PROCEEDINGS OF 1976/77

Number 10  December, 1977

URBAN PRIMACY AND REGIONAL ECONOMIC DEVELOPMENT IN THE THIRD WORLD  A. Lemon

VICTORIA FALLS — THE GROWTH OF A RHODESIAN VILLAGE  R. A. Heath

THE POLITICAL ORGANISATION OF CHINESE AGRICULTURE  J. R. V. Prescott

A GEOGRAPHICAL SKETCH OF TAIWAN  S. O'Donnell

THE LOCATION OF MANUFACTURING INDUSTRY IN RHODESIA UP TO 1952  L. Zinyama

HUMAN SETTLEMENT PROBLEMS  P. van Hoffen

MEASUREMENT — THE KEY TO TOPOGRAPHIC MAPPING  R. W. Sleigh

The authors alone are responsible for the opinions expressed in these articles. Articles intended for publication and all correspondence should be addressed to The Hon. Editor, c/o Department of Geography, University of Rhodesia, P.O. Box MP. 167, Mount Pleasant, Salisbury, Rhodesia. (Tel. Salisbury 36635-265).

Price $3.00

Distributed free to all members

Copies of Proceedings Nos. 3-8 are available at a price of $1.50 from the Editor, Department of Geography.
Eighty per cent of China's population lives in rural areas. Agriculture is not only the principal sector of employment; it is also the source of food, the source of many raw materials, and the chief means by which capital and foreign exchange are generated. The fundamental importance of agriculture in China was recognised by Chairman Mao-tse-tung's directive to “take agriculture as the foundation and industry as the leading factor”. While a great deal is known about the political organisation of Chinese agriculture, very little information is available about the regional variation of agricultural activities and production levels which are the prime concern of the geographer.

THE HISTORICAL ORGANISATION OF AGRICULTURE SINCE 1949

When the Community Party came to power in 1949 there were two main groups in the Chinese agricultural system. The landlords and rich peasants, who formed about 10 per cent of the population owned or controlled about 70 per cent of the land. The great masses of Chinese peasants cultivated the remainder or served as tenants under circumstances which promoted a high level of poverty and often a hopeless level of indebtedness.

The first policy of the new government was to confiscate all land owned by the landlord class and redistribute it to landless peasants. By 1952 the government had distributed 115 million acres to 300 million peasants. This programme effectively destroyed the landlord class. At this time mutual aid teams were established on a voluntary basis. These organisations enabled peasants to pool their resources of draft animals and tools at the critical time of planting and reaping. Land was still held in private ownership however, and there were sharp contrasts in the wealth and standards of living of rich and poor peasants. These differences existed even in localised areas because of differences in the size of the family, differences in the size of holdings, differences in the energy and application of individuals, and differences in the quality of the land. There must also have been regional differences between the areas which can produce two or three crops a year and those which yield only one crop.

Gradually some permanent teams were formed and by 1954 there were 10 million teams, usually containing 10 families each. Some of the teams began to amalgamate to produce agricultural producers cooperatives, and this represented the second stage of re-organisation. By 1955 there were 670,000 such organisations encompassing 17 million households, and by the following year 96 per cent of the rural population worked in cooperatives. The cooperatives existed at two different levels of communist practice. At the lower level the land remained under private ownership although it was pooled for productive purposes, and agricultural policy was determined by a central committee. Income derived by the cooperative was shared amongst the members on the basis of inputs of land, machinery, tools and labour. At the higher level all land, tools and animals were communally owned and income was based solely on labour inputs. However, even at this level private plots were allowed, and subsidiary craft activities to supplement income were permitted. There were still differences in the incomes earned by families of different sizes and structures, and it was to overcome this situation that communes were introduced.
This third stage occurred first in 1958 and communes were designed to end traditional rural life in China. There were to be public mess-halls, sewing and laundry teams, and military-type discipline to promote political indoctrination. Income was to be based on collective labour and most of the income would be provided in kind. The object was to eliminate the differences between the large and small families and between the families with young active members and those with old members. 27,000 communes had been set up by the end of April and these were consolidated to 24,000 during the following year. This period of extreme communist organisation coincided with what the Chinese authorities later called the three bitter years. The government blamed adverse weather conditions for the poor results in the period 1959-61, but it seems certain that poor weather was a less significant factor than the disruption caused by the new styles of life, and the resistance of peasants objecting to the new systems. Grain harvests declined significantly probably because many peasants held back grain. They objected to the para-military training, the long hours of political indoctrination, and the corvée work. The authorities correctly interpreted the mood of the peasants and restored the system of advanced agricultural producer cooperatives. There were some nominal changes in this reversion, which represents the fourth stage.

The production team is now the basic accounting unit and the unit of labour management. Production teams are combined into production brigades which are responsible for crop management. Production brigades are united in communes which have responsibility for relations with higher political and administrative authorities, for investments of a major nature, and for ancillary industrial enterprises. Various figures of the numbers of communes have been quoted; a recent official figure is 52,600, but these communes vary widely in area and the number of members.

THE COMMUNE AT WUXI

In April 1974, I visited a commune at Wuxi, east of Shanghai in the lower Yangtze valley. The commune possessed 3,660 acres and accommodated a population of 14,000; which gives a gross density of 2,500 per square mile. It was organised into seven production brigades, and it was one of these which I visited. This brigade occupied 525 acres, which is almost exactly one-seventh of the commune’s area, but it contained 3,900 people giving a gross density of 4,800 per square mile. The brigade was organised into 18 teams each containing about 57 households. Most of the brigade’s land consisted of flat alluvial plain, but 29 per cent was hilly and used mainly for orchards. Rice was planted on 41 per cent of the brigade’s land and mulberries on 10 per cent. The remaining 20 per cent was devoted to fish ponds.

The agricultural year was organised in the following way. The first rice crop is planted in May and harvested in August, and this is followed by a second rice crop which is planted in September and collected in November. The period November to May yields either a wheat crop or, every other year a crop of green manure. The mulberry bushes support a small silk industry and the ponds yield fish and cultured pearls. According to the figures quoted the yields of rice, wheat, mulberry leaves and fish have all increased steadily through the post-revolutionary period. The 1973 yield of 1.4 tons of wheat per acre confirms the impression that the Chinese peasants could almost be called gardeners rather than farmers. The diligent care given to the fields and the insistence that every available square foot of land should be productively used are two of the hall marks of Chinese agriculture. Mulberry bushes are
no longer allowed to grow above 6 feet in height; this enables them to be planted closer together and increases the yield of leaves. The fish ponds are developed on a sound ecological basis. The ponds were deepened and the bottoms covered in shell fragments derived from fresh water molluscs in a nearby lake. This provides sustenance for fish that feed at the bottom of the ponds. Weeds are cultivated in the pond and they provide food for fish occupying intermediate levels in the pond. Finally there are surface feeders using microscopic plant and animal organisms. The fish are culled five times a year by drawing a net through the pond. Once every year the pond is drained and the fish transferred to a holding pond. The bottom mud is removed and placed on the fields. New bottom material is provided, fresh weed is planted and the pond is refilled and re-stocked.

The commune also has a cultured pearl industry based on the large fresh water molluscs mentioned above. Tissue from one mollusc is inserted in the body of another mollusc and this is sufficient to provoke irritation and the secretion of pearl-forming materials. Finally the brigade also has two small workshops. In the first there were 22 women engaged in producing embroidered tea cloths, table cloths, pillow slips and napkins. The second employed 27 women and one man who were fashioning the uppers of shoes which were sent to factories in Wuxi for the finishing processes. Some of the commune members commute to Wuxi to work in offices and factories. Individuals in the commune are entitled to own 23 square yards for private cultivation, but the total holding of any one family must not exceed 162 square yards. Members who choose are also allowed to engage in private work of a handicraft nature in their spare time to augment their income.

**SYSTEM OF ASSESSING INCOME IN THE WUXI COMMUNE**

It is now necessary to examine the important question of how the incomes of individuals is assessed. At Wuxi the following system is adopted. The production team, being the accounting unit, decides how many work points will be allotted to individual tasks around the team's area. For example, 25 points may be credited to an individual for planting an area of rice, while collecting mulberry leaves from a similar area may score 15 points. The points scale is decided after careful discussion and consultation and throughout each month the points earned by each individual are recorded and tallied. No allowance is made for the fact that it takes some people less time to perform a particular task, and if there are some high scoring tasks which are generally beyond the strength of women that is their misfortune. However, allowances are made for pregnant women during the months spanning their confinement, and for party officials and others who have to attend to administrative duties away from the commune. Twice a year the work points for the whole production team are totalled and divided into the available funds. This calculation provides a monetary value for each work point, and the earnings of each person are derived by multiplying this value by the number of work points. This means of course that there may be marked differentials between incomes of the stronger and weaker workers, unless the stronger workers settle for more leisure time. It also means that there will be differences in family earnings depending upon the number of working members and their various capacities.

This is not the only way in which individual earnings are calculated. Maxwell (1975) has described a different arrangement which operates in Tachai, China's most famous commune. The Tachai commune, which is quite

33
small, functions as an accounting and labour unit. Instead of allocating work points to each task the members assess the labour capacity of each other. Men are graded on a scale from 1-11 while the women's scale is 1-8.5. The personal assessments of each person are subjected to mass scrutiny and usually adjusted upwards on the grounds that the member has a special dedication to the commune, or is cheerful and raises the spirit of others, or is willing to do chores around the commune. Everyone's work is then recorded in days or half days. At the end of the year the number of days is summed and that total is multiplied by the individual's work capacity. Thus if the norms of two people were 10 and 8 and they both worked for 320 days they would be credited with 3200 and 2560 points respectively. Once again the total number of work points is divided into the available funds and the monetary value of each point is calculated. The Tachai scheme tends to reduce the differences created by the different strengths of individuals, and it avoids any possible competition for high scoring tasks.

THE CALCULATION OF AVAILABLE FUNDS

The funds available for sharing amongst the members of the production teams are calculated in the following way. From the gross income of the team must be deducted production costs, investment funds, social security funds and government tax. The production costs concern seed, fuel, new tools, and animals. Most communes will arrange for funds to be set aside for major capital projects such as the purchase of a major piece of machinery or the construction of a small dam. Savings are made to pay pensions to commune members who can no longer work and to cover the medical treatment of the sick, as well as to provide cover for unexpected emergencies such as floods. Government tax usually runs at 2-3 per cent. The money which is left after these deductions is available for sharing. The different items of expenditure will account for varying proportions of a team's budget; the comparative accounts for Wuxi Brigade and Tachai commune for 1973-4 are shown below.

<table>
<thead>
<tr>
<th></th>
<th>Wuxi Brigade</th>
<th>Tachai Commune</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross income</td>
<td>900,740</td>
<td>182,421</td>
</tr>
<tr>
<td>Production and tax</td>
<td>144,118 (16 per cent)</td>
<td>59,141 (32 per cent)</td>
</tr>
<tr>
<td>Security and investment</td>
<td>126,103 (14 per cent)</td>
<td>43,854 (24 per cent)</td>
</tr>
<tr>
<td>Net income</td>
<td>630,518 (70 per cent)</td>
<td>79,426 (44 per cent)</td>
</tr>
<tr>
<td>Average per capita income</td>
<td>161 ($Rh 35)</td>
<td>181 ($Rh 38)</td>
</tr>
</tbody>
</table>

Notes: All amounts in Yuan; the source for Wuxi was my visit in 1974; the source for Tachai was Maxwell (1975).

PROBLEMS AND INCONSISTENCIES

The first inconsistency is that the present system has not succeeded in eliminating variations in the earnings of individuals and families. Whether the Wuxi or Tachai formula is used this differential remains, although the Tachai scheme scales down those differences. Second there is the inconsistency that there will be much wider differences amongst the major agricultural
regions of China. A few days before I visited Wuxi, where the planting of the first crop was in full swing, I visited a commune north of Peking. There the ground was still rock hard which meant that not only had there been no winter crop, but the spring crop was sown much later than at Wuxi. Still earlier, on a visit to the Great Wall, I had passed agricultural units, of what level I do not know, which were confined to a small area between steep valley sides which seemed to have no commercial value. My Chinese hosts politely declined to discuss the mechanism by which these regional disparities were overcome. The obvious technique would be tax the wealthier communes harder than the poorer units and use the funds to raise the earnings of the peasants in poorer areas, but I was assured that taxes did not vary in this way. In a capitalist economy internal migration could be expected as individuals moved from the poorer to the more prosperous areas. Such population responses would not be allowed to operate in an unplanned fashion in China where the movement of labour is strictly controlled. Furthermore the Government is anxious to maintain and increase the population living in the more hostile environments of the border regions of Sinkiang and Manchuria. Such areas are also the only zones where the government encourages a high birth rate, which would tend to depress per capita earnings.

The third inconsistency is ideological rather than practical. The strict rules of the communist system are applied more liberally in the rural areas where private plots are allowed, where handicraft industries are permitted, and where homes are owned and may be willed to descendants. These uncharacteristic communist attributes are not encouraged in the urban areas, and perhaps this difference reflects the great importance attached to agriculture.

The fourth problem concerns the role of mechanisation. Chairman Mao-tse-tung once said “the way out for agriculture lies in mechanisation.” China is producing thousands of hand tractors, and smaller numbers of rice planting machines, harvesters and threshers. The present farming system is labour intensive and the question arises what will China do with the millions of peasants who might be released from farming by mechanisation. The government could promote the controlled drift to the cities to enlarge the industrial sector; or some surplus labourers could be sent to reclaim areas of desert or mountain, while others could swell the numbers of students at tertiary institutions. Of course the government could also authorise shorter working hours in rural areas.

CONCLUSION

Of all the underdeveloped countries which have experienced severe rural problems because of a large landless peasantry, China has gone furthest in redistributing land and wealth, and at the same time increasing production sharply. Further progress will probably rest more on improved agricultural techniques than revision in administrative processes. However, it is certain that the national and local authorities will continually review these processes with a view to altering them if the interests of the state requires it.

REFERENCE
