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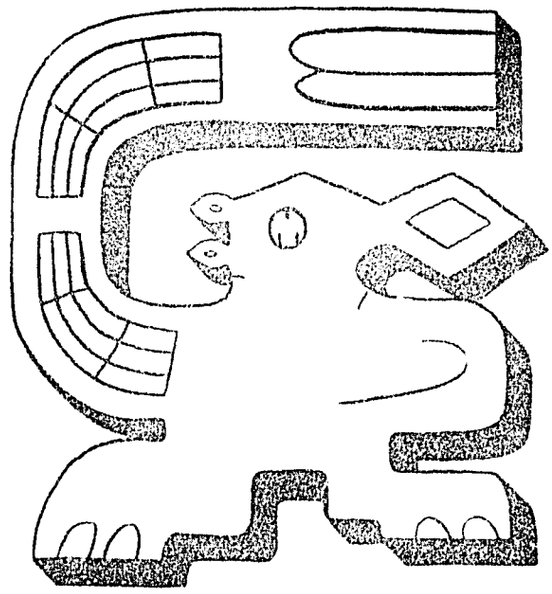

# Leadership, Education and Agricultural Development Programs in Colombia

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# Leadership, Education and Agricultural Development Programs in Colombia

By DALE W. ADAMS*

The lack of qualified leadership to man, direct, plan, and do research in agricultural agencies is an important restraint on rural development in countries like Colombia. An increase in the number of students attending institutions for agricultural education has been often viewed as the solution to this problem. In the following it will be argued that an increase in number is only a partial solution, and that an equally pressing aspect is to enable people with rural backgrounds to enter these educational institutions. Facets of this, with regard to Colombia, are covered in the discussion which follows. A brief review of recent agricultural development in Colombia is presented first to point out some of the major problems which exist. An over-view of Colombia's educational system follows to suggest why rural people are isolated from employment by Colombian agricultural agencies. To further illustrate this point, information is presented from a study of the backgrounds of Colombian agricultural college students. The discussion concludes with several suggestions on how better agricultural leadership might be developed in countries similar to Colombia.

*Recent Developments in Colombian Agriculture.* As in most less developed countries agriculture plays a vital part in Colombia's overall economy. Approximately two-thirds of the total population depends directly on agricultural production for an important portion of their income. During the past 20 years exports of agricultural commodities, principally coffee, have provided

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more than 80 percent of Colombia's export earnings. Despite rapid rural-to-urban migration the number of rural families with little or no land continues to increase. Although poverty is more apparent in urban centers, over three-quarters of Colombia's poor still reside in rural areas.

In several respects the performance of the agricultural sector in Colombia has been quite unsatisfactory. The relative price of food, for example, has risen more rapidly than the general cost-of-living index over the past few years. Per capita consumption of food, measured by the supply available on a daily caloric basis, has apparently declined in the last decade and a half by almost 15 percent.[1] This decline has occurred despite sizable food imports which have made up between 10 and 15 percent of the total value of imports in the past 15 years. Moreover, the total value of agricultural exports has been virtually stagnant since the mid-1950's. Colombia's historical dependence on coffee exports has decreased only slightly through agricultural export diversification.

Closely associated with this poor performance is the recurrent violence in the countryside, a high degree of landowner absenteeism, slow progress in land reform, a very modest rate of capital formation in the agricultural sector, and a serious lack of local institutions to assist in development. Other symptoms of the problem are the plethora of agencies working on agricultural development, well over 100, and the constant need to provide outside leadership to the agricultural sector. Although it is difficult to present conclusive evidence in this regard, I feel that in some measure these problems exist because of the lack of people working with agricultural agencies who have an intimate knowledge of the rural area. People with rural backgrounds are essentially excluded from these positions because of the current make up of Colombia's education system.

*Education in Colombia.* Some headway has been made during the last two decades in improving education in Colombia, but even with the progress made Colombia still finds itself among the lower half of countries in Latin America with respect to most measures of educational quantity and quality.[2] Many of the most serious educational problems in Colombia are located in the agricultural sector.

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[1] Robert E. Adcock, "Agricultural Situation—Colombia: Food Supply Past, Present and Future," annual unpublished report to USDA by the U.S. Agricultural Attaché, July 18, 1966.

Rural primary education, for example, is very deficient.[3] More than half of the children in Colombia who entered the first grade in 1965 did so in rural schools. Over three-quarters of the rural schools offer only two years of education, and only 15 percent of those enrolling in the rural first grades can expect to enter the third grade in a rural area; merely a trickle of these enter the third grade in urban schools. Only three percent of those entering rural primary education later register in the fifth and final grade of primary school in rural areas.

The quality of schooling is also restricted by the lack of qualified teachers in rural areas. In 1964, more than one in five of the rural teachers had less than six years of formal education. Only one in three had completed some type of secondary education. Alternated schools further reduce the amount of formal training which rural youth receive. These alternated schools offer one day for boys and one day for girls, or a half-day for each. About half of the rural students attend these types of schools, and then only for two years. The lack of teaching aids, poor salaries, and a multitude of holidays further reduce the amount of effective education.

There is very little secondary education available in rural areas, since most of the secondary schools are situated in large urban centers. Over 30 percent of the country's high schools are located in the capital city of Bogotá, and another 50 percent in other Departmental capitals. To a large extent children in rural areas are unable to complete sufficient primary education to enter secondary schools. Since much of the secondary schooling is private, many rural children are also excluded because of the costs involved in attending these schools.

In 1964 college preparatory schools enrolled about 60 percent of the students in secondary schools. Teacher training and commercial training centers each had about 13 percent, and the remaining secondary students were scattered among eight other types

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[2] The data in this section were drawn from various DANE publications, and A. Eugene Havens, "Education in Rural Colombia: An Investment in Human Resources," Land Tenure Center, University of Wisconsin, Research Paper No. 8, February, 1965.

[3] Rural schools in Colombia are defined as any which are located outside the main urban center of a *municipio*. Except for a few schools classified as rural, but located near large cities. Colombia's rural schools serve farm people almost exclusively.

of vocational training programs. Vocational training in agriculture was not started in Colombia until 1941 and the number of students in vocational agricultural schools made up less than one percent of the total number of students in secondary training in 1964. More than twice as many students in 1964 were attending secondary schools preparing for careers in religion, as were studying vocational agriculture (6,912 versus 3,108). In any meaningful sense there are almost no secondary educational facilities available to rural youth in Colombia.

University enrollment in Colombia has increased very rapidly during the last two decades. Substantial progress has also been made in upgrading faculty and staff, improving physical facilities, and advancing the general quality of college training. Although some recent change has taken place, principal emphasis is still placed on the classical fields. More than 50 percent of the university graduates between 1920 and 1963 studied law or medicine.[4] During 1951 to 1963 two-thirds of the university graduates were in law, medicine or engineering.

Formal university training in agricultural sciences began in Colombia in 1914, and by 1950 there were three Colleges of Agriculture.[5] Between 1950 and 1965 another seven Colleges of Agriculture were established. Over the 1920 to 1963 period, however, less than five percent of the college graduates in Colombia majored in agriculture (2,077 versus a total of 45,483). This was only one-fifth of the total number graduated over the same period in law. There has been some recent increase in the proportion of university students majoring in agriculture, but they still amounted to less than nine percent of the total in 1965.[6] The same situation exists in foreign graduate training in agriculturally related sciences. Of the 5,777 students financed by the *Instituto Colombiano de Especialización Técnica en el Exterior* (ICETEX) to study in foreign countries during 1961 to 1964, only about five percent majored in agriculture.

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[4] Instituto Colombiano de Especialización Técnica en el Exterior (ICETEX), *Recursos Y Requerimientos de Personal de Alto Nivel: Colombia 1964-1975*, (Bogotá: Banco de la República, no date but about 1965), p. 50.

[5] Extensive surveys of Colombian higher education in agriculture are given in: Miguel Hernández Cárdenas, "Estado Actual de la Enseñanza de la Agronomiá en Colombia," *Agricultura Tropical*, 22:613-626, Dec. 1966; and Comisión de Educacion Agrícola Superior, *Educación Agrícola Superior en Colombia*, (Bogotá: National University of Colombia, 1961).

Even a casual view of Colombia's educational system strongly suggests that most children of families making a living primarily from agricultural production are restricted to skimpy amounts of primary education. Completion of at least secondary school, or in many cases college, is almost always a prerequisite for employment in agricultural agencies. Moreover, a large proportion of the potential *local* leadership in rural areas of Colombia is moving into the cities. The migration process is highly selective with respect to a number of factors closely associated with leadership ability: formal education, youth, health, economic background, and intelligence. Migrants have too little formal training, nevertheless, to obtain further education and enter leadership positions in agriculture.

Has the seriousness of this leadership gap in agriculture been overstated to this point? It might be argued, for example, that the trickle of capable rural people who climb the educational ladder is sufficient to fill existing positions in agricultural agencies. Or, it might be argued that it is not necessary to have a rural background in order to be a good leader in agricultural development programs.

*Backgrounds of Potential Leaders In Rural Development Programs.* In most cases "urban" people man agricultural development programs in Colombia. Lawyers, economists, and engineers with little or no background in agriculture often make up a sizeable portion of the staffs participating in these activities. Even the personnel who have graduated with agricultural degrees lack close ties with agriculture prior to their college training. The results from a study of 479 students in three of the largest Colleges of Agriculture in Colombia, Medellín (246), Bogotá (155), and Ibagué (78) illustrate this point.[7] After graduation many of these students find employment in various Colombian agencies which are associated with agricultural development.

The rural background of the students interviewed was deter-

[7] An interesting sidelight on this point is the fact that a number of Colombian college graduates in agriculture were having a difficult time finding employment in 1965-1966. Some argued that this was due to too many people being trained in agriculture: Guillermo Ortíz R. and others, "Estudio Sobre la Ocupación del Personal Técnico Agropecuario en Colombia y Proyección para 1970," *Agricultura Tropical*, 22:352-365, July 1966. A more plausible answer, however, is that public investments in agriculture are at such a low rate that even a modest supply of college trained people cannot be employed.

mined by a number of questions aimed at indicating "rural exposure." Information was collected on three general areas: (1) the type of schools attended by the student, (2) the place of residence, occupation, and sources of income of the students' parents, and (3) the first-hand agricultural experience of the student.

The first four indicators in Table I describe the type of primary and secondary schools which the students attended. Only 12 percent of those interviewed attended a primary school with less than 100 students; most of the rural primary schools in Colombia have smaller enrollments. About five percent of the students had only one or two teachers in their primary school, a number quite typical in rural schools. Less than one-fifth of the students were forced to travel more than 6 miles from their home to attend secondary school. Most of the students apparently lived in urban areas where secondary educational facilities were readily available. Only two percent of the students had attended vocational agriculture secondary schools. This is quite understandable since the vocational agricultural program is relatively small, and few students who graduate from this program are academically prepared for college training.

The questions asked with respect to the background of the students' parents strongly suggested that less than half of the parents had *any* meaningful commitment to agriculture. Only 17 percent of the students felt that their parents would declare agriculture as their main occupation. Most of their parents had other sources of income in addition to some economic interests in agriculture. About 35 percent of the parents owned agricultural land, about half of the parents had lived on a farm in the past, but only one-quarter of the parents currently resided at least part time on a farm. The students reported that fewer than 10 percent of their parents had received less than three years of formal education, which strongly suggests that many of their parents spent most of their childhood in urban areas where more than two years of primary education were available.

The responses given by the students about their own contact with farming outside of their college training, showed a very limited exposure to agriculture. Only one in ten had worked in agriculture after graduation from high school, only about one-

[7] This was approximately all, 50 percent, and 25 percent respectively of the students enrolled in these institutions. Interviews were carried out in 1964 and 1965.

Table No. I
Indicators of Agricultural Background For 479 Students in Three Colombian Agricultural Colleges 1964 and 1965.

| Indicators | Yes | No |
|---|---|---|
| The student('s): | Percent | |
| 1. Attended a primary school with less than 100 students. | 12 | 88 |
| 2. Attended a primary school with only one or two teachers. | 5 | 95 |
| 3. Attended high school over six miles from his home. | 19 | 81 |
| 4. Received vocational agricultural training. | 2 | 98 |
| 5. Parents declare agriculture as their major occupation. | 17 | 83 |
| 6. Parents own agricultural land. | 35 | 65 |
| 7. Parents have lived on a farm in the past. | 47 | 53 |
| 8. Parents currently live on a farm, at least part time. | 25 | 75 |
| 9. Father received less than three years of formal education. | 7 | 93 |
| 10. Mother received less than three years of formal education. | 4 | 96 |
| 11. Worked in agriculture after graduation from high school. | 10 | 90 |
| 12. Has lived in rural area more than 4 years. | 26 | 74 |
| 13. Has lived in rural area more than 10 years. | 8 | 92 |
| 14. Expects to inherit agricultural land. | 15 | 85 |
| 15. Feels he has had extensive work experience on farms. | 11 | 89 |
| 16. Has at least occasional contact with rural people. | 10 | 90 |
| 17. As an overall evaluation, has had a substantial amount of contact with agriculture. | 11 | 89 |

Source: Interviews carried out during 1964 and 1965 with 479 students attending the Colleges of Agriculture in Bogotá, Medellín, and Ibagué, Colombia.

quarter had lived in a rural area for more than 4 years, and less than 10 percent had been a rural resident for more than 10 years. Only 15 percent expected to inherit agricultural land, 11 percent felt they had had extensive work experience in agriculture, and only 10 percent had at least occasional contact with rural people. A subjective overall evaluation of the agricultural background of the students interviewed showed that only 11 percent had a substantial amount of contact with agriculture aside from their college training.

To reinforce these impressions, similar questions were asked of about 50 employees of the Agrarian Reform Institute (INCORA) during 1966. These individuals made up the staff of a supervised credit program in four areas of Colombia.[8] Most were credit

supervisors who worked with 10 to 30 farmers, and a few additional were zone chiefs who had mainly administrative positions. Supervisors had usually completed secondary education and zone chiefs were usually graduates from agricultural colleges. These employees, especially the supervisors, probably have more rural background than any other large group of people working with agricultural development agencies in Colombia. Accordingly, the agricultural background of these INCORA employees was more prominent than that noted among the agricultural college students interviewed. Between 20 and 30 percent of these employees had grown up in essentially rural areas, and almost 40 percent of them had attended a vocational agricultural secondary school. Even in this select group, however, except for vacations, almost half had never lived in a rural area prior to their present employment. Almost 80 percent of their parents currently live in urban areas, and almost half of the parents derive little or no income from agricultural production. About 40 percent of these employees felt that they had essentially no practical experience in agriculture, except for the exposure received during their schooling or in their current employment.

*Conclusions and Suggestions.* What can be concluded about leadership, education, and agricultural development in Colombia? First, a number of indicators strongly suggest that Colombia's agricultural sector is performing poorly, and that its performance is restricting overall economic growth. Second, Colombia's educational system essentially isolates rural people from employment by agricultural agencies. Few of the people employed by agricultural agencies have had much contact with rural Colombia.

Without lapsing into "agricultural fundamentalism," do rural people make better employees in agricultural agencies than those with urban backgrounds? Or, is the relatively poor performance of the agricultural sector in Colombia due principally to the complexity and difficulty of the problems faced rather than the lack of leadership with rural backgrounds? Unfortunately, these key questions cannot be resolved on the basis of conclusive factual evidence. Granting that Colombia has a number of very difficult agricultural problems to wrestle with, I feel that leadership with

[8] My impression of INCORA's recruiting procedure is very favorable. With few exceptions they are hiring the best qualified people available for the positions specified.

rural backgrounds could substantially assist in seeking solutions to these problems.

Practical experience in agriculture can be useful in a number of ways. The complexities of agricultural life and production, for example, are difficult to understand where one lacks an intimate contact with rural areas. Entangled land tenure arrangements, complex farm unit organization, diversified agricultural enterprises within farm units, multiple occupational structures, and complicated criteria used for making production decisions are all difficult to grasp with only a superficial knowledge of conditions in rural areas. Without this kind of information it is difficult for decision makers to identify major problems which exist in the agricultural sector.[9] Likewise, it sharply limits a leader's ability to propose and carry out policies which have a reasonable chance of solving the problems identified. A lack of basic data and research on the structure of the agricultural sector makes it difficult for non-rural people to educate themselves on agricultural conditions in a country like Colombia.

Another important consideration is that leaders from rural areas find it much easier to identify with rural people. It is less difficult for them to overcome class considerations and communicate in rural areas on an equal basis. Moreover, they are more likely to attach logical reasons to rural peoples' actions, rather than writing actions off as due to ignorance, tradition, and lack of culture. An appreciation of rural inhabitants as individuals is an important element in designing workable agricultural programs.

People with rural backgrounds also find it less uncomfortable living and working in rural areas than do urbanites. Finding people who will work with agricultural agencies and live in rural areas is no small problem.

If individuals with rural backgrounds could provide better leadership for agricultural programs, how can these types of people be developed? One alternative is to provide much more practical training for those who are, or might in the future be leaders in agricultural development agencies. An internship in rural areas for students from agricultural colleges, for example, might be one way of introducing them to rural life. Such a pro-

[9] A lack of knowledge regarding the basic make up of the agricultural sector can lead to very serious policy mistakes. An example of this is given in: Dale W. Adams, "Landownership Patterns in Colombia," *Inter-American Economic Affairs*, 18:77-94, Winter 1965.

gram has met some success in Thailand. Much more opportunity for agricultural college students to work, study and do research in rural areas would also be helpful. These activities should, nevertheless, be considered as only short term substitutes for assisting some rural people to enter leadership positions. To do this more rural education is needed.

Realistically, it is doubtful that even 3 or 4 decades will suffice to provide abundant high quality education in most rural areas of countries such as Colombia. It should be possible, however, to develop adequate primary and secondary schools in a *few* rural areas so that some of the most highly qualified rural youth can have access to higher education.[10] In at least one rural area of Colombia this type of program has been developed; complete primary and secondary educational facilities have been established, dormitories erected, and small scholarships provided for bright students whose families live in outlying areas. Rural students are receiving sufficient education in these facilities to have reasonably good chances of qualifying for higher education. If a handful of these types of facilities could be developed and associated with the colleges of agriculture in Colombia, a substantially larger flow of young people from rural areas could attend agricultural colleges and later enter leadership positions in agricultural development agencies.[11] This would not only provide agricultural agencies with better employees, but it would also tap a supply of heretofore unutilized rural brain power.

The strength of the U.S. agricultural sector is closely related to the fact that many of the employees of the agricultural development agencies have a good deal of practical experience in agriculture. Although improvements will likely be made in Colombia's agriculture with existing leadership, I feel that the process could be accelerated if, as in the U.S., more rural people were in decision making positions.

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[10] An interesting sidelight to this is pointed out by John Buttrick, "An Approach to Planning Higher Education in Colombia," unpublished manuscript, Economics Department, University of Minnesota, May 1966. He argues that about three-quarters of the most intelligent people (top 2.3 percent of the population) in Colombia are unable to attend the universities. A large majority of these live in rural areas.

[11] This type of proposal has been suggested by Carlos Garcés O., "Projecto de Desarrollo Rural Mediante la Educación Agrícola," unpublished manuscript, Facultad de Agronomía, Medellín, Colombia, April 1963.