During Kharif too, its proper timing helps in the all round betterment of crops.

Size of holdings and tenancy.

Size of holdings is a very important aspect of land use as it portrays the economy and intensity of agriculture. In this settlement one meets great contrasts in the size and shape of holdings. The average size of holdings in the entire area regardless of tenancy is 2.8 acres. The difference between the size of holdings of tenants and those of owners is very little. The former being 2.7 and latter 3.3 acres. The owners cultivate about 10% of the total cropped area, all the rest being cultivated by tenants most of whom are without the rights of occupancy. A very small percentage of land is cultivated by tenants with rights of occupancy.

Differences in the size of holdings exists both in Manjha as well as Hithar tract. In the Manjha lands the average size of the holdings is (60 Kanals) 7.4 acres while it is much smaller in Hithar where it is only about 1.3 acres. This could be accounted for by the greater fertility of land in Hithar—and the presence of wells as a supplementary source of water. In Manjha land variation between the maximums and minimums size of holdings is much more than in Hithar. In the former area the largest holding is 40 acres and the minimum comes to less than one tenth of an acre. (1 marla) while in the latter the largest is about two acres and smallest 1.2 acres.

No work on the consolidation of holdings has been done in this area where the size of holdings is small for the best use of land. The land wasted in boundaries could be saved. The inconvenience of moving from one plot to the other in different parts would also be reduced. The reluctance of the peasant cultivators and of the land lords to the policy of consolidation has always stood in the way of any agricultural improvement in such area.

Problem of Tenancy is another important aspect to be studied. In this settlement very little percentage of land is cultivated by owners amounting to about 9.9%. A major proportion of 89.1% of the cultivated land is given over to the tenants on rent. An overwhelming majority of the tenants possess no rights of occupancy. Mostly the rent is in kind, on all the chahi land the usual

rate of rent is $\frac{1}{3}$ of the total produce. On Nahri land the rent is generally high, for the most of it being $\frac{1}{2}$ of the produces for a very small acreage of canal irrigated land, the rate falls to $\frac{1}{3}$ of the produce—On barani land it is always less than $\frac{1}{3}$.

The very high percentage of tenant cultivators has an adverse effect on the productivity of land. Tenants generally use the land carelessly without much attention to fertilisers or proper crop rotation that could maintain its fertility. A proverb describing such conditions goes to say that he who lives in an inn would ware his bed man go on the roof to stop the leakage. Temporary tenants, changing their land probably every alternate year do not treat the land as their own. Conditions could be bettered considerably if the existing system of tenancy may be changed.

Diary industry.

An important supplement and a secondary source of income for the majority of the poor tenants who have land under 3 acres. Various factors have lead to the development of this industry in this area, the chief ones are. (1) Plenty of water supply for the fodder crops to be sown. (2) High percentage of tenants with small holdings as it has been mentioned above 2,250 acres are put under fodder crops which serve to feed the livestock of Chunian. Moreover cotton seed form a very sustaining and fattening feed for cows and buffaloes. There are about 1113 oxen, and 784 cows and buffaloes (533, cows, 251 buffaloes). Almost all the tenants keep a cow or a buffalo. The cows and buffaloes are of fairly good well known manjha breed Yield of milk is about 5 seers and 7 seers per head in case of cows and buffaloes respectively. It is a great economic asset. Milk or Butter finds a ready market. The cow dung is utilized partly for fuel and partly as a fertilizer. Tenants who have small pieces of land always find it profitable to keep cows and buffaloes in which the land lord has no share.

Population.

According to the 1951 census, population of Chunian is 12,229 out of which 6,362 are male members, there is precentage of Muhajir population amounting to 38. Previously more than half of the population of Chunian consisted of non-muslims. After partition the vaccum was filled by the incoming muslims. About 50% of the told population are engaged in agriculture. The other half belongs to the business class, labourers and village technicians. An Average family consists of 56 members. The standard of living therefore is very low specially for the tenant class, whose income is very small about

Rs. 500 per annum from farm products and the rest is supplemented by dairy products. For the rest of the population the standard is a little better which is manifest in well built brick houses in Chunian.

Only about 3% of the people are literate. Generally parents are reluctant to send their children to school as they want a helping hand on the fields. There is, however one high school for boys in Chunian and a middle school for girls where children of non agriculturists form the majority.

To sum up, the land use survey of Chunian portrays the general conditions prevailing in most parts of Lahore district Bari Boab. While there is a good deal of acreage under cash crops and a quarter of land as double-cropped, the standards of livings are low mainly because of high percentage, hired land and small size of holdings which are allergic to any improvement in yields or farming methods.

HISTORICO—GEOGRAPHIC DYNAMISM

BY

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Marching on the chronicles of wasted time, humanity has today, in the mid-twentieth century, reached a crucial point. In spite of the best efforts and intentions of men in wide circles, human society throughout the ages have not been able to solve the problems of the day. Every time the main issues involved were sidetracked and partial solutions were given to apparently imminent problems. As a result, the relations between state and individual became from complex to compound and the tension between nations and nations went on increasing; and with it the internal and external policies of all nations, in spite of their apparent soundness in every corresponding age, were ultimately found to be wrong and their effect quite contrary to the purpose for which they were made.

But the accumulated wrongs of the past and the possession of intoxicating brutal power by certain section of mankind and the tension connected with it has increased to such an extent in this mid-twentieth century that the very existence of mankind is at stake. Naturally faced with such a grave danger at this crucial juncture, the peace-loving and thinking people cannot but try to find out and cure the chronic disease with the human society. The increasing chaos and whirlpool in the social and international affairs in the face of the unceasing struggle of the well-intentioned people, at once leads us to think that somewhere there must be some loophole through which all these attempts at order are lost in oblivion. There must be some mistake somewhere in our basic assumptions as regards society. There must be some flaw somewhere in our outlook to the whole social phenomena. In the face of this doubt and danger let us inquire into and make a re-study of the whole phenomena of our unique society and try to find out the most correct basis for the formulation of our social policies.

Now, policy can be defined as the nature and procedure of action and a basis of policy is a fixed framework of interpretation or an immutable guide to action. In other words, basis is the ideology of the policy-maker which he

needs for psychological balance. An ideology must contain an interpretation of the social world. It must contain the picture of a future state of society or an idealised state of the past or present society giving in any event a model according to which the society ought to be constructed. Sometime it should contain a procedure for social action through which the ideal society may be reached. Thus a policy-maker is to base his policies on a detailed study of the complex of human relations and on the answers as to what is the nature of these human relations, and from this to find out whether there are motives behind such relations and if so, what are the elements that give rise to such motives; or in other words they had to study whether there is any process in the movement of human society and if so, in this process, whether there is room for, or whether mankind is capable of, or whether there is any necessity of human action. If so, the policy-maker or the formulator of the basis for social action should be guided for his action whether by some fixed conceptions of good and evil or by peace and truth.

The greatest human minds have discussed these questions for hundreds of years but failed to turn up an all satisfactory answer and hence could not supply with a scientific basis for the formulation of policies. Before we start to find one, let us point out some of the mistakes and flaws in their assumptions which negated the purpose for which they were made. In this criticism I will not include the earlier assumptions of innumerable philosophers which have already been refuted by the latest philosophers. My plan in this paper will be to criticise the assumptions that are in vogue in the contemporary human society. They are mainly :

(1) The Natural Right Theory of John Locke in its modified form on which rests the super-structure of contemporary capitalistic society or in general the whole western civilisation with its offshoots.

(2) The Dialectic Idealism of George Wilhelm Friederich Hegel, on which was based all the policy making of the Fascist states of pre-second world war period, and

(3) The Dialectic Materialism of Karl Marx, on which is based all the policy making of all the communist states and the world view of their admirers.

The modified and remodified version of John Locke's Natural Right Theory assumes first the society to be composed of so many natural economic men who are self-seeking, intelligent and well-informed in pursuing their interests, constantly desirous and able to buy goods and services in the cheapest and sell them in the dearest markets. This assumption of man

to be naturally economic led its supporters to conceive a natural economic order in society in which relations among individuals are controlled by laws as universal and permanent as the laws of the physical universe; and as this economic order is natural and permanent, it is also the best. Hence there should not be any attempt to disturb this natural order. If any such attempt occurs, which they believe will always be occurring, it must be coerced for the best interest of the society. The picture of the ideal economic order was supplied by the Laissez Faire economic theory of Adam Smith.

Naturally, under the guidance of these fundamental assumptions, the internal and external policies of the governments based on above conclusions are directed towards the maintenance of the existing order or status quo. If a community or a group of people pursues a programme different from theirs, it is met with direct or indirect opposition; for example, pleas of nationalisation of industries in U.S.A. were put down and the British Iron and Steel industry was denationalised by the conservative ministry. In their foreign relations, if another state pursues a social or foreign policy antagonistic to the above assumptions, that state is met by violent or tactical means. For example, the U. S. Government helped and supported the overthrowing of the Guetamalan government.

To Hegel, there is no natural or permanent order in society. Everything is changing and this change is nothing but the carrying out of a pre-existent 'Absolute Idea'. According to Hegel this idea is divine and rational. Therefore, the whole story of world history must also be rational since it is the absolute translation of a pre-existent plan into actuality. Therefore, everything that happens is rational, or 'the real is the rational'. In the realm of organisation, it follows, that 'the state is the Divine Idea as it exists on earth'. Therefore, policy making must aim towards identifying individual will with this absolute will of the state or in other words Absolutism should be the aim of the policy makers. The will of the state is to be piloted by a 'super will' or dictator who will rule by his reason which is rational and divine. These conceptions were the groundwork on which the totalitarian policies of Fascist Italy and Nazi Germany were based.

The Dialectic Materialism Theory of Karl Marx considers society to be constantly changing. The motive behind and nature of the change is determined by the economic necessity of man. In any age, he maintained, the differing models of acquiring means of existence divide men into separate classes and as the interest of one class is antagonistic to that of the other, it creates within each class a special class consciousness which ultimately

leads to class struggle. All social changes are determined chiefly by economic class struggles that have pervaded history since the break up of tribal communal organisation. The history of humanity is largely the history of class struggles. Every system of production has given rise to two principal mutually hostile classes—the Bourgeoisie and the Proletariate, the exploiters and the exploited. And as these systems of production and distribution change from age to age, they causes the economic foundations of society to change slowly to a point where its social institutions become unfitted to the changed economic foundation. Any fundamental incongruity between these two situations produces a social crisis, escape from which comes through a revolution which brings a new social super-structure in harmony with the new economic relations. Thus, he visualises the nature of society as constantly changing in which changes are brought about through cataclysms.

After explaining the nature of society, he went on showing that the existing social system contain within itself certain inequalities or antagonisms which are constantly acting and reacting on one another, and this will ultimately bring about a total change. To be concrete, he said that the capitalist order due to its inherent antagonisms will destroy itself and the dictatorship of the proletariat will be established which will ultimately transform itself into a classless society in which state will wither away and communism will be established. And as this is inevitable and natural, all human effort must be made to hasten or accelerate what is natural. This led him to write the 'Communist Manifesto' for the purpose of organising the proletariat for the coming unavoidable revolution. Based on this doctrine of social philosophy, the policy makers aim will be to foment class struggle everywhere, *i.e.* to help the coming of world revolution. Reflection of this philosophy can be seen in the Soviet Russia's policy towards its so-called satellite states, where the minority communist parties have been made the ruling party, and all the latent forces of class struggle were magnified to bring about premature forced revolutions,

Apart from these widely prevalent concepts about society, many other views have been put forward to explain the nature of society. The nineteenth century German Materialists held that the actions of man is determined by what he eats. Frued ascribed it to the 'libido or sex impulse, Machiavelli-Hobbs Nietzsche said it due to power urge, Alfred Adler by inferiority complexes, Sorel Clages by myths Pavlov by conditioned reflexes and the eighteenth century rationalists considered by reason.

As we have skipped over the various concepts about society, we can see that all the approaches to the dynamicity of the social phenomena were extremely general. In order to make their application universal they had to resort to generalisations. Each and every one of these theorists did not see man in his entirety but in a particular aspect or fraction of him.

The capitalist conception of man as solely and overwhelmingly economic is only partially and periodically true as other motives and egos such as, vanity, sex impulse, defence consciousness, fear of death, religious ego, love for glory etc. often transcend the economic ego. Hence their second assumption of the permanency and 'naturalness' of their order in society becomes more incorrect. In fact at different periods of social history under different forces, different orders like socialistic, tribal, religious, aristocratic and capitalist orders appeared, played a dominant role in the changing process of history and ultimately itself merged into the next order.

On the other hand Hegel and Karl Marx seem to have correctly observed the changing nature of human society, but in their attempt to find out a universal cause behind all changes, they also became the victim of generalisation. It seems that all have looked to history with a priori conception. Everyone of them considered one particular aspect of man and society to be ever paramount in every circumstances. They over-looked the fact that the human society is complex and a function of thousand and one elements of social and natural environment. It is not that they have discarded all the elements except their own; but their mistake lies in the fact that they have made one particular element universally responsible for all time. And this became the cause of the wreck of their doctrine.

With the above precedences of doctrinal wrecks before us, let us steer our brain cautiously through the meshes of intangibles to arrive at a correct understanding of the changing process in the human society.

It must be understood at the outset that the society of mankind is an earth-bound phenomenon and all the characters in it are prisoners of time. One individual dies, handing over his earthly habits to his timely descendant; and the drama of earth-born and time-bound humanity, with all its crisis and intermissions is played on in its everchanging and ever-widening setting but always under the dual partnership of time and space. All the dramas of now are forever enacted on the stage of a 'then' which extends back in its sequence to the origins of stage and the characters both. First was neither the characters nor the drama, but only stage or nature, which through myriads

of transformations ultimately became fit for the enactment of human drama; and eventually one species of the group Homo assumed the shape of sapien or man through organic evolution under time space partnership, some time about 70,000,000 years before Christ in the scale of time. This incident stands as a landmark in the history of nature as from now on, in the realm of nature, in addition to the natural process, a human process started operating. Here entered in the universal natural order a 'conscious will' to work parallel to the already operating natural process. By the possession of this conscious will men became something more than mere tools in the cosmic hands of nature. He began to create circumstances and laws for himself. In other words, within the universal world of nature he began to build for himself a semi-independent world or a provincial government within a state. The authority of the former was universal whereas of the latter operable on man himself, the focus of the former was nature itself including man and of the latter, the mind. Thus a semi-world came within a larger world. The world of nature with all its provinces continued its growth in accordance with the laws of nature and the world of man *i.e.* the society of mankind continued to be guided by the different 'conscious wills' or ideas of man in addition to the natural laws. The world of nature continued as a function of universal time and cosmic space and the society of mankind as a function of terrestrial time and space and conscious will or idea or mind. Our subject matter is the latter.

Now time is evanescent, terrestrial space is of infinite variety and ideas are innumerable, variable and growable. Hence the society of mankind became a great 'variable' in a state of constant change under the combined influence of the above three variables. The ideas by itself have not independent position. 'Will' is independent and 'directed wills' are ideas. And as the direction of will is guided by the inherent needs of man, and the state of nature at a particular time, ideas are the attitude of man in environment. Therefore it may be true that the original ideas of man were shaped by his inherent primary needs of food and protection which was necessary for existence in a hostile environment. But later on, the vital psychic forces in man combined with the inherent ability to utilise experiences helped in further shaping his ideas. The ever-present will to establish mastery over nature, the saving of food for tomorrow, the increase of the items in his diet, the improvements in the methods of hunting all led him farther and farther in the path of what we call progress. In addition to this urge to exist, two other instincts *i.e.* sex and love were inherent in man. Under the impulse of these

three urges men and women began to be collected together. But the varied pattern of the environment and the variable time for which people lived in one particular environment, made mankind to react or to form idea differently in different environments. This was the genesis of the various primitive communes such as fishermen, nomad, huntsmen and agrarian communities. In the social development of mankind, this group formation became an epoch-making historical cause because, it initiated the formulation of certain laws in the society such as, the Law of Authority, Law of Division of Labour and the Law of Distribution of commodities which in their turn became the basis for the formulation of later laws. Thus the state of nature that is geography initiated certain reaction in man which became the beginning of human history which in its turn became causes or foundations for later developments or in other words, certain geographic facts in combination with the inherent instincts of man gave rise to some historic consequences and those consequences in their turn became several additional causes for subsequent consequences. Thus by the combined progressive operation of both geographical and historical processes a sort of chain reactions were set in the behavior of man with man and man with nature. And as this combined process is evanescent, progressive and dynamic, we shall call it 'Historico-Geographic Dynamism'.

Eventually under the inexorable forces of this Historico-Geographic Dynamism, the society of mankind assumed the state of a constantly changing dynamic organism. Its varied and innumerable physical, vital and psychic elements and their inter-actions appeared and disappeared as events in the history of the human society. Thus we saw primitive man under pressure of relentless struggle for existence against nature and hostile animal world and under the instinctive impulse of sex and love grouping themselves into primitive communes. This step combined with the previous causes accelerated the inherent instinct of love, affection and fellow feeling etc. which again gave rise to the individuality of man which ultimately led to the system of private ownership and division of labour. The division of labour and the leisure offered by it combined with the impulse given by the beauty of nature caused the springing up of different type of arts. Later on, for co-ordination and for saving the community from drifting into chaos; the system of governments came into the picture. The forms of the primitive governments were not something new but the reflection of the whole historico-geographic outlook of man. Thus in the earlier stages, when external force or necessity was paramount, war-chief or strong man became the ruler. Later on, the increase of size, differentiation of structure and adaptability

necessitated the replacement of war-chief by tribal chief the patriarch or oldest father, as custom became now the basis upon which the society rested. Side by side man's insignificance prompted him to bring about deities, gods, purpose and aims in the governments. A just and well ordered community pleasing to God and to man's reason became the general aim. A new basis appeared for all institutions, for law, government family life and the rest—a basis in which reason and religion combined. Priest became ruler—a judge or priest or pope; then came God-appointed king; then the constitutional monarch and finally the assembly of minds ruling themselves. On the other hand with the expanding of the world by the exploratory pursuits of man nurtured by the historico-geographic dynamism, the inter-communication among the communities began. This in course of time led to feud, fights, battles and war and initiated inter-communal relations, community interest and ultimately the formation of state. This in its turn combined with the religious fanaticism, ideological conflict, strategic and economic considerations gave rise to crusades, missionary adventures, political and economic nationalism, ultimately bringing the present day conflicts and tensions. Thus cause brought consequences and consequences became causes for further consequences; and in this way human society went on changing. Now as regards the nature of this change, of the earlier theorists Hegel maintained that it expresses itself always through conflict, and according to Marx, through one and only one particular conflict. But our study shows that the changes can occur and in fact occurred both through conflict and peaceful means. Sometime somewhere in the society the changes are brought about in a cataclysmic way and at another time in the same place or at the same time in another place, in a peaceful way. The peaceful transformation of the Swiss people through the last three centuries can be set as an example to it. Again, in the cataclysmic or revolutionary process, the agent of change is not necessarily the economic interest alone as depicted by Marx, but may be several ones in which economic interest may not at all be present. The radiating of mankind from central Asian cradle and the battles that followed, was no doubt due to the ephemerality of steppe grass; but the same motive can hardly be felt in the countermarch of Alexander the Great. Another factor named vanity played a supreme role here. Again in the Romano-Egyptian conflagration it was not Marxian class consciousness but the Roman glory and the beauty of Cleopetra, which trumpeted the siren call. It has been said by some sophisticated writer that if Cleopetra's nose would have been a bit short the history of the world would have been different. There is much grain of truth in this statement. Again the age-old rivalry between the cross and the crescent is not

the reflection of an economic class struggle, but the violent phase of their pacific gospels. Sometime accidents of history played the dominant role in shaping the things to come. It can be said with certainty that if the elephant of Porous would not become mad, if a storm would not drive away the Spanish Armada, if attempt on Napoleon's life would be successful, if Hitler would not shirk from his attempted suicide in his early youth, the history of the world have been different. Many a time geography shaped the events. The valley of Nile and Euphrates turned the wandering nomads into sedentary farmers. The absence of Khyber Pass would have altered the course of world history. The flowing of the lower Rhine through Low Countries made them always victim of French and German aggression which again brought England in the continental affairs though she was not directly involved. There can be an unending list of such motives. In another way Marxian doctrine failed to understand the course of history. Marx's prediction of first successful revolution in Germany did not come true. In spite of the most ideal condition for social revolution in Germany, the force of events in the pre-1st 2nd world war period nullified the attempts of revolution and course of German history took a different turn.

Thus, our glance at the history shows that in no way the unending cavalcades of vicissitudes and intermissions of human society can be explained in terms of economic class struggle. If it is admitted for the sake of argument that the original pattern of social relations were shaped by the economic interests of different classes, it can in no way be proved that the same cause pervaded through history. It is equivalent to the assumption that a balloon pushed from Bahawalpur towards London will always remain in its directed path. In fact the balloon in its path will be deviated and redeviated under the impulse of different winds and may or may not reach its destination even after several rounds of the world. Similarly, the economic interest motivated Marxian world society in its flight through time were and are constantly swayed this way or that way by so many physical, vital and psychic storms and calms that it is impossible to prescribe any definite path or goal to it. Therefore, any policy based on such hypothetical inevitability is unsound and wholly inapplicable for the world as a whole and only partially applicable for different regions of the world. Such a basis is unscientific and charged with detrimental consequences. In fact, at a particular period and in particular region, we can only perceive the transitory phase its historico-geographic dynamism. Therefore, the fundamental assumptions of policy makers should be based neither on the appraisal of existing facts or on an idealised inevitability of certain facts, but on the

trend of the historico-geographic dynamism of the region. Again, the policy should not be aimed towards maintaining the existing order as under Natural Right Theory or to bring about an idealised good order as in Marxian philosophy, but it should be aimed to facilitate the process of change. It should not aim towards blocking of the change if from the trend, change seems inevitable. Is not the attempts by certain sections of mankind to block the path of change, which brings about conflicts, insurrections and revolutions? Is it not true that the evils concurrent with change are worse if a certain idealised future state is forced upon an immature situation? If so, would this evil not be cured if changes are brought about where it seems in the logic of history and geography? Would it not be safe, if revolutions are not fomented and extended in regions where it is not a historico-geographic growth? The answer is clearly in the affirmative. It follows that a statesman who works for the improvement of society and who wishes for the ideal will make his maximum and optimum contribution, if he neither prevents nor accentuates the changes but bends all his energies towards making necessary transformations according to the trend. In modern society the ideal statesman is he who follows the trend of historico-geographic dynamism and who bases his policy only for one aim and that is the maintenance of peace. Policy should not be based on the assumptions that Islam is good and Hinduism bad or Communism bad and existing order good. In reality, there is no absolute and all time criterion of good and evil. What seems good today becomes bad tomorrow. Anathema of one age becomes the order of another. The policy maker should not be concerned to think any one of these as good or bad. His policy must be based not on what he thinks good but on what is truth. To him good should be that which is in the logic of historico-geographic dynamism. And to understand that he must be an expert, thoroughly trained in the school of historico-geographic dynamism. The policy makers ability should not be judged by his university degree, position, office experience only but by his original writings and views. The would be policy makers should not be trained in the formalities of statesmanship in the traditional schools of national and international affairs, but in the understanding of the historico-geographic process.

To facilitate that study and policy making, I may suggest that the world should be divided in to several historico-geographic regions. By such a regionalisation it will be found that in some region an oppressed proletariat is trying to raise its head by throwing away the burdens of capitalism. If such a region is within the jurisdiction of the policy maker, he should avoid the conflict by a change towards socialism. And if the region is outside, he must

aim to organise the proletariat openly or secretly. Somewhere among a people the symptoms of indifference towards religion will be seen increasing; and here the policy maker should aim towards a gradual lessening of its hold. Again, somewhere, under the inexorable forces of similar natural and social environment, a group of people in different countries will be trying to unite. And here the policy makers task will be to facilitate that union, otherwise, that will occur through violent means.

This is not a mere hypothetical assumption which may occur at some future date. Times innumerable, statesmen, armed with limited understanding of the cause-effect relationship acted against the process or tried to withhold it. But ultimately under the inexorable forces of dynamism they, their attempts, and their temporary achievements were all swept away and vanished into the quicksands of time. Alexander, Hannibal Napoleon all had to be disappointed in their ambition of bringing the world under one particular order, because of their ignorance of the dynamicity and hence because of their inability to distinguish between possible and impossible. Even the peaceful attempts of religious reformers to bring the world under the banner of their respective god failed in the face of racial national, economic and environmental differences. Constitutional attempts of Holy Roman Emperors, Hapsburg monarchies of Austria collapsed on the rocks of the same historico-geographic differences. In recent times, the U.S. mis-adventure to maintain the Chiang regime in China may serve as a classic example of the results of overlooking the dynamism. The defection of Yugoslavia under Marshall Tito can be served as another.

Nor that this new basis of policy making is only visionary and inapplicable to our age. In fact such a basis is in the logic of our times. The trend of policy making itself points towards such a basis. After the Second World War, forced by the exigencies of situation, the policy making of the most capitalist state and the most communist state is being unconsciously directed towards this basis. No longer the policy making in U.S.A. rests on the Wilsonian Senate. It has become the affair of an expert body, who often takes decision in utter disregard of and by sidetracking the senate opinion by some make-shift arrangement. But the procedure has not yet been legalised, and also the 'encouragement to peaceful change' has not yet been made the aim. Similarly the Marxian basis of policy making has met the rock long ago in U.S.S.R. In many realms, encouragement to nationalism—the arch enemy of World Revolution has been made the aim of Soviet policy making. But still the dogmatic faith in the dream of world revolution, though lessened, has not been abandoned.

Now, after having a passing glance over the bases of policy making in the two super-states, let us apply our new assumptions to the understanding of the historico-geographic dynamism of the region comprising of two Bengals and Assam and try to offer a scientific policy on the basis of that.

The region under discussion lies on the north-eastern extremity of the Indo-Pak sub-continent, being hemmed in on the north and east by the great Himalayas and its offshoots and merges gradually on the west with the Gangetic plain and the Deccan Plateau. Physiographically the whole of the region is a river-washed plain except a large portion of Assam, which is hilly and adjoins the territory of Burma. Climatically the whole region is under the same seasonal regime of temperature and rainfall. These similarities of physiography and climate have long ago made the people, inhabiting this region, to be sedentary farmers subsisting on the staple diet of rice and fish.

In the dawn of history, Mongol races from East Central Asia forced themselves through the mountain ramparts of Himalaya, on to the region and a vigorous admixture occurred with the local Dravidians. Since then inspite of the continuous commingling in the western and other parts of India, few settlers came in this remote region, and it is long since it acquired a racial homogeneity. In the early part of the christian era, the area came under the influence of Aryan culture and a distinct local variety of culture went on growing up with the advancing of centuries, till in the 11th century A.D., with the conquering hordes from the west came Islam and the major portion of people embraced it. Gay, symbolic and mythic Hinduism was supplanted by the stern and disciplinarian Islam. Boycott of anything connected with idolatory became the path of salvation with the Muslims. Immitation rather than adaptation become the fashion of the day. This cleavage between the local and adopted cultures went on increasing faster with the advent of British rule and the Hindu-Muslim hatred, which ultimately brought about the partition of India.

After partition, hardly seven years could pass East Bengal has become the seat of profound transformation, the symptoms of which has made East Bengal a puzzle, a dilema to the contemporary policy markers in Pakistan.

Within a year of partition, the language issue has assumed the shape of an emotional conflict, the growth of which has been twice marked with blood. Within a few years of the birth of Pakistan amid high hopes of Islamic brotherhood, symptoms of socalled provincialism have become manifest through the Jute and Paper mill riots. Inspite of the incessant preaching of

Islam and constant discussion on Islamic state, the influence of it on the new generations seems to be on the decline. In spite of the freshness and bigness of Islamic or Pakistani nationalism, Bengali nationalism seems to be peeping through; and it has often pointed towards unity of two Bengals. Many elements of the local culture which used to be boycotted as Hinduism are increasingly creeping in the cultural life of Muslim Bengal. In spite of the strict measures taken to coerce the communist and such radical parties, the trend among the youth and new generation seems to be towards progressivism.

These are some of the problems before the policy maker. To understand the psychology and significance of these and to formulate policy towards them, let us study the trend of historico-geographic dynamism of the area.

East Bengal is an agricultural province but the necessity of Industrialisation is being acutely felt. But this is obstructed by the fact that there is dearth of capital among the local people. With a long tradition of subsistence farming the evergrowing population, and small acreage to produce not more than on what they can barely exist. Again, in the distribution of land Bengal was never the victim of large feudal estates in which the big landlords could employ serfs to raise crops for cash. Again, the landlords were more after aristocracy than after hoarding money. Moreover the Bengalees had never been commercially active and through petty business the street merchant could never become big industrialists. Hence, neither through landlordism nor through commercial activity, the tapering of money in the hands of a few individual could occur, which is a pre-requisite for the establishment of capitalist industry under Laissez Faire economy. The influence of this dearth of capital was seen after partition in the conspicuous of any industrial activity among the local people. And this fact combined with the necessity of industrialisation plus the Laissez Faire economy invited capital from other parts of India and Pakistan. Adamjee Jute Mills, Mohammad Ali Cotton Mills are the result of product of these circumstances. Similarly in the big business other non-local magnates, have captured the markets throughout East Bengal. Under such circumstances it is quite natural that a magnified feeling of exploitation will overtake local people, which may manifest themselves through violent outbursts. Narayanganj and Chandraghona riots may be taken as the beginning of that phase. East Bengal is a new province and its economy is being scientifically, planned, and in this planning, its historico-geographic dynamism shows, that if local feeble industrial activity is not protected by limitations imposed upon foreign as well as outside capital, riots, clashes and intensification of provincialism will results. When big business is not opened, when employment problem is on the rise and when

they are added with some emotional question as language, it is in the logic of history that violence will result. Therefore, the policy maker must, if he wants to avoid conflict, try to meet the situation in a different way. It has been seen that private enterprise industrialisation is not possible. Outside capital will bring about conflict. So, the best way will be, instead of a total rejection of outside capital, to disallow private enterprise industrialisation. State itself must take initiative to establish industries, when through local taxes or through sale of shares the required capital may be raised locally, or loan may be taken in the governmental level from other outside bodies if required. So, any policy that aims towards peace must aim in Bengal to introduce Socialistic Economy.

In the issue of language, the emotion connected with it is to be taken as fact and deep rooted in history and not a disturbance by some mischief mongers. Therefore to avoid conflict policies are to be made in accordance with the trend.

In the field of religion and culture, the trend towards the weakening of influence of Islam and the revival of long forgotten local culture is a fact which is in the logic of history. The weakening of the hold of religion is a world wide phenomena. Man's increasing business in life and his constant unfurling of the mysteries of nature are diverting man more and more from ancient religions towards the ever-changing religion of Science.

For the last six centuries the Muslims of Bengal have been under a dual rivalry between the local environment inspired pagan culture and a stern lifeless Mullaism. The parochial, theocratic illusion of Mullaism and the intense Hindu Muslim hatred stood as a barrier to the peaceful transformation of Hindu culture into a healthy, inspiring Bengali culture, and for centuries this has stood as a barrier to the cultural progress of Muslims. But the dissemination of modern liberal education, the influence of Renaissance literature and the removal of Hindu spectre with partition have ushered in a new era of Renaissance in the cultural life of East Bengal. The symptoms are seen in the revival of environment inspired folk songs, folk dances and ceremonies such as Baishakhi, Nabanna, Basanti, Chaitra Sankranti, New Year's Day etc., which are related with the seasonal regime, riverine environment and ancient mythical heritage of Bengal. Any careful observer familiar with Pre-Partition Bengal will notice this trend of transformation in every walk of Bengal's rural and urban life. Hence the policy makers should not look towards this phenomena with a preconception of good or bad but should

help in this peaceful transformation and to bring about a quick fruition of a healthy progressive Bengali Culture. In the School and College Books more and more examples should be given from the Vedic Bengal. This would help in the mental nourishment of the new generation.

The feeling of unity in both Bengals is deep rooted in History, geography and ethnography of the region. However mighty obstruction is placed before it, the processes of dynamism may ultimately sweep them away. To avoid this union through conflict, the policy makers both in India and Pakistan, should proceed gradually to help their peaceful co-operation. State is made and boundaries are carved out not as an end to itself but as a means to (avoid conflict). If the new trend requires relaxation of that boundary for peace, it should be carried out.

Another factor towards unity which is at present visible only to experts, is the pressure of expanding population in East Bengal. Long ago the population has reached the optimum level. More increase will automatically bring about illegal crossing of the frontiers and settlements in the vacant areas of Assam and less densely populated parts of West Bengal. In order to avoid the conflicts, bloodsheds and instability implied in this growing 'Lebensraum', the policy makers of India and Pakistan should understand the physical, vital and psychic strength of this trend and help in the peaceful transformation.

The above study shows that the three of transformations through which the contemporary East Bengal is passing, is not something artificial but real and is in the logic of historico-geographic dynamism. But the present behavior of the policy makers to consider many of these symptoms as artificial and hence their attempt to coerce them is bringing about a sense of reprehension and restlessness which sometime expresses through Communist Party, sometime You h League and in the latest through the United Front. The best policy to stop these restlessness is to remove the obstacles from before and to encourage the natural path of progress.

So, by this review of the phenomenon of our society and a case study of it, the only general conclusion we can draw is that varied are the problems and varied are to be the means through which our this sometimes balanced and sometimes unstable great society is to be kept on the march. Neither it can be assigned any ultimate goal on certain conceptions of good, evil and the beautiful. Nor any one particular order can be perpetuated. Only a transi-

tory phase of its movement through time can be comprehended and that only by knowing where it stands in the cavalcades of years, decades, centuries and millenia ticked off by the spinning planet. But it is impossible to escape the comment of Oswald Spengler that "It is a drama, noble in its aimlessness, noble and aimless as the course of the stars, the revolution of the earth, and alternance of land and sea, of ice and virgin forest upon its face. We may marvel at it or we may lament it—but it is there."

Under these conditions, the only way to avoid a breakdown of the system is to avoid a breakdown of the system. It is the new trend towards relaxation of that boundary for peace it should be carried out.

Another factor towards unity which is at present visible only to experts is the pressure of expanding population in East Bengal. Long ago the population has reached the optimum level. More increase will automatically bring about illegal crossings of the frontiers and settlements in the vacant areas of Assam and less densely populated parts of West Bengal. In order to avoid the conflict, bloodshed and nastality implied in this growing population, the policy makers of India and Pakistan should understand the political and land policy strategy of this trend and help in the peaceful transition.

It has been pointed out that the case of Bangladesh, though which the country is not something entirely new and is in the light of historical geographical factors. But the present behavior of the policy makers to consider many of these symptoms as coincidental and hence that attempt to cover them by bringing in new laws of repression and restriction which sometimes express the Government's policy of a long period of the United Front Government. It is a long time ago that the policy makers have been aware of the trends and the political and social factors.

By this review of the phenomena of our society and a case study of the only correct conclusion we can draw is that varied are the problems and asked are to be the means through which our this somewhat balanced and sometimes unstable great society is to be kept on the march. Whether it can be reached any ultimate goal on certain conceptions of good, evil and the beautiful. Not any one particular order can be prescribed. Only a trans-

DISTRIBUTION OF RICE IN WEST PAKISTAN

BY

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In the glorious land of West Pakistan, where nature has been kind enough to endow it with her bounteous gifts like rivers, plains and mountains which have helped this gifted land to form an earliest crescent of agriculture. This inheritance is still guarded with care by her people as her economy chiefly depends upon agriculture which is shared by different food and fibre crops like rice, wheat, Jute and cotton.

Rice, a crop of tropical lands, was supposed to have originated from a wild aquatic bush of *oryza stavia* which was found growing along water bodies either in China, Burma or India. >

Rice is produced in W. Pakistan from times immemorial. The rice culture in Pakistan has got an important position in its agriculture as according to Robberts it can be grown on any kind of soil provided its water requirements are fulfilled. In West Pakistan, the entire crop is grown mostly on "Kallarathi soils" which have got a hard sub soil layer of clay and the water requirements are fulfilled by irrigation. (Nearly 99% of the total rice crop of W. Pakistan is raised on irrigated land.)

Climata

(Rice crop thrives best in high temperatures and abundant moisture. The crop is generally grown in fields, susceptible of being flooded at certain stages of its growth.) Hence large areas under rice are located in low lying parts which suffer from Thur, or Kallar and are reclaimed by flooding, and in tracts subject to inundation during summer rains, where the water supply is abundant and summers sufficiently warm. (Rice may also be grown on hill tracts at high elevation as for example in Kashmir where comparatively large areas are put under this food grain, in widely sloping valley of the upper Jhelum at an average height of 5000 ft. above Sea level.)

(West Pakistan has got very severe climate, extremely dry and hot in the first half, of the summer season, hot and rainy during the other season, and freezingly cold during winter. In the Province of Punjab in Kallar tract the June temperatures reach near about 115° F. and about 32° F. in December.

During the summer season, dust-storms are of common occurrence, which very adversely effect the crop. The rainfall is welcomed, throughout the growing season, except for the harvesting period, when the rice crop is kept away from the water. (Any how we can say that climate of W. Pakistan is suited for the cultivation of rice provided sufficient irrigation water is available.)

Growing season

(Rice is grown in Pakistan as a Kharif crop, and is cultivated by two methods either by transplanting or by broad casting, where it is sown by transplanting the seeding are sown in nursery in the month of June and July, then after six or seven weeks young plants of rice are transplanted into the well prepared fields where it is sown in rows. While in the case of broad casting no nursery is needed, but the seed is directly sown in fields.)

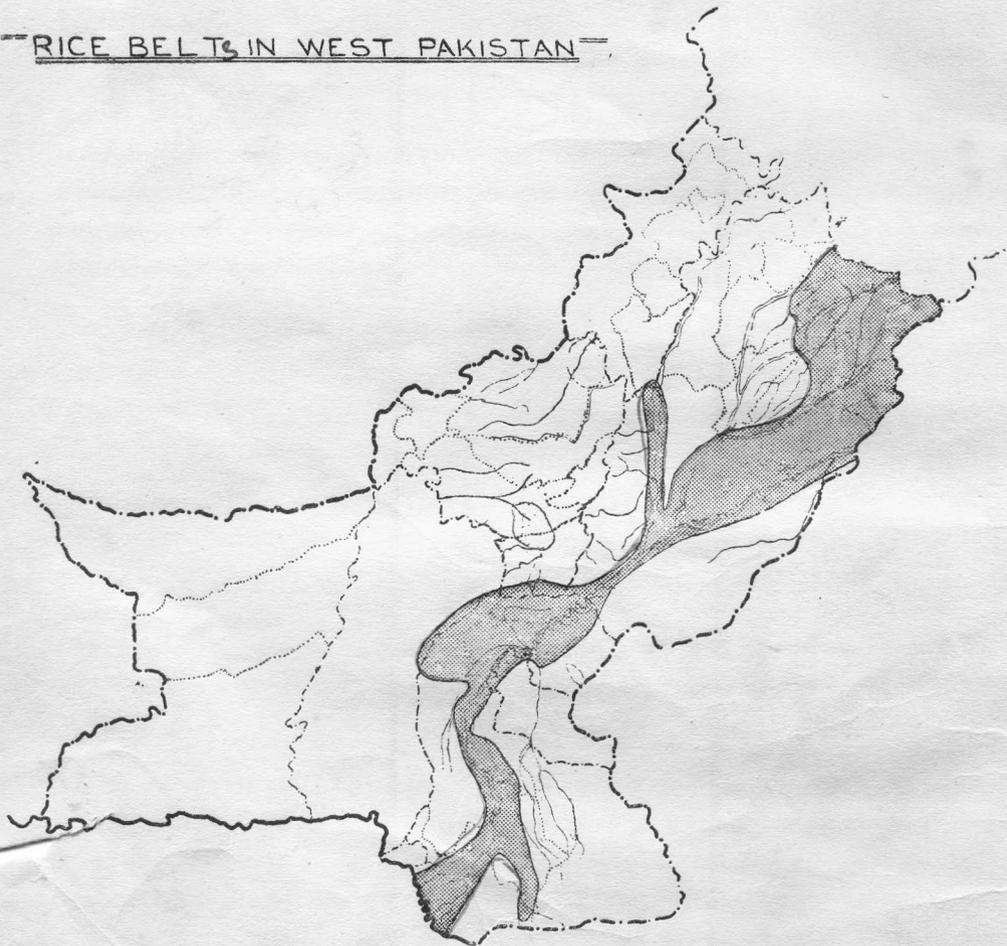
In W. Pakistan the transplanting method is mostly practised as it requires far less seed rate than broad casting.

(After the sowing of the plant rice crop is provided with water at frequent intervals of 15 to 20 days in the beginning and in later stages when the crop is about to mature, the water supplies are cut down just a month prior to harvesting. Harvesting starts from the middle of September and lasts till December and January. After harvesting the Paddy it is thrashed and winowed and then is sent to the market.)

(Due to such climatic and soil conditions the rice production is concentrated in a belt, which runs all along the river Indus, and in its delta and along river Chenab in the N.E. part of the Punjab.)

Due to heavy water demands and better response to Kallarathi soils production of rice in W. Pakistan is concentrated in a discontinuous belt, which starts from extreme southern corner, of the country, from Karachi and runs upto north of Sind extending into the south western Parts of Punjab. In the middle of W. Pakistan this discontinuous belt is bifurcated into north west and north east branches, one continuing in plains of Peshawar and Mardan, the other in Punjab. (Rice in W. Pakistan occupies approximately $\frac{1}{4}$ of the total cultivated acreage.)

— RICE BELTS IN WEST PAKISTAN —



— Scale is 50 Miles —



Acreage.—Pakistan is the 3rd largest Rice producing country of the world. It has got 10.7% of the world acreage of rice, and covers about 57.7% of the total cultivated area of Pakistan. Although W. Pakistan has got a meager acreage of rice yet it holds an important place in its agricultural economy and contains 9.15% of its total rice acreage, while this percentage is shared by different zones of the rice Belt.

The Rice belt which starts from the extreme South West comprises the Province of Karachi, which is an important rice growing area of W. Pakistan and has approximately about 1 % of the total acreage of rice.

The province of Sind which forms the central part of the rice belt is the chief rice producing area of W. Pakistan. It contains about 5.1% of the total acreage of rice in Pakistan. Although rice is grown in every district of the province, yet its acreage is more concentrated in the North, North West and South East, which form the southern and central part of the rice belt.

Central Part of the Rice Belt or Northern and North Western Zone of Sind.

This zone is the Chief rice Producing area of the Province, it has 77% of the Provincial rice acreage, it comprises the districts of Larkana, Daddu, Jacobabad and Sukkur. Out of 77%, 27% of the rice acreage lies in the district of Larkana.

South Eastern Part of Sind or Southern Zone of the Rice Belt.

This zone shares about 22% of the Provincial rice acreage. Out of this 17% of the Provincial acreage lies within the district of Hyderabad and the rest is shared by Tharparkar, Nawabshah and Thatta.

In the Province of Sind rice greatly exceeds wheat in acreage. It has 3.63% of the total rice acreage of Pakistan while rice in Punjab occupies about 14.7% of the total cultivated area comes next to wheat and cotton. Its production is concentrated to a definite tract which forms the North Eastern and South Western parts of the rice belt.

North Eastern Part of the Punjab or the Kallar Tracts.

This zone includes the districts of Sialkot, Gujranwala and Sheikhupura. This tract contains 62% of the provincial rice acreage, and 27% of the rice acreage lies in the district of Gujranwala, 23% in Sheikhupura, while the remaining is shared by Sialkot and Montgomery.

Central Part of the Rice Belt or South Westren Part of the Punjab.

This zone covers 22 % of the Provincial rice acreage. It comprises the districts of Muzaffargarh, D. G. Khan and Multan. While the Provinces of N.W.F.P. and Baluchistan have only 0.12 and 0.20% of the rice acreage of Pakistan respectively. In N.W.F.P. the rice acreage is concentrated in the Plains of Peshawar and Mardan while in Baluchistan rice is grown all along the river valleys and is mostly confined to the Valley of Zhob. In these two Provinces, rice crop is fed by rains.

Production :—Pakistan is the 3rd largest Rice producing country of the World. The first two positions are held by China and India with 33% and 23% of world rice production respectively. Rice is the chief food crop of Pakistan.

Although in Pakistan, East Pakistan is the home of rice culture and contributes about 91.5 % of the total rice production of Pakistan, yet West Pakistan with its meagre percentage of 9.50 holds an important position in the production of rice in view of a large exportable surplus. The annual supplies of West Pakistan are 171, 12818 mds.

The Province of Sind is the Chief rice Producing area of West Pakistan and it holds second position in Pakistan. It contributes about 5.14% of the rice production of the country.

The Province of Punjab stands second and 3rd largest rice producing area of West Pakistan and Pakistan respectively. It contributes about 3.63 % of the total rice production of Pakistan, and 34.4 % of the West Pakistan. The Chief rice producing area in Punjab is the North East Kallar tract, which contributes about 66 % of the provincial production, next comes the South West Zone, which contributes 25 per cent of the Provincial rice total and remaining 11 % is contributed by the canal colonies of Punjab.

The Provinces of N.W.F.P. and Baluchistan contribute about 0.12 and 0.20% of the rice production of Pakistan respectively.

In West Pakistan both fine and coarse varieties of Rice are grown. The coarse varieties like Jhona, Parnaal and Kangni are grown in those areas where conditions are less favourable while the fine varieties like Basmati is grown mostly in the Kallar tract of the Punjab. In the more Saline and boggy areas of South West and South East parts of West Pakistan mostly Red rice is grown. The fine varieties of rice grown in Punjab are the finest not only in Pakistan but in the whole of Asia.

Consumption.

Rice is one of the chief food crops of Pakistan and feeds nearly about 40% of the population of Pakistan, while Rice consumption in W. Pakistan

is very limited, because the staple food is wheat. After the food crisis of 1951 all the rice production in W. Pakistan was procured by the Provincial Governments under the monopoly procurement scheme, while this procured amount was consumed in the following way :-

| | 1952 ✓ | 1953 ✓ |
|--|----------------|----------------|
| (1) Total supply and production during the year. | 313000 tons. | 36800 tons. |
| (2) Total procured by the food department. | 76000 tons. | 106000 tons. |
| (3) Total export from the Punjab. | 60000 tons. ✓ | 85000 tons. ✓ |
| (4) Excluding export from the total the rest consumed locally. | 253000 tons. ✓ | 263600 tons. ✓ |

By the scheme it is clear that only 30% of the total supplies of Punjab were used for export.

✓ The rice produced is either sent to E. Pakistan to meet the food deficit or is used for export. The chief market for the Pakistan rice are, Japan, Ceylon, Arabia and Philipines. Nearly about 98% of the total exported rice is contributed by W. Pakistan. Local consumption rice has got rich dietic value as it contains about 77% of the Carbohydrates, 7.5% of the protiens, 1.7% fat. and 1.1% of minerals., thus with such high nutrition value it is equivalent to 6 grams of wheat. ✓

Rice in W. Pakistan is consumed in different ways, some of the rice is used for seeds which form 12% of the total rice Produced in W. Pakistan while out of the rest about 20% is used for export and the remaining 67% is used locally.

The rice consumption in W. Pakistan is greater in the rice producing zones. The per/capita consumption of rice in W. Pakistan is 27 lbs. per Annum.

(Rice in W. Pakistan is consumed generally under three commercial classes, as, fine, medium and bold rice. The fine rice is used by well-to do people, while the bold varieties are used by poor peoples. Further the consumption of rice in W. Pakistan is effected by certain factors like new and mature and paraberiled rice.)

✓ (The mature rice in W. Pakistan derives great prominence. Mostly Rice is consumed in boiled form, but for the ceremonial occasions more spicy dishes like poullao, sweet dishes like kheer, firni and Zarda are prepared.)

Some percentage of rice produced is also used in the manufacture of many things as by-products, like flour used in the manufacture of powder.

(The Rice production and acreage in W. Pakistan shows an upward trend since last ten years. This trend was accelerated during the year 1951-52, under the grow more food campaign launched by the Government.)

Under this scheme certain such lands where no crop other than rice can be grown was reclaimed by means of rice growing. Such lands are reclaimed by giving extra amount of water, provided by irrigation. In order to fulfil this purpose Provincial Governments have fixed certain canals for this purpose.

(Although rice culture is fastly developing in W. Pakistan, yet its development is impeded by the following factors.

(The average yield per acre in W. Pakistan is very low as in the Province of the Punjab only 447 lbs of Paddy per acre is obtained as compared to 4533 lbs in case of Italy 3391 lbs in Egypt. The causes for low yields are :-)

- (1) Poverty of the soil. ✓
- (2) Defective methods of cultivation. ✓
- (3) Lack of proper rotation. ✓
- (4) Unhealthy seeds. ✓
- (5) Adverse weather conditions at some critical stages of growth. ✓
- (6) Absence of Proper plant protection. ✓

The yields per acre can be increased if the above mentioned Problems are properly dealt with.

(The crop also suffers from insects and pests in W. Pakistan. Damage done by this is greater in South western part of the Punjab where the rice borers destroy about 15% of the standing crop. In order to avoid such loss Government of Pakistan, should accelerate the services for the Plant Protection.)

Thus in a nut shall the problems which must be solved in order to increase the acreage under rice, its yield and efficiency of rice production in W. Pakistan are numerous and pressing. Old lands must be fertilized and new lands should be developed and maintained under the cultivation of rice. Existing damage to irrigation works should be repaired and improved, new lands must be developed and new projects should be undertaken.

Rice cultivation in W. Pakistan should be encouraged simply because its higher yields per acre can feed a larger number than any other crop. So it can cope best with the increasing population of Pakistan as a whole and of W. Pakistan in Particular.

If all the problems, with which rice culture of W. Pakistan is faced be solved then its cultivation and production will increase many folds. It will not only earn more money but will also make the food situation of the country stable.

GEOGRAPHICAL NEWS

The Aligarh Muslim University, India is organising an International Geography Seminar from 9th to 16th January, 1956.

The aim of the Seminar is to provide an opportunity for teachers, reasearch workers and advanced students of Geography to discuss academic problems of common interest in a spirit of free enquiry.

The Preparatory Committee of the Seminar seek the co-operation of the departments of Geography, faculties, universities and other organizations in Pakistan by sponsoring a delegation to participate in the Seminar :

SUBJECTS FOR DISCUSSION

Geography Teaching

"ON THE TEACHING OF GEOGRAPHY WITH SPECIAL REFERENCE TO POST GRADUATE SYLLABI OF GEOGRAPHY"

Problems of Theory :

"ON GEOGRAPHY AND RACISM"

Physical Geography :

"ON CLIMATIC CHANGES IN THE HISTORICAL PAST"

Economic Geography :

"ON FOOD RESOURCES AND POPULATION GROWTH"

Regional Geography :

"ON ARID AND SEMI ARID ZONES"

Problems of National Reconstruction :

"THE PLACE OF GEOGRAPHY IN NATIONAL RECONSTRUCTION"

"ON HYDRO ELECTRICAL DEVELOPMENTS"

"ON LAND USE SURVEY"

PARTICULARS OF THE INTERNATIONAL GEOGRAPHY SEMINAR

Delegates.

Delegation shall consist of teachers, research workers and advanced students of Geography.

Delegation shall be sponsored by Geography departments or faculties or academic councils or equivalent bodies of Universities or Geographical Associations or academic, scientific and student organisations.

Delegations shall normally consist of 4 to 6 members. Each member of the delegation would be expected to submit at least one paper on one of the subjects for discussion in the Seminar.

The sponsoring authority shall inform the Preparatory Committee about the particulars of the delegation concerned at the latest by the 1st November, 1955.

Observers.

Any teacher, research worker or advanced student of Geography can attend the Seminar as an observer, submit papers and take part in the discussions provided he

- (i) informs the Preparatory Committee of his intention to attend by the 1st of November, 1955.
- (ii) submits a document from the Head of the department or the institution concerned certifying that he is a *bona fide* student, research worker or teacher of Geography ; and
- (iii) remits an observer's fee of Rs. 100 (Rupees one hundred only) to the Preparatory Committee by the 1st of November, 1955.

Papers.

Papers on any of the subjects for discussion be submitted by any delegate or observer to the Seminar.

3 copies of the papers (typed double spaced on foolscap size) should reach the Preparatory Committee at the latest by the 15th November, 1955.

Cyclostyled copies of the papers received shall be made available to all intending participants by the 15th of December, 1955.

Maps, diagrams, graphs etc. accompanying the papers should be drawn on tracing paper of foolscap size with BLACK ink.

Language.

The official languages of the Seminar shall be Hindustani and English. This choice has been determined by the limitations of

the Preparatory Committee and the technical difficulties involved in making translation arrangements in other languages.

Boarding and Lodging.

Delegates and observers will be the guests of the Preparatory Committee.

Exhibition.

An exhibition shall be set up for the duration of the Seminar in which different aspects of Indian life would be depicted through models, diagrams, maps, pictures etc.

Any delegation wishing to set up stalls in the exhibition should inform the Preparatory Committee of its intention to do so by the 1st, October, 1955.

Educational Tour.

Attempts are being made to arrange tours for the delegates after the Seminar.

The tours shall cover places of historical and economic importance in India.