

August, 1966

LTC NO. 25

THE LAND TENURE CENTER
310 King Hall
University of Wisconsin
Madison, Wisconsin 53706

MIGRATION AND ADAPTATION IN NEW SETTLEMENT AREAS

Phase I: Itumbiara, Goias, Brazil

by

Eugene A. Wilkening and Joao Bosco Pinto

Department of Rural Sociology, University of Wisconsin

This paper is a descriptive report of part of the first phase of the study conducted in 1966.

All views, interpretations, recommendations and conclusions expressed in this paper are those of the authors and not necessarily those of the supporting or cooperating organizations.

Preliminary Report - LTC Project 25

MIGRATION AND ADAPTATION IN NEW SETTLEMENT AREAS

Phase I: Itumbiara, Goiás, Brazil

by

Prof. E. A. Wilkening and João Bosco Pinto

August, 1966

In keeping with the objectives of the project, the first phase was to study migration and settlement in a rural area where this was occurring spontaneously. This provides a basis for comparison with studies made in other rural areas, in an urbanized area and in planned settlements. It also provides an opportunity for testing instruments for the study of migration and the adaptation of migrants to be used in later phases of the project.

The first phase study includes a study of the characteristics of the migrants, a comparison of recent migrants with earlier migrants and factors effecting their adaptation in their present location. This report presents only a brief account of some of the characteristics of the sample studied. More extensive reports will follow.

The Município of Itumbiara on the southern border of Goiás was chosen as the site for the first phase study after considering other areas of spontaneous settlement including northwestern Paraná, western Minas Gerais (triângulo mineiro), northern Goiás and southwestern Maranhão. The latter two areas are along recently opened highways leading to Brasília. The main criteria for the selection of the study area include the following: (1) an area receiving migrants during the past ten years but with some older residents to compare with recent migrants (2) an area with reasonably good opportunity for economic development, including access to a market and a minimum of public and private services; and (3) one in which there was evidence of some economic progress.

The Western Parana region had been settled over a longer period of time, and the area was densely settled to the extent that migrants were already moving from the area. The expansion of coffee growing in the region had attracted large numbers there during the past two or three decades. Prices of land are high and land titles are unclear in part of the region. The northern Goias and southwestern Maranhao areas were rejected because of the recency of settlement and the lack of markets and other facilities.

This left the so-called Planalto area, which includes the two hydrographic basins of Parnaiba and Grande Rivers, with the intermediate area called the Triangulo Mineiro, the southern part of Goias and Matto Grosso, generally considered the Westcentral part of Brasil. The most characteristic feature that predominates in this area is the savannah which is called the cerrados, or campos cerrados.

Census data were obtained on about 40 municipios on population changes changes in area under cultivation, mechanization and other characteristics. Nine municipios included 5 in Minas Gerais and 4 in the State of Goias, for more detailed study, as follows:

- | | | | |
|-------------------|---|----------------------|-----------------------|
| 1. Sta. Vitoria |) | | |
| |) | | |
| 2. Tupaciguara |) | Triangulo Mineiro |) |
| |) | | |
| 3. Monte Alegre |) | | State of Minas Gerais |
| |) | | |
| 4. Monte Carmelo |) | Parnaiba Region |) |
| |) | | |
| 5. Patos de Minas |) | | |
| |) | | |
| 6. Quirinopolis |) | Region of Rio Verde |) |
| |) | | |
| 7. Itumbiara |) | Region of Meia Ponte |) |
| |) | | State of Goias |
| 8. Sylvania |) | Region of Ipameri |) |
| |) | | |
| 9. Luziania |) | Region of Planalto |) |

All of them had gained population from 1950-60, ranging from 17 percent in Monte Carmelo to 212 percent in Sta. Vitoria. All other municipios either had much smaller increases or had been losing population in the above period. The same was true for other criteria. Three municipios were outstanding in all four criteria: Itumbiara, Quirinopolis and Sta. Vitoria.

1. Population gains:

1. Quirinopolis:	212 percent from 1950-1960
2. Itumbiara:	143
3. Sta. Vitoria	85

2. Percent of Rural Population:

1. Sta. Vitoria:	94 percent in 1960
2. Quirinopolis	87
3. Itumbiara:	74

3. Area under cultivation:

1. Itumbiara:	26 percent in 1960
2. Quirinopolis:	8
3. Sta. Vitoria:	5

4. Percent increase in area under cultivation from 1950-60:

1. Itumbiara:	402 percent
2. Sta. Vitoria:	268
3. Quirinopolis:	127

In addition to the population gains, Itumbiara had much more cultivated land and also had more tractors, plows and better roads, making markets more accessible. Itumbiara is located along the BR-14 highway which goes from Sao Paulo to Brasilia. Other factors also influenced the selection of Itumbiara. A large study supported by U.S. funds was already under way in Minas Gerais. Another factor was the presence in the municipio of ACAR-GO (Extension Services), whose agent was interested in cooperating with the research. And, the

Secretary of Agriculture of the State of Goias recommended Itumbiara as an area of potential development in agriculture. He was cooperating with the International Research Institute and U.S. AID in some experimental work on fertilizers and crop varieties in the municipio.

Itumbiara is an area formerly settled by cattle growers on extensive holdings. With the construction of BR-14 and better access to market, rice growing and banana culture have extended into the slopes of the Planalto north of the Parnaiba River. While rice growing has prospered without the use of commercial fertilizers, dry weather and insects and disease damage have been taking an increasing toll in recent years. Yet, most of the land is potentially productive, with the use of improved cropping techniques and changes to crops better suited to the land and climate. The area has attracted fazendeiros (farm owners) from the higher priced land south of the River and meeiros (sharecroppers) from the more densely settled areas of the Northeast and other regions.

CHARACTERISTICS OF THE FAMILIES

The age distribution of the heads of the families interviewed tends to be similar to other rural areas of Brazil. The median age of the head is 39.3 years and of their wives is 35 years. About one-fifth of the heads are less than 30 years of age, and only 7.9 are 60 or over. Only a few are widowed (4.8%) or single (6.9%), and a few (6.9%) were living with their spouses without the sanction of a civil or religious marriage. Hence, this newly settled area is characterized by families with a relatively small proportion of single or broken families.

The educational level of the sample is low, and illiteracy is high. Almost three-fifths (58.5%) of the heads reported no schooling; 17.8% had attended one or two years; 16.8% attended three or four years; and only 6.5% had five years or more. Education of the spouses of the heads was only slightly higher. The degree of literacy of the head is presented in Table 1.

Table 1: Literacy of Heads of Families

<u>Degree of Literacy</u>	<u>No.</u>	<u>%</u>
Does not read, write or figure	158	54.3
Reads only	16	5.5
Figures only	6	2.1
Reads and figures	4	1.4
Reads and writes; doesn't figure	45	15.5
Reads writes and figures	<u>62</u>	<u>21.3</u>
	291	100

It is apparent that almost four-fifths are handicapped by a lack of one or more of the basic skills. Despite the ability of some to read and write, according to their response, 15.5% are not able to do simple arithmetic calculations. If we can take their responses at their face value, 42.3% can read enough to pick up information in the newspaper.

The sample covers a wide range with respect to the size and composition of household. While most of the households were limited to the nuclear family, 25.4% had other persons, usually parents, brothers or sisters or other relatives, living with them. Only 3.7% of the households included a second family, composed of at least a husband and wife. The number of children of the head ranged from none to fourteen with a median of 3.8 children.

Since many families are in the midst of their child-bearing period, the total number of children per family is greater. Two-fifths of the families have children who are independent and live outside the home.

Occupation

All except 7.9% of the sample were employed in agriculture. These included truck drivers, workers in the building trades and various other jobs. Four were professionals who lived in Itumbiara and operated farms. One-third had secondary jobs, usually unskilled labor with some employed in building trades, truck driving, etc.

Color, Nationality and Place of Birth

Itumbiara has attracted primarily whites of Brazilian origin. About three-fourths of the sample were white, one-fifth mulatto, and 5.2% blacks. About 5% of the heads were of Italian origin and 1.4 Portuguese.

Table 2. Place of Birth

	<u>No.</u>	<u>%</u>
Itumbiara	37	12.7
Other Municipio in Goias	17	5.8
Central East: Minas Gerais	175	160.1
West: Mato Grosso	2	.7
South: G.B., S.P., P.B., S.C., R.S.	8	2.7
Southeast: E.S. and R.J.	0	0.0
Northeast: P.I., C.E., R.M., P.B., P.E., A.L., S.E., B.A.	52	17.9
Norte: A.M., P.A., M.A.	<u>0</u>	<u>0.0</u>
	291	100

Place of birth is an indication of the source of the settlers in Itumbiara. It is apparent that the migration has been westward, since most of the sample were born in Minas Gerais. However, a considerable proportion (17.9%) originated in the Northeastern States. According to local reports many Nordestinos had already returned after living in the area for a few years.

While only 5.8% of the heads were born in Goias, 15.5 had lived in Goias before coming to Itumbiara, indicating that they had moved to another location in the region before locating in Itumbiara.

Frequency and Range of Moves

About half of the heads of families interviewed had lived in Itumbiara 8 years or less, and 15.2% had lived there less than 4 years. In general, the sample interviewed have moved frequently, and many have moved long distances. Half have reported 4 or more moves, most of

which were within municipio boundaries. Of the total sample, 33% lived in only one other municipio than Itumbiara, 22% in two municipios and 30.6% in three or more. Only 20.6% had lived in more than one other state. This group had a wide range as well as a frequent number of moves. Only 10.3% said they moved directly to Itumbiara from some other state than Goias or Minas Gerais.

There is evidence that this area has attracted many urban residents. Two-thirds had lived only in a rural zone. One-fourth (24.1%) had come from a rural area, moved to an urban area and then back to a rural; and only 7.2% came from an urban area to their present location.

Reasons for Moving

A couple of questions were asked to find out the reasons why people leave the place where they were last (push factors) and why they came precisely to Itumbiara (pull factors). While it was not easy for the respondents to distinguish between the reasons for leaving and the reasons for coming to a specific place, the answers are classified into the following categories:

Push factors (Reason for leaving the place they were before coming to Itumbiara):

1. Problems related to land tenure and type of agriculture: At least 30% gave answers which fall in this category. This includes scarcity of land, exhaustion of soil, crop failures, drought.
2. Problems related to work conditions and labor relations: More than 20% gave answers of this type, which is not too different from the above, since labor relations and tenure patterns are closely associated. This includes conflicts with landlords, conflicts with co-workers, lack of help from the patroa, small salaries,

the owner sold the land, or shifted to cattle, and there was no work to be done, etc.

3. Desire to improve one's lot. Thirteen percent of the responses fall in this category, which is a somewhat vague but understandable drive to improve one's life.
4. Family: Seven percent said they had no relatives in the area, hence wanted to move.
5. Other reasons: Health problems, lack of facilities for educating the children, a drive to move, desire to work by oneself, independence, etc.

Pull factors (Reasons for coming to Itumbiara):

1. Desire to improve one's situation: Over 40% gave answers which fall in this category. They include the following:
 - a. Better job opportunities (both agricultural and non-agricultural)
 - b. Better patroes
 - c. Better soil
 - d. Better types of crops
 - e. Better wages
2. Desire to be closer to one's family or relatives and friends: Close to 10% gave answers which fall in this category. Some moved because they have relatives here, or they had many friends and those influenced them or because the family moved in and they had to follow.
3. Other reasons:

Some heard many things about the place.

They passed by and liked the place.

The patroa with whom they worked moved, and so he did also.

It is apparent that the 'push' factors are mainly related to the lack of availability of land, exhaustion of the good soils, and change to more extensive types of agriculture. Others leave due to dissatisfaction with their status and situation as a day laborer or share-cropper. The 'pull' factors seem also to be a reflection of the desire to improve one's life by moving in search of better land, better landlords, better work conditions, and better wages. The family also seems to be an important factor, particularly in attracting them to Itumbiara. A few migrants also said they moved, not because of any specific reasons, but out of a desire or a 'drive' to move out. It has been noted that the number of moves averages almost 5 per family with a few people moving more than 20 times in less than 20 years. Some persons apparently become accustomed to moving and apparently do not seek a permanent location.

Assistance in Moving

Friends and relatives are the main source of information about Itumbiara for those who moved there. However, only one in seven persons interviewed admitted receiving any assistance in moving from any source.

Less than half (45%) of those moving to Itumbiara brought animals or equipment with them, and 16% brought only household items, leaving 39% who brought no material items.

Table 3. Source of Information About Itumbiara

	<u>No.</u>	<u>%</u>
None	45	15.5
Relatives	82	28.2
Compadres	6	2.1
Friends or Acquaintances	85	29.2
Truck drivers	10	3.4
Others	8	2.7
No reply	4	1.4
Did not move	<u>51</u>	<u>17.5</u>
	291	100

Comparison of Itumbiara with Previous Residence

People usually move in an attempt to improve their level of satisfaction. Table 4 shows the comparison of present with previous location of those who moved to Itumbiara.

Table 4. Comparison of Previous Location with Itumbiara

Type of Condition	Previous Location Was:							
	<u>Better</u>		<u>Same</u>		<u>Worse</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Condition of work	64	26.7	56	23.3	120	50.0	240	100
Income	68	28.3	75	31.3	97	40.4	240	100
Education of children	95	41.9	50	22.2	82	36.1	227	100
Health facilities	104	43.0	40	17.0	95	40.0	239	100
Number of friends	55	23.0	115	48.1	69	28.9	239	100
In general	39	16.5	72	30.5	72	30.5	236	100

Conditions of work, income and number of friends appear to be better in Itumbiara than in the place they came from: health facilities are worse for many, and better for an equal number, depending upon where they came from. Education is worse for more than it is better in Itumbiara, indicating that this is one of the serious problems affecting adjustment to the area. However, in general about half of those moving felt that Itumbiara is better than the place from which they moved. It must also be kept in mind that many who were dissatisfied in Itumbiara had moved elsewhere before the time of the interview.

Plans for Moving

That this is a mobile population is indicated by the fact that 25.1% indicated that they planned to move, and 14.4% were not sure about their remaining in Itumbiara. Of those planning to move, most planned to move during the next year. About one-third planned to move to another place in the municipio, about one-third to Minas Gerais where most had come from and, the remainder to another place in Goias or to the northeast. This is an indication that most plan to return to areas from which they had come while others plan to move on to less settled areas in Goias. All except 10 of 64 planning to move knew someone in the place where they were planning to go. It is also interesting to note that only one-sixth of the movers wished to become owners of property in their new location, another one-sixth hoped to become renters, one-third sharecroppers, and one-third wished to leave agriculture entirely. About two-thirds are content to continue at about the same level of tenure and operations in which they are at present, while one-third wished to either leave agriculture or improve their position in agriculture.

LAND TENURE AND RELATED CHARACTERISTICS

Size of Holdings

As expected, the size of holdings varies greatly from less than one alqueire (geometrical alqueire, or 4.8 hectares) to more than 700. Most of the sample of landowners (60%) are regarded as small landowners, since they had properties with less than 30 alqueires (144 ha). Consider-
int the extensive type of agriculture and the level of technology, more than 100 alqueires (480 ha.) is considered a big farm. Only 8 percent had farms of this size or bigger.

Table 5. Size Distribution of Landowners in Sample

	<u>No.</u>	<u>%</u>
Less than 48 hectares	19	25.0
48 alq. to less than 96	17	22.4
96 144	11	14.5
144 192	7	9.2
192 240	6	7.9
240 480	10	13.1
480 or more	<u>6</u>	<u>7.9</u>
Total	76	100

This distribution of size of properties is very similar to the figures given by the Census of 1960 for the whole municipio of Itumbiara.

Most farmers (88%) have a legal title to their land, and in that area there seems to be little conflict over boundaries as is true in old or settled areas.

Seventy-nine percent of landowners acquired their lands by purchase, with only 14% inheriting it either from wife's relatives or from their own relatives. In 6% of the cases land was acquired both by inheritance and purchase. Since most conflict in older areas seems to arise from inheritance, this might be an explanation for the little occurrence of boundary conflicts in the area.

Work in Agriculture

More than half of the sample are sharecroppers. Most sharecroppers also work as laborers (wage laborers) in the fields. The landowners make up more than one-quarter of the sample including the fazendeiros, medium and large owners and the sitiantes or small owners. Most of the sitiantes are also sharecroppers or day laborers. Eight percent of the sample are cash renters. The rest of the sample is made up of retireiros, a kind of caretaker whose job is to take care of the cattle and look after the farm. As payment they receive sometimes 50% of the milk production (most cattle in the area are beef cattle), plus a small salary (around 35,000 cruzeiros) and housing.

The laborers (peoes, assalariados) are a very small proportion of the total population. Although most sharecroppers also work as laborers they do not label themselves as such since the term peoes' seems to have a depreciative connotation.

Types of Crops

The most common type of crop in the area is rice (dry rice). Seventy-five percent grow rice. Beans follow, and in the third place come the oil plants (sesame, peanuts, cotton and sunflower). Lately there has been a campaign to encourage growing of oil plants, due to the presence of a new processing plant for vegetable oils in Itumbiara

(Cagigo). Bananas are grown on a few larger farms for markets in Sta. Catarina, Parana São Paulo and Brasilia. It is a commercial crop that requires good soil and a relatively high investment, making it difficult for small farmers.

Half of the people interviewed state that they produce primarily for consumption purposes and not for sale, some 30% for sale and 20% for both. Of course, those who do not have land do not produce enough for consumption. Most landowners, however, seem to have a market orientation.

Type of Agriculture

Agriculture in Itumbiara is still very primitive, except for the usage of some tractors, combines, cultivators and disc plows in the municipio. Commercial fertilizers are uneconomical at the present time for most crops, and soil conservation or other more advanced land use practices are almost nonexistent. Fire is used extensively both as a part of the process of clearing the land (94.5%) and as a way of preparing land for plowing. 62.4% said they burn the remnants of rice crops, and 83.7% burn their pastures. Without the availability of machinery for clearing and preparing the land, burning appears to be the easiest solution.

Labor and Contractual Relations

More than half (62%) of the 98 landowners and renters do not have sharecroppers. This is mainly due to the small size of their holdings, and to the fact that many landowners are abandoning rice growing for beef cattle, which requires less people and in which a share system is not practical. Fourteen had 1 sharecropper, 16 had from 2 to 5 sharecroppers,

6 had more than 5 but less than 20, and one landowner had 30 sharecroppers.

The contractual arrangements between sharecroppers and patroes (landowners) are verbal. They usually consist in allowing the person to live in the owner's land with a small plot around where they can grow a few fruits and vegetables and have some pigs and chickens.

For rice, half of what is harvested (meia system) goes to the patroa, and in a very few cases a third (terca system) part of the crop goes to the patroa. Often the patroa discounts whatever the sharecropper borrowed from him in terms of food, clothes or money, leaving him with very little cash. The system for beans is also on the half. However, many landowners said they only receive a share on rice and let the sharecropper have all other crops grown on the land.

As part of the contract there are various other arrangements with respect to the contributions of the landlord (see Table 6).

Table 6. Contributions of Landlord in Sharecropping System

	<u>Landlords</u>	<u>Sharecroppers</u>
1. Provides only the land	8.3%	7.7%
2. Provides only land plowed	11.7%	30.3%
3. Provides land and seed	-	3.2
4. Provides land plowed and seed	50.0	38.8
5. Other types of arrangements	30.0	20.0

It is noted that half of the landlords say they give plowed land plus seed, and only a third of the sharecroppers say the same. Probably what happens is that often the seed is only loaned to the sharecropper or only half of it is given. The sharecropper then considers and rightly so that only the land is given and not the seed. Other types of arrangements

include giving land plowed, seed and also the pesticide (Aldrin) to treat the seed.

Thirty-two percent of the sharecroppers said they were either relatives or compadres of the landlord, 57% stated they were either friends or at least well acquainted with the patroes, and only 11% stated they were strangers to each other. This indicates the importance of kinship and personal relationship between landlord and sharecropper. Many sharecroppers seem to be perpetually looking for the ideal landlord who is helpful good and who gives them support until harvest time and helps them in case of disease. Also a landlord has more confidence in a sharecropper if he is a relative of his or if he can regard the latter as a pseudo kin relationship such as a compadre.

CONCLUSIONS

The selection of Itumbiara as a site for the first phase of study appears to have been a fortunate one. It is an area which includes a high proportion of migrants and one in which most have made successful adjustments, but in which others are not too well satisfied, and some plan to move. Further analysis of the data should reveal the factors affecting successful settlement and those contributing to unsuccessful settlement. Data on level of technology followed in agriculture, sources of information for new techniques, and use of mass media will assist in determining the level of adaptation to the environment and factors associated with this adaptation. Data on level of living and food habits will provide measures of family well-being. Aspirations for land, for education of children and for other facilities will provide an indication of their motivation to improve their present circumstances.

Finally, responses to statements pertaining to beliefs and attitudes will provide a basis for understanding the thought-ways and value orientations which are important in influencing adaptation to new as well as to old conditions.

In addition to describing the sample families with respect to the above, comparisons will be made between recent migrants and older migrants and between those who are best adapted with those who are less well adapted, as indicated by level of agricultural technology, satisfaction with their location and other indicators. The role of the family friends the mass media and other agencies in affecting adjustment will also be studied.

Conclusions will be drawn as to the characteristics of migration patterns the characteristics of the migrants coming from different regions. the reasons for migration from certain areas (push factors) and to the area studied (pull factors) and the consequences of migration to the families who move. A second set of conclusions will pertain to the factors related to successful adjustment in newly settled areas. Finally, some observations will be made as to the role of the family and other institutions and contacts in assisting in the adaptation of settlers to new areas.