

PEASANT COLONISATION IN MINDANAO, THE PHILIPPINES

by

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INTRODUCTION

Peasant colonisation as a research topic

Since 1945, there has been an increasing number of studies of the settlement of new land in the tropics by peasant farmers. These studies have been carried out by economists, anthropologists and sociologists as well as by geographers. Their interests have focussed mainly on settlement projects organised by governments or by private institutions, and there is now a considerable literature on the planning and administration of such projects. Particular attention has been paid to such aspects as costs and benefits, administrative structure within settlements, settler selection, farm sizes, financing of settlers and so on.

Far less attention has been devoted by geographers to the spontaneous, or unguided, diffusion of independent migrants into vacant lands. Most existing work has been on a broad regional scale or has merely noted movements of spontaneous colonisation almost in passing. There have been very few detailed investigations among individuals actively engaged in developing new areas.¹

Such neglect is regrettable, firstly because of the sheer scale of the phenomenon of spontaneous colonisation. In the last fifty years, it has involved many millions of people in Latin America, Africa and Asia. Within the tropics alone, the process has been comparable in scale to the migrations that populated North America and Australia, but

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Raison (1968:11) in an important paper reviewing colonisation in the tropics states 'Quant aux mouvements spontanés, ... ils sont fort mal connus, sauf cas particuliers
...'

it is far less documented. Thus, in the Philippines some two million people have moved into sparsely populated areas without official assistance or guidance since 1945, but only one brief paper (Sandoval, 1957) has been devoted specifically to an investigation of the conditions of a sampled group of settlers.

A second reason why one might have expected greater attention to the study of spontaneous colonisation is that it bears on a wide range of topics of geographical interest. There is the advantage of being able to observe from the earliest stages the processes of development of agricultural and settlement patterns that are basically the result of settlers' own choices rather than of the pre-determined designs of an external guiding agency. These processes may be studied in themselves alone or in relation to theories of location, diffusion, environmental perception, economic development and other topics.

The approach followed in this thesis is essentially empirical and examines a range of themes, in the setting of a single municipality within a colonisation area in the Philippines. Briefly outlined, these themes are, firstly, the factors involved in the occupation of land by migrants and the forms by which they hold land; secondly, the development of the land and its present use; and, thirdly, the present economic conditions of the settlers. The conditions that have resulted from colonisation are viewed in relation not only to the colonists but also in general terms to the nation as a whole. The data from the study of colonisation in a single small area are not definitive but it seems important to make extrapolations to the national level, however tentative, for two related reasons. Firstly, the Philippine nation, from policy-makers to peasants, has for several decades relied on the development of new land as a solution to problems of population growth in more densely

settled parts of the country. Secondly, detailed information on the results of Philippine colonisation is lacking.

Land settlement, population problems and economic development

General considerations. Many nations in the tropics that have unevenly distributed populations have hoped that redistribution of the population through migration and resettlement would help to solve agrarian problems in the densely settled areas. These problems centre on low incomes and low levels of living for large proportions of the population and may be related to problems of land tenure, small farms, low productivity of land or labour and lack of alternative employment. It has widely been hoped that the development of new lands would relieve pressures in the densely settled areas, increase domestic food supply and increase production of raw materials for domestic industry and for export. Although demographic studies have shown that emigration very rarely has long-term effects in reducing (or even significantly slowing the rate of increase of) the population in densely settled areas, there may nevertheless be grounds for hope of significant other benefits from colonisation.

In this context, the colonisation of agricultural lands is bound up with the subject of economic development in general, not merely with agricultural development. A basic assumption of this thesis is that economic development is desirable, in the sense of increasing individuals' opportunities for choice among alternative ways of controlling their destinies. These opportunities are supported by reasonably reliable prospects of employment, increasing productivity and increasing real incomes (Mellor, 1966:9-10). It is further assumed that economic development in a country of rapidly growing population with

an established backlog of unemployment requires the development of industry as well as of agriculture. These assumptions will not be argued at length but some comments are in order to illustrate the frame within which colonisation in the Philippines has been viewed.

The relationships between agriculture, industrialisation and general economic development have provided ground for continuing debate between economists. Recent contributions particularly relevant to the viewpoint of this thesis are Paauw (1966) and Shand (1969) while Mellor (1966) has covered the whole field at length.

Shand, reviewing the processes of agricultural development in nine Asian countries, emphasises the degree of availability of land and the nature of the technology used in agriculture. He expresses these factors as limited or unlimited land and static or dynamic technology. Vacant agricultural lands offer nations a prospect of establishing new farms free of the traditional restraints of densely settled areas that commonly inhibit the adoption of productivity-increasing innovations. If improved technology is adopted, once subsistence is assured, increasing productivity allows an increasing proportion of farm output to be marketed. Even with constant prices farm incomes would then increase, but higher and more reliable output would also make possible economies in transportation and marketing so that prices paid to farmers would rise. This would increase incentives to raise productivity. Increased farm incomes would also allow greater purchases of both farm supplies and other manufactured products so that the role of farmers as consumers would stimulate domestic industrial growth. Industry would benefit from an improved supply of raw materials from agriculture. Moreover, if food crops experienced productivity gains the cost of food for

non-agricultural workers would be reduced so that urban real incomes should increase, stimulating further demand for both industrial and agricultural products.

Another element in this brief review of the potential beneficial results of adopting improved agricultural technology is that of employment. If incomes of farmers are high, they can afford schooling for their children, who are then more qualified for a wider range of employment opportunities. Such opportunities become more widely available as the non-agricultural sectors of the economy grow. The movement of rural people into non-farm employment reduces the likelihood - or at least the rate - of subdivision of farms through inheritance and so operates against a possible tendency towards decreasing farm incomes. The availability of vacant land for new farms may serve the same role, but the above conditions of increasing productivity and expanding employment opportunities would still need to operate or the advantage of newly developed areas would rapidly be dissipated through population growth.

Paauw (1966) discussed, with specific reference to the Philippines, the role of agriculture in helping to eliminate dualism in an economy, where dualism is seen as a contrast between a technologically stagnant agricultural sector and a smaller, more or less dynamic industrial sector.¹ Paauw stressed the importance of foreign trade in strengthening the symbiotic relationship between agriculture and industry that has been outlined above. Noting that earnings from agricultural exports commonly served to support early attempts at industrialisation, he suggested (1966:18) that

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This characterisation is a rather wide generalisation, since some agricultural enterprises, notably sugarcane production, are more dynamic than for instance, the important cottage industries of the Philippines.

agriculture should receive priority attention in the early stages of development in order to 'lay the basis for its historical role of financing transfers to industry through both domestic and foreign trade channels.'

The authors cited also point out the results of failure to adopt a dynamic technology in agriculture when population is growing rapidly. In very brief summary, declining real incomes per capita in agriculture would both lessen the availability of capital for investment in innovations and reduce the willingness of farmers to risk innovation. Increasing rural population might lead to a decline in marketing of food crops or to a shift from export crops to food crops for subsistence. If domestic food supplies for urban workers were reduced, causing price increases, urban wages would need to be raised, thus reducing funds for re-investment in industry. Alternatively, prices of manufactured products would be increased. With rural real incomes falling, domestic demand for industrial products would be restricted. If a conversion of land from export crops led to reduced export earnings, the reduced ability to import capital goods and raw materials would have an additional depressing effect on industrial activity. Moreover, foreign exchange might also be needed to import food if increasing proportions of domestically produced foods were consumed by the growing rural population.

The development of new land by traditional agricultural techniques merely delays the stage at which limitations of land begin to limit growth of agricultural output. It is therefore in the long run essential that steps should be taken to begin raising agricultural productivity before the limits of land availability are reached. From one viewpoint, the prospects of new settlers adopting a dynamic technology are favourable, since they are not generally subject to some of the constraints of densely settled areas such as small

farms and lack of incentives caused by tenurial arrangements. On the other hand, the very nature of colonisation may mean that settlers are remote both from extension workers who could transmit innovations and from suppliers of necessary production inputs. Furthermore, settlers using traditional techniques are quite likely to obtain good returns from newly cultivated land and to feel that the expense of inputs such as fertiliser is unnecessary. Raison (1968:102) commented on the paradox that an extension centre in a pioneering region would begin to achieve results only when the surrounding area was no longer a pioneering region. This comment echoes the thesis of Boserup (1965) that improvements in agricultural techniques and productivity are likely to develop primarily in response to population pressure on resources at a given technological level. The use of basically traditional techniques by Javanese settlers in Sumatra has been noted by several observers. Penny, using information from both old and new settlements in Java and Sumatra, estimates that where new land is developed without improved techniques and with population growth of 2 per cent annually, real income per head will begin to decline within a generation.¹ Within two generations farmers will again be willing to migrate if more new land is available.

These considerations show that the colonisation of new land is not in itself adequate to contribute greatly to long-term economic growth and, together with the evidence of the present study, they indicate that the potential benefits of land development as outlined above are perhaps rarely achieved in practice. This suggests that the processes actually operating during a colonising movement are of great

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D.H. Penny, personal communication.

importance in determining the impact that colonisation will have on the national economy, regardless of its role in the lives of individual colonists.

It was noted above that the main themes of this thesis are concerned with colonisation in one small area within the Philippines but that some space is also devoted to relating the fieldwork findings to conditions at the national level. It is convenient to present here aspects of the Philippine economy that are relevant to the general framework outlined above, that is, the relationships between land settlement, population problems and economic development.

The Philippine case

Population growth. At the beginning of the twentieth century the population of the Philippines was only 7.6 million and by 1918 had reached 10.3 million. Under the impact of educational and health services introduced by the American colonial regime, mortality rates began to decline. From 1926 to 1930 the crude death rate averaged 26 per 1000 but by 1956-60 it had fallen to only 14.5 per 1000. Meanwhile the crude birth rate remained steady at about 45 or 50 per 1000, so that population began to grow at an increasing rate (Concepcion, 1966:186-7). In 1948 the population was 19.2 million and appeared to be increasing at 1.9 per cent each year, but the 1960 census revealed a population of 27.1 million growing at an annual rate of 3.0 per cent.

Lorimer (1966) has made detailed analyses of Philippine population growth and presented projections for the future based on various assumptions (see Appendix Table 1). His maximum projection, assuming unchanged fertility and death rates, suggests a population in 1980 of 53 million - almost double the 1960 figure. In the following 20 years population would more than double, reaching 111 million in the year 2000.

Lorimer's minimum projection assumes a gradual decline of total fertility from 6.8 births per woman to 2.8 by 1995. This projection yields a population of 49 million in 1980 but only 72.7 million by 2000 (Lorimer, 1966:292,301-3). However, such a rapid decline in fertility is hardly to be hoped for, particularly in a population that is mainly Roman Catholic. Hence, Lorimer (*ibid.*) presents a third projection based on gross reproduction ratios halfway between the other two projections. This yields a population of 51 million in 1980 and 92 million in 2000.

Employment. On all of these projections, the labour force in 1980 will be double the level in 1960. Thereafter, even on the minimum projection the labour force would increase by more than half a million workers annually (Lorimer, 1966:308). The task of creating sufficient new employment opportunities will be immense in view of the existing backlog of unemployment. In the 1960 census, some 0.6 million Filipinos (7 per cent of the labour force of 8.5 million) were reported unemployed and another 1 million were said to be visibly underemployed since they were seeking additional work.

The provision of services, employment and income for a rapidly increasing population requires a very high rate of capital formation. The International Labour Office (1964:142) concluded that rates of investment of at least 20 per cent of national income must be sustained over long periods before growth is sufficient to raise incomes, demand and output enough to achieve full employment. However, in the period 1950-60, gross domestic capital formation in the Philippines ranged between 12 and 14 per cent of gross national product (GNP) at current prices and 30-40 per cent of the total was accounted for by capital consumption allowances and by imported capital (National Economic Council, 1969:44-5). Although from 1960 to 1967 gross

domestic capital formation rose to between 19 and 23 per cent of GNP at current prices, this in part reflected rising prices of capital goods following exchange decontrol and devaluation of the peso in the early 1960s. Expressed in constant (1955) prices, gross domestic capital formation did not exceed 18 per cent of GNP.

Ruprecht (1966) has shown that between 1957 and 1964 at least, the Philippine economy generated opportunities in excess of the rate of increase of labour, so that some of the surplus noted above has been absorbed. However, the manufacturing sector did not contribute much to this absorption since its growth was a response to inputs of capital rather than labour.

In the Philippines two major objectives of economic policy since independence in 1946 have been industrialisation and the achievement of self-sufficiency in rice. For 15 years after the second World War, manipulation of exchange rates, severe import controls and tax concessions facilitated a considerable degree of import substitution for industrial products. In consequence, the share of manufacturing in net domestic product rose from 13 per cent in 1950 to 18 per cent in 1959. At this point, because of the urgent need for external stabilisation, import controls began to be eased and in 1962 the peso was devalued. Consequently, industrial growth decelerated and in 1965 manufacturing fell back to 17 per cent of net domestic product (National Economic Council, 1969:60). Even before this, in 1959, it was estimated that, on average, industrial plants were operating at only about 50 per cent of capacity, due largely to lack of foreign exchange to import essential equipment, maintenance parts and raw materials (Treadgold, 1969:241, f-n).

Agricultural development. While the value of non-agricultural commodity output per head rose by 6 per cent between 1948 and 1961, the value of agricultural output per head rose by only 1 per cent. Over the same period, the share of net domestic product originating in agriculture (including forestry and fishing)¹ fell from 38 to 31 per cent, although the proportion of the employed labour force in this sector has probably remained close to 65 per cent (Population Institute, 1966:500-1).

Nevertheless, the agricultural sector has to a large degree assisted the growth of the non-agricultural sector through its earnings of foreign exchange. Copra alone has accounted for between 20 and 40 per cent of the total value of all exports in most post-war years. If processed agricultural products, such as coconut oil, refined sugar and canned pineapple are included, agriculture accounted for 84 per cent of all exports in 1949, 74 per cent in 1955 and 60 per cent in 1965 (Central Bank News Digest, June 27, 1969). Paauw and Tryon (1966:22-3) calculated that in 1949 42 per cent of agricultural export earnings were used to finance imports for the industrial sector and by 1964 this proportion had risen to 80 per cent.

Within agriculture, there has been a marked difference in performance during the twentieth century between food and commercial crops.² In their major survey of Philippine agricultural development 1902-61, Hooley and Ruttan (1969)

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Forestry and fishing accounted for 15 per cent of the value of this sector in 1948 and for 25 per cent in 1961 (National Economic Council, 1969:46-7).

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The distinction here is in practice not entirely clear. For instance, some 30 per cent of corn output is used in animal feeds or other industrial uses (Golay and Goodstein, 1967:61), while a considerable proportion of coconut products is consumed on farms (Nyberg, 1966:12).

show that although total agricultural productivity did rise after 1945, it was the commercial, largely export crop sector that was largely responsible. Sugar yields rose sharply until 1960, when extension of cultivation into marginal lands led to a drop, and yields of coconuts have shown a slight but continuing upward trend.

The physical output of rice and corn has risen enormously since the 1920s, but up to 1960 the rise was almost entirely due to massive increases in the areas planted to these crops in regions of colonisation. Between 1926 and 1963 the area in rice (including double-cropping) rose from 1.8 million ha to 3.1 million ha and the area in corn from 0.5 million ha to 1.9 million ha. Yields of rice remained constant at about 1.2 metric tons per hectare between 1920 and 1960 while corn yields were about 0.7 tons per hectare. Philippine rice yields have long been among the lowest in the world and in 1963-7 only Puerto Rico, Brunei, Cambodia and Laos had lower average yields (FAO, 1968a:203-4). From the nineteenth century until 1968,

Table 1 Average yields of rough rice (paddy) in selected countries, 1963-7.

<u>Country</u>	<u>Yield (metric tons/hectare)</u>
Philippines	1.3
Thailand	1.6
Indonesia	1.8
West Malaysia	2.6
Taiwan	3.4
Japan	5.2
Australia	6.5

Source: FAO The State of Food and Agriculture 1968, Annex Table 16.

domestic rice output usually failed to meet requirements, so that imports were necessary in varying degrees from year to year. From 1947 to 1965, net imports of milled rice

averaged 112,000 metric tons annually, with a peak in 1965 of 560,000 tons. In addition, imports of wheat and flour rose from an annual mean of 84 metric tons in 1933-40 to 182 tons in 1946-55 and 275 tons in 1956-65 (Golay and Goodstein, 1967:48,52). In the post-war period, cereals and cereal preparations have accounted for from 4 to 12 per cent of the total value of Philippine imports (Central Bank News Digest, March 22, 1966).

After about 1960, price movements favouring export crops caused a slight decline in areas planted to rice and corn, but both recovered by 1967. In 1966-7, a little over 2 per cent of the rice area was planted to new high-yielding varieties; in 1967-8 the proportion rose to 21 per cent (Barker, 1969:2). Varieties such as IR-8 have optimum yields well over 6 metric tons/hectare and many farmers have achieved over 4 tons/hectare. As a result of increased output, the Philippines became a net exporter of rice. Also, in 1967 the share of agriculture in net domestic product rose to 31 per cent and the sector's annual growth rate rose from 6.1 per cent in 1965-6 to 8.1 per cent in 1967-8 (National Economic Council, 1969:2,37).

Although the aim of self-sufficiency in rice was thus achieved, this may not remain true in the long term. Golay and Goodstein (1967) have presented data on the investments necessary to maintain self-sufficiency and they stress that cheap new land will no longer be a major contributor to growth of rice output. They also note that the trend towards improved technology to achieve the higher yields will encourage pressures to increase the scale of enterprise. Since rural population growth will encourage an opposing trend, 'these pressures inevitably will intensify class conflict in high tenancy sectors of Philippine agriculture. Such conflicts...will tend to intensify resistance to better farm management' (Golay and Goodstein, 1967:71-2).

Wharton (1969) has pointed out other problems likely to arise from the success of the 'green revolution'. Because of these problems and uncertainties, the general issues considered in this thesis are not seriously affected by recent developments in agricultural productivity.

Land settlement. In the Philippines, as in many other countries with unevenly distributed population, great faith has been placed in land settlement as a major contributor to agricultural development. A major aim of policy has been to strengthen the family-operated small holding sector and much has been expected of newly developed areas where settlers were able to establish farms much larger than the mean in the densely settled parts of the Philippines. In a report as early as 1931, Field (1931:399, 409-11) mentioned the emergence of social and economic problems in the areas of new settlement, but until recently optimism over the role of the new areas in national development remained high in both official and public opinion.

In the past five or so years, there has been a widening appreciation of the problems of the areas of colonisation, stemming perhaps from a projection by Huke (1963:152) that by 1970 or 1975 there might be no agricultural land left for settlement in Mindanao. However, this recent concern has been more with the question of the reserves of vacant land than with the problems of the lands occupied in the past 60 years. In part, this has been due to a lack of information on recently settled lands. Although incidents in these areas are reported in the national Press, there are few coherent bodies of information covering broad aspects of conditions in the colonisation areas. The periodic censuses of population and agriculture provide valuable data for analysis, but serve mainly as bench mark data. Annual provincial reports on population and agricultural conditions are largely 'guesstimates', as one provincial agriculturist

put it. A nationwide study of farm management, land use and tenancy by von Oppenfeld et al. (1957) included data from parts of Mindanao but in aggregated form. The paper by Sandoval (1957) cited above was until recently the only published report of a study specifically among settlers. Sandoval's data on the range in farm sizes, the degree of tenancy, lack of capital, poor transportation and destruction by disease of the major commercial crop (abaca) all indicated significant problems in the settlement area, even though virtually all of the settlers felt their conditions had improved since migration. Sandoval's data and other scattered evidence all suggest that not only was Mindanao's role as 'safety valve' for densely settled areas declining by the 1950s, it was also likely in the future to experience the same problems as the other areas. Hardie (1952:2) foresaw this, commenting

...these newly developed areas are after all a part of the Philippines and subject to the laws and customs of the land. If not corrected, pernicious land tenure practices...in Luzon will continue being transported to the newly developed areas....

In the light of the above comments, it seemed worthwhile to examine the processes of colonisation in detail, paying particular attention to the acquisition, tenure and use of land and to the economic conditions of settlers. The role of government agencies in supporting, channelling or constraining the efforts of spontaneous settlers is also considered. The aim was to show what conditions now exist among the peasant colonists and how they have arisen. The following section describes how the investigation was carried out.

Methods used in fieldwork

The collection of information concerning the personal histories, property holdings and economic conditions of

peasants in an unfamiliar culture can only be carried out by personal questioning, and fieldwork planning took this requirement as a starting point. To reduce the possibility of significant spatial differences in historical development, the investigation was restricted to a small area.

Requirements were that colonisation should have begun at least 25 years before; that some at least of the pioneer immigrants should still be living; that the area should contain representatives from each of the five main cultural-linguistic groups of migrants in Mindanao;¹ and that immigration should be either still continuing or only very recently completed. These criteria would yield a broad range of conditions under which individual migrants would have made locational and land use choices.

In the Philippine context, such an area was most likely to be found in the main area of immigration, southern Mindanao. Following reconnaissance in the provinces of Cotabato and Davao, the municipality of Mawab, in northern Davao province, was selected as it met all the criteria listed above.

Through the co-operation of local officials and schoolteachers, a list of residents of the municipality was obtained, and a random sample of 50 settlers was chosen. This sample represented approximately 3 per cent of the total number of settlers in the area in 1967. During the reconnaissance period, two questionnaires were designed, tested and revised. Using an interpreter, each questionnaire required up to two hours to complete. Each informant was interviewed three times, usually in his own

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These are Ilocanos, Ilongos, Cebuanos, Boholanos and Leyteños. As will be seen in the following chapter, the last three groups have much in common, including the Cebuano dialect, but they regard themselves as distinct.

home, where other members of his household often assisted in responses. Information on land use by the sampled settlers was obtained from chain-and-compass surveys of their holdings and from aerial photographs. Apart from the selected settlers, information was obtained from a wide range of sources. These included other settlers; public officials such as barrio captains, the mayor and the municipal treasurer; commercial establishments; and several government offices in Mawab, Tagum, Davao City and Manila. Late in the fieldwork period, a seven weeks' journey was made through the main migrant source areas to observe conditions and obtain general background information, as well as collecting data specifically on economic conditions for comparative purposes. In these areas, discussions were held with relatives and friends of migrants, with some former migrants who had returned to their homes, with schoolteachers, public officials concerned with agriculture and, in some areas, with research workers.

Presentation

In addition to interviews and official records, data were derived from publications on the Philippines. Such material is used in Chapter I to trace in outline the background and origins of the spontaneous colonisation movement in the Philippines and in Davao province in particular. The broad demographic and institutional aspects are sketched for the nation as a whole. This is followed by a section describing past and present conditions in the main migrant source areas. Finally, the settlement and agricultural development of Davao province is described. Chapter II presents a brief outline of the evolution of Mawab municipality up to 1967, and a description of the physical environment, stressing those aspects most relevant to the topics discussed later, in particular the selection of sites and land use. A final section in Chapter II provides information on the 50 sampled settlers.

The fieldwork data are analysed in the next four chapters. Chapter III presents an account of how settlers acquired land and the areas they obtained, stressing the changes that occurred as good land became scarce. This chapter also examines the location of the selected sites of the sampled settlers. The evolution of crop distributions and present cropping patterns and land use are treated in Chapter IV, related to such characteristics of the individual farmers as length of residence in the area and tenurial status. Methods of production and disposal of crops are treated in Chapter V.

The major topic of the economic conditions of the sampled settlers is discussed in Chapter VI. This incorporates an assessment of the value of capital assets as well as the value of production on the settlers' farms in the year ending June 30, 1967. Income from farm and off-farm occupations is calculated for the same period, as are farm expenditures. The sources and uses of credit are also discussed.

In Chapter VII the course of colonisation in Mawab and in the Philippines in general is compared with spontaneous colonisation movements in certain other countries.

The final chapter summarises the main conclusions of the preceding chapters. These conclusions are viewed in the light of Philippine expectations regarding land settlement, demographic growth and agricultural development.

Chapter I

POPULATION GROWTH AND THE DEVELOPMENT OF PUBLIC LAND IN THE PHILIPPINES

The first section of this chapter sketches the growth and distribution of population in the Philippines, together with an outline of the main institutional arrangements that have influenced both the mobility of the people and the nature and directions of their migrations. No attempt is made to present an exhaustive summary of these or related topics, which have been treated at length by other writers.¹ The second section summarises past and present conditions in the main source areas of migrants to Mindanao and the final section presents a brief description of the development of Davao province, where the fieldwork area is located.

Population growth and the development of agrarian problems

Population growth in the Spanish period. In 1591, soon after the establishment of Spanish control over the Philippines, the islands had an estimated population of 664,000, giving a mean density of little more than two people per square kilometre (Concepcion, 1966:186). At this date, the bulk of the population lived on the coasts, practising fishing as well as swidden cultivation. This required a certain degree of mobility: as population growth

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The reader is referred to the following works:

Cultural history - Phelan (1959);

Agrarian and economic topics - McDiarmid (1953), Sturtevant (1958), Starner (1961) and Golay (1961);

Population and migration - Lasker (1931), Pelzer (1945), Pascual (1966), Population Institute (1966), and the Census reports of 1903, 1918, 1939, 1948 and 1960 as cited in the bibliography;

General - Wernstedt and Spencer (1967).

made it necessary, small groups would expand into neighbouring areas of forest or would migrate to a nearby island. The settlements, or barangays, thus created were largely composed of kinsmen, but also included dependents such as debtors and captives. In most parts of the Philippines such dependents formed the bottom stratum of society, having few rights of any kind. Above them were 'freemen' who could hold land but who owed economic services to the top stratum, the chief and the 'nobility' (Phelan, 1959:22).

For ease of administration, both secular and religious Spanish authorities attempted, in the main unsuccessfully, to compel the Filipinos to settle in the administrative centres (poblaciones) of the newly-created municipalities (pueblos). Although wealthy and privileged Filipinos (the traditional nobility) preferred to settle in the poblaciones, most people remained in their customary scattered units. In time these were officially recognised by the Spanish as sitios (hamlets) and barrios (villages) within the municipal structure (Phelan, 1959:44-9).

The Spanish recognised pre-existing rights to occupied and cultivated land, but declared all unoccupied areas to be Crown land, disposable in perpetuity by the Crown. Initially, little land was so disposed. Instead, the Crown granted encomiendas to favoured individuals. An encomienda gave the grantee (and two generations of his descendants) the right to collect tribute and to require labour services from specified groups of people. In return, the grantee had to provide both judicial and religious facilities for his charges. After three generations, the encomienda reverted to the Crown. In some respects the encomienda system perpetuated the quasi-feudal structure of pre-Spanish society (Ledesma, 1967).

For various reasons, including the opposition of the Church, the encomienda system was soon abandoned. However, educated and influential individuals (both Spanish and Filipino) and the Church in many cases retained control over large areas, becoming effectively owners of the land. When a land registration system was initiated in 1889, such people obtained titles as owners in fee simple. The concept of private land ownership was quite contrary to traditional land tenure, which recognised private rights only to the usufruct of the land. Where individuals and corporations obtained title to haciendas (large estates), the actual occupants became tenants on a crop-sharing basis. The tenants' conditions were such as to cause repeated tenant uprisings as well as less violent chiliastic movements, and the unrest has continued up to the present time (see Pelzer, 1945; Stubbs, 1951; Jacoby, 1961; and Sturtevant, 1958). Most of the large holdings were in central Luzon, but during the nineteenth and early twentieth centuries others developed in northern Negros, eastern Panay and western Leyte. In areas unaffected by the development of haciendas, there was little or no attempt to survey land or to educate the people in the technicalities of obtaining titles. The native communities grew and expanded into unoccupied lands according to traditional modes and without reference to the formal status of all vacant areas as Spanish Crown land.

The population of the islands grew steadily, reaching about 1.6 million late in the eighteenth century and 7.6 million in 1903 (Concepcion, 1966). By the beginning of the American period in 1899, population on some islands had grown sufficiently to cause the serious fragmentation of farm holdings into small lots, through the principle of equal inheritance. The long fallow periods necessary for successful swidden cultivation were no longer practicable, but no new techniques were devised to cope with declining

soil fertility. The increasing exploitation of marginal and sub-marginal land resulted in severe soil erosion and a continuous decline in crop yields. The combination of physical and social conditions was responsible for low incomes and indebtedness among small owners as well as among tenants. During the nineteenth century the low productivity of traditional agriculture became unable to supply the growing population and imports of the staple food, rice, were begun. Such imports remained necessary in varying degree up to 1967 (see Appendix Table 4). Many people in the most densely settled areas responded to increasing pressure on resources by migrating to vacant lands at some distance. The directions of such movements are described in the second section of this chapter.

Land administration, 1903-41. With the beginning of American control, various approaches were made to rural problems, including the provision of education and health services, and deliberate attempts were made to increase the scale of migration into vacant lands. The basic step in land administration came in 1903 when the Americans enacted the Philippine Public Land Law to regulate disposition of the public domain, or former Spanish Crown lands. The Bureau of Forestry was made responsible for classifying the public domain into land use categories. Land classified as 'alienable and disposable for agricultural purposes' was 'released' to the Bureau of Lands for survey, subdivision and subsequent transfer to qualified applicants, subject to various restrictions. Corporations were allowed to purchase or lease areas up to 1,024 hectares. Individuals could purchase a maximum of 16 ha or could obtain land up to the same limit by applying for it as a homestead. A homestead applicant had to locate his claim and describe its position and boundaries accurately; he was required to settle on his holding and cultivate the entire area before he could

receive his title. Small fees were payable on application and on receipt of the title.

The requirements of the 1903 Act that a homestead applicant locate, live on and fully cultivate his land before receiving title were soon recognised as deterrents to pioneering. Among the factors involved were the general Filipino custom of preferring residence in a village to isolation on a farm; the inadequacy of traditional technology to cope with large areas of land; and the problems for mostly illiterate peasants of complying with the legal requirements for locating and claiming land. Up to 1907 the average area applied for as homesteads was 11 ha and the average area patented was only 3.6 ha. Between 1910 and 1919, out of 59,296 homestead applications, less than 2,000 were patented. In the same period there were 5,078 applications for purchase and 1,686 for leases (McDiarmid, 1953:873, f-n).

In 1919, major amendments were made to the Public Land Law. The maximum area for homesteads was raised to 24 ha (which has remained the limit to the present day) and an applicant needed to cultivate only half the area desired for not less than two years after approval of his application. This concession was the first of several such steps towards overcoming the settler's difficulty in rapidly developing large areas with traditional techniques. Settlers were to be directed to lands declared open for settlement rather than to have to locate plots for themselves, and an applicant could now live anywhere in the municipality where his land was located or in a neighbouring municipality. Conditions for purchasing and leasing were also improved, notably by making it possible for an individual to purchase up to 100 ha.

Under the improved conditions, the numbers of land seekers increased rapidly, except in periods of national or

international economic recession. In the period 1921-33, 126,123 homestead applications were filed, covering a mean area of 15.8 ha. Over the same years, 12,865 purchase applications were made for a mean area of 55 ha, and 3,215 lease applications covered a mean area of 250 ha. In 1924, the upper limit of land obtainable by purchase was raised to 144 ha. In 1929, there was a further improvement in conditions for homesteaders, with lower fees and reduced requirements for cultivation.

However, as migration increased, so did problems in the settlement areas. Although in 1913 the Philippine legislature had enacted a law providing for cadastral surveys to speed up the registration of titles, in the following year the Court of Land Registration was abolished. As its duties were passed to the Courts of First Instance, which were already overburdened, cases accumulated rapidly. McDiarmid (1953:879, f-n) quotes the following passage from the report of the Governor-General for 1931:

One condition which retards settlement of the public lands is the delay and uncertainty in obtaining titles. Administrative delays, ignorance of the applicant, fraud, failure of applicants to complete residence and cultivation requirements, wrongful efforts of piratical claimants to reap the benefits of others' pioneer work, and court delays, all combine to retard the granting of titles....Desirable pioneers refrain from taking up lands because of distrust, suspicion, and discontent growing out of present delays.

Vandermeer and Agaloos (1962:1-3) refer to the additional problems of malaria and banditry. The conquest of these two problems was impeded by the lack of roads, which also delayed penetration of vacant areas by settlers and hindered subsequent marketing of their produce. A further reason for the comparatively slow progress was the lack of information

on settlement areas. Nelson's formulation (1959:67) of a curve of migration, beginning at a low level and rising with swiftly increasing steepness as more migrants sent back information to the source areas, fits the Philippine case very well. After rather slow growth over 30 years, the rate of migration increased sharply in the mid-1930s.

In 1935, the Philippine Congress appropriated P1 million for a development programme in Mindanao involving clearing and preparation of land and granting of loans to settlers (Pfanner, 1958:4). However, in the following year, the government of the newly-established Philippine Commonwealth diverted the projected funds to a major road-building programme there, in the belief that provision of roads and other facilities promoted spontaneous colonisation without additional government assistance. The road-building began in 1936 and continued until the outbreak of war late in 1941. Despite its attitude in 1936 the government also soon engaged directly in colonisation work. There had been an attempt by the administration in 1913 to establish colonies in Mindanao and other islands, but the experiment was abandoned for financial reasons. Since 1918, official support of colonisation had been limited to providing free transportation for migrants. However, in 1939 the National Land Settlement Administration was created and it almost immediately started work on the large-scale Koronadal Valley project in Cotabato province, described by Pelzer (1945). It also designated another settlement area around Compostela in Davao province but did not start any operations there. The new facilities for settlement, and widespread publicity about them, led to a further increase in the rate of migration to Mindanao. Pendleton (1942:181) cited an estimate of 1,000 migrants arriving each month in 1939 through the ports of Davao City and Cotabato City alone, including both spontaneous and officially-supported migrants.

Post-war developments in land colonisation. Pioneering migration stopped abruptly with the Pacific war, which disrupted life and economic conditions throughout the Philippines. At the outset, many settlers returned from Mindanao to their home provinces where they hoped for greater security. Shortly after the war ended, the migration streams began again in unprecedented volume.

This movement...[was] so fast that allocation of settlers could not be made orderly and immediately. Squatting became rampant and prohibited areas were invaded...valuable forests are being destroyed and the number of land claims and conflicts have increased. (Suguitan, 1952:27).

In the period from 1948 to 1960, some 1.5 million people migrated from Luzon and the Visayas to Mindanao, and over 60 per cent of these went to the provinces of Cotabato and Davao. Under 10 per cent of the migrants went to projects organised by government agencies (Wernstedt and Simkins, 1965:91-2). Although the National Land Settlement Administration was revived after the war, it did not achieve as much as in its pre-war phase and in 1950 it was succeeded by the Land Settlement and Development Corporation. This too failed to live up to expectations and in 1954 its role was taken over by the National Resettlement and Rehabilitation Administration.¹ This agency achieved more success but in 1963 it was dissolved in a general reorganisation under the new Land Reform Code, and the Land Authority became the agency responsible for settlement projects.

Apart from its work in organising large-scale projects, the government attempted, through the Bureau of Lands and

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A detailed account of the achievements and the failures of these agencies is presented by Pfanner (1958). Cook (1958) gives a frank account of the problems experienced by the National Resettlement and Rehabilitation Administration.

of Forestry, to supervise the process of settlement by independent migrants. However, the work was hampered by the wartime destruction of records, by lack of funds and by illicit intervention by politicians and others in the work of the Bureaux. Certain national politicians urged ex-guerillas to 'hang on to your guns and stick to your land', even if they were in fact squatters. In 1947, Republic Act 65, known as the Roxas Declaration, stated that ex-servicemen, former guerillas and tenants actually working the land before December 1946 should be given preference in occupying public and ex-alien lands. In practice such preference tended to be given to any squatter. For instance, a pre-war settler who had spent the war in his home province might lose his original holding if it was cultivated by a squatter in his absence.

At the recommendation of an economic survey mission from the United States in 1950, U.S. foreign aid funds were provided to assist in land surveying and the patenting and registration of titles. A programme was developed coordinating the efforts of all agencies concerned with the land.¹ A Presidential declaration in 1951 reserved land within 6 km of roads in Mindanao for small settlers, and the programme was to allocate land in these reserved areas in lots up to 10 ha for homesteading or purchase. Prior claims to ownership of land exceeding 10 ha were allowed, but no titles were given for land operated entirely by tenants. In areas other than along development roads, legally occupied lands were surveyed along the boundaries of actually developed areas even if exceeding 10 ha. Smaller areas were as far as possible expanded to 10 ha. This limit was a

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The programme became known as Philcusa-FOA, derived from the titles of the administering bodies, the Philippine Council for U.S. Aid and the U.S. Foreign Operations Administration.

compromise, since some of the programme planners favoured the legal maximum of 24 ha while others felt that 5 ha was adequate for traditional farming with animal power (Davis, 1957). The programme made possible a ten-fold increase in the patenting of titles between 1951 and 1955, when they numbered 46,000 (Davis, 1957:41). In the same period the number of homestead applications rose from 24,000 to 39,000 in a year and the area surveyed annually rose from 71,000 ha to 412,000 ha. In 1960-1, the Bureau of Lands issued over 55,000 patents, but progress slowed following jurisdictional conflicts with the Land Authority after 1963 (Bureau of Lands, 1966:38-40).

The rapid post-war growth of the Philippine population was noted in the Introduction. While the total population increased by 40.8 per cent between 1948 and 1960, there were marked regional differences as a result of internal migration. The areas of dense rural population increased at rates far below the national average. For instance, the population of Cebu increased by only 19 per cent, that of Bohol by 7 per cent, Leyte 16 per cent, Samar 15 per cent, Iloilo 18 per cent, Ilocos Norte by 14 per cent and Ilocos Sur by 22 per cent.

In contrast, the 'frontier' provinces of northeast Luzon and Mindanao experienced rapid increases. Isabela and Nueva Vizcaya grew by 67 per cent while the population of Agusan grew by 114 per cent, Bukidnon by 206 per cent, Cotabato by 134 per cent and Davao by 145 per cent. A significant feature of this period was that the northern Mindanao provinces of Misamis Oriental and Misamis Occidental became areas of out-migration, growing by only 5 and 20 per cent respectively. As these provinces were still areas of in-migration up to the second World War, this change suggests implications for the future of the present 'frontier' provinces.

Table 1:1 Population density and rates of tenancy in Mindanao provinces and the Philippines, 1960.

	Population		Farms	
	Total (thousands)	Per square km cultivated land*	Mean size (ha)	Percentage of farms operated by tenants
Agusan	271	297	5.07	30
Bukidnon	194	120	7.52	23
Cotabato	1,029	161	5.81	26
Davao	893	236	4.99	39
Lanao del Norte	271	326	3.30	51
Lanao del Sur	378	322	4.26	5
Misamis Occidental	248	359	3.20	40
Misamis Oriental	389	304	4.10	23
Surigao del Norte	195	287	3.68	14
Surigao del Sur	165	214	4.57	12
Zamboanga del Norte	281	235	4.58	34
Zamboanga del Sur	742	260	4.95	31
Philippines	27,088	383	3.59	40

* Includes land in temporary and permanent crops, pasture and fallow.

Source: Census of Agriculture, 1960.

Table 1:1 shows that in the Misamis and Lanao provinces, nutritional densities are approaching the national level. In several provinces, mean farm sizes and tenancy rates are close to or even exceed the national averages. The Mindanao Development Authority (1965:13) cited figures on land availability showing that whereas in 1939 there were 5 ha of land (including urban and uncultivable land) per head of population in Mindanao, by 1960 this had fallen to 2.1 ha. Comparable figures for the Philippines were 1.9 ha in 1939 and 1.1 ha in 1960.

Since 1960 the rate of population growth of the nation as a whole seems to have accelerated and the projected rate for 1970-80 is 3.8 per cent per year (ECAFE, 1967:226). One may assume that for a while at least people in the densely settled areas will continue to adjust to increasing population pressure by migrating. However, as Concepcion (1966:198) has pointed out:

Given the achieved actual size of the base population and the rapidity of growth, planned transfers of population to untapped lands will not solve problems of population pressure and population growth.

Furthermore, Fonollera (1966:496) considers that the 'closing of the Mindanao frontier' is imminent - a conclusion reached also by Huke (1963:152) and Wernstedt and Simkins (1965:102).

Although it will be shown below that immigration is nevertheless likely to continue, there seems little doubt that conditions in Mindanao will become increasingly unfavourable to settlers.¹ A local historian has written

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In December 1968 a Small Farmers Commission was created by Presidential order, replacing the earlier, ineffective Small Farmers Protection Committee formed in mid-1967. Its functions are to investigate and settle the problems of small

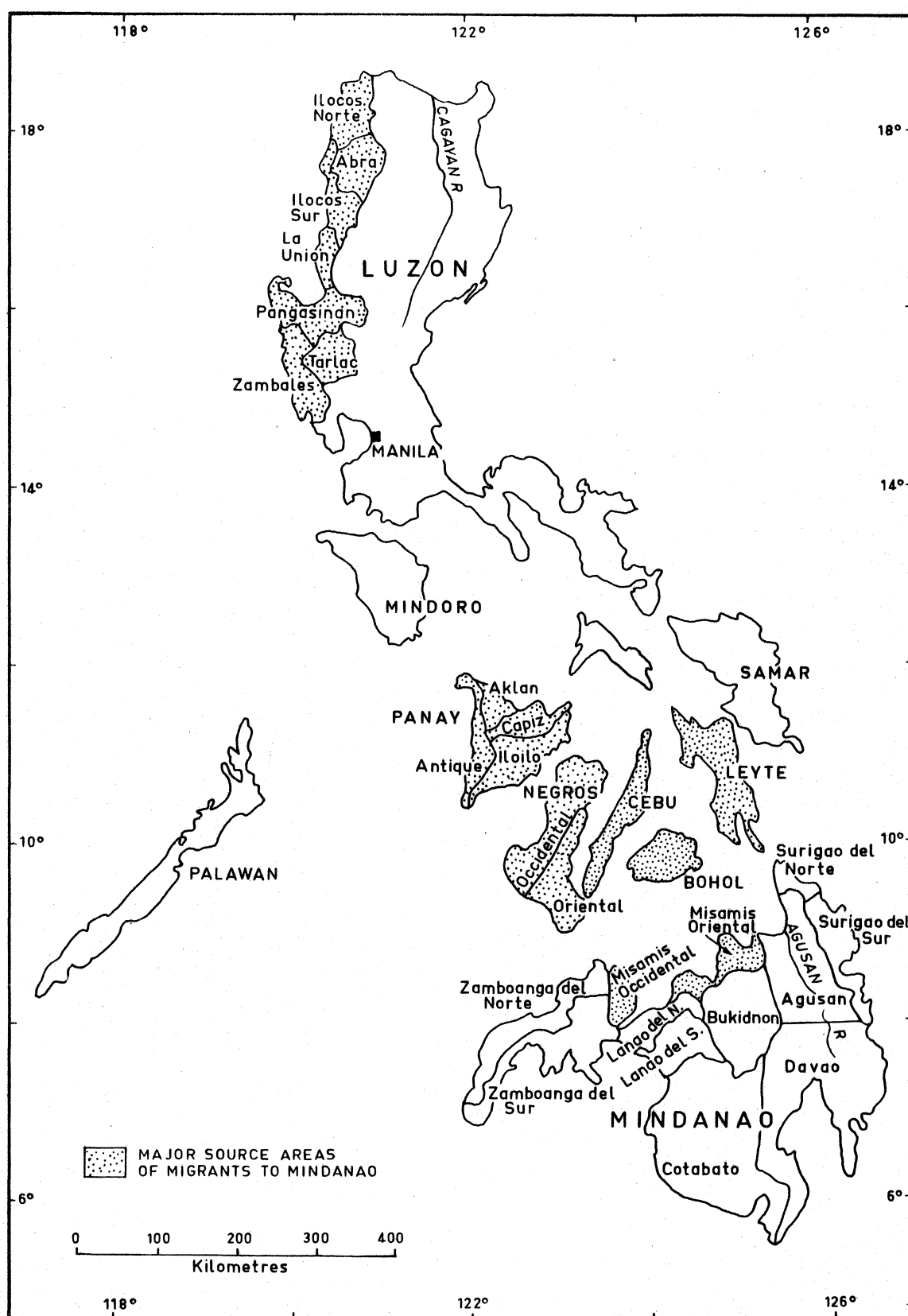
(Angeles, 1964:72)

Natural calamities like volcanic eruption; earthquakes; epidemics; yearly rat infestations; and mosaic infestation of abaca combine with man-made problems like smuggling, piracy, deforestation, class exploitation, dirty politics ...ghost schools, as well as graft and corruption in government offices to make life miserable for the common tao (man) in Mindanao.

Most of these problems lie outside the scope of this thesis, but other indicators of deteriorating conditions will be discussed in subsequent chapters.

(continued from p.12)

settlers and farmers arising from conflicts involving public lands and to assist and protect small settlers and farmers especially in Mindanao against land grabbers (Philippine Journal of Public Administration, XIII, 1:96).



Map 1. The Philippines: major source areas of migrants to Mindanao.

The source areas of migrants to Mindanao

The preceding section indicated that the major areas of out-migration in the Philippines have been the Ilocos coastal provinces in Luzon and the Visayan islands of Panay, Negros, Cebu, Bohol, Leyte and Samar, with the addition, in the last 20 years, of the northern Mindanao provinces of Misamis Occidental and Misamis Oriental.

The major migration streams from these areas over the period 1948-60 have been discussed in aggregate terms in several papers, most fully by Pascual (1966) and Wernstedt and Simkins (1965). Pascual notes (p.39) that there are no clearly defined streams from sources north of Manila. The Ilocanos have migrated in large numbers not only to colonisation areas in the Cagayan River valley in northeast Luzon but also to central and southern Luzon, and to Manila. Between 1948 and 1960 some 15 per cent of Ilocano migrants moved to Mindanao. In contrast, Mindanao has been the destination of 51 per cent of migrants from Panay and Negros and of 58 per cent of those from the eastern Visayas (Cebu, Bohol and Leyte). Conversely, 84 per cent of migrants arriving in Mindanao in the period 1948-60 were from the Visayan islands, 3 per cent from the Ilocos coast and mountains and 6 per cent from Central Luzon.

There are wide variations between the source areas in terms of their resource bases and the culture of the inhabitants, but there are also certain broad similarities such as man:land ratios which generally exceed the national mean of 383 people per square kilometre of cultivated land (Bureau of Census and Statistics, 1965), small farms and high rates of tenancy. The rest of this section presents information about economic conditions in the major source areas as a background to the settlers studied in Davao.

The Ilocano area. The homeland of the Ilocano ethno-linguistic group is the coastal plain in northwest Luzon, but since the nineteenth century Ilocano migrants have moved southwards into the provinces of Tarlac, Pangasinan and Zambales which in turn are now areas of out-migration. These areas are regarded in this thesis as being part of the Ilocano cultural region despite the marked differences in the physical environments.

(a) The northern Ilocano area. The Ilocos coastal plain has a maximum width of about 40 kilometres but in many sections the foothills of the Cordillera Central reach virtually to the sea. The soils developed on alluvial deposits of streams crossing the plain are mostly of moderate fertility and some areas have deteriorated or even been made uncultivable through coarse deposits of gravel resulting from soil erosion on the hill slopes, which are now almost entirely denuded of their former forest cover. The rainfall regime is markedly seasonal with about 90 per cent of the total falling between May and October. Mean annual rainfall throughout the coastal area exceeds 2250 mm. In the latter part of the wet season the area is swept by destructive typhoons.

Pressures on land have risen to very high levels: in 1939, total population per square kilometre of cultivated land was 804 in Ilocos Sur and 666 in Ilocos Norte (Pelzer, 1945:85). By 1960, conditions had further deteriorated (see Table 1:2). In addition, farms are highly fragmented; for instance, in Ilocos Norte only 15 per cent of the farms consist of one parcel while 23 per cent comprise at least six parcels. However, owners achieve a level of rationalisation by renting-out their more distant plots and renting-in land closer to their main plots. Part-ownership is therefore more common than renting of farms by

Table 1:2 Measures of population density and rates of tenancy in the Ilocano region, 1960.

Province	Population		Farms	
	Total (thousands)	Per square km cultivated land	Mean size (ha)	Percentage of farms operated by tenants
Abra	115	386	2.05	15.0
Ilocos Norte	287	690	1.26	31.4
Ilocos Sur	338	902	1.47	30.8
La Union	293	845	1.60	30.3
Sub-total	1,033	719	1.52	28.5
Pangasinan	1,124	690	1.93	50.2
Tarlac	427	380	3.24	62.2
Zambales	213	755	2.33	52.9
Sub-total	1,764*	581	2.31	53.6

* Ilocano-speakers (thousands): Pangasinan 528, Tarlac 224, Zambales 83. Total 835.

pure tenants. Even more than most Filipinos, the Ilocanos place immense value on ownership of land. Lasker (1931:234) noted the tendency for Ilocano migrants in the U.S.A. to save money in order to buy land on their return home (thereby inflating land prices above the level attainable by non-migrants). Lava (1938:86) considered that among Ilocanos 'the psychology of property is...such,...that they will enslave themselves merely to own land'.

In spite of this emphasis on land ownership, actual returns from farming are low and Lava (op. cit: 79) 'found a representative group of rural workers living a life of bare subsistence'. Lava's findings were duplicated by other workers such as Sacay and Naanep (1940) and Dayyo (1957). The basic product of most farms is lowland rice, but Lava found that the average family produced only half its annual rice requirements on its own farm, since areas are small and double-cropping rare. According to Gutierrez (1959:33), rice production in La Union and Ilocos Sur in 1958-9 was less than half their requirements and in Ilocos Norte only 64 per cent. A surplus in Abra was insufficient to compensate for these deficits. Some governmental irrigation networks and many well-organised communal systems serve the rice fields, but they are used chiefly for supplementary water control during the wet-season crop. For lack of water storage capacity only about 7 per cent of the rice land produces two rice crops a year. However, dry-season cropping of corn, vegetables and sugarcane has always been significant and since 1955 the dry-season cultivation of Virginia tobacco has attained major economic significance, under the stimulus of price supports and tariff protection. According to Wernstedt and Spencer (1967:337) 'the average family income has increased nearly fivefold since the introduction of Virginia tobacco production'.

Apart from crop production, the Ilocanos have traditionally turned to many other activities to increase incomes in the dry-season. These include in-shore fishing, furniture-making, weaving, salt-making and pottery as well as seasonal migration to the sugarcane haciendas in central Luzon. An additional source of income for many families has been remittances from relatives who have migrated to Mindanao or the U.S.A. Such remittances accounted for 10 per cent of annual income among 70 families in Lava's study.

Even with these sources of income as well as farming, the studies mentioned above reported that many families could not afford schooling for their children above elementary level, very few people wore shoes and most Ilocanos might eat meat only once in a month. Lava (op. cit.:26) found an average calorific intake of only 1,400 per day, compared with the intake of 3,150 calories per day recommended by the Philippine Bureau of Science for manual workers. He noted (p.77) that maintenance of farm output was so crucial that 'the farmer would rather see his wife than his carabao¹ sick'. The improvement in conditions following the adoption of Virginia tobacco production has been insufficient to alleviate the need for out-migration.

The stereotype of the Ilocano that is current both in the literature and among Filipinos generally is someone accustomed to simplicity and willing to accept privations for the sake of the future. The Ilocano is regarded as more industrious, patient and thrifty than other Filipinos and more adaptable in new environments. These characteristics might be considered ideal for pioneer colonists and their relevance to the performance of Ilocano settlers in the study area will become apparent in later chapters.

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The carabao, or water-buffalo, is the main work animal on most Philippine farms.

(b) The southern Ilocano area. The rainfall regime of the central plain is similar to that of the Ilocos coast, except that mean annual rainfall is usually no more than 2000 mm and the dry season is slightly less severe. As in the Ilocano homeland, the major crop is rice, mostly rainfed, with only a small proportion of the land bearing an irrigated dry-season rice crop. The soils developed on the marine and alluvial sediments of the plain are more fertile than those on the Ilocos coast and rice yields are higher, exceeding 1700 kg/ha (although this is low by international standards). Tarlac produces two and a half times its own rice requirements, Zambales has a small surplus and Pangasinan is more or less self-sufficient (Gutierrez, 1959:33). During the last 20 years corn and vegetables have become common crops in the dry season as traders from Manila and nearby cities have extended their buying areas. Even so, there is still considerable unemployment during the dry season. Many of the Ilocanos that moved south into Zambales and the central plain of Luzon during the nineteenth century were able to become owners of vacant land. However, large areas of the plain had been pre-empted by hacenderos and the holdings obtained by the immigrant Ilocanos were mostly small. Simultaneously, Tagalog and Kapampangan immigrants were also claiming land, but many of these became tenants on the haciendas, producing rice or sugarcane. Conditions for both small owners and tenants deteriorated rapidly as population grew and farm sizes fell. Studies in Tarlac and Pangasinan during the 1930s suggested that on farms less than 3 ha in size 'it was not possible for a peasant farm family to maintain a standard of life above subsistence level' (Velmonte, 1934:463). The central plain became the focal point of agrarian unrest in the Philippines. This unrest occurred chiefly among the Tagalog and Kapampangan tenants and labourers and Lava (1938:87)

claimed that Ilocanos commonly furnished 'scab' labour during strikes. Nevertheless, Ilocanos too found conditions becoming oppressive and since the second decade of the century have been emigrating from the provinces of Pangasinan, Tarlac and Zambales.

The Ilongo area: Panay and Negros Occidental. Ilongo is a common alternative name for the Hiligaynon dialect of the Visayan language and for speakers of this dialect. The homeland of the Ilongos is the western Visayan island of Panay. Much of the island is hilly and there are only restricted lowlands in the province of Antique on the western coast and in the province of Capiz in the north of the island. However, there are extensive lowlands in Iloilo province, comprising marine and river sediments, and Panay has a centuries-old reputation for agricultural wealth. Iloilo in particular has long been an exporter of rice to deficit areas within the Philippines. The dry season is less severe than in Luzon. Mean annual rainfall at Iloilo City is 2278 mm and monthly rainfall is below 100 mm only from January to April.

Although rice has for long been the dominant crop in Iloilo, in the mid-nineteenth century a very wide range of crops was produced, among which sugarcane and abaca were important, as well as pineapple for the production of fibre. Population grew rapidly in the nineteenth century and spread into the uplands, which were soon denuded of forest. In these less-fertile and poorly watered areas, upland rice and corn became the staples. In the lowlands, large areas came into the ownership of relatively few families and the rate of tenancy rose.

In the last 40 years of the nineteenth century wealthy people, including aliens, began establishing sugarcane estates on the northern and western plains of the sparsely-

populated island of Negros, drawing their labour force chiefly from among tenants and landless families in Panay and to a lesser extent in Cebu. Between 1845 and 1903 the population of Negros rose from about 58,000 to 570,000. Some small-scale independent farmers settled in southwestern Negros, growing rice or corn and coconuts rather than sugarcane. Apart from these permanent migrants, a strong seasonal stream of sugarcane labourers still continues, playing an important role in the economy of small farm households in Panay.

In the Ilongo area rice is by far the most widespread crop, except in northern Negros Occidental where sugar is dominant. In Iloilo alone wet rice lands occupy over 100,000 ha, which is 43 per cent of the total farm area. One-fifth of the rice area is irrigated for a dry-season crop. Upland rice is also important, but less so than corn, which, allowing for double- and triple-cropping, now occupies half as much land as lowland rice. As well as corn, people in the uplands of Panay and Negros are coming to rely increasingly on sweet potatoes and cassava for part of the year. Apart from agriculture, many Ilongos derive their income from fishing, both from coastal fishponds and from offshore fishing. On Negros, extensive forests in the mountains support a major lumber industry which provides employment for several thousand workers.

When the American administration began to encourage migration to Mindanao, Ilongos were among the early settlers and in the National Land Settlement Administration's Koronadal Valley scheme in Cotabato the majority were Ilongos. (Pelzer, 1945:253). Since 1945 Ilongos have also been moving into Mindoro. Despite these outlets, population pressure on agricultural land and tenancy rates have continued to rise in Panay and to an increasing extent in Negros Occidental. Although population densities are below

the levels of the Ilocos coast and Cebu and mean farm sizes are larger, rates of land tenancy are mostly higher. Negros Occidental has experienced agrarian unrest among tenants and labourers, though not to the same extent as in Luzon, and it is now a significant source of migrants to Mindanao.

The Cebuano area: Cebu and Negros Oriental. The six and a half million speakers of Cebuano (Sugbuhanon) comprise the biggest single dialect group in the Philippines. By 1960, according to the Census of Population, only a fifth of the total were living in the island of Cebu, which, with 247 people per square km, is the most densely populated island in the Philippines. Negros Oriental and Bohol each contained about 9 per cent of Cebuano speakers and another 10 per cent lived in Leyte. Whereas those in Negros Oriental are still referred to as Cebuanos, Boholanos and Leyteños are generally known by their island names and regarded as separate to some degree from Cebuanos. In 1960, about 8 per cent of Cebuano speakers lived in other Visayan islands or Luzon while 44 per cent lived in Mindanao.

Cebu is a hilly island with only restricted areas of coastal lowlands. Most of the interior hills comprise limestone formations and there is a marked lack of surface water. Furthermore, rainfall is comparatively low, reaching only 1626 mm at Cebu City, which experiences a short dry season from February to April with monthly rainfall below 100 mm. The scarcity of both surface water and of lowlands makes the cultivation of lowland rice difficult. Traditionally, the food crops of the Cebuanos were millet, upland rice and root crops, with wet rice only in the small alluvial plains. The lack of surface water appears to have been responsible for the absence of malaria on Cebu (Vandermeer, 1962:245) and thus contributed indirectly to an unusually high rate of population increase on Cebu.

Table 1:3 Measures of population density and rates of tenancy in the Ilongo area, 1960.

Province	Population		Farms	
	Total (thousands)	Per square km cultivated land	Mean size (ha)	Percentage of farms operated by tenants
Aklan	226	408	2.66	30
Antique	238	364	2.60	26
Capiz	315	389	2.95	67
Iloilo	966	433	3.15	56
Negros Occidental	218	396	6.15	61

Table 1:4 Measures of population density and rates of tenancy in Cebu and Negros Oriental, 1960.

Province	Population		Farms	
	Total (thousands)	Per square km cultivated land	Mean size (ha)	Percentage of farms operated by tenants
Cebu	1,333	911	1.34	48
Negros Oriental	598	382	2.70	50
Total	1,931	638	1.82	48

By the sixteenth century, Cebuanos were extending cultivation of millet and upland rice into the interior hills and mountains which were soon deforested. The Spanish administration attempted to deal with increasing food deficits by encouraging the adoption of corn as a staple crop but the Cebuanos rejected it (Vandermeer, 1962:30-1; Phelan, 1959:111). However, by the nineteenth century the superiority of corn yields over those of other staples led to its adoption as the staple wherever lowland rice could not be grown. Corn also had the advantage of maturing swiftly enough for three crops to be produced in a year. By 1967, corn had become the staple of 84 per cent of the population.¹

In the mid-nineteenth century, much of Cebu appeared agriculturally prosperous. Loney, writing in 1857, reported (MacMicking, 1967:239) that Cebu produced 'sufficient rice and native goods for its own consumption' while MacMicking (op. cit.:176, 180) referred to it as being a major Philippine sugar district and yielding some good quality abaca. Nevertheless farm sizes were declining and almost continual cropping of corn with very brief fallow periods led to falling yields and to severe soil erosion. Tenancy rates increased also. As conditions deteriorated, emigration to vacant lands in Negros Oriental as well as to the sugar estates of Negros Occidental became common. Western Leyte and the northern coast of Mindanao also became destinations for Cebuano migrants. All of these areas have now become sources of out-migration. In the twentieth century, Cebu has provided more migrants to Mindanao than any other province, while several thousand Cebuanos migrated to Guam, Hawaii and continental U.S.A.

Despite the massive out-migration which has kept the rate of growth of the population of Cebu well below the

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Provincial Statistician, Cebu City (1967).

national average, agricultural conditions have not improved. In 1954 the Soil Survey of Cebu Province revealed that only 8 per cent of the island had experienced no apparent erosion while 63 per cent of the area had lost at least three-quarters of its top-soil. In 1966-7, the mean yield of corn in Cebu was only 400 kg of shelled corn per hectare¹, compared with the national mean of 868 kg, and total provincial production amounted to only 36 per cent of consumption. Rice production was only 15 per cent of requirements. The chronic deficit of corn in Cebu and in Negros Oriental is met largely by imports from Mindanao, but root crops are also important for subsistence in many parts of these provinces.

Comparison between 1939 and 1960 agricultural census data indicates that the area under commercial crops such as coconuts, sugarcane, tobacco and abaca has fallen. Nevertheless, copra continues to be a major source of income in rural areas. Vegetables, fruits and livestock-rearing have become important activities near the main urban centres.

The main non-agricultural source of income in rural areas of Cebu is fishing. However, several mining and industrial projects are located in small towns, including a copper mine in Toledo, cement factories and coal mines in Naga and Danao and potteries and blacksmithies in various east coastal towns. Apart from commercial and industrial developments in Cebu City, there is little scope for employment of the increasing population in rural areas and emigration to Mindanao continues.

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Provincial Statistician, Cebu City (1967).

The geology, landforms and climate of Negros Oriental are similar to those of much of Cebu and the response of the early Cebuano settlers produced conditions comparable to those on Cebu, with a heavy dependence on corn leading to severe soil erosion and very low yields. Coconuts and sugarcane are the main commercial crops. Non-agricultural activities are more limited than on Cebu, but extensive hardwood forests in the interior mountains support a lumber industry that provides some opportunities for casual labour. As in Cebu, most small-scale farmers have a basic diet of corn and salted or dried fish. Pal considers that the levels of living of most Negros Oriental farmers have fallen in recent years and that 70 per cent are at subsistence level (Pal, 1963:270-1).

Bohol. The island of Bohol is physically more favoured than Cebu in so far as it has more subdued relief, slightly higher rainfall and a shorter and less intense dry season. Coastal plains are more extensive and the rolling uplands include considerable more or less level areas. Although calcareous formations are widespread, surface water in many areas is less scarce than in Cebu. Nevertheless, as its population increased Bohol experienced processes similar to those in Cebu. Crop yields in the lowlands were not improved to support the increasing population; instead, cultivation was extended into the uplands. With inadequate fallows and no techniques to conserve either the soil or its fertility, yields were not maintained and soil erosion became a serious problem. Although corn was not adopted to the same degree as in Cebu (Table 1:7), it is the staple of an estimated 40 to 60 per cent of the population (Gutierrez, 1960:11), and root crops are also of great importance to many upland farmers. As in Cebu, lowland rice is grown wherever possible and upland rice is also significant.

Lowland rice is in fact the most widely grown crop in Bohol. In some inland areas, complex terrace systems for rice cultivation have been constructed on steep slopes, largely by communal labour (field observations; Mojica, 1952:54). Some of these systems serve up to 1,000 ha.

Table 1:5 Measures of population density and rate of tenancy in Bohol, 1960.

Population		Farms	
Total (thousands)	Per square km cultivated land	Mean size (ha)	Percentage of farms operated by tenants
592	457	2.29	21

The mean size of farms in Bohol is 2.29 ha and 73 per cent of all farms are under 3 ha. Many farmers consume most of their output but some rice farmers sell their product and buy cheaper substitutes such as corn, sweet potatoes or yams. Despite the use of root crops and bananas as staples, Bohol imports 40 per cent of its rice needs and 58 per cent of its corn needs (Bureau of Plant Industry, 1967). The main agricultural source of cash income is copra, but pigs, poultry, vegetables and fruit are important locally. Fishing is also a major source of income in coastal areas. The main non-agricultural activities are various handicrafts, particularly the weaving of hats, baskets and mats, for which Bohol has a national reputation.

These sources of off-farm income have commonly proved to be insufficient to compensate for low farm production and for many thousands of Boholanos the answer has been emigration. During the nineteenth century, the main directions of emigration were to southern Leyte and to

Surigao and Misamis in Mindanao, but later the main stream of migrants was to southern Mindanao and, more recently, Agusan province. As a result of out-migration, the population of Bohol has increased very slowly and between 1948 and 1960 grew by only 7 per cent, compared with the national rate of 41 per cent.

Leyte. Leyte was for a long time occupied chiefly by speakers of Waray-Waray, a language common to Leyte and Samar. Until the nineteenth century, the sparse population was located in the lowlands. Although large parts of Leyte are mountainous, the island includes two large plains and several small deltaic plains. Annual rainfall at Ormoc City exceeds 2250 mm and there is no marked dry season. Only two months experience rainfall below 100 mm. Leyte is frequently subject to typhoons which may damage crops.

The main food crop of the early inhabitants was lowland rice while abaca was important for textiles and cordage for local use. By the mid-nineteenth century however, the island was exporting important quantities of abaca and coconut oil (Loney, in MacMicking, 1967:222-4). At this time, Cebuanos and Boholanos began to move into the lowlands along the western coast and this inflow, together with natural increase, resulted in growing pressure on the lowland agricultural areas. Moreover, large parts of the major Ormoc City lowland came under the control of large owners for the cultivation of sugarcane or rice and the rate of tenancy there increased. As in Cebu and Bohol, the uplands were occupied by farmers whose techniques could not cope with soil erosion and declining fertility and as pressures on the land increased, yields of the major crops fell to levels below the national averages. As farm sizes fell, the operators were less able to accumulate reserves to cope with the recurrent damage caused by typhoons or occasional

droughts. Rural living conditions quickly approached those in the central Visayan islands and by the second decade of the twentieth century Leyte had become an area of out-migration.

Table 1:6 Measures of population density and rate of tenancy in Leyte, 1960.

Population		Farms	
Total (thousands)	Per square km cultivated land	Mean size (ha)	Percentage of farms operated by tenants
1,173	406	2.86	44

Despite typhoon risks, coconuts are still the most widespread crop in Leyte. Corn and lowland rice are the next most widely planted. Both are primarily subsistence crops, but large landowners sell their surplus rice while some small growers also sell their rice output and buy corn. Leyte imports both rice and corn from other areas, particularly Mindanao. Abaca is still an important, though declining, cash crop that is grown by many small holders. Sugarcane, in contrast, is produced on comparatively few farms near Ormoc City, but the industry provides an important local source of employment. Non-farm employment is restricted by the limited level of economic development in Leyte and the commonest opportunities in the emigration region of western Leyte are in in-shore fishing and in lumbering.

Although poor conditions are general throughout Leyte, most emigration has been from the Cebuano-speaking areas of western and southern Leyte. 90 per cent of all Waray-Waray speakers are still resident in Leyte or Samar and emigrants have mostly moved northwards to Luzon rather than to Mindanao like the Cebuano speakers.

Summary. The brief descriptions above and Table 1:7 below indicate some of the variations in agricultural conditions among the main sources of migrants to Mindanao. These variations include both the staple subsistence crops and the commercial crops. Tangco (1951:30) remarked 'Hardly any exception could be made to the statement that all the Christian peoples of the Philippines...prefer rice for their staple food whenever this cereal is available'. If they eat corn, sweet potato (camote), sago or other foods it is because 'the coveted rice is beyond their reach'. Gutierrez (1960:11) referred to estimates that 21 per cent of the Philippine population relied on corn as a staple, under 3 per cent relied on root crops and the rest depended on rice. The great majority of corn eaters are in the eastern Visayan islands, but corn is important among Ilocano settlers in the Cagayan valley and to some extent in the Ilocos coast area also.

Differences in commercial crops have been related partly to physical conditions, partly to conditions of land tenure and partly to political considerations. The last factor, for instance, has been important in the development of Virginia tobacco in the Ilocos coastal region. Also, this region is physically unsuited to crops such as abaca and coconuts on account of both the severe dry season and the frequency of typhoons. Moreover, the intense emphasis on rice cultivation necessitated a cash crop that could be grown in the rice fields during the dry season.

Despite the differences between the regions in sources of income, they have in common a lack of opportunities to accommodate the increasing population in rural areas. They also have in common generally low levels of agricultural productivity that result not only from poor resource bases but also from low yielding crop varieties and inadequate

Table 1:7 Major crops in six source areas of migrants to Mindanao. (Thousand ha).

	Northern Ilocano	Southern Ilocano	Ilongo area	Cebu-Negros Oriental	Bohol	Leyte
Surface area of farms	157.1	313.2	813.9	321.2	134.8	302.7
Major crops, 1959-60*						
Lowland rice	97.6	223.7	273.2	14.6	39.9	70.9
Upland rice	6.2	18.1	86.3	7.1	5.0	12.3
Corn	16.5	25.0	137.9	298.2	24.5	76.8
Banana	2.8	2.2	21.9	8.2	6.1	11.9
<u>Camote</u>	2.7	2.9	3.6	3.2	4.0	9.0
Cassava	0.7	0.6	7.0	7.1	3.1	2.9
Abaca	neg.	0	2.6	2.3	0.3	17.9
Coconuts	2.4	8.8	65.6	67.3	29.6	107.7
Sugarcane	1.4	15.2	104.9	9.1	0.1	5.8
Tobacco	34.2	9.9	1.6	3.2	neg.	1.0

* Including areas cropped more than once.

neg. = negligible

cultivation techniques. Government action to deal with the situation has been tardy since both officials and farmers have looked to migration to vacant lands as the solution to population pressures on land. Although massive emigration has reduced the rate of population increase and provided a breathing space, in many areas the environments have been so depleted as to defy remedial action. As the colonisation areas cease to serve as an outlet for migrants, the rate of population growth in the former migrant source areas is likely to rise. Recent developments have shown the great scope in the Philippines for increasing agricultural productivity and incomes through improved technology but the application of such technology by peasants on very small and fragmented farms will be problematic. The relevance of this to the declining opportunities in the settlement areas will be discussed in subsequent chapters.

The development of Davao province

When the Americans took control of the Philippines in 1899, southeastern Mindanao was still very sparsely settled. There were some Moslem settlements along the west coast of Davao Gulf, some Visayans along the Pacific coast, a few Spanish and American planters in scattered coastal situations and several thousand shifting cultivators inland. Henry Savage Landor travelled through Davao at this time and described the east coast as being 'in a terrible state of abandonment' while 'in Davao (City) itself there is very little of interest...it is now a sort of tumbling-down place, with luxurious drinking saloons kept by Armenian money-makers or by Spaniards' (Landor, 1904:368). Inland, the inhabitants belonged to a number of ethnic groups who have been studied at varying depth by Fay-Cooper Cole (1913) and John Garvan (1931).

The inhabitants of the research area were Mansakas, who are closely related to the Manguanggans and the Mandaya. These groups occupied the area from the head of Davao Gulf and the Tagum River northwards to Compostela and eastwards to the Pacific coast. Despite their close cultural links, these groups were mutually hostile and their constant fighting led a French traveller to refer to the upper Agusan valley as 'le pays de terreur' (Garvan, 1931:139).

The Americans pacified these inland groups and the Moslems, and were able to institute a civil administration for the first time in the history of the area. However, it was not the Americans who were responsible for the economic development of Davao. A former Governor-General of the Philippines has stated that 'Modern Davao is indeed primarily a Japanese achievement' (Hayden, 1942:714). While not applicable today, this assessment was certainly true at the time it was written.

Commencing in 1904 as labour contractors to the American and Spanish planters in Davao, Japanese entrepreneurs soon organised their own highly efficient abaca plantations. By 1935 they had acquired control of 28,098 ha by legal means and a further 29,252 ha through leases by illegitimate corporations or by Filipino and American 'dummies' (Quiason, 1958:220). In 1936, the population of Davao included an estimated 12,250 Japanese compared with 79,900 Christian and 68,350 non-Christian Filipinos, 1,300 Chinese and 150 of other nationalities. Virtually all of the Japanese lived in the coastal lowlands but a few had moved north into the Compostela area. The Japanese corporations employed at least 12,000 Filipino labourers, at wage rates double those in Manila. Most of these labourers were Ilocanos, whom the Japanese regarded as more peaceful and industrious than Visayans. Two-thirds of the Japanese depended directly on the abaca industry, but others engaged also in lumbering, fishing, copra and commerce. In 1936, the Japanese paid 50 per cent of total government revenues collected in the province and contributed almost half of the capital invested in agriculture as well as over one-third of that in non-agricultural enterprises. Quiason (op. cit.:228) says the Japanese 'demonstrated how well the spirit of mutual cooperation, proper energetic leadership, effective organisation and adequate government financial assistance would work in an under-developed area'. However, at the end of the second World War, 'the famous Japanese abaca plantations were practically destroyed by...squatters and settlers, and by roving people with small stripping machines' (Suguitan, 1952:27), and the surviving Japanese settlers were all repatriated.

The speed of development of the province is illustrated by the figures in Table 1:8. Certain trends stand out from the generally rapid increases under most

Table 1:8 The development of agriculture in Davao province,
1903-60.

	1903	1918	1939	1948	1960
Total population (thousands)	65.5	107.4	292.6	364.9	893.0
No of farms (thousands)	1.3	6.6	26.3	35.4	92.2
Per cent operated by tenants	5.8	27.6*	26.1	31.3	38.9
Total farm area (thousand ha)	16.3	110.6	328.9	293.7	460.4
Mean size of farms (ha)	12.5	16.6	12.5	8.3	5.0
Cultivated area (ha)	3,769	34,092	152,040	132,457	377,679
Gross area ⁺ planted to:					
Rice (ha)	1,124	2,568	n.a.	20,780	43,911
Corn "	5	755	16,498	55,936	249,520
Abaca "	2,499	24,432	n.a.	75,776	27,977
Coconuts "	282	6,775	n.a.	34,046	95,350
Coffee (thousand trees)	‡	2	n.a.	330	9,942

* Includes 18.7 per cent farming rent-free.

⁺ Includes areas double- or triple-cropped. Rice includes lowland and upland.

‡ 1903 Census reported coffee area only = 3 ha.

n.a. = not available.

Source: Census reports for specified years.

headings. The most significant of these trends are the population increase, the rising proportion of farms operated by tenants, the decreasing mean size of farm and the sudden collapse of the abaca industry together with the substitution of other crops between 1948 and 1960. Some aspects of these changes are discussed briefly in the following paragraphs while others are dealt with in greater detail in chapters II and III.

The early development of Davao took place in the coastal lowlands. The extension of government services to interior locations such as Monkayo and Compostela in the Agusan River valley led to a slow penetration by pioneers. Many of these were civil servants who had resigned in order to take advantage of the availability of public lands under the homesteading system. Although such pioneers were joined by a few kinsmen, the main penetration of the interior began only with the construction of the national highways towards Cotabato and Agusan in 1936. After 1945, migrants spread rapidly into the lowlands along these routes and along the shores of Davao Gulf. By the early 1950s most of the accessible plainland had been occupied and new arrivals began to move into the hill and mountain lands, although these areas were in most cases either classified as permanent forest or awaiting such classification.

With the rapid spread of settlement, the coastal areas served frequently as a first base for incoming migrants who later moved in one or more steps to more permanent locations. The areas more remote from Davao City, the main entry point, retain certain 'frontier' characteristics, such as a preponderance of males in the population, that are less noticeable nearer the city. In 1960, the built-up section of Davao City had a sex ratio of 96.7 males per 100 females, compared with the national average of 101.8. In

contrast, the ratio in Panabo, 30 km from Davao City, was 114.0; in Tagum, 50 km away, 112.6; in Asuncion, 55 km away, 117.4; in Mawab, 75 km away, 122.5; and in Compostela, 100 km from the city, 131.9.

Directions of migration were influenced by, though not confined to, directions of road development. In areas of poorer accessibility, land and commercial development was slower, notably along the east coast of the province. Residents of this eastern portion became the prime movers for the sub-division of Davao into three provinces that would be better able to deal with the special problems of their inhabitants. Eventually, in June 1967, the new provinces of Davao del Norte, Davao Oriental and Davao del Sur were established. Davao del Norte, where the research area lies, had an area of 813,000 ha and a population in 1967 of 336,800. The town of Tagum became the provincial capital.

The pre-war conditions of highly capitalised abaca plantations in Davao did not continue after the war. Both during and after the war, abaca plantations were neglected and diseases flourished. Although large areas of new abaca were planted by post-war immigrants, most of them had neither the knowledge nor the resources to control diseases, particularly the abaca mosaic. By the mid-1950s the only remedy for many people was to destroy their abaca and replace it with other crops. The substitutes varied with local conditions. Irrigable and other level lowland areas were mostly converted to rice fields, while drier lowlands and the uplands were planted variously to coconuts, coffee or corn. These crops were also planted in newly-cleared lands as colonisation continued. Although Davao province still imports some 20 per cent of its rice requirements from other provinces (chiefly Cotabato), it exports a large volume of corn to the deficit areas of the eastern Visayan islands. In 1959 this export exceeded 120,000 metric tons of shelled corn (Gutierrez, 1960:25).

Together with agricultural expansion, the province experienced a rapid growth in logging operations after the war. The number of sawmills rose from 9 in 1941 to 16 in 1947, 24 in 1960 and 28 in 1963, when 98 timber concessions covered over 783,000 ha. In 1962, over 17 per cent of total Philippine timber production originated in Davao province, and an increasing proportion is being turned into plywood and veneer in four factories in the province.¹ The rapid increase in logging operations has provided full or part-time employment for many people who would otherwise have been un- or under-employed and wages from such work have made possible the purchase of land by people who would otherwise have remained labourers or tenants. However, logging expansion has not been without its problems. Some, such as neglect of the laws on minimum wages and social security for employees, are common to many businesses; others have had direct bearing on the colonisation of land in Davao.

It has been claimed by both private and official investigators (for instance, Tutay, 1967a, 1967b and Chicote, 1967) that some logging companies have illicitly secured the release of their concessions from the classified forest zone and have then obtained pasture leases or planted the land to permanent commercial crops. Neglect of the timber licence provisions for selective logging and for replanting has been widely criticised by forestry officials, congressmen, journalists and foreign advisors. Destructive logging is held to be responsible for the denudation of watersheds, leading to soil erosion and flooding. While this is partly true, Agaloos (1965:14) has shown that the main blame for forest destruction lies with settlers who have squatted in

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The share of timber and its products in total Philippine exports rose from 3 per cent in 1950 to 26 per cent in 1965. Japan was the major market (Central Bank News Digest, April 5, 1966).

the public forest.¹ Logging roads have provided access routes for settlers to reach remote, usually hilly land and logged-over areas have frequently been occupied by squatters who in many cases have become permanent settlers. Where the loggers have removed even immature timber, they have usually ignored the subsequent squatting, but where selective, 'sustained-yield' logging was practised they have attempted, in accordance with the terms of their timber licences, to evict the squatters. Both sides to such disputes have tended to call on the support of politicians, and there appears to be an increasing trend towards violence in both pursuance of and resistance to eviction (field observations; see also Montaña, 1966 and Tutay, 1967b). Political pressure has led to the release from the forest zone of land totally unsuited to cropping, despite the provisions of the Bureau of Forestry's 'Revised Guiding Principles for Land Classification' (Bureau of Forestry, 1954:6) which state that land with slopes above 10° should not be released for agriculture (cf Pelzer, 1958:139 for similar occurrences elsewhere in Mindanao).

As well as the widespread development of squatting, there has been a continuing increase in the proportion of farms in Davao operated by tenants. The Soil Survey report for Davao province (Mariano 1953:25) commented on the paradox of a 25 per cent level of share-tenancy in 1939 when vast tracts of land awaited occupation. The report noted that the Bureau of Lands discouraged settlement on unsurveyed lands, and it also referred to inadequate transportation and the problem of diseases in the interior as deterrents to settlement. In view of these deterrents,

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Field observations and aerial photographs of the research area support Agaloos' findings.

new settlers were tempted to stay for a period in the longer-settled areas, particularly as landowners offered liberal sharing terms to tenants in order to bring their lands into cultivation as quickly as possible. Disease and discouragement by the Bureau of Lands are no longer significant deterrents to interior settlement, but lack of transportation may be.

A point not brought out in the Soil Survey report, and elaborated later in this thesis, is that large numbers of the post-war tenants are in fact temporarily cultivating the land of kin while hoping to find land for themselves. This practice of farming the land of a kinsman is common elsewhere in the Philippines, except for the major hacienda areas of central Luzon and Negros Occidental (Landé, 1965:96; and cf Polson and Pal, 1956:83). This form of tenancy is perhaps less prone than 'impersonal' tenancy on estates to cause social unrest, but its presence in Davao nevertheless indicates a decreasing availability of land for ownership in the province. This shortage is now recognised in many of the migrant source areas. It is not uncommon for landowners in Davao to visit their home towns in order to recruit tenants. Whereas in the past recruits could be confident of obtaining their own land soon after migrating, it will be shown below that this is no longer the case.

Map 2 shows the proportions of tenant-operated farms in Davao by municipality and indicates those municipalities where the mean size of tenant farms is below the national average of 2.31 ha. As a result of deteriorating conditions among tenants, in 1967 the area of Bansalan was declared a Land Reform District. It thus became eligible for concentrated agricultural extension and credit services while share-tenancies were to be converted to leasehold with prospects of ownership (National Land Reform Council, 1966).

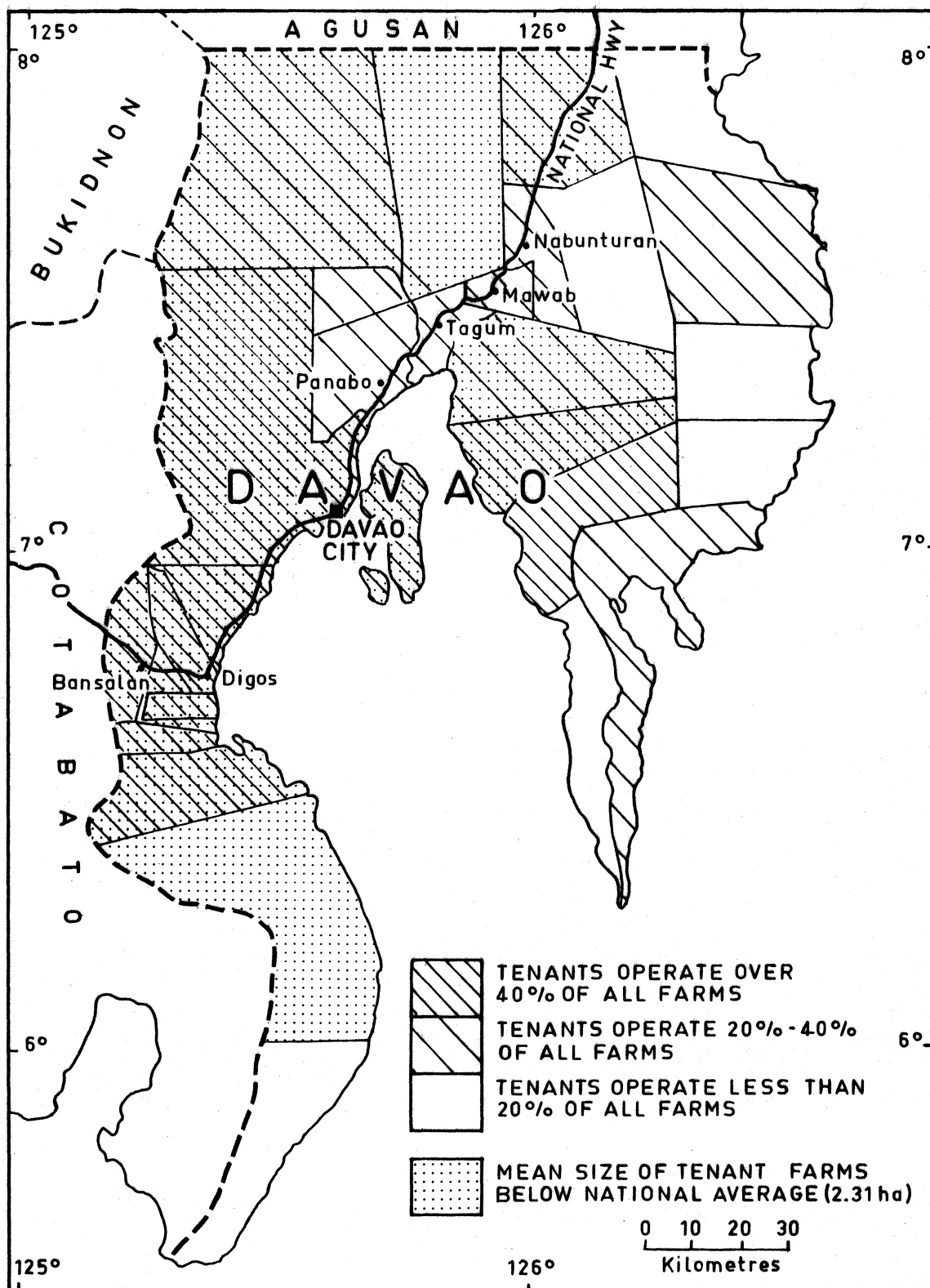
Another indication of the decreasing availability of land in Davao is the rapid fall in the mean size of farms, as shown in Table 1:8. Although in 1960 the figure for Davao compared favourably with the mean of 3.6 ha for the Philippines as a whole, the rate of increase in population in Davao (8.2 per cent annually, 1948-60) is much higher than the national average so that farm sizes may soon approach the national level.

While there is still vacant alienable land in Davao, grave problems have emerged in the areas already occupied, and the national Press frequently carries articles on land problems in Davao and the rest of Mindanao. A member of the Davao Provincial Board has claimed that

In Davao, we are creating a fertile ground for communism....A little agitation among these poor and discriminated homeseekers will ignite a social disturbance....If Davao is ignited, Cotabato, Agusan and other nearby provinces will be devoured by the flames of social unrest. (Montaño, 1966)

The causes of such unrest are enumerated by Montaño as landgrabbing by wealthy and influential people; the deliberate loss or neglect of applications for public land; sales of land from the forest zone to privileged people; arbitrary demolition of houses and permanent improvements of pioneers who had entered the forest zone; delays in issuing titles; and extortion by Bureau of Lands personnel in return for speedy processing or favourable decisions on applications (Montaño, 1967).

The development of these, and other, problems could have been foreseen, if not averted, in the light of experiences earlier in the century in the settlement of Nueva Ecija and Nueva Vizcaya in Luzon (Miller, 1920) and in the Misamis provinces of northern Mindanao (Pelzer, 1958, 1968). This has not been an exhaustive catalogue of the problems faced by individual settlers and more will become apparent in later chapters.



Map 2. Incidence of tenancy in Davao province, by municipality, 1960.

Chapter II

THE FIELDWORK AREA

The first section of this chapter presents information on aspects of the physical environment that are most relevant to understanding the development of the research area. This is followed by a brief historical account of the growth and composition of the population of the area and its administrative development. Finally, the characteristics of the settlers in the research sample are discussed and related to the total population.

The criteria for selection of the municipality of Mawab as the fieldwork area were stated in the Introduction. Mawab lies 75 km northeast of Davao City, athwart the national highway to Agusan and Butuan City. It is about 20 km from Tagum, capital since 1967 of the new province of Davao del Norte.

The physical background

Topography. The municipality of Mawab is centred on a basin entirely surrounded by mountains which rise to over 1000 m in the east and above 700 m in the south. These are related to the Pacific Cordillera of Mindanao, and consist of igneous and metamorphic materials, particularly diorites, andesites, dacite and porphyry with minor inliers of Tertiary shales and limestones. Small deposits of gold and copper are worked at two points just outside the municipal boundary. The mountains are rugged and highly folded, lying along a major fault line that extends from Butuan City on the north coast of Mindanao to Cape San Agustin on the south. Tectonic activity continues to an extent that is perceptible

almost daily and the low divide between the Hijo, Saug and Agusan valleys lying north and east of Mawab has been cited as the most unstable area in Mindanao (Masó, 1904:205).

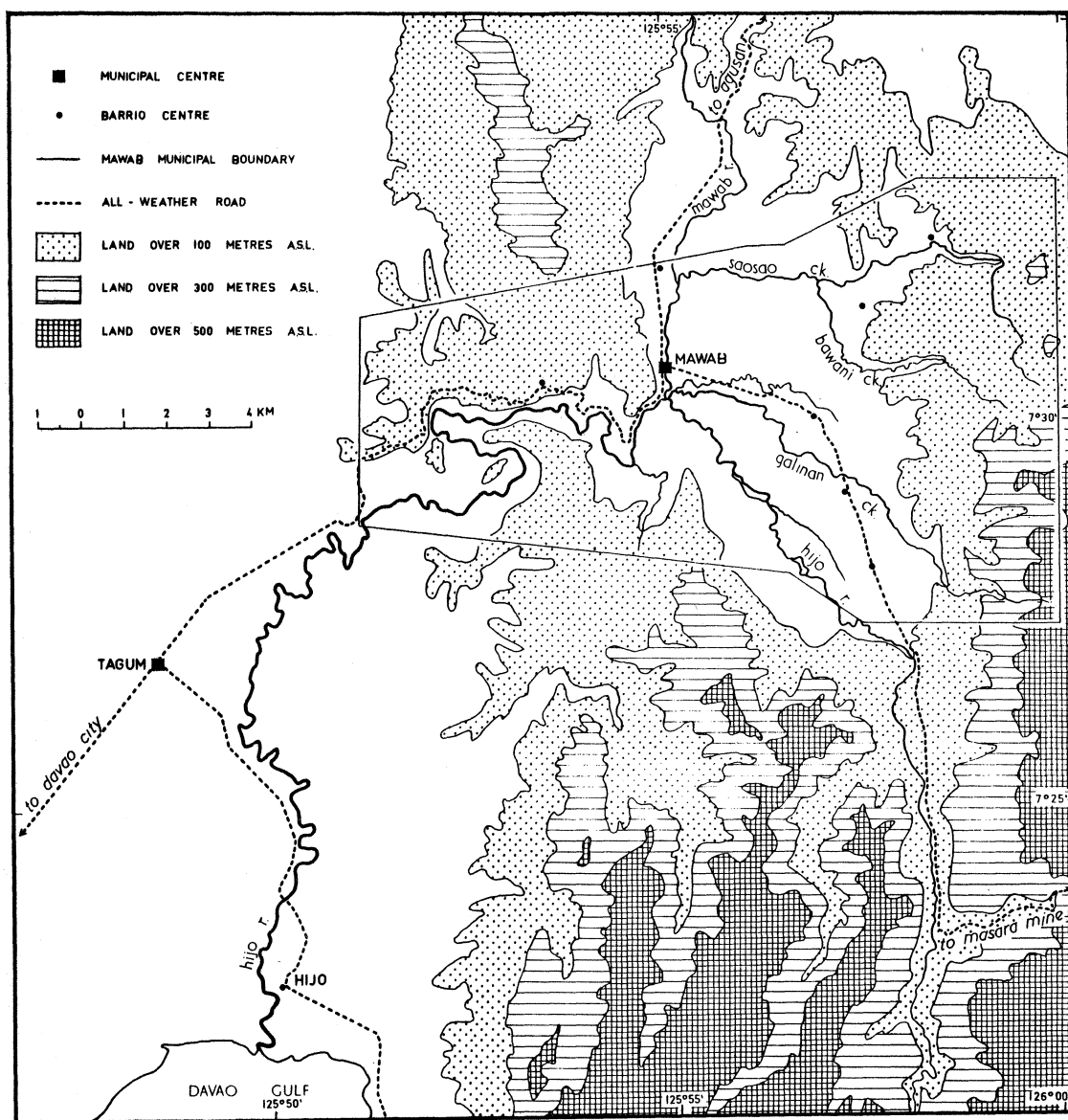
The hills west of Mawab are also folded and faulted, and their eastern face is formed by a fault running north-south. However, unlike the eastern mountains, they are formed of sedimentary rocks - Tertiary shales, limestones, sandstones and conglomerates - which reach heights of only 350 m. In places the limestones have been eroded to form extensive caves and farmers in these areas sometimes use the guano deposited by cave-dwelling bats.

The western hills are separated from those to the south by the deep gorge of the Hijo River. This gorge provides the route of the national highway from Davao City to Butuan City. In all of the hill areas, smaller streams have also cut deep valleys, so that most slopes in the hills exceed 20° and sometimes 45° .

Relief is particularly accidented in the eastern hills, thereby deterring their development. Although the remaining hill areas rise sharply from the central plain, they are lower in elevation and have rather gentler topography. Level areas are found on ridge tops and spurs, and are favoured house sites for settlers. In the northeast there is a small intermediate zone of rolling uplands between the hills and the plain, with slopes of $2-20^{\circ}$. This zone appears to have formed on deposits of red clay.

The Mawab plain is formed of alluvials derived from the surrounding hills and lies about 90 m above sea level. Three physiographic divisions can be recognised that are significant in land use.

1. In the south the plain is made up of arenaceous materials that become coarser-grained southwards until, at the extreme edge of the plain, large water-worn



Map 3. Mawab: location, relief and drainage.

rocks and pebbles come to occupy the upper layers or surface. This region has significant slopes up to 7° , in contrast to other parts of the plain.

2. North of Galinan Creek (Map 3), finer deposits overlies the arenaceous horizons. The plain slopes westwards at an angle that seldom exceeds 1° ; the gradient is so gentle in the northeast that Saosao Creek and its tributaries are subject to flooding. Considerable areas of farmland are permanently saturated, preventing the use of ploughs; instead, the cultivation of lowland rice is undertaken entirely by hand tools.
3. The drier interfluvies in the northern section of the plain are too high to allow for streamfed gravity irrigation, yet too badly drained for crops such as corn or abaca. Such areas are known locally as alangan, literally nondescript, neither one nor the other land.

Underneath the plain is an aquiferous bed that is only 10 m deep in the west and 20 m or so up to 2 km northeast of Mawab poblacion. Since discovery of the aquifer in 1953, 34 artesian wells have been sunk to provide water for irrigation and domestic use. Attempts to bore wells west of the Mawab River, or in areas more than 4 km away from the poblacion have failed to strike the aquifer at depths of 40-50 m.

Soils. According to the reconnaissance Soil Survey Report of Davao Province (Mariano, 1953), two soil series are dominant in the Mawab area. The soils of the plain are classified as silty clay loams of the San Manuel series, which forms on alluvium derived primarily from igneous rocks. It is usually high in organic matter, except under continuous cultivation, and has good internal and external drainage despite its generally subdued relief. San Manuel soils are among the most productive in the province, giving high yields for most crops, and they are rated as of first class quality in land use capability.

The other major soil type is the Camansa sandy clay loam found in hilly and mountainous areas; the parent materials are weathered mixtures of shale and sandstone with some gravels and sand. This soil has a moderate organic content and is easily penetrated by roots. Internal drainage is good, but external drainage is excessive due to the steep topography on which the soil develops. The Soil Survey Report states that relief limits the agricultural potential of the soil, but moderate slopes may be planted to abaca or tree crops if the demand for land warrants it (Mariano, 1953:50). Since the report was written, large areas of the hills have been occupied, and even the steepest slopes planted to annuals as well as to tree crops. Consequently, signs of erosion have become obvious on many exposed slopes.

In addition, personal observation suggests that the Cabangan clay loam occurs in the northern and western parts of the plain, being associated with level interfluves up to a kilometre east of the Mawab River. It forms on deposits derived from sedimentary rocks, such as those forming the upper catchments of the Mawab and Linda Rivers. It contains a moderate amount of organic matter and is easily penetrated by roots, although it becomes hard when dry. Surface drainage is poor, but internal drainage fair to good (Mariano, 1953:35-6). The soil is considered of medium to high productivity, and is particularly suitable for lowland rice. In places, a shallow water table prevents successful cultivation of corn or of abaca.

Climate. The nearest meteorological station to Mawab that records temperatures is Davao City, 75 km to the southwest. Records extend over 30 years. As is to be expected within 8° of the equator, there is little monthly variation during the year in temperature levels, which range from 0.7° above to 0.7° below the mean of 27.0°C . The figures for Mawab are

probably very similar, since the change in altitude is only 60 m and there is no maritime cooling influence.

Information on the rainfall regime of the Mawab area is rather unreliable owing to the short records of the nearest stations. Records for Odell Plantation, Tagum (19 km to the southwest) cover 11 years; those for Masara Mine, Mabini (17 km to the southeast) cover 12 years; and those for Compostela (25 km to the northeast) cover 18 years. According to Wernstedt and Spencer (1967:60), the Mawab area lies more or less on the border between the humid zone of interior Mindanao, the moist sub-humid zone of the Davao Gulf lowlands and the perhumid zone of the eastern coast and mountains of Mindanao. In the Thornthwaite classification these are types B3, C2 and A, respectively.

The lowest mean monthly rainfall at any of the three stations mentioned is 118 mm in August at Compostela (see Fig. 2:1). Thus every month comes within Mohr and van Baren's definition of wet climatic and edaphic conditions, that is, with a minimum of 102 mm (Mohr and van Baren, 1954:71). Mean annual rainfall at Masara is rather heavier than at Compostela or on the coast. However, Masara and Odell Plantation both have a coefficient of seasonal variation¹ of 0.18 compared with 0.38 for Compostela. The records for Masara are used to illustrate further details of rainfall in Mawab, since they include complete monthly figures over 12 years and daily figures for 1967.²

1

The coefficient is the ratio of the standard deviation of the values of the monthly means to the mean of the monthly means.

2

Grateful acknowledgement is made to Mr George Doublay, former Resident Manager at Masara Mine, for making these records available.

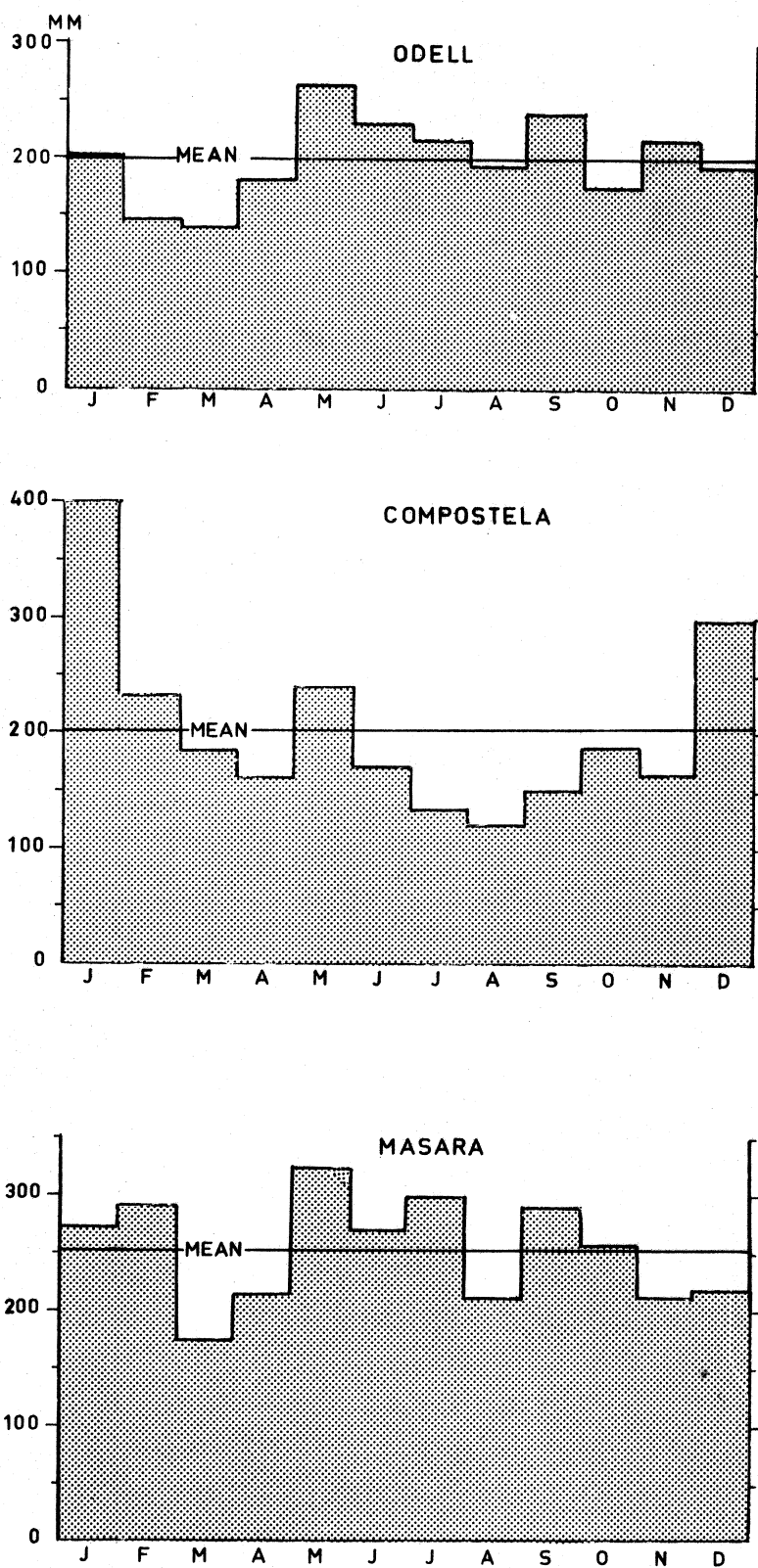


Fig.2:1 Annual rainfall regimes at Odell Plantation, Compostela and Masara Mine.

The mean annual rainfall at Masara is 3003 mm. From the graph (Fig. 2:2) it is plain that there is considerable variation about this mean, from a low point of 1704 mm to a high of 4355 mm. Similarly, although there is only a very slight tendency towards seasonality, there is a very wide range between the highest (790 mm) and lowest (18 mm) figures for monthly rainfall over the twelve years, both of these figures by coincidence falling in the month of February. During 1967, falls of 0.25 mm or more were recorded on 136 days, with a mean of 21 mm and a maximum of 133 mm in one day. The longest run of successive dry days was 14, in April, and the next longest 10 days in December. The second week of January 1968 was notable for the fall of a total of 331 mm of rain in five days. The consequent floods destroyed bridges and made most roads in northern Davao impassable. In Tagum municipality a 7 km stretch of the National Highway was negotiable only by small launches for several days.

The mean figures suggest that rainfall is well distributed throughout the year and is adequate for all agricultural purposes. In more detail, the records show that the area may be subject to droughts of sufficient length to harm growing crops - particularly rainfed rice. Crops are also liable to flood or storm damage. Fortunately, Davao, like the rest of Mindanao, is completely free of typhoons, although some storms are accompanied by violent winds that may damage standing crops as well as coconut palms and banana plants. The storms cause rapid erosion of exposed soil on slopes and may destroy or block roads through slippage on steep slopes. In addition, the Hijo River when in spate adjusts its braided channels, destroying crops planted on islands between the channels and undercutting its banks.

Vegetation. The climax vegetation of the entire Mawab area is lowland dipterocarp forest, and this is still present in

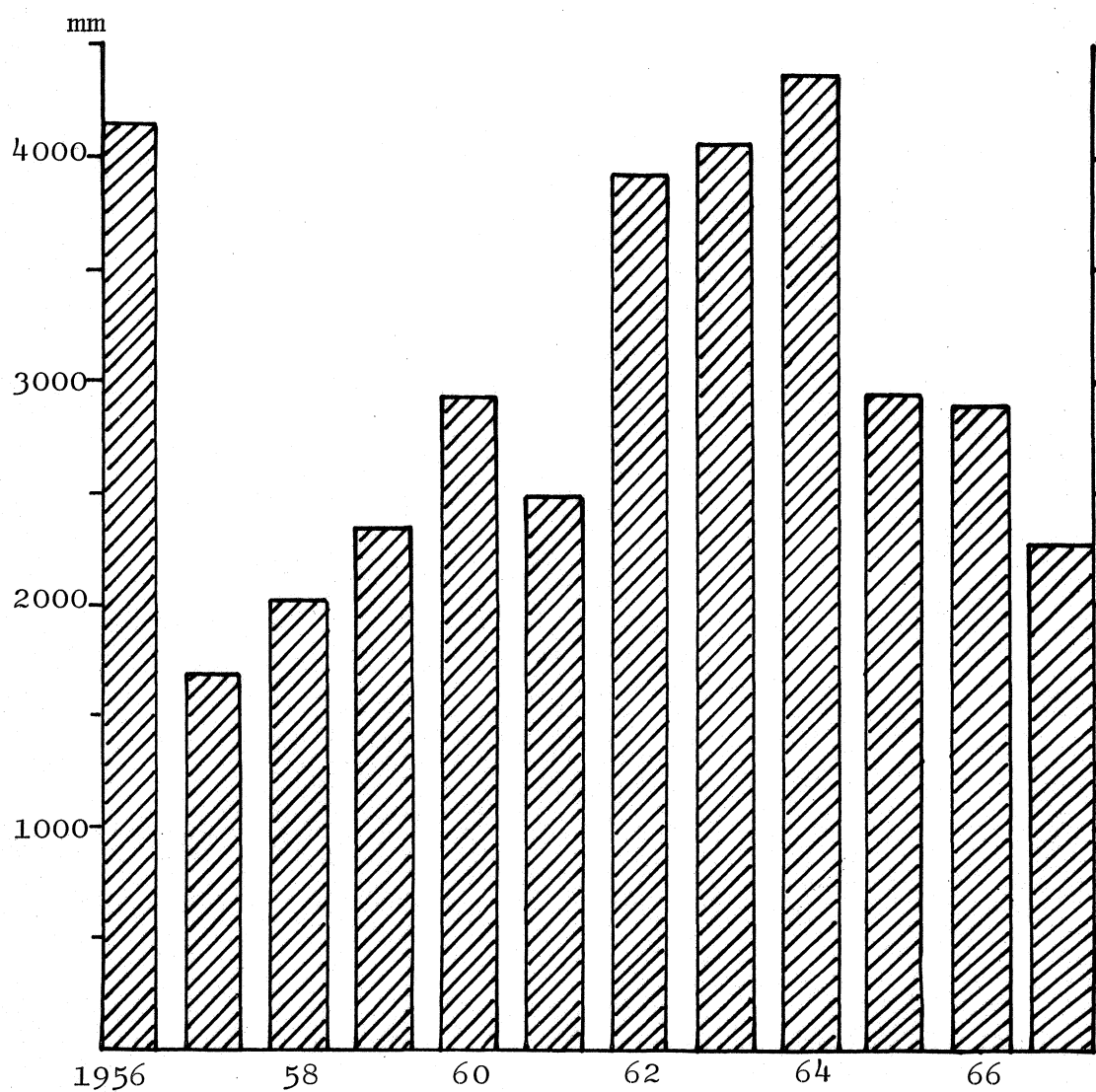


Figure 2:2 12 year rainfall graph, Masara Mine, 1956-67.

the few undisturbed areas of the mountains around Mawab. However, virtually all of the plain is now cleared of forest, except for small patches retained by the larger homesteaders as timber reserves or river bank protection. In the hills, most of the dipterocarp forest has been destroyed either by settlers or by logging operators, but considerable areas have developed second-growth forest. Sometimes this has grown undisturbed since first clearing, but more usually it is merely a forest fallow of a settler. Species favoured by the loggers include Dipterocarpus grandiflorus (apitong), Pterocarpus spp (narra), Shorea gisok (yakal), Shorea polysperma (tañgile), Shorea negrosensis (red lauan), and Hopea philippinensis (gisok-gisok). Rattans are common in the forests and are exploited for use in construction and in furniture-making.

When the twentieth-century pioneers arrived, considerable areas of the plain were already in second-growth as fallows of the native Mansakas. The secondary growth, or late, is of very variable species, many of little or no economic value. However, the bamboo is a prized plant that yields materials for construction as well as for storage baskets and rice-drying mats. Leucaena glauca (ipil-ipil) is highly regarded as a fast-growing source of firewood. In some areas of Mawab cleared land has been invaded by grasses, mainly cogon (Imperata cylindrica) and, in the riverine areas, talahib (Saccharum spontaneum). Such grassland areas are most common in more remote areas, including parts of the barrios of Sawangan, Tuburan and Saosao and presumably have resulted from poor management of land that is not worth reclaiming at present.

Wild life. Until the main inrush of settlers after the second World War and the consequent clearing of forest, the Mawab area supported considerable numbers of game suitable

for hunting, including wild pig (Sus cristatus), deer (Cervus philippinus etc.), monkeys (Macaca irus) and numerous bird species. Pigs and monkeys were destructive pests. Since about 1955 deer and monkeys have almost entirely disappeared and wild pigs are seen only rarely on the fringes of the settled lands in the hills. As cropping has expanded, new animal pests have become more noticeable. Flocks of white cockatoo may do serious damage to corn and fruit crops, and the maya bird (a kind of finch) attacks rice. Since 1953, rice areas in Davao and Cotabato have suffered from serious infestations of rats that have destroyed large quantities of standing rice. Mawab has in some years been among the worst-affected municipalities (Bureau of Plant Industry, 1964:13) although in other years it has escaped lightly compared with neighbouring areas. The Bureau of Plant Industry representative in Mawab believes that the large areas of uncultivated land, in particular that of absentee landowners, harbour the rats and make control more difficult. Officially-sponsored eradication campaigns during the 1960s provided free poisons, including 10-80, but free distribution has now stopped so use of poisons has diminished. Another factor in this decrease was the catastrophic effects of both baits and poisoned rats on farm livestock, even including work animals.

The development of Mawab as a municipality¹

At the turn of the century, Henry Savage Landor travelled up the Hijo and Mawab Rivers in search of the native Mansakas. His report (Landor, 1904:838-91) showed that there were no permanent settlements along these streams. Nevertheless, according to leading Mansakas and the first

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Many aspects of the development of Mawab, and of Davao as a whole, are undocumented. The main sources of local

immigrant settlers, there were in 1920 between 100 and 200 families of swidden-farming Mansakas living in groups of eight to 20 houses at scattered points in the plain. The evidence of the pioneers suggests that the Mansakas were able to utilise long fallow periods, as the plain was covered in either primary or mature regrowth forest, with very few areas affected by cogon grass.

The beginnings of immigration date back to 1919, when a Visayan teacher was posted to the Mawab area to establish a school for the Mansakas. The school became the focus of the new barrio of Mawab, whose boundaries remained undefined until the area was surveyed in 1938. In 1929, there were less than 20 non-native households in Mawab but thereafter kinsmen and paisanos (province-mates) joined these pioneers in increasing numbers (see Fig. 2:3). Between 1929 and 1941, at least 185¹ households (individuals or families) arrived in Mawab giving a mean rate of 14 households each year.

At first, the only access to Mawab from the barrio of Hijo on the coast was by a trail across the mountains. However, the return journey to the coast was facilitated by the use of bancas (dug-out canoes) on the Hijo River. This route was used on journeys to sell abaca, coffee and eggs and to buy farm supplies in Hijo. In 1937, work began to extend the national highway from Davao City through the gorge of the Hijo River and Mawab barrio became a base for construction workers, some of whom later remained as settlers. The road was negotiable by 1939. Apart from stimulating further

(continued from p.54)

historical information used in this and subsequent chapters are the pioneers and government officials.

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The uncertainty arises from the fact that the lists of 1967 residents provided by local officials did not include earlier residents who had left Mawab or died.

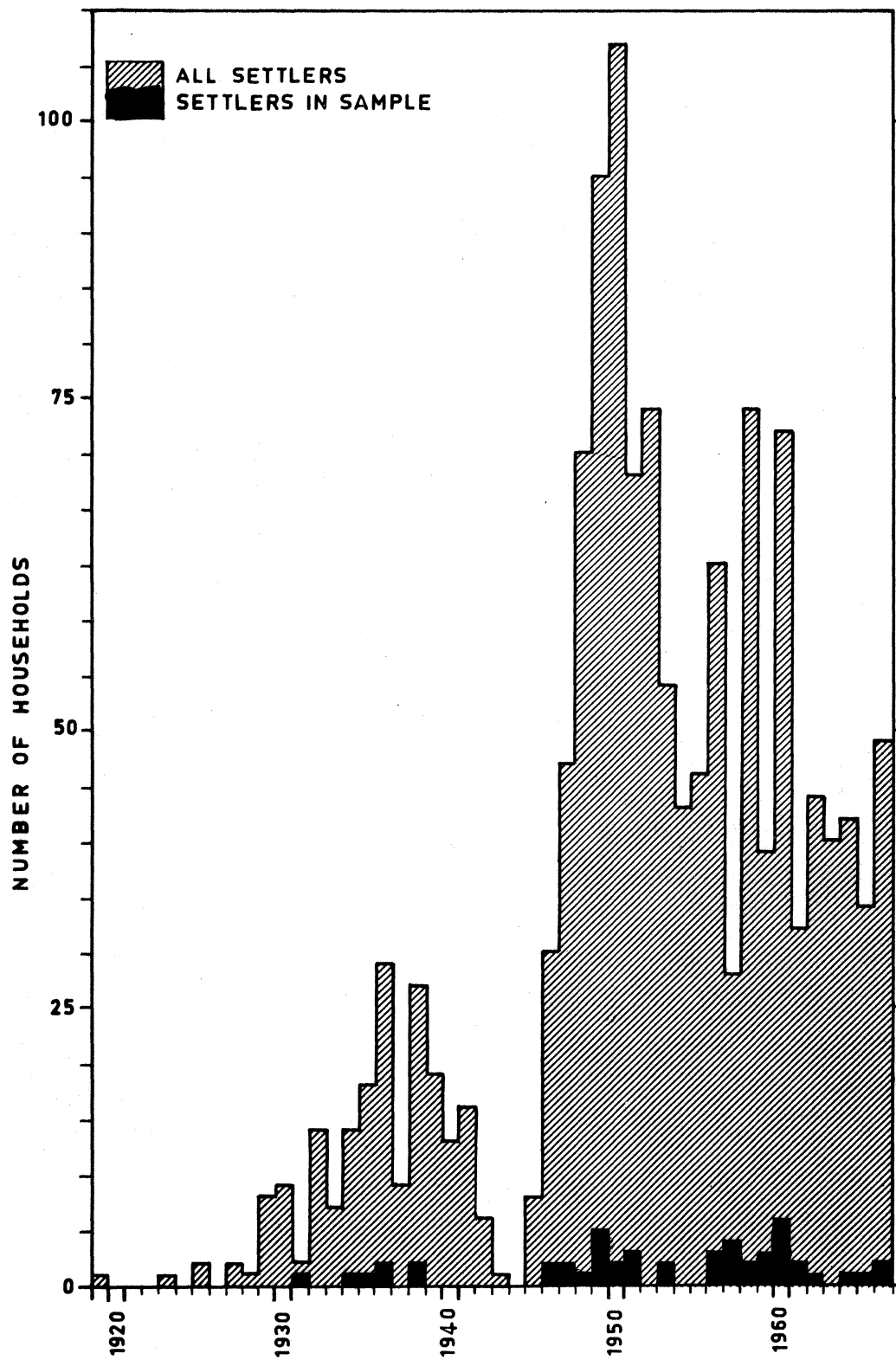


Figure 2:3 Number of households settling in Mawab each year, 1919-66.

immigration the road offered improved transportation. This, together with the arrival of several Chinese merchants, encouraged the wider planting of abaca. The new barrios of Andili, Nuevo Iloco and Saosao were established as settlers occupied the plain east of Mawab.

The rate of immigration and land colonisation was not reduced by early administrative delays or incompetence. Most of the Mawab plain was released by the Bureau of Forestry as 'alienable and disposable for agricultural purposes' by 1928, but it was not surveyed by the Bureau of Lands until 1938, by which time at least 144 settlers had claimed and begun cultivating land. One result of the delayed survey was that part of the surveyed barrio site of Mawab included portions of pioneers' homesteads. Since development of the 40 ha barrio site was slow, the pioneers have continued to utilise such portions and the issue has still not been resolved. North of the barrio, the survey team designated a 50 ha lot for a Bureau of Plant Industry nursery and this reservation delayed the northward extension of settlement. The nursery was never established and post-war development of the area by settlers has led to another unresolved dispute, with a prominent Mansaka leader claiming that the land should revert to Mansaka ownership. However, the dispute has not deterred the occupants from developing the land, thus reflecting the traditional Filipino custom of asserting rights to land through effective occupation.

In 1939, the entire area from the Hijo gorge north to Monkayo was designated as a settlement project by the National Land Settlement Administration (NLSA), but operations were postponed because of the vast task of forest clearance required. Although the NLSA established an administrative office in Nabunturan in 1946, no settlers

were ever installed by the NLSA. When the project was formally abandoned in 1949, most of the area had already been claimed by spontaneous settlers.

At the start of World War II, many settlers left Mawab for their home provinces, hoping to find greater security among kinsmen and friends. Many of the remaining settlers sought refuge in the mountains east of Mawab as the war continued and as Japanese administration became harsher.¹ After the war, some of the abandoned holdings were occupied by squatters, resulting in disputes when many of the original settlers returned. However, most cases were settled peacefully, with either formal purchase of land by the squatter or compensation to the squatter for his improvements.

Post-war immigration led to the rapid occupation of vacant areas in the plain, including level portions south of the Hijo River. By 1948, settlers had begun to occupy the lower hillslopes of this southern area, where the barrios of Sawangan and Concepcion were formed. The hilly area west of Mawab was occupied mainly by Leyteños who established the new barrio of Tuburan. The post-war expansion in migration is plain in Figure 2:3, which also demonstrates the increase of the 1930s and the virtual cessation of movement during the war. Since the early 1950s, migration has fallen from its peak but remains above the pre-war level. Between 1946 and 1960 at least 911 households arrived in Mawab at a mean rate of 61 each year, or more than one household each week. From 1961 to 1966 the rate has averaged about 40 households each year.

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These refugees included people who had been politically or socially prominent and afraid of being forced to collaborate publicly with the occupying power. The first three Ilongo pioneers in Mawab were discovered by the Japanese and compelled to form a local civil administration. In 1944 they were gaoled briefly by the Americans for collaboration.

In August 1959, after considerable discussion and political manoeuvring, Mawab was created a municipality, the smallest in Davao province. It incorporated barrios from the 'parent' municipalities of Tagum and Nabunturan and its boundaries were defined by cadastral survey monuments. Within two years, three new barrios were formed, bringing the total in the municipality to the present figure of ten. An eleventh barrio, Salvacion in the southwest, continues to be administered from Tagum, which is more convenient for the residents than the poblacion of Mawab. In addition, many other people remain uncertain about which municipality they belong to, because boundaries are not delineated on the ground or related to natural features. These uncertainties complicate the task of computing economic or demographic indices for Mawab.

The 1960 census reported 8,888 persons in Mawab, excluding Salvacion (pop. 308). By 1968, the Philippine Senate was considering a bill to transfer to Mawab the barrios of Panibasan and Masara from the neighbouring municipality of Mabini. In 1960 these barrios had a combined population of 3,044, so that when the transfer occurs, Mawab will become more comparable in size to others in Davao province.

Table 2:1 Population of Mawab municipality, by barrio, 1960.

<u>Barrio</u>	<u>Population</u>
Andili	1,717
Concepcion	367
Malinawon	922
Mawab (<u>poblacion</u>)	1,774
Nuevo Iloco	1,578
Saosao	1,070
Sawangan	780
Tuburan	680
	8,888

The establishment of barrios as political bodies does not imply the creation of barrio centres. Only three barrios - Mawab, Nuevo Iloco and Saosao - have surveyed and developed barrio sites and even in these barrios most settlers still live on their farms. As is normal in Philippine municipalities, the poblacion of Mawab is the most highly developed barrio. During the period when local farmers were earning high incomes from abaca, several Chinese opened stores along the main road. By the late 1950s there were also a few Filipino-owned mixed goods (sari-sari) stores, a rice and corn mill and a restaurant (carenderia) to serve passengers on long-distance buses. Further development has occurred since the creation of the municipality. The number of commercial establishments has risen rapidly (see Table 2:2), particularly food and refreshment suppliers serving the growing numbers of travellers and municipal and logging employees. Many of the smaller stores are run by the wives of small farmers, who are trying to augment inadequate family incomes by selling vegetables and a range of minor consumer goods (cf Wolfe, 1965, for a similar phenomenon in Latin America). Their turnover is small, and their prices often higher than elsewhere, but they retain a small clientele through links of kinship and friendship.

Apart from the commercial and administrative establishments, Mawab is the site of one public elementary school and two private high schools. These draw pupils from all ten barrios in the municipality, although the opening of community-built high schools in Nuevo Iloco and Andili in 1968 has provided more convenient educational facilities for people in the eastern barrios (Table 2:3). The poblacion has the only health centre in the municipality, but a full-time doctor was only recruited late in 1967, just before the municipal elections were held. There is also a private

doctor practising in the town. Most villagers outside the poblacion rely on traditional herbalists, masseurs and midwives for medical care.

The development of central facilities in other barrios has depended mainly on roads; sometimes the presence of a school has also exerted some attraction. Thus Concepcion and Sawangan, which are inaccessible for commercial vehicles, show no signs of attracting commercial, social or administrative establishments other than schools and chapels. On the other hand, the growth of Andili can be precisely correlated with road development. For a long time, it remained a barrio of dispersed homesteads, but after the war a road was built beside the Hijo River to Masara gold mine, and a primary school sited on a junction of this road with a barrio trail. Following a flood in 1952, the road was re-sited away from the river, a new school site was donated, and Chinese shops were established nearby. The new route was used by people from Andili, Concepcion and the upper Hijo valley to reach Mawab; commercial crops from these areas are traded at the Chinese stores along the road. With increasing traffic, more facilities have been established, including a public market and a petrol pump. By 1967, Andili was second only to Mawab as a commercial centre (Table 2:2) and all development has taken place on privately-owned land. Some local officials expect that the government will exercise its right of eminent domain and expropriate several hectares for future expansion.

The barrio of Malinawon illustrates a slightly different form of development. It was established in 1960 and lies across the national highway. After an elementary school was built in 1960 between the highway and the Mawab River, local farmers began buying residential lots from the owners of roadside land; by 1967 19 houses had been built. In

Table 2:2 Commercial establishments in Mawab, by barrio* 1967

Establishment	<u>Poblacion</u>	Andili	Bawani	Malinawon	N. Iloco	Saosao
General & mixed stores	25	13	2	2	10	5
Restaurants	8	0	0	0	0	0
<u>Tuba</u> stalls	7	8	1	3	2	4
Refreshment stands	15	0	0	0	0	0
Tailors, dressmakers	8	3	0	0	2	0
Rice and/or corn mills	3	2	3	1	3	1
Services ^a	4	1	0	0	1	0
Entertainments ^b	2	1	0	0	0	0
Barbers	3	0	0	0	0	0
Butchers	2	0	0	0	0	0
Photographer	1	0	0	0	0	0
Bakery	1	0	0	0	0	0
Pharmacy	2	0	0	0	0	0

* Apart from a few sari-sari stores and tuba stalls there are no commercial establishments in Concepcion, Nueva Visayas, Sawangan and Tuburan.

a Includes shoe repairer, blacksmith, vulcanising shop, petrol station, furniture workshop.

b Includes cockpit and billiards hall.

Table 2:3 Social and administrative facilities in Mawab, by barrio, 1968

Facility	<u>Poblacion</u>	Andili	Bawani	Concepcion	Malinawon	N. Iloco	N. Visayas	Saosao	Sawangan	Tuburan
Primary school*	1	0	0	1	0	1	2	1	1	1
Elementary school*	1	1	1	0	1	1	0	0	1	0
High school	2	1	0	0	0	1	0	0	0	0
Telegraph office	1	0	0	0	0	0	0	0	0	0
Puericulture centre	1	0	0	0	0	0	0	0	0	0
Doctor	2	0	0	0	0	0	0	0	0	0
Church or chapel	5	6	1	1	2	8	2	3	2	5
Market place	1	1	0	0	0	0	0	0	0	0
Reading centre	0	1	0	1	0	0	0	0	0	0
Platform or multi-purpose pavement	0	1	1	0	0	1	0	0	0	0
Agriculturalists office	1	0	0	0	0	1	0	0	0	0

* Primary schools cover Grades I to IV, Elementary schools cover Grades I to VI.

addition, a group of Ilocanos who have lived in the area since 1949 have, through cooperative labour, built another 28 homes and a rice mill. However, there are only three sari-sari and tuba¹ stalls in Malinawon, because most residents are as close to Mawab as to the barrio centre. Indeed, for squatters in the hills of western Malinawon (the sitio of Tanawan), Tagum town is as convenient an urban centre as is Mawab. Thus there is only limited scope for further commercial expansion in Malinawon, but the trend of residential development along the road seems likely to continue.

Since the completion of the national highway, most roads used by the people of Mawab have been built either by private corporations or by barrio people themselves. The most important of the private roads is that which connects Nuevo Iloco to the Masara copper and gold mine via Andili and the Hijo valley. It was built in 1953 by the mining company, which continues to maintain the whole road, except for the section between Mawab and Nuevo Iloco where costs are shared with two logging companies. The company charges tolls to defray costs. Although an alternative toll-free route was built by a logger in 1958 between Nuevo Iloco and Andili, this has always attracted less traffic than the more direct company route.

Most of the other private roads have been timber roads which are usually abandoned after logging operations. Very few have been maintained for subsequent use, and one was actually destroyed in a deliberate attempt by timber concerns to discourage the entry of squatters. Where the municipal government has assumed responsibility for private

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Tuba is a drink prepared from the fermented sap of the coconut palm.

roads, maintenance has been sporadic, usually undertaken only in the pre-election period once every two years. As a result, these roads are frequently impassable or in such poor condition that commercial vehicles prefer to avoid them. People in the barrios of Concepcion and Sawangan can only reach serviced roads by fording the Hijo River.

By 1967 the population of Mawab had increased to an estimated 12,500, according to the staff of the municipal health centre. As the implied 41 per cent increase since 1960 appears rather excessive, an alternative estimate has been made on the basis of the data collected during my research. Specially compiled lists of residents give a total of 1,704 households in the ten barrios. Multiplying by 6.34, the mean household size among the research sample, yields a total of 10,803 people. Adjusting for an arbitrarily assumed 10 per cent understatement in the listing of households, the total becomes 11,881. The changes in population densities between 1960 and 1967 are given in Table 2:4.

Table 2:4 Population density of Mawab, Davao and the Philippines, 1960* and 1967.

	Population/Km ²		Population/Km ² cultivated land	
	1960	1967	1960	1967
Mawab	65	87 ^b	158	171 ^a
Davao	45	56 ^b	237	246 ^b
Philippines	100	113 ^c	383	N.A.

* 1960 figures derived from Census of Population and Agriculture, 1960.

a 1967 figure of 6,947 ha of cultivated land estimated by Agricultural Productivity Commission, Mawab.

b 1967 figures for Davao derived from Annual Report of Provincial Agriculturalist, Davao City, 1966-7.

c 1967 population of Philippines derived from Annual Report of the Agricultural Productivity Commission, Manila, 1967.

N.A. = not available

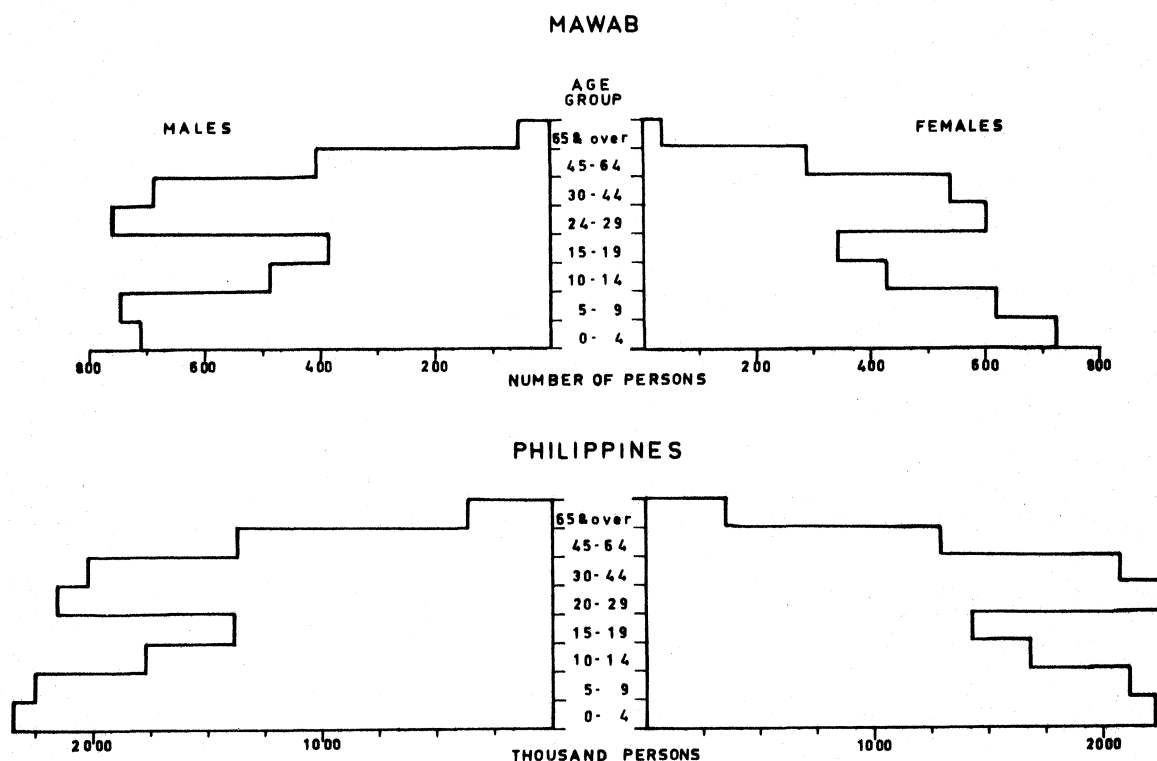


Fig.2:4 Age-sex structure of the population of Mawab and the Philippines, 1960.

The population of Mawab still exhibits certain features held to be characteristic of pioneer communities, notably a very high ratio of males to females (as noted briefly on p.38 above) and a comparatively small proportion of the population in the upper age groups. Unfortunately, the 1960 census does not give complete tabulations of age structure by municipality, but Figure 2:4 has been prepared from the available data. For purposes of comparison the data for the Philippines are shown in the same form.¹ The census classified 88 per cent of the population as farm population. The remaining 12 per cent are primarily engaged in logging

¹

The census tabulations of age and sex by municipality use 5-year age groups only up to age 19. Thereafter the class interval varies as shown in Figure 2:4. Standard age-sex pyramids for Davao and the Philippines are given in Appendix Figure 1.

undertakings, municipal employment or in commercial establishments such as stores and tailoring shops.

The research sample

It was noted in the Introduction that in order to obtain detailed information on the processes involved in colonisation in Mindanao it was necessary to use individual settlers as sources. Largely for logistical reasons, the number of settlers to be interviewed in detail was restricted to 50, chosen completely at random. There was no existing basis for selection apart from incomplete lists of registered voters and out-of-date topographical maps. Therefore, the captain and council of each barrio were asked to use their joint knowledge to compile lists of their residents. In two barrios the captains made a complete household census and in two others school teachers also helped compile the lists. The amalgamated list for the whole municipality totalled 1,704 households. No attempt was made to stratify the list. The random sample of 50 represented nearly three per cent of the total. The data obtained from these 50 form the basic subject matter of the following chapters.

Provincial origins. The sampled settlers represent all the major migrant source areas, as shown in Table 2:5. Settlers from Iloilo and the other Ilongo provinces on Panay and Negros Occidental are noticeably under-represented in the sample while Bohol and the Ilocano areas are over-represented. The sampled settlers fall into five cultural-linguistic groups, as shown in Table 2:6.

Step-migration. The years in which the settlers arrived are shown with the data for all Mawab households in Fig.2:3. In most cases, these are not the years in which people first

Table 2:5 Source areas of settlers in a) Mawab and b) the research sample.

Source Area	Mawab		Sample	
	No.	%	No.	%
Ilocano provinces	214	13	10	20
Other Luzon	23	1	0	0
Iloilo	172	10	3	6
Other Panay	49	3	0	0
Negros Occidental & Oriental	47	3	2	4
Cebu	205	12	5	10
Bohol	494	29	20	40
Leyte	195	11	6	12
Mindanao (non-native)	96	6	4	8
" (native of Mawab)	125	7	0	0
Unknown	84	5	0	0
TOTAL	1,704	100	50	100

Table 2:6 Cultural group and province of birth of 50 settlers in Mawab.

Province of birth	Cultural Groups				
	Ilocano	Ilongo	Cebuano	Boholano	Leyteño
Ilocos Norte and Sur	5	-	-	-	-
La Union	1	-	-	-	-
Tarlac	3	-	-	-	-
Zambales	1	-	-	-	-
Iloilo	-	3	-	-	-
Negros Occidental	-	1	1	-	-
Cebu	-	-	5	-	-
Bohol	-	-	-	20	-
Leyte	-	-	-	-	6
Surigao	-	-	-	-	2
Davao	-	-	1	-	1
TOTAL	10	4	7	20	9

left their home provinces because migration in several stages has been the rule. Only ten of the sample moved directly from their birthplaces to Mawab. Six others had worked in various places¹ outside their home towns, but when they migrated to Mindanao, Mawab was their first destination. The other settlers had all spent some time in other places in Mindanao before deciding to move to Mawab and 11 had stayed in four or more places. The maximum number of intermediate stops was ten and the mean, 2.8. The intermediate places were as widely scattered as Surigao, Bukidnon, Zamboanga and Cotabato, but 16 settlers had spent some time in the rural districts of Davao City and 11 in the municipality of Panabo, working usually as tenants or labourers.

The mean age on arrival of settlers who travelled directly to Mawab was 28 years, but for those who had made intermediate stops the mean was 32 years. These people were, on average, slightly under 17 years old when they first left home, so they had spent an average of some 15 years in the process of migrating and settling. As will be seen in the following chapter, some of the sampled farmers do not consider themselves as finally settled in Mawab. The selection of Mawab as a destination was almost invariably a consequence of chain-migration and the role of relatives in transmitting information and assisting new settlers will also be discussed in Chapter III.

Before leaving their home provinces, eight of the sampled settlers were farming their own land, 13 were tenants and 19 were assisting their fathers whether on owned or rented land. As far as could be judged, few were operating more than two hectares. Four settlers were

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These were mostly nearby towns, but one Ilocano had worked for several years as a farm labourer in California.

previously farm labourers, three were in non-cultivating occupations in rural areas¹ and the remaining three were students before migrating. At various periods, almost half the settlers had changed occupations. For instance, one had been a teacher, another had worked for the Malaria Eradication Unit and several had been war-time guerillas. On average, settlers had close to 17 years farming experience and less than three years in non-farm occupations on arrival in Mawab.

Twenty-two of the sampled settlers were single when they arrived in Mawab. Sixteen of these later married in Mawab and one in a neighbouring town. Six of them married women not from their own province, but only two of the wives had a different mother-tongue from the husband. Four of the single settlers returned temporarily to their home provinces to marry and only one man has not yet married.

Of the 28 settlers who were married on arrival, seven first came to Mawab unaccompanied in order to find land and housing before bringing their families. The period of separation was less than seven months in all but two cases. The mean number of dependents of these 28 settlers on arrival in Mawab was 4.8, with a range from one to 12.

In 1967, the mean age of the 50 settlers was almost 45 years. Forty-three of the settlers were then married, five widowed, one single and one had been deserted by his wife in 1966. The total number of children born to settlers' families (both before and since arrival in Mawab) was 281, of whom 237 were living and 181 were still living in the settlers' households. The basic household unit is the nuclear family, but many households include accretions, usually close consanguineal kin (such as parents or siblings)

¹

Potter, fisherman and tuba-gatherer.

of the husband or wife. In a few cases, the additional members formed the nuclear family of one of the offspring of the settler. All people who normally resided and took their meals in the house during the year July 1966 to June 1967 were counted as household members, although in a few instances some of these contributed little of their labour or their off-farm earnings towards the household economy. On this basis, the total population of the 50 households was 317, with a mean of 6.3 and a range from one (one instance) to 11 (three instances). In comparison, the mean size of all farm households in Mawab in 1960 was 5.5.

The age-sex structure of the sampled population is shown in Fig.2:5. The sex ratio was 124.8 males per 100 females - a little above the mean of 122.5 for the Mawab population as a whole. Out of 130 males between the ages of 10 and 64, 78 were considered part of the farm work force, 31 were students and three others were over 65 years old and took little or no part in farm work. The remainder were mostly occupied in casual non-farm employment, but one was a full-time schoolteacher. Two women were also schoolteachers. While women perform some farm tasks, particularly planting and harvesting of rice, they are not usually expected to engage regularly in farm work.

Although the Philippines has a high level of literacy¹ and education is highly valued, rural surveys have generally found that owing to poverty, the majority of farmers have received only a few years' formal education. The sampled settlers in Mawab correspond to the rule. Only one had attended college (to second year level) and two others had

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The 1960 census reported that 72 per cent of all Filipinos ten years and over were literate. Wernstedt and Spencer (1967:689) cite an assessment that functional literacy is probably 20 per cent below this level.

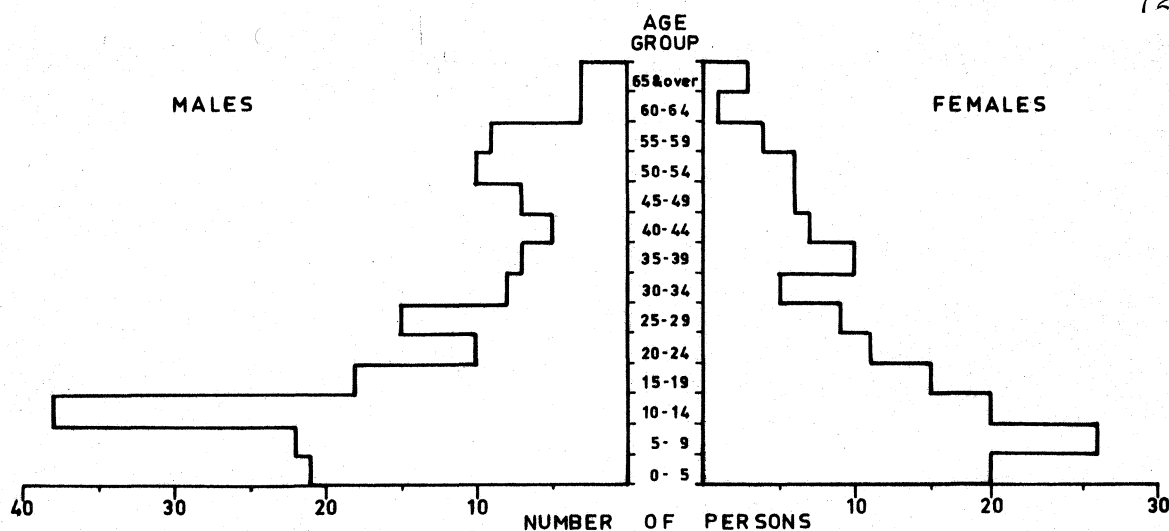


Fig. 2:5 Composition of sampled households by age and sex.
(Total population = 317)

Table 2:7 Education level of 50 settlers, by cultural group.

Level Attained	Ilocano	Ilongo	Cebuano	Boholano	Leyteño	Total
0	2	1	4	2	5	14
Grades I-IV	3	1	2	17	2	25
Grades V-VII	0	0	1	1	2	4
High School (incomplete)	2	2	0	0	0	4
High School (complete)	2	0	0	0	0	2
College (incomplete)	1	0	0	0	0	1
TOTAL	10	4	7	20	9	50

completed high school. Almost four-fifths had got no further than the four primary grades. As Table 2:7 shows, there is a distinction between the cultural groups. The Ilocanos and, to a lesser extent, the Ilongos tend to have a higher level of educational achievement than the three eastern Visayan groups.

Table 2:8 Educational attainment of the population of Mawab, 1960 and of the research sample, 1967.

	Total population	No grade completed	Grades I-V	Grade VI to High School Class 3	High School graduate to college graduate
Mawab	7,818*	3,387	2,982	1,180	269
Per cent	100	43	38	15	3
Sample	317	107	147	50	13
Per cent	100	34	46	16	4

* The 1960 census report erroneously attributed the barrio of Saosao (pop. 1,070) to Nabunturan. It was not possible to obtain the barrio data to correct tables reporting for the municipality as a whole.

Compared with Mawab as a whole in 1960, the families of the settlers sampled in 1967 have received slightly more schooling at the lower levels, but there is no significant difference at the higher levels (see Table 2:8). In Chapter VI there is some discussion of the difficulty for the most recent settlers of affording schooling above elementary level for their children.

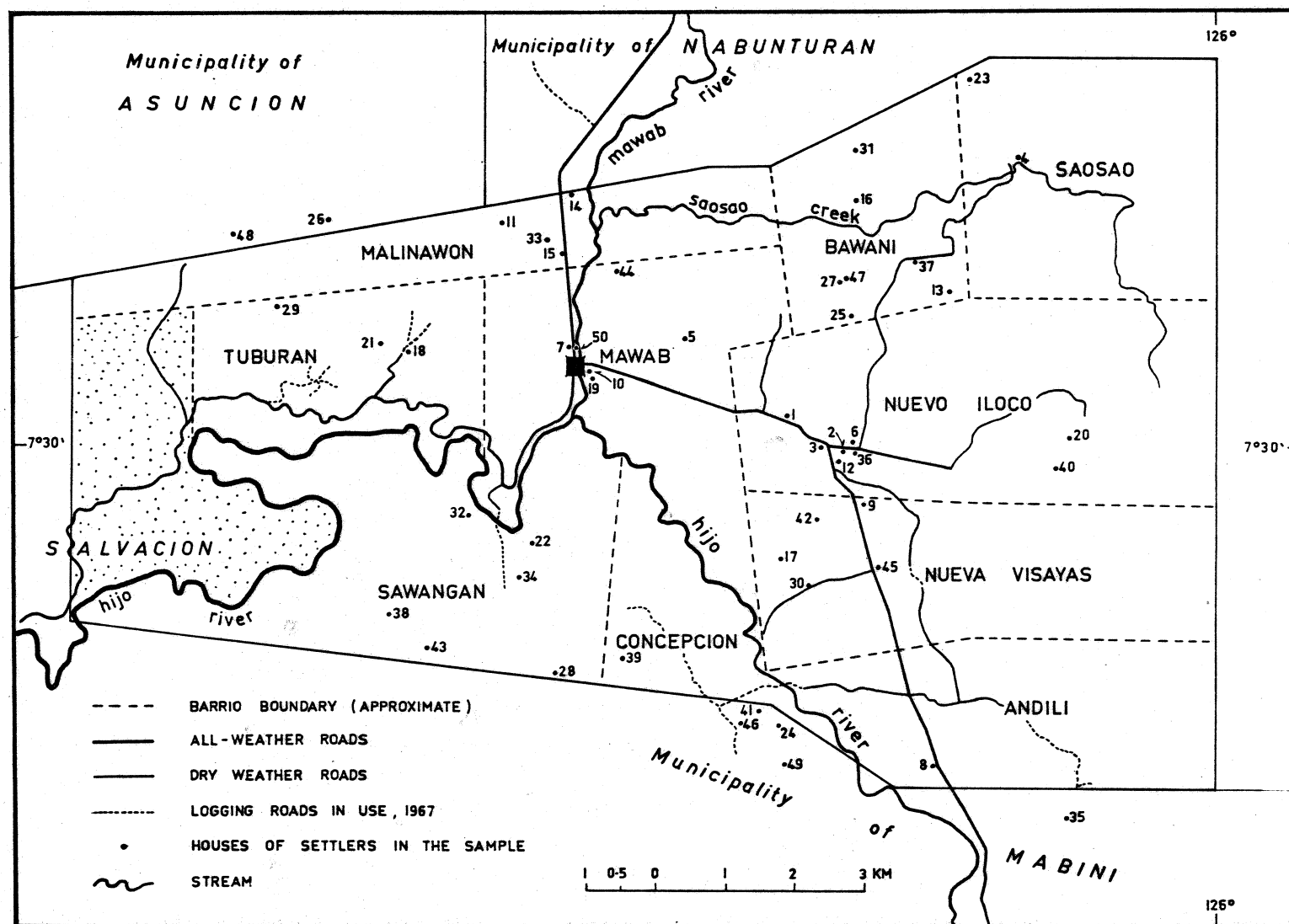
The locations of the houses of the sampled settlers are shown in Map 4, and in Table 2:9 the distribution of the settlers is shown in relation to the number of households reported for each barrio in 1967.

Table 2:9 Total and sampled numbers of households
in Mawab by barrio

Barrio	All Households	Number in sample	Sample as percentage of total
Andili	170	2	1.1
Bawani	94	7	7.4
Concepcion	99	5	5.1
Malinawon	186	6	3.2
Poblacion	442	6	1.4
Nuevo Iloco	265	8	3.0
Nueva Visayas	111	5	4.5
Saosao	115	2	1.7
Sawangan	146	6	4.1
Tuburan	76	3	3.9
TOTAL	1,704	50	2.9

Other characteristics of the sample, such as their location in relation to the land they operate, their resources on arrival and in 1967 and their tenurial status, form the substance of the following four chapters.

Map 4. Location of sampled settlers, numbered in order of arrival in Mawab.



Chapter III

THE ACQUISITION OF LAND BY SETTLERS

Although the Philippine Public Land Act of 1903 (and later amendments) laid down formal procedures for the occupation of public lands, the responsible agencies of government never had enough funds or personnel to control either the rate or the course of colonisation. In practice, much was determined by the pioneer colonists with only partial regard for the provisions of the law. This chapter examines in detail the processes by which the public lands in Mawab were occupied and the land tenure situation that has resulted.

Initial stages

In about 1918 the Government of the Philippines sent over 100 college graduates from Luzon and the Visayan islands to establish 'settlement farm schools' among non-Christian peoples in Mindanao. Some of the teachers seem to have been moved rather frequently, and in 1919 an Ilongo was sent on his third posting to Mawab. There were then 14 Mansaka houses close to the Mawab River, about half a kilometre above its confluence with the Hijo. The school was sited close to these houses, and the present barrio of Mawab has developed around it. At first, it was difficult to attract and keep pupils, but after a year there were sufficient in residence to start a school garden; proceeds from sales of garden produce were used to buy clothing and equipment.

Two years later, four Mansakas who had not paid the Philippine residential tax (amounting to P2 per head),

asked the teacher to pay the double tax imposed on them as defaulters. In return, they gave him 24 ha of land near the school and cleared part of it. To prevent regrowth in the clearing, he first planted squash as a cover crop, following it up with 1,000 coconuts purchased from a coastal planter. In 1923, another Ilongo teacher (stationed at Bankerohan, 20 km north of Mawab), visited his province-mate or paisano at Mawab and noted the abundance of level forested land there. On request, the local Mansakas gave him a block of 24 ha, which he asked his paisano to develop after his return to Bankerohan. Shortly afterwards, another paisano, a Lieutenant in the Philippine Constabulary who was stationed at Monkayo, also visited Mawab; he too claimed land and arranged for the teacher to develop it on his behalf. Finally two more civil servants arrived, one an Ilocano from Tarlac and the other a Cebuano. Together with the earlier visitors, they set up the Cinco Amigos (Five Friends) Plantation, placing the teacher at Mawab in charge of clearing. Their intention was to start individual farming operations after resigning from the public service.

These pioneers, and others who arrived before the Philippine Government embarked on road-building and settlement programmes, were civil servants with above-average education and with comparatively well paid, secure positions (cf Field, 1931:413). They were quick to perceive the potential of the Mawab area and to initiate measures to gain a foothold there. In fact, they established themselves before the area had been classified, surveyed or released by the Bureau of Forestry for agricultural development. Only in 1928 was the Mawab plain certified as suitable for alienation, while the first cadastral survey was delayed even further, taking place in 1937-9.

In the initial stages, the native Mansakas gave land freely to immigrants. They even helped to locate and mark out suitable lots, and often worked as labourers on the holdings. For their services, they were paid mostly in kind; pioneers with shotguns were able to obtain wild pig, deer and other game, and paid their labourers with 2 kg of meat per day. As the number of immigrants rose after the mid-1930s, the Mansakas began to transfer land only for small sums of cash or, more commonly, for tobacco, clothing, tools or alcoholic drinks.

The parties involved in these early land transactions may have intended them to be in perpetuity. But even if the Mansakas meant to transfer rights to the land only on a temporary basis, they were often dispossessed of it through the operation of Philippine land laws, by which immigrants obtained permanent titles to land. As the Mansakas did not understand the legal system, they were frequently tricked out of their land by settlers pretending to hold titles. Others abandoned their land in fear of the arms that some immigrants used for hunting. Some Mansaka informants stated that complaints to the authorities were fruitless, as the investigating officials were themselves Christian immigrants and therefore biased in the settlers' favour. Consequently, as immigration continued, many Mansakas moved away, eventually retreating into and beyond the hills around the Mawab plain. Those who have remained have tended to adopt new traits from the migrants, for example clothing, agricultural practices and commercial crop production (cf. Yengoyan, 1966b). In 1967, there were about 130 Mansaka families in Mawab, most of whom were resident in hill areas.

Clearly, the native Mansaka people never formed any obstacle, permanent or temporary, to the settlement of the Mawab plain by Filipino migrants. Within a few short

years, the migrants effectively established themselves and their cultures on a permanent basis, easily displacing the Mansakas who either retreated before the dominant society, or chose to adopt many of its features.

Migration chains

Almost as soon as they had established their farms, the pioneers in Mawab began inviting relatives and friends from their home islands to join them. The resulting phenomenon of chain migration is well known from studies of internal movements in countries such as the U.S.A. and Sweden (see, for instance, Nelson, 1959 and Hägerstrand, 1957). More recent studies show the process to be operative in Asia as well, among others, in India, Malaysia, Thailand and Indonesia (ECAFE, 1967:32). It largely accounts for both the composition of the Mawab population and the ultimate location of most settlers in Mawab.

From the sample of 50 settlers it was found that only six had arrived with neither kin nor friends already in the area; of these, one was recruited by a landlord who wanted tenants from his province, while another arrived with a group of paisanos and acquaintances. Eleven migrants had been assisted by relatives or friends who paid for their transport. Forty-two people lived with kin or paisanos for at least some weeks, and in some cases for several years, after arrival. Of those who became landowners, five were helped by relatives to find suitable lots, one bought out his brother's share in a communal holding, and another was 'given' land in the forest zone by a kinsman of his wife. Fourteen people who began farming in Mawab as tenants were also helped directly by relatives or paisanos in finding land.

Similar findings were made by Wernstedt and Simkins in a study of the colonisation of the Digos-Padada valley in southwest Davao. Seventy-two per cent of their sample of over 900 settlers had relatives or friends in the valley before migrating and most settlers stayed with such acquaintances for the first few months after arrival.¹

In an attempt to ensure that their neighbours were kin, or at least paisanos, the first five settlers agreed that future Ilongo migrants should be encouraged to settle in the western and northern parts of the plain, Ilocanos in the east and Cebuanos in the south. As people from other Visayan islands arrived they were also encouraged to move to the south. Some settlers made trails around neighbouring vacant land or put up claim signs to deter unwanted migrants. One pioneer applied for a pasture lease extending from Galinan Creek to the mountains, but allowed his paisanos to settle the strip, subsequently waiving his claim in order to allow them to file homestead applications. In the early years, these illegal or quasi-legal attempts to create cultural blocs were largely successful. Even though the system began to break down in the late 1930s as the Mawab plain filled up, the continued role of kin in helping newcomers to find land ensured that a considerable measure of cultural grouping was maintained.

By the time a settler had established a farm, or gained some form of employment, he had usually formed contacts with many people, thereby reducing his dependence upon relatives. Before this stage was reached, relatives were useful in, for example, supplying seeds or planting materials to new arrivals, or making interest-free loans of foodgrains if harvests were insufficient. Relatives

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Paul Simkins, personal communication.

commonly worked together in reciprocal labour exchanges (losong), especially for clearing forests, or for planting, harvesting and stripping abaca. However, in this respect the absence of neighbouring kinfolk was no real drawback because, from the very beginnings of permanent settlement, neighbours exchanged labour regardless of kinship or of provincial origins.

Distribution of population by cultural-linguistic origins

Chain migration has caused a marked clustering of people according to kinship and province of origin. Excluding the six migrants who had no relatives in Mawab on arrival, the mean distance from sampled settlers at first establishment to their closest relatives was only 0.87 km, and the median distance 0.22 km. In more general terms, this clustering according to area of origin can be seen from Table 3:1 which shows the area of origin of household heads now living in the 10 barrios of Mawab. The distribution of the Visayan groups is shown in Table 3:2.

It is clear that the only groups with a wide distribution are the Eastern Visayans and especially the Boholanos, who are represented in all barrios. In contrast, 90 per cent of the Western Visayans (mostly Ilongo speakers) are located in the contiguous barrios of Mawab and Bawani, while 80 per cent of Ilocano-speakers are found in Nuevo Iloco, Bawani and Malinawon.

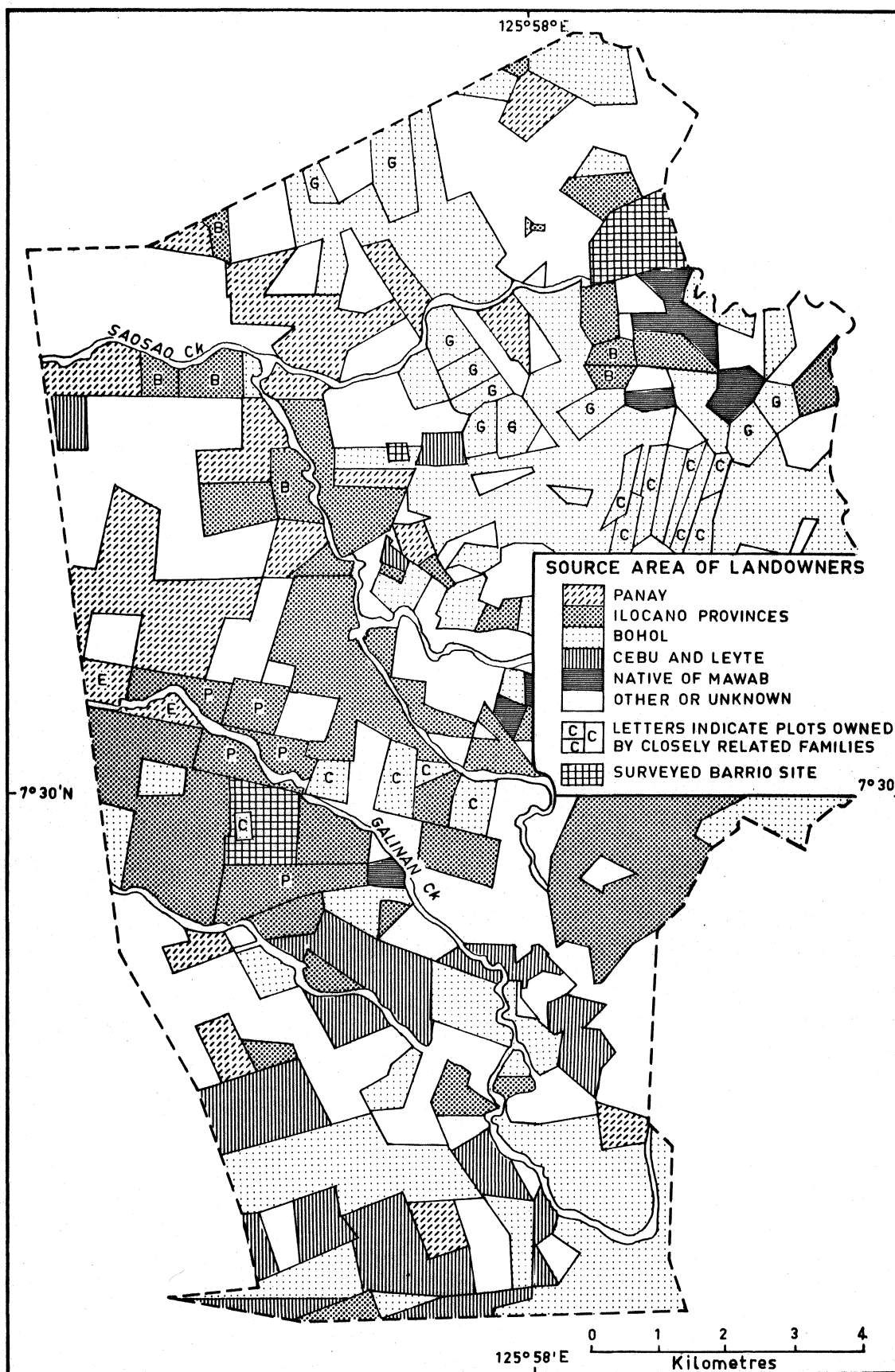
The data of Tables 3:1 and 3:2 were used with information extracted from barrio records, cadastral maps and real estate tax declarations to construct a map (Map 5) showing the ethnic origin of landowners in the eastern part of Mawab, the only area for which suitable maps were

Table 3:1. Area of origin of all household heads in Mawab, by barrio.

Barrio \ Area of origin	Ilocano provinces	Other Luzon provinces	Visayan islands	Mindanao provinces	Mawab (Mansaka)	Unknown	Total
Andili	2	4	145	10	9	-	170
Bawani	19	-	73	2	-	-	94
Concepcion	1	1	55	5	36	1	99
Malinawon	26	-	128	14	17	1	186
Poblacion	17	12	307	26	2	78	442
Nuevo Iloco	128	-	132	-	5	-	265
Nueva Visayas	3	5	83	18	-	2	111
Saosao	15	1	75	3	19	2	115
Sawangan	3	-	99	16	28	-	146
Tuburan	-	-	65	2	9	-	76
TOTAL	214	23	1,162	96	125	84	1,704

Table 3:2. Distribution of Visayan settlers in Mawab, by province of origin and by barrio.

Barrio Province of origin		Eastern Visayans			Western Visayans			Total	
		Bohol	Cebu- Negros Oriental	Leyte- Samar	Aklan- Capiz	Antique	Iloilo		Negros Occidental
Andili		68	26	47	0	1	1	2	145
Bawani		16	0	0	2	10	45	0	73
Concepcion		22	29	3	0	0	1	0	55
Malinawon		40	36	43	1	1	3	4	128
<u>Poblacion</u>		41	49	37	10	22	118	30	307
N. Iloco		115	10	3	0	1	3	0	132
N. Visayas		25	38	17	1	0	0	2	83
Saosao		73	0	1	0	0	0	1	75
Sawangan		82	9	8	0	0	0	0	99
Tuburan		12	14	36	0	0	1	2	65
TOTAL		494	211	195	14	35	172	41	1,162



Map 5. Distribution of landholdings in eastern Mawab, by cultural origin of owners.

Note: individual plots are shown only for members of five families selected to illustrate clustering by kinship.

available,¹ This demonstrates in detail the spatial distribution of settlers according to their provincial origins. Although the map refers only to landowners, other evidence indicates that the tendency for cultural grouping concerns tenants too. It was found that out of 83 current tenancies, landlord and tenant were related by blood or affinity in 46 per cent of cases, while 14 per cent involved paisanos. A further 6 per cent of cases involved the fictive kinship institution of ritual coparenthood (compadrazgo).

The evidence suggests that Western Visayans and Ilocanos, who come from provinces where rice is the major crop and preferred food, have settled mainly in the central and northern parts of the municipality, or precisely in those areas most suitable for lowland rice. Similarly, it appears that Eastern Visayans, who are often considered by other Filipinos to be corn growers and consumers, have chosen the drier and sandier parts of the plain and the uplands. Consequently, some people in Mawab believe that an early settler's choice of location was dictated by its similarity to his home environment and its suitability for his staple crops.

This simplistic explanation may be queried on several counts. Firstly, the initial pattern of location by cultural groups developed from the agreement by the pioneers to direct different groups to different parts of the plain. The subdivisions devised by the pioneers were

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Map 5 is not an accurate record of the progress of land alienation since it shows only present owners, rather than the original settlers. In most cases, these are the same, but some of the original settlers have left Mawab, sold their land or died. A few late arrivals have been able to buy land in fairly central locations, while some earlier arrivals have purchased one or more plots of peripheral land since establishing themselves on their first, more central plots.

based on order of arrival and on convenience, not on soil fertility or crop potentials. They had little means of assessing these qualities at the time, since variations in soils or drainage were masked by the forests which occupied the Mawab plain. Secondly, discussion with the pioneers revealed that, from the start, their main interest was in cash cropping of abaca or coffee. Almost all the early settlers grew corn rather than rice as a food crop because it required less labour than rice and so left more time for commercial enterprise.¹ Rice was grown reluctantly by people whose land was unusually lowlying and too wet for abaca.

Finally, the stereotype of Eastern Visayans being corn growers and consumers was seen in Chapter I to lack validity. Thus, lowland rice is in fact the major crop in Bohol (Table 1:7). Similarly, most Leyteño migrants in Mawab originate from the rice-producing plains around Ormoc City or from the southwestern coastal area and are not particularly biased towards corn production. Even in Cebu, where crop hectarages seem to support the stereotype, lowland rice is grown wherever topography and water supply permit. There is no doubt that the Eastern Visayans have been less reluctant than Ilongos or Ilocanos to occupy the uplands in Mawab, but it is also significant that among the sample all seven landowners who rent additional rice land are from Cebu, Bohol, or Leyte (Table 3:3).

By the late 1930s, the central portions of the Mawab plain were fully occupied. Groups from Panay were established in areas where they are still dominant - Mawab

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Similarly, the Cagayan valley in Luzon has been developed by Ilocano settlers into one of the major corn-growing areas of the Philippines. The corn is used as both a food and a cash crop (Wernstedt and Spencer, 1967:320-1).

Table 3:3. Tenurial status and cultural origins of 23 sampled rice growers in Mawab.

	Ilocano	Ilongo	Cebuano	Boholano	Leyteño	Total
Owner of rice field	7	2	0	3	0	12
Owner of rice field, also renting rice field	0	0	1	1	0	2
Owner of upland, renting rice field	0	0	0	3	2	5
Tenant	2	1	1	0	0	4
TOTAL	9	3	2	7	2	23

and the western part of Bawani and Ilocanos occupied the western part of Nuevo Iloco and southern Bawani. New immigrants had to settle further out but maintained the trend towards ethnic concentration. In this way, Boholanos came to occupy considerable areas of lowland along the mountain fringes between Nuevo Iloco and Saosao. People from Cebu and Leyte were moving into the southern part of the plain and had also begun to colonise areas along the road west of the Mawab River in the area now known as Malinawon.

By 1950, virtually all of the plain had been claimed. The continuing stream of immigrants then began to occupy the surrounding hills, although the land had not been released by the Bureau of Forestry. Most of the squatters were from Cebu and Leyte but between 1949 and 1951 they suffered encroachments by Ilongos. As the Ilongos were armed, many of the earlier occupants abandoned their claims. Shortly afterwards the Ilongos sold the same land to newly-arrived Eastern Visayans and moved away. In this way, the Ilongos resembled the 'professional squatters' described by Gill (1959) as people who migrate continually, selling their successive illegal clearings at a profit to later migrants. The episode caused such disorder that a special government team was sent to the area, with the result that it was released in 1953 and surveyed and sub-divided between 1953 and 1956. Further extensive areas of the western hills were released in 1956.

Settlers now found in the hills are almost exclusively from Leyte, Cebu and Bohol. Out of 58 squatters who unsuccessfully petitioned the government in 1966 for release of forest land in the most remote parts of Tuburan and Malinawon, 23 were from Leyte, 17 from Cebu and 10 from Bohol. In the steep hills south of the Hijo River, 32 out of 42 petitioners were from the same islands, and out of 19 petitioners in the eastern ranges, 16

were Eastern Visayans. The settlement of hill areas by these people stems from increasing pressure on land in Mawab and repeats processes that took place much earlier in the Visayan islands. Thus some Boholano settlers told an Ilocano barrio leader that since no flat ground was available when they arrived, they were prepared to farm steep slopes, exist on root crops and accept a low standard of living, as in Bohol itself. In like manner, a Cebuano leader pressed for the release of hill land for agriculture on the grounds that 'In Cebu, people farm even the steepest slopes'. There is little doubt, however, that Visayan immigrants would prefer lowland plots of land if a choice were available.

Means of obtaining and holding land

References above to squatting and tenancy have indicated that migrants did not simply move into vacant lands and become independent farmers on homesteads. Table 3:4 shows that in fact a minority of the sampled settlers started out in Mawab on their own farms. Only four of those operating their own land from the start were homesteaders. Two bought their land and the other four were squatters on land in the forest zone. The 23 people who did not start out as farm operators all eventually obtained land, whether as owners, squatters or tenants, but in some cases this took several years.

Table 3:4. Initial means of support for 50 settlers in Mawab.

<u>Means of support</u>		<u>Number of settlers</u>
Farming:	Operating own land	10
	Renting land	17
	Paid farm labouring	15
	Helping kin	5
Other:	Driving logging truck	1
	Working in survey team	1
	Operating store	1
TOTAL		50

The means by which sampled settlers first held land are shown in Table 3:5. This reveals a marked trend towards squatting and tenancy in the last decade and the following sections examine how this came about. Changes in farm sizes are also considered and the implications of these changes are examined.

Table 3:5. Initial means of holding land by 50 settlers in Mawab, by period of arrival.

Period	First held land as			Number of tenants who had not acquired own land by 1967
	Owner	Squatter	Tenant	
1931-35	3	0	0	∞
1936-40	2	1	1	0
1941-45*	0	0	0	-
1946-50	5	3	4	3
1951-55	1	2	2	0
1956-60	3	3	12	6
1961-66	0	2	6	6
TOTAL	14	11	25	15

*Period of wartime disruption 1942-45.

Land ownership

Land acquisition up to 1941. The early paragraphs of this chapter gave a brief account of the process of land acquisition in the initial stages of settlement. Most of the earliest settlers in Mawab were able to acquire homesteads of the maximum size of 24 ha, either freely or at very low cost in payments to the Mansakas. Few people obtained land other than by homesteading, but two of those who obtained land by purchase acquired holdings much larger than the maximum for homesteads. In the early 1930s a Bureau of Forestry official named Salvilla obtained by sales application some 400 ha beside the Hijo River between Mawab and Andili. He was able to obtain more than the 144 ha limit on such applications by using his wife and a friend as

'dummies'. For a brief period Mr Salvilla engaged tenants to clear the land and plant abaca but in 1939 he leased the land to some Japanese, who brought in labourers as well as tenants to develop the land more rapidly. Once the abaca was bearing, the tenants were paid off and cultivation continued by hired labour up to the second World War. The other large holding comprised 48 ha in Andili and was bought in 1935 for P500 by a Boholano from another Visayan who wanted to move closer to Mawab poblacion. The buyer has since bought more land in barrio Concepcion and in barrio Panibasan and is now the biggest landholder in Mawab apart from the absentee plantation owner.

Apart from these two people, several homesteaders gained control of areas larger than 24 ha by claiming homesteads in the names of their wives and children. Although the Public Land Act specifically prohibited homesteading by dependents, this regulation and others were easily evaded, given the inadequate staffing of the controlling agencies and the venality of some of their officers. Several settlers commented that inspectors of the Bureau of Lands would always reach favourable decisions if well-fed and presented with a chicken or young pig. In at least one case, a surveyor actually advised a settler to claim more land by applying in his wife's name. All of the early homestead applications were approved but very few titles were actually patented until after World War II, largely because the Bureau of Lands' cadastral survey of the area was not begun until 1937 and processing of cases was completely in abeyance during the war.

As noted earlier, much of the land claimed in excess of the legal limit was later given freely to newly arrived relatives or friends of the owner. In this way, gaps

between holdings of the earliest pioneers were rapidly filled, so that by 1935 the central part of the plain was completely claimed.

In the five years before the second World War, developments in Mawab had reached the point where newly arrived migrants were able to become tenants on the Salvilla plantation (including one member of the sample) or obtain jobs as labourers while they looked for vacant land. Such jobs could be found either on the national highway or on the homesteads of earlier arrivals who were by then receiving cash incomes from mature abaca and coffee. After a few months, those who wanted land were able without exception either to locate plots for homesteading on the spreading fringe of the settled area or to save enough to buy more central land from earlier arrivals. Land became available for sale for a variety of reasons, including sickness¹ or death of the owner, desire to move elsewhere or return home and need for cash in emergencies.

What is perhaps surprising with regard to the immigrants of the late 1930s is that many were content to settle in the central portion, occupying comparatively small lots that were either unclaimed or portions of holdings sold by earlier arrivals, when by penetrating further into the forest larger holdings could be obtained freely. The main reason for this attitude seems to have been a reluctance to be too far from friends and communications, a reluctance felt particularly by wives. Even some of the wives who arrived after World War II remembered crying at the remoteness of their new homes, and from interviews in the migrants' hometowns it is plain

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Malaria in particular was prevalent and deterred many labourers on the highway from staying to find land.

that it was frequently the wife's attitude that caused a migrant to abandon his land and return home. In most parts of the Philippines the preference is for clustered rather than dispersed residence patterns. Under conditions of colonisation, residence on the farmstead was important in order to develop land rapidly,¹ but settlers still wished to minimise distances to neighbours. Contacts with neighbours were important for regular exchanges of labour as well as for social intercourse and in emergencies arising from accidents and sickness.

Such considerations seem to have been enough to outweigh the future advantages of larger holdings, and the colonisation 'frontier' tended to advance on a front rather than through 'leap-frogging' over stretches of forest. There were cases in Mawab of migrants moving to distant parts of the plain, separated from the main block of settlers by a band of forest, but such movements were by groups rather than by individuals. Thus in 1936 some 30 Boholanos, including one of the sampled settlers (No. 4 on Map 6), moved to the comparatively remote area now known as Saosao. The group, who had met while working on Japanese plantations near Davao City, built a large house as a temporary dormitory while they subdivided a block of land given to them by the Mansaka residents of Saosao. The subdivision was intended to yield holdings of equal size, but the approximate methods of survey and calculation resulted in a range from 10 to 24 ha. Much of the forest land separating these holdings from those of settlers in Nuevo Iloco was not claimed until after World War II. The other direction in which 'leap-frogging' took place was along the national highway where the BPI nursery reservation had restricted expansion north of Mawab poblacion. A small group of Mansakas were living near the confluence of Mawab River and Saosao Creek and between 1936 and 1939 a few

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In addition, until the survey in 1938 no barrio sites were designated.

Visayans took up land nearby. No large influx of settlers followed, however. Instead, in the years before the outbreak of war new immigrants moved further north along the highway into the area now forming the municipalities of Nabunturan and Compostela.

All the seven settlers in the sample who arrived before the war had claimed land within two years, the mean lapse being nine months. However, the process of acquisition was not always as simple as suggested by these figures and by Table 3:6. To illustrate some of the complications, two examples are given below.

Table 3:6. Initial means of support and land acquisition of seven pre-war settlers in Mawab.

Means of acquiring land	Initial means of support				
	Farm ownership	Tenancy	Labouring	Helping kin	Other
Homestead	2	0	0	2	0
Gift and homestead	0	0	1	0	0
Purchase of alienable land	0	1	0	0	0
'Purchase' of unreleased land	0	0	0	0	1

One of the two men who became owners immediately on arrival was an Ilongo (No. 5 on Map 6) who arrived in 1936. He claimed a homestead of 24 ha near the poblacion, but after a year returned to Iloilo at his parents' request. After working there for four years he returned to Mawab in 1941, to find his land had been claimed by another settler. For the first two years of the war he worked as a labourer for a neighbouring paisano. In 1943 he married the daughter

of another neighbour, who gave the couple 7.9 ha which was applied for as a homestead by the husband. Since then, this settler has frequently borrowed up to 1.5 ha from his wife's father as a rice seedbed or corn field.

Only one of the pre-war sample did not obtain a lowland holding. A Leyteño (No. 7 on Map 6) arrived in Mawab in 1938 as a member of the cadastral survey party led by his uncle. After a year, when the National Land Settlement Administration team proposed to make the area a settlement project, he bought 18 ha of upland beside the national highway close to the poblacion, the seller being a Mansaka who wanted to avoid contact with the immigrants that would arrive with the creation of a settlement project. Although the settler spent the war in Leyte, his holding was not occupied in his absence. On his return to Mawab, he gave 6 ha to his brother. In 1953 the land was released from the forest zone but because of technical details his homestead application has not yet been finally approved.

Post-war land acquisition. We have seen how migrants to Mawab before 1941 were able to obtain land as legal owners through homestead applications. This process operated while alienable land was readily available and the number of migrants was relatively low, but from 1946 onwards the rate of in-migration accelerated very sharply (see Fig. 2:3). As a result, the means of obtaining land began to change and migrants were unable to claim such large areas as the pre-war settlers had. Apart from the pressure of competing settlers, after 1951 the Philcusa-FOA land allotment and survey programme (see p. 9 above) limited new claims within 6 km of development roads (such as the national highway) to 10 ha. Although it was for a while still possible in remote parts to buy land cheaply from a Mansaka and then make a homestead application, immigrants wishing to obtain more centrally located land had to buy from earlier

settlers who valued their land increasingly more highly. Owing to the limited resources deployed by most immigrants - the mean for 43 post-war settlers was only P74 in cash - few could afford to buy land immediately. Those with little capital had to choose between renting land from established settlers, squatting in the hills or engaging in some form of hired labour. Disregarding how settlers first maintained themselves in Mawab, Table 3:5 showed that only nine of the sampled post-war settlers first obtained land in Mawab as legal owners. Ten people first obtained land as squatters and 21 as tenants. Subsequently, ten of these two groups later became owners. However, no settler who arrived after 1960 had become an owner by 1967.

Paths to land ownership. As Table 3:7 shows, 19 of the post-war settlers were landowners by 1967. Six squatters became owners simply by the legal mechanism of official release of their land from the forest zone, after which they filed homestead applications for the land. Paths to ownership for tenants and labourers were sometimes more complicated and are considered below.

Table 3:7. Initial means of support and land acquisition by 19 post-war landowners in Mawab.

Means of becoming owner	Initial means of support				
	Farm ownership	Tenancy	Helping kin	Farm labour	Other
Homestead	2	0	0	0	0
Purchase	2	1	0	4	0
Gift, marriage or inheritance	0	0	1	2	1
Release of squatted land	1	1	0	3	1

For the nine post-war settlers who first obtained land as legal owners, the maximum lapse between arrival and obtaining land was 6 years and the mean 1.7 years, compared with the mean of nine months for pre-war settlers. Compared with the pre-war situation, homesteading became less common than purchasing as a way of acquiring land and the areas obtainable were smaller. Although both the homesteaders shown in Table 3:7 arrived by 1949, neither was able to acquire more than 3 ha. However, one (No. 16 on Map 6) who settled in the lowlands of Bawani, later inherited another 1 ha lot. The other (No. 8 on Map 6), whose first land is beside the mining road in Andili, has rented a small plot as well as purchasing squatting rights to 6 ha in the nearby hills.

As regards those who purchased their first holdings, one belongs to a group of unusual Ilocano settlers who have been officially praised for their achievements. In 1947, seven related people from the municipality of Banna in Ilocos Norte arrived in Andili to work as abaca labourers. With the money saved from this and earlier work they bought 16 ha of land in Andili and 37 ha beside the Mawab River in Malinawon, which they worked communally.¹ In 1954, however, they decided that potential conflicts would be avoided if the land were subdivided.² The subdivision gave everyone,

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The group was strongly influenced by its leader, Juan Sebastian, who had worked in Hawaii and became a member of the Filipino Federation of America, founded by Hilarion Moncado chiefly among agricultural labourers. Mr Sebastian professes views similar to many nineteenth century utopians. Moncado's activities have been described in Lasker (1931) and, more critically, in Sturtevant (1958:139-42).

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The land was subdivided into nearly equal lots and those who had paid less than the original par value contribution of P1,100 now paid more to a central fund to reimburse those who had initially paid more.

including later arrivals, a more or less equal start. By 1967 the group comprised 35 families. Some members have more than one share but none has more than three shares or a total of more than 6 ha. As will be seen in Chapter VI, in spite of the small areas owned, these farmers are among the most prosperous in Mawab.

Many investigators in the densely settled parts of the Philippines have noted that tenancy is rarely a step towards land ownership.¹ Tenancy in Mawab was insignificant until the mid-1950s and pre-war or early post-war migrants who rented land quickly found land for homesteading, purchase or squatting. People who became tenants after the mid-1950s have had greater difficulty.

Table 3:5 showed that 24 post-war settlers first obtained farms as tenants. By 1967 only five of these had become legal owners. Three bought alienable land, one inherited a plot through his wife and one squatted on forest land which was later released. Four other ex-tenants bought 'rights' to forest land where they are still squatting. Among this total of nine ex-tenants, the greatest lapse between arriving in Mawab and obtaining land as an owner or squatter was seven years and the mean lapse just under three years.

Eight of these ex-tenants rented only one piece of land before being able to claim their own land. The exception is a young unmarried Ilocano (No. 25) who first rented land from an uncle in Bawani, then worked in a sawmill in a neighbouring town. After two years, he returned to Mawab with substantial savings and rented from his uncle for a further two years before buying a neighbouring 2.4 ha plot of irrigated rice land. More

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See, for instance, Rivera and McMillan (1952:43), Velmonte (1952:214) von Oppenfeld et al. (1957:110-1).

recently he has again rented from his uncle a plot contiguous to his own. Two other settlers have continued farming their rented land since claiming their own land. In one case (No. 33), the rented land is close to the national highway and to the poblacion whereas his own land is 2 km from the highway. In the other case, the settler (No. 40) remains on rented land for the sake of the owner, who is his wife's widowed mother, while his own land is uncultivated.

Purchasing is now the major way of obtaining alienable land in Mawab but for new immigrants it is becoming increasingly difficult as land values rise. Irrigated rice land and established coconut plantations close to transport routes command prices as high as P1,500 per hectare, although the mean is closer to P1,000 per hectare. In view of the scanty resources of the average newly arrived migrant, most must look to other ways of obtaining land.

Most land that comes onto the market is bought by one of three classes of people. Wealthy, long-established settlers usually buy land for their heirs, frequently leaving it uncultivated or only partly cultivated by tenants. Only two of the sampled pre-war settlers did not purchase (or squat on) extra land after obtaining their first holdings, and one of these two would buy more land if he could afford it. A second, although small, class of immigrants has been able to buy good land in Mawab. These are people who formerly held land in the Moslem area of western Mindanao and who sold their holdings in fear of Moslem attacks. They have settled in most municipalities in northern Davao, bringing with them unusually large capital resources even including hand-tractors. No more than a score of such migrants have settled in Mawab.

The third major class of buyers of land comprises people who have not actually settled in Mawab. They are almost invariably senior civil servants or professional men such as lawyers and doctors rather than agriculturists. It is not possible to give the exact number of such owners or the area of land controlled by them, because there is no complete register of owners of land in Mawab. From the available tax declarations¹ in the municipal treasurer's office it appears that out of 852 owners who paid tax in 1966-7, 32 lived outside Mawab. Several of these were formerly resident or had inherited their land in Mawab, but 8 non-agriculturists can be identified. They generally select a local resident to supervise any tenants, but in a few cases the land is left entirely uncultivated. Although the old Salvilla plantation is owned by an absentee it is managed by a college-trained agriculturist and is probably the best-run farm in Mawab. No other holding of an absentee owner is farmed by modern methods and it is clear that the owners are not in fact interested in maximising returns on their investments.

This attitude is found widely among Philippine landowners (and those in some other countries) and has been discussed in several papers² as well as being the subject of a research project of the University of the Philippines College of Agriculture (Castillo, 1968:297). The consensus is that among lowland Filipinos land-ownership is probably the most important single source of status, and this is true even outside rural society. It is ownership, not the

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Some owners are delinquent in their real estate tax payments, but the number is unknown.

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See, for instance, Anderson (1964), Polson and Pal (1956:54), Castillo (1964 and 1968), Takahashi (1969:38-41), Golay (1961:23).

produce of the land, that is important. For this reason, as studies such as that by von Oppenfeld et al. (1957) have revealed, land values are not as closely related as would be expected to variations in productivity. It is also suggested that in most parts of the Philippines investment in land is regarded as more secure than investment in commerce or industry since land is considered to be indestructible¹ and its value almost always appreciates. Although this appreciation may be slow, and even negligible when inflation is taken into account, its security outweighs these disadvantages.

In an area of rapidly increasing agricultural population, and of improving physical accessibility such as Mawab, appreciation in value has been rapid in the past ten years. The rate of increase has exceeded the rate of capital formation possible among tenants, labourers or squatters on small patches of hilly land, so that for most migrants who arrived during the last ten years the prospects of ownership have receded over time. Many of these recent migrants recognise the situation and their ambitions have been scaled down. They no longer expect to obtain land as legal owners; instead, their ambitions are limited to finding hill land to squat on, or finding a generous and lenient landlord who will rent the use of a lot that affords a reasonable income.

The development of squatting

Although a small number of people technically became squatters before the war, in virtually all cases these people merely settled on lowland in advance of its release by the Bureau of Forestry. The eventual classification of

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The possible effects of bad management, such as loss of fertility or soil erosion, are not taken into account.

such land as alienable for agriculture was never in doubt. The situation in the hill lands that began to be occupied after the war was very different. In the first place, the rather crude and generalised pre-war land classification of the Mawab area had already reserved all the hill areas as permanent timberland since the steep slopes and deeply etched water courses made the land unsuitable for agriculture. Secondly, by 1949 post-war reconstruction in the Philippines and the recovery of Japanese industry led to a rapidly increasing demand for timber and a proliferation of logging companies in Davao. All land not released and alienated was leased as concessions to licensed companies which were empowered to cut timber under various conditions. The most important conditions concerned the allowable annual cut, the minimum sizes of trees to be cut and provisions for replanting. As the Bureau of Forestry was never adequately staffed, control of the concessionaires was virtually impossible. Most concessionaires proved to be more interested in swift returns than in sustained yield. Most of them were also under-capitalised so that they worked forests as near to existing roads as possible in order to avoid the costs of road construction. Such forests were just the areas then attracting the great wave of post-war immigrants.

Although the loggers always in principle opposed the entry of squatters into the forests, they frequently gave them permission to continue using such clearings as they had made in logged-over areas on condition they felled no more commercial trees. The squatters invariably ignored such conditions, in the hope, frequently justified, that petitions to the government would result in the land being released from the forest zone and declared alienable for agriculture. Following such petitions, large sections of the hill areas were released, surveyed and titled after 1953.

As the areas of readily accessible timber shrank, while Japanese demand for timber grew rapidly, loggers became more concerned to protect partly logged areas from the incursions of squatters.¹ Patrols of armed forest guards were increased and in some cases logging roads were destroyed to hinder access. Since 1966 arrests of squatters and destruction of their houses and crops have become common, although the concessionaires complain that political intervention on behalf of the squatters frequently results in their acquittal or mere reprimand by the courts. Thus many concessionaires do not find it worthwhile to remove squatters and merely try to frighten them into leaving by threats.

Until recently, the Bureau of Forestry has taken no firm measures to prevent the occupation of forest land by squatters despite early recognition of the problem. In 1951, a land classification report for the north of Mawab noted the 'wanton destruction' of commercial timber by squatters, as in most of the forest lands of Davao, and predicted the continuation of the trend unless the Bureau of Forestry and local authorities took remedial action.

When this [destruction] was brought to the attention of the [saw]mill operators, they affirmatively accept it and declared that they do not mind it for security reasons taking into account that they are residing in an isolated place, where police protection is lacking. (Bureau of Forestry, 1951.)

In 1952 the Acting Chief of the Division of Forest Management wrote that

...there should be more care in the classification of logged-over areas into alienable and disposable lands...some logged-over areas (our future forests

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Concessionaires have also had to protect their lots against illegal loggers who rapidly strip areas of both commercial and immature timber.

if prevented from being squatted on) need to remain as such even if found on land appropriate for agriculture. Otherwise there shall sooner or later be only watershed or protection forests under the jurisdiction of the Bureau. (Bureau of Forestry, 1952.)

It was noted in Chapter I that, notwithstanding official expressions of concern and contrary to the Bureau of Forestry's own regulations, many areas released have included very steep upland tracts with slopes exceeding 30°. In general, where an area was occupied by long-established squatters it was released for agriculture regardless of slopes, simply acknowledging a fait accompli.

At the time of the reports cited above, there were still extensive areas of forest in the Mawab hills untouched except by Mansaka cultivators who were retreating before the advance of the immigrants, but by 1960 most of the more remote parts of Mawab had been penetrated by settlers. For instance, four-fifths of the petitioners in the sitios of Kantabo and Tanawan (barrios Malinawon and Tuburan) in 1966 were resident there by 1960. Although areas of forest were left, they were in scattered stands and were mostly claimed by squatters. By 1967 only the most rugged parts of the southern and eastern hills remained as the sole preserve of concessionaires and it was clear that it was only a matter of time before squatters entered there too.

During the early phase of squatting it was assumed by many of those trying to cope with the problem that the strength of the squatters' motive was based on the high price of abaca.¹ However, the continued willingness of squatters to risk eviction or gaol despite the virtual

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Personal communication from a concessionaire, Mr N. Estabillo.

disappearance of abaca as a major source of income shows that this is no longer the case. Depositario (1965) cites several workers who conclude that squatting is simply an expression of the need for subsistence together with a disregard for formal land classification in circumstances of land shortage. The fieldwork data show that this explanation is not fully adequate, because not all land claimants in the forest zone are poor. Several older residents in Mawab have claimed land as squatters simply to enlarge the area they will pass on to their heirs, while others have made essentially speculative claims. In some cases, barrio or municipal officials have acquired land as squatters. A forest guard stated that he was unable to prosecute several officials in a neighbouring municipality for squatting because they were related to the municipal judge. Such squatters, however, are the exception.

It is clear that most squatters consider they are exercising the traditional Filipino custom of obtaining land by actual occupation and clearance of forest. Furthermore, they believe that their occupation harms no-one (apart from the government). One Mawab squatter said, regarding his dispute with a logger, 'I need land and he only needs timber'. Although squatters in Mawab run the risk of arrest, eviction and loss of improvements, they have observed that in practice gaoled squatters return to their claims after completing their sentences (which rarely exceed six months). They have also noted that many petitions by squatters have been successful in the long-run, so the prospect of eventual ownership has outweighed the threat of possible failure. To strengthen their claims in the event of release of the land from the forest zone, most squatters have their holdings assessed by the Provincial Assessor and then pay real estate tax.

Among the sample, 19 people obtained plots of land prior to its release. Eleven of these had not previously held land in Mawab, but three were already owners of lowland plots and the rest had spent some time as tenants. Eight of the squatted holdings are in areas with steep slopes which have nevertheless been released as suitable for agriculture. In one case, the settler had been on his holding for eight years prior to its release in 1958. However, those who became squatters since 1956 are in more remote areas that have still not been released. Of the ten sampled people in this class,¹ four are paying real estate taxes to strengthen their claims in the event of release. All of the squatters have ignored warnings by forest guards to discontinue clearing and most of them have signed mass petitions to the government for release of their land. Three men are in areas only recently entered by squatters and there are not enough neighbours to make a petition worthwhile.

A final point to make about squatters is that most of them have been prepared to pay previous occupants for the 'rights' to their clearings (with some surrounding forest included). In some cases such payments have been nominal. For instance, one man (No. 7 on Map 6) who arrived in 1938 bought 18 ha of hillside fronting the national highway only half a kilometre from Mawab for P2 per ha. The present value of the land, which is now released, is about P600 per ha. Another man (No. 28) bought 10.5 ha in the mountains between Sawangan and Concepcion in 1958 for only P5 per ha, the seller being disgusted with losing crops to wild pigs.

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One other squatter is a special case, having purchased 'rights' to land within the Hijo River bed, which is permanently inalienable. Much of his holding has since been eroded by flood waters.

However, the valuation of hilly land is changing rapidly. One man paid P6 per ha for 12 ha of land in the western hills in 1960, but in 1966 he paid P144 per ha for a neighbouring plot. For the eleven squatters who had to 'buy' their holdings, the mean price was P33 per ha, the maximum being P73 per ha paid for a plot in sitio Lunoluno, Sawangan, in 1961.

On average, squatters (excluding those with fully owned land) waited for 1.8 years after arriving in Mawab before obtaining their land, but those who 'bought' it waited 2.5 years, reflecting their need to save first. This was usually accomplished through labouring, but four people managed to save enough as tenants. In view of the low price of unreleased land, saving was not such a task as it would be for the purchase of legally alienable lowland.

Tenancy

Although a few pre-war migrants worked briefly as tenants on the Salvilla plantation before obtaining their own land, tenancy was quite insignificant until the mid-1950s. Out of 18 sampled settlers who rented out land, only three did so before 1955, while out of 25 settlers who first held land as tenants, only six arrived before 1956. Up to then the role of the tenant was akin to that of a contract labourer. He was engaged by the owner of an abaca plantation and allowed to grow food crops free of rent while he planted one or two hectares to abaca as swiftly as possible. When the abaca was mature and shading out the food crops, he was paid a lump sum depending on the number of established plants and then dismissed. The mature abaca was thereafter maintained and harvested by hired labour.

When the mosaic virus began to decimate the abaca plantations, owners of lowlying land converted it to rice

which they let to tenants in lots of less than 2 ha. Land unsuited to rice was mostly let to tenants to plant coconuts, with corn as a subsistence crop. As with the abaca holdings, the tenants would have to relinquish the land when the coconuts were shading out food crops, a process which takes at least four years. Such holdings were usually larger than rented rice farms. The land was let to tenants because personal cultivation of holdings larger than about 4 ha by the owners was out of the question in view of the labour requirements of rice. The alternative of hiring labour would have required a large pool of available workers, constant supervision and a high turnover of cash for wages.

Table 3:5 showed that 25 settlers first operated land in Mawab as tenants. Nineteen became tenants within three months of arrival, the other six spending up to three years as farm labourers. Many established settlers invited kinsmen or friends to come to Mawab as their tenants or they arranged tenancies for them with third parties. Forty-four per cent of the tenants first rented land from kinsmen and 16 per cent from paisanos. Another 20 per cent rented from people known to either kinsmen or friends and only 20 per cent rented from complete strangers. Thus, some migrants came to Mawab expecting to spend some time as tenants, but until recently they also expected to find land of their own within a reasonable period. Table 3:5 showed that since 1960 this expectation has not been fulfilled.

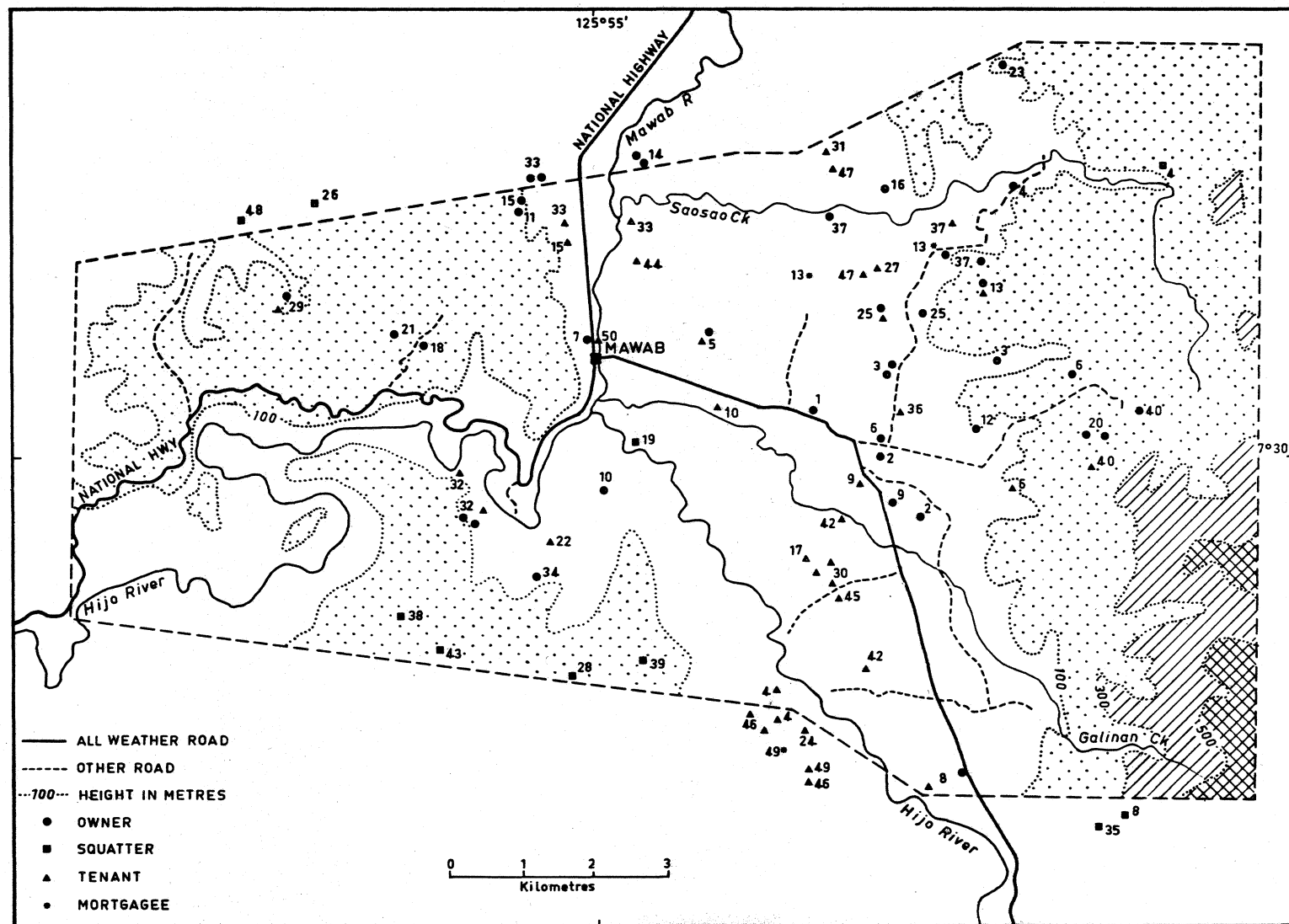
In the Mawab sample the five current cases of rent-free use of land all involve close kinsmen. However, the fact that most tenants rent land from relatives does not mean that they necessarily pay lower rents than tenants unrelated to their landlords. Polson and Pal (1956:83-7) and Takahashi (1969:66-8) have shown for widely different areas in the Philippines that sharing practices of related

landlords and tenants are usually comparable with others in the locality. On the other hand, privileges such as facility in borrowing and interest-free loans are much more common when owner and tenant are kinsmen. In Mawab, many tenants lived with their landlords for at least some months before beginning the tenancy, but this applies almost as much to those unrelated as to those related to the owner.

Despite the provisions of several Acts of the Philippine Congress regulating relationships between landlords and tenants, in practice much depends on the individuals concerned. A tenant may be evicted, or may abandon a farm with little or no notice. In Mawab, where considerable areas of land are still uncultivated, tenants have felt free to move from farm to farm in search of better prospects (see Table 3:8). This contrasts greatly with conditions in many of the migrant source areas, where tenants accept unfavourable conditions for lack of alternatives, and where the mean duration of tenancies may be over 10 years (Rivera and McMillan, 1952:125).

Table 3:8. Tenants' reasons for abandoning farms.

Reason	No. of cases	Total area abandoned (ha)
Obtained own land	4	6.50
Obtained non-farm employment	1	2.00
Land too far from home	2	1.25
Land quality	7	9.50
Landlord's perennial crops matured	2	4.00
Lack of <u>carabao</u>	3	4.00
Landlord's wish (or eviction)	4	8.23
Disliked conditions of tenancy	4	4.50
TOTAL	27	39.98



Map 6. Location and tenure of landholdings of sampled settlers (numbered in order of arrival in Mawab)

Excluding current tenancies, members of the Mawab sample had in the past held 21 plots for a mean of 1.7 years. When current tenancies are included, the mean becomes 4.8 years. In part, this is due to two people who have been tenants on large holdings since 1957 and have been content with the levels of living afforded by these holdings. The greater duration of continuing compared with completed tenancies also reflects the increasing difficulty of obtaining land, whether as squatter or owner, so that conditions in Mawab are approaching those in the migrant source areas.

Land tenure in 1967

The tenurial situation that has developed from the processes described above is shown in outline in Table 3:9. Of those described as full owners, ten possess registered titles to all of their land. The owner who is also squatting on another plot has title to his main plot.

Table 3:9. Tenurial status of 50 settlers in Mawab, 1967, by period of arrival.

Period of arrival	Full Owner	Part- [*] Owner	Squatter	Tenant	TOTAL
1931-35	3 ^a	0	0	0	3
1936-40	2	2	0	0	4
1941-45	0	0	0	0	0
1946-50	5	5 ^b	1	1	12
1951-55	3	0	0	2	5
1956-60	1	5	6 ^c	6	18
1961-66	0	0	2	6	8
TOTAL	14	12	9	15	50

* Part-owner means an owner who also rents land from another owner.

a Includes one owner who also occupies a plot as a squatter.

b Includes one part-owner who also occupies a plot as a squatter.

c Includes one squatter who also rents a plot.

The other three owners have applied but are still waiting for patenting of their titles. It was not possible to discover the lapse between application and patenting in every case, but one settler waited for 20 years and lapses of 10 years are common. Two men stated that they had been told they could obtain their titles immediately if they were prepared to pay Bureau of Lands personnel various sums.

Part-owners. Fifteen settlers have used other people's land since becoming owners or squatters (one case only). Six of these people were tenants before becoming owners, though only two have retained the same plots both before and since. There are two major reasons given by owners for renting. Eight lots were rented in order to grow lowland rice, which the owners could not grow on their own land or only in inadequate amounts. The only other reason cited more than once was the convenience of location of rented land compared with the owner's own land. Only one man (No. 32 on Map 6) rented more than 2 ha. Although he owns 9 ha, it is hilly land and for the sake of his children he does not want the land to deteriorate through over-cultivation before they inherit it. He therefore rents a nearby lot of 17 ha which includes a large level area. Nine of the part-owners are using the land of relatives or friends and two of them do so rent-free - they are merely borrowing the land. One of the part-owners is more correctly a squatter, in the sitio of Kantabo, Tuburan. Although he lets a small piece of his own land to a son-in-law, he also farms a nearby plot belonging to another affine.

Seven of the part-owners have titles to the land they own and five are waiting for patenting of their applications.

Landlords. Fifteen settlers in the sample rent out a total of 74 ha. Sixty-seven ha are let by the pre-war settlers, three of whom cultivate very little land in person. Their holdings are let in small portions to a total of 38 tenants. One of the pre-war settlers (No. 5) lets out 4.5 ha but borrows 1.5 ha from his wife's father rent-free. Another (No. 6) rents irrigated rice land from another settler while letting out part of his own upland holding. The post-war settlers have much smaller landholdings and rent out only 3 per cent of their total owned land compared with over 56 per cent by the pre-war settlers. In absolute terms, eight post-war settlers (two of them squatters) let out a total of just over 6 ha to nine tenants. In most cases, these tenants are close kinsmen, commonly sons or daughters' husbands establishing themselves as independent households. One of the eight post-war settlers letting out land is No. 49, himself a tenant on the land he operates. However, he lent P200 to a neighbouring landowner who mortgaged his land as security on the prenda system. As the mortgaged land was superfluous to the lender's own needs, he let it to a compadre from whom he receives 25 per cent of the crop as rent. This serves as the interest on his loan, which has a three year renewable term.

The emergence of a tenancy problem. Although some landowners let land partly to assist young relatives attain economic independence, most do so simply because they have too much land to operate with available family labour and with their current techniques. Some owners whose land is unsuited to lowland rice have been prepared to plant permanent crops and to maintain and harvest these through supervised hired labour. Although such owners were at first the exception, in the last few years more and more tenants, particularly in the southern half of the plain, have been required by their landlords to plant coconut palms

with the understanding that the tenants leave when the land is fully planted. The continued expansion of permanent crops in Mawab will lead to a reduction in the area available for cultivation by tenants.

The same tendency is likely to appear soon in the rice-farming area in central and northern Mawab, though from a different cause. In mid-1967 one of the pioneers in Nuevo Iloco, a member of the research sample (No. 2), gave notice to his seven tenants that they would have to leave the land after the next rice crop as he was planning to mechanise the holding. Later in the year he bought the first power cultivator in Mawab, which enabled him to cultivate his 10 ha of rice land personally as well as hiring out the machine to neighbouring farmers. The evicted tenants laid a complaint with the Court of Agrarian Relations in Davao City, declaring that they did not receive the notice of one whole crop cycle required by law. They also claimed that they were not being compensated for improvements such as the construction of irrigation channels and dykes. The landowner denied these charges. In accordance with their usual procedure, the officials of the Court attempted several times to settle the matter amicably but without success. The case had still to be heard when fieldwork was concluded. Meanwhile, several other prosperous landowners were planning to buy hand tractors as soon as possible. In view of the declining availability of land, a significant extension of mechanisation could lead to a rapid increase in the number of landless labourers and to increasing numbers of landlord-tenant disputes.

In general, relations between landlords and tenants in Mawab have been without the bitterness that characterises these relations in the regions of large haciendas - central Luzon, Negros Occidental, Iloilo and western Leyte. This is partly because of the frequency of kinship links between

owner and tenant,¹ partly because land was until recently readily available and partly because the owners are themselves peasants, resident on and cultivating land and often involved in mutual labour exchange with the tenants. Nevertheless, disputes do arise, and more bitterness can be expected with more evicted tenants being left without land. Conflicts rarely get as far as the Court of Agrarian Relations. In some cases, the tenant merely finds another plot to rent; in other cases, a dispute may be taken to the barrio captain, municipal justice of the peace or police chief for arbitration. If the tenant is trying to resist eviction or a rise in rent, a common solution is for him to harvest the next crop free of rental payments and then surrender the land to the owner. In 1966-7, this solution was applied to two disputes involving members of the sample.

Just as an owner may be left without redress if a tenant abandons his land without warning for a better opportunity, so some tenants fail to receive justice. One member of the sample (No. 35) had planted several hundred coffee trees on a rented plot in Andili but, without warning, the landlord sold the land and the new owner, wanting to cultivate the land personally, evicted the tenant without notice and without compensation for the coffee trees. The tenant, who is barely literate, went to the Court of Agrarian Relations where he paid P30 to a man who said he would arrange for the case to come to the lawyers' attention. The tenant heard no more of the matter and was too uncertain of legal procedure to know what to do, though he realized the self-styled 'fixer' had taken his money illegally. Afraid of losing more money if he

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Kinship does not necessarily prevent bad relationships: in the case cited from Nuevo Iloco one of the evicted tenants was the landowner's brother.

pursued the case (which he might eventually lose), he dropped the issue and instead became a squatter by buying 4.9 ha from a Mansaka in the hills above Andili.

It is clear from such cases that tenants are aware of the protection and assistance afforded them by the law but that they are not necessarily able to take advantage of such protection even when the services of the Office of Agrarian Counsel are freely available. Until recently, there has been little need for this protection in Davao. However, the indications of increasing pressure on the land through continued immigration and the growing tendency of owners to dispense with tenants suggest that tenants will become more concerned to assert their legal rights. This process has already occurred in some parts of Davao and one municipality - Bansalan - has been declared a Land Reform area in order to alleviate distress among tenants. In this area, 80 per cent of the farmers declared their willingness to be resettled in government settlement projects. The implications of current tendencies in the tenurial situation are discussed below in Chapter VIII.

Areas of land obtained by settlers. The discussion the preceding pages has shown how some settlers progressed from labouring to tenancy and then to ownership of land, while others have remained as tenants. As the availability of land has decreased with growth of the population, so the areas of land obtained by immigrants have decreased in size, and the discussion now turns to the topic of the areas of land acquired under the various forms of tenure.

Table 3:10 shows that the 50 sampled settlers have some form of right to 89 parcels of land. Twenty-five of the settlers control only one piece of land and the remaining 25 control a maximum of four parcels each. Twelve of these are part-owners as described above, one a squatter

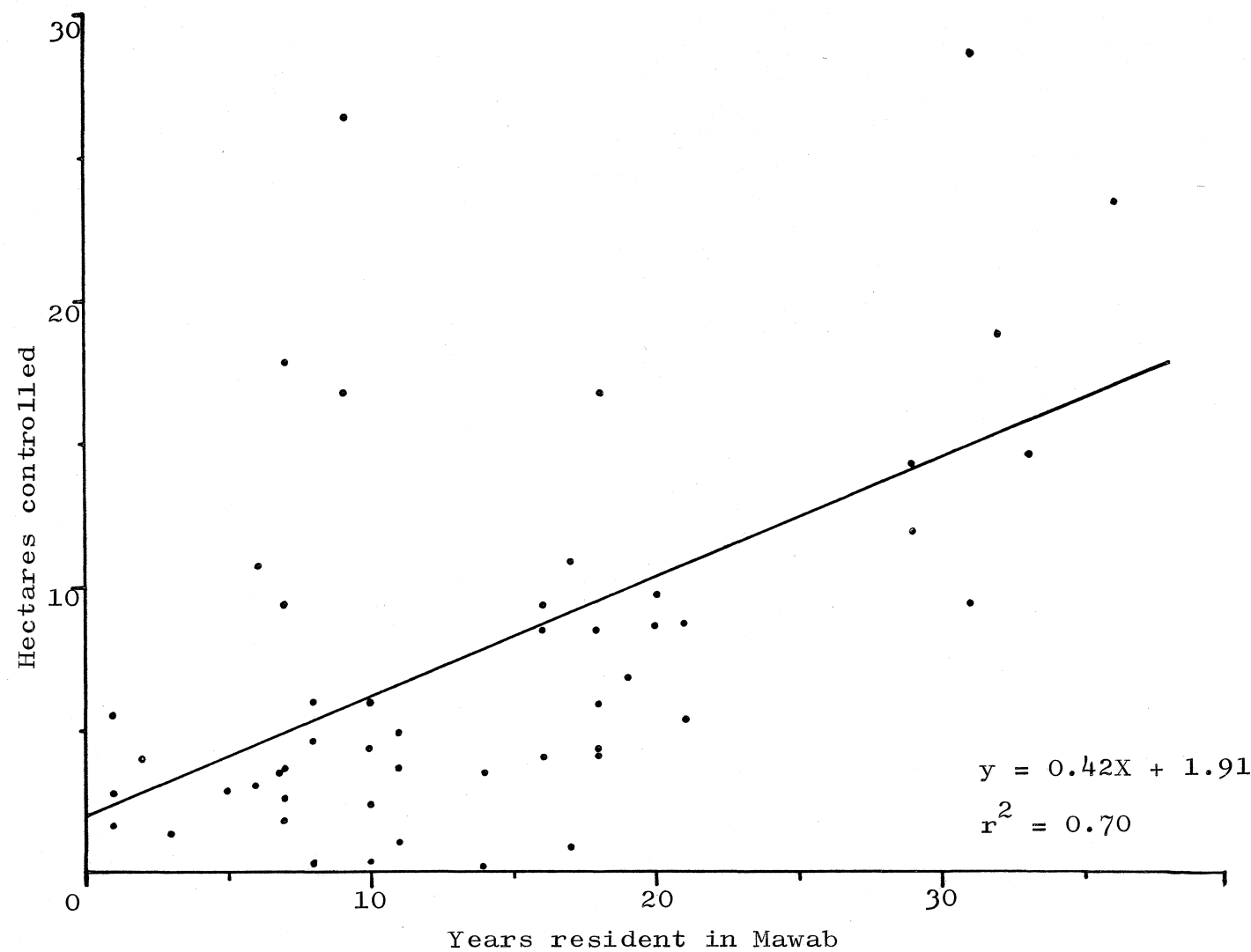


Fig. 3:1. Relationship between area controlled by settlers and length of residence in Mawab.

and five are tenants. Three of these tenants operate two or three parcels, each belonging to a different landlord. In most cases, settlers have obtained rights to several plots in order to improve their immediate economic conditions. However, some have been more concerned with benefitting their future heirs and in such cases a considerable portion of their land may be uncultivated, as will be seen in the following chapters on land use.

Table 3:10. Tenure and area of land held by 50 settlers in 1967.

Form of tenure	No. of parcels	Per cent	Total area (ha)	Per cent
Owned	37	41.6	244.55	63.3
Residual rights as mortgagor	1	1.1	2.00	0.5
Squatting	10	11.2	54.82	14.2
Squatting (sharing claim)	1	1.1	3.71	1.0
Usufructuary rights as mortgagee	3	3.4	4.41	1.1
Tenancy	35	39.3	74.85	19.4
Borrowed	2	2.3	1.92	0.5
TOTAL	89	100.0	386.26	100.0

Figure 3:1 shows that there is a positive correlation ($r^2 = 0.70$) between length of residence in Mawab and area of land controlled. The correlation would be much higher but for four migrants who have come to control exceptionally large holdings although they arrived only during the last

nine years.¹ Apart from them, none of the 31 settlers who arrived after 1950 controls as much as 10 ha and only six control more than 5 ha. The strong tendency towards diminishing farm sizes has pessimistic implications for recent and future migrants who hope to improve their levels of living through farming. This is particularly so for tenants, who must use part of their produce as rent. Table 3:11 demonstrates the economic advantage that earlier settlers have over later arrivals. They not only own their farms and so retain all their produce for themselves, they also operate larger areas. In addition, by renting out some of their land they receive a share of the produce without effort. The effects of this differentiation on income and levels of living will be seen in Chapter VI.

Table 3:11. Mean areas controlled² and operated by 50 settlers, 1966-7, by tenure.

Tenure	No.	Mean area controlled	Mean area operated
Owners	14	11.13	6.46
Part-owners	12	11.55	10.79
Squatters	9	4.61	4.53
Tenants	15	3.36	3.29
All operators	50	7.73	6.20

¹

The correlation coefficient is significant at $P = 0.01$ but largely due to the four unusual cases the standard error of the regression estimate is 5.67 ha.

²

Area controlled is the total area to which a settler has any form of right, as listed in Table 3:9. Area operated is the settler's farm, that is, the land for which he makes the day-to-day management decisions. It may include uncultivated land.

The mean area owned by the 26 settlers who own at least part of the land they control is 9.48 ha. Whereas the largest owned holding is 23.58 ha and only seven of the 26 own less than 5 ha, only three of the 15 non-owning tenants rent more than 5 ha, the maximum being 9.49 ha in two parcels. However, in the next generation the favourable position of landowners may be drastically reduced through sub-division of holdings as a consequence of inheritance. In the Philippines the basic principle of inheritance is that of equal shares to all offspring. Among the sample, 17 families were presumed to be complete as the wives were more than 45 years old. Two of these families were squatters. The 17 families numbered 93 living offspring and had 188.25 ha available for sharing among these, giving an average of 2.02 ha for each heir. Thirty-six of the heirs were females who would as a rule not operate the land personally but add it to their husband's land (if any) on marriage. It might be assumed that one in five of the males would take up non-farm occupations, though remaining eligible for shares of the produce from their inheritance. The remaining male heirs would then each operate a mean area of 2.50 ha. Although some of the males would marry landowning females, it seems likely that the average size of farm per owner will soon fall below 3 ha.

When squatters and landowners likely to produce more offspring are considered, the total of 18 families had 114.98 ha to be distributed among 75 existing offspring, giving only 1.53 ha for each heir. In view of the likelihood of more heirs, it is plain that the children of such families, all of which arrived after 1945, will have very small areas to operate. Assuming that these families produced enough children to bring the mean up to the level of the already-completed families - that is, 5.5 children per family - the projected 99 children of these 18 families

would inherit only 1.16 ha each. Even relaxing the assumptions of the number of farm units actually created through inheritance, it is again unlikely that average farm size will exceed 3 ha. The diminished size of owner-operated farms will have many unfavourable consequences. First among these, assuming little or no change in farm productivity, will be the reduced possibilities of capital formation through production of surpluses. Secondly, there will be very much less land available for tenants and there will also be little need for hired labour, since landowning families will have sufficient labour resources to manage their land without assistance. Some of the economic consequences of small farm size will be treated in Chapter VI and the broader implications will be discussed in Chapter VIII.

Many of the settlers in Mawab are aware of the likely future trend in farm size and several members of the research sample stated specifically that they would like to obtain more land for the sake of their children. Only ten of the 35 owners and squatters did not intend to obtain more land and two had not considered it. Two settlers had already obtained land outside Mawab and planned to transfer to their new holdings. Among the tenants, four intended to return to their home provinces and another seven hoped to find land available for purchase, homesteading or squatting. Only three were content to retain their present tenancies.

These figures make it plain that many of the migrants are not yet settled. For some, residence in Mawab has proved to be merely another stage in the quest for their own land (cf. Chapter II, p. 69 above). Others expect to stay in Mawab but they may still move from one plot to another. Up to 1967, only 11 of the settlers had never changed their residence within Mawab. Four settlers had left the town

and later returned and twelve others had changed holdings at least once. The reasons given by tenants for abandoning land were shown in Table 3:8. Owners and squatters too have at times relinquished plots of land, as shown in Table 3:12.

Table 3:12. Owners' and squatters' reasons for relinquishing land.

Reason	No. of cases	Total area affected (ha)
(a) Entire plot relinquished		
Sold because needed money	3	11.00
Debtor redeemed mortgage	1	1.00
Owner returned to home province	1	24.00
(b) Portion of holding relinquished		
Mortgaged under <u>prenda</u>	1	2.00
Sold to kinsman in return for assistance	1	2.00
Gift to kinsmen	7	28.52
Donated or resumed for public use	7	0.96
Surrendered to avoid trouble with squatters	1	4.50
TOTAL	22	73.98

In view of the total number of plots of land ever held by the sampled settlers, the table indicates that to date few owners or squatters have had to relinquish land through economic pressures. However, the data on incomes in Chapter VI will show that operators of small farms can rarely accumulate reserves of cash against major emergencies such as sickness or law suits. When such emergencies occur, the farmer must borrow and if the sum required exceeds about P100 he may need to mortgage some or all of his land as security. If the borrower has little land remaining, he may be unable to save enough to redeem the mortgage. This kind

of situation may occur with increasing frequency in the future as farm sizes become smaller and if productivity does not increase significantly. In that case, the wealthier settlers (mainly the pre-war homesteaders and their heirs) will make loans to an increasing number of small owners and probably foreclose in some instances. Their own landholdings will increase and so will the number of landless agriculturists. In effect, there are likely to be two trends in land sizes, as some of the wealthier settlers offset the effects of sub-division by acquiring land that the poorer owners are forced to dispose of. However, this pessimistic projection is based on the most unfavourable features of the present situation in Mawab, including trends in farm size and levels of productivity and income. The succeeding chapters will show that there is considerable scope for improvement within the present situation.