

CO  
630.715  
F324

PN-ABJ-288

August 1967

LTC No. 39

CO Fitting agricultural extension to development  
630.715 Wisconsin Univ. Land Tenure Center  
F324 Fitting agricultural extension to develop-  
ment needs Colombian problem Herman  
Felstehausen Aug. 1967.  
22 p.  
Bibliography p. 1-3  
LTC paper no 39  
See also paper no. 57.

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

PN ABJ 28

~~Also paper 57~~  
~~See CO~~  
~~630.715~~  
~~F324~~

1 Agricultural extension work - CO 2 Agricultural  
development - CO.3 LTC paper. I.Felstehausen,  
Herman.II.Title

FITTING AGRICULTURAL EXTENSION TO DEVELOPMENT NEEDS

THE COLOMBIAN PROBLEM

by

Herman Felstehausen

Paper to be presented at the VII Reunión Latinoamericana de  
Fitotecnia, September 1967. Herman Felstehausen is Assistant  
Professor of Agricultural Journalism and Country Director of  
the Land Tenure Center, University of Wisconsin

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

A I D  
Reference Center  
Room 1656 NS

A I D  
Reference Center  
Room 1656 NS

A

1'  
FOOTNOTES

\*This material with some modifications will be presented at the VII REUNION LATINOAMERICANA DE FITOTECNIA, Caracas, Venezuela, 17-23 September 1967. All interpretations and conclusions expressed in this article are those of the author and not necessarily those of the supporting or cooperating institutions.

\*\*Assistant Professor of Agricultural Journalism, University of Wisconsin and Country Director of the Land Tenure Center located at the Centro Interamericano de Reforma Agraria, Bogotá, Colombia. The Land Tenure Center is a cooperative program of the American Nations, the Agency for International Development and the University of Wisconsin.

<sup>1</sup>Herron O., Antonio and Dale W. Adams, "El desarrollo de los organismos de fomento agropecuario en Colombia." Agricultura Tropical, Vol. 22 1 (Enero 1966) 7-19.

<sup>2</sup>Edel, Matthew D., "The Colombian Community Action Program An Economic Evaluation," Unpublished Ph.D. Dissertation, Yale University (1967).

<sup>3</sup>Acción Cultural Popular, Sociology Department, "What Is, What Are the Objectives of, What Does Acción Cultural Popular?" Editorial Andes, Bogotá (1965) 48 p.

<sup>4</sup>See especially the following three reports International Bank for Reconstruction and Development, "The Agricultural Development of Colombia" (May 1956) 367 p., The Commission on Higher Agricultural Education, "Higher Agricultural Education in Colombia A Framework for Teaching, Extension and Research." Bogotá (April 1961) 139 p., and Report of survey team from the U.S. Department of Agriculture, U.S. Department of Interior and Land Grant University, "Need for Technical Assistance in the Rural Sector of the Colombian Economy," (October-November 1963).

<sup>5</sup>Miller, Paul A., "International Dimensions of Agricultural Communications," Paper delivered to the American Association of Agricultural College Editors, Stillwater, Oklahoma (July 9, 1963).

<sup>6</sup>Comité Interamericano de Desarrollo Agrícola, Tenencia de la tierra y desarrollo socio-económico del sector agrícola Colombia. Unión Panamericana, Washington (1966) p. 72.

<sup>7</sup>INCORA, "Estudio de posibilidades de financiación para un proyecto de concentración parcelario." Estudios Técnicos, Bogotá (September 1966).

<sup>8</sup>Personal visit with Instituto Geográfico field team, June 24, 1967.

<sup>9</sup>Comité Interamericano de Desarrollo Agrícola, op. cit., p. 135.

<sup>10</sup>Felstehausen, Herman, "A Study of the Availability Distribution and Financing of Rural Services in Antioquia," In process.

<sup>11</sup>Felstehausen, op. cit., interviews.

<sup>12</sup>Felstehausen, op. cit.

<sup>13</sup>Sección de Economía, Universidad Nacional, "Estudio de transportación," Medellín, in process, also, Karl Wierer, "Economics of Improved Marketing Organization and Facilities to Accelerate Agricultural Development in Land Settlement Areas," Instituto Latinoamericano de Mercadeo Agrícola, Bogotá (January 1967).

<sup>14</sup>Havens, A. Eugene, "Education in Rural Colombia. An Investment in Human Resources," Land Tenure Center Research Paper No. 8 (February 1965).

<sup>15</sup>Haney, Wava G., "The Migration Process in a Minifundia Area of Colombia," Ph.D. Dissertation, University of Wisconsin, in process.

<sup>16</sup>La República (July 13, 1967).

<sup>17</sup>Davis, L. Harlan, "Economics of the Property Tax in Rural Colombia," Ph.D. Dissertation, University of Wisconsin, in process.

<sup>18</sup>Mejía Salazar, José, "Memoria del Ministro de Agricultura al Congreso Nacional," Primera parte, Bogotá (Julio 1965-Junio 1966) p. 59.

<sup>19</sup>Instituto Interamericano de Ciencias Agrícolas de la OEA, Zona Andina, "Organización administrativa del sector agropecuario de Colombia," Tomo II, Bogotá (December 1966) 66-67.

<sup>20</sup>Statistics compiled from reports of the Federación Nacional de Cafeteros (1967).

<sup>21</sup>Instituto Interamericano de Ciencias Agrícolas de la OEA, op. cit., Tomo IV, 93-114.

<sup>22</sup>Holt, Pat M., Colombia Today and Tomorrow, New York: Frederick P. Praeger (1964) Chapter 6.

<sup>23</sup>Statistics compiled from INCORA reports on file at the U.S. AID Mission in Colombia (1967).

<sup>24</sup>Personal field visits with INCORA supervisors (1966).

C

<sup>25</sup>Using these figures one can project estimated costs of supervising the credit loans. At the end of 1966 there were about 440 supervisors for 17,206 loans -- about 40 each. If each client borrows 15,000 pesos, the supervisor will be managing 600,000 pesos. The interest charge on the loans is eight percent annually (the farmer pays one percent extra for insurance) which will produce 48,000 pesos annually in interest income. Field costs in Antioquia run about 4,000 pesos per month per supervisor in the field (author's data). This includes his salary, (about 2,000 pesos per month) and the cost of local transportation, local office costs, fringe benefits, etc. It does not include central administration in Bogotá. At this rate, it would cost 48,000 pesos per year -- all of the interest income -- just to supervise the loans at present efficiency. In a 1965 study ('Supervised Credit in Colombia's Agrarian Reform: An Evaluative Study'), Adams, Giles and Peña conclude that the cost is more than compensated by the increased farm productivity resulting from credit use.

<sup>26</sup>Edel, op. cit., Chapter 2.

<sup>27</sup>Edel, op. cit., Chapter 2.

<sup>28</sup>Acción Cultural Popular, op. cit. Statistics.

<sup>29</sup>Suárez de Castro, Fernando, 'Ayuda la extensión agrícola al desarrollo económico?' Agricultural Tropical, Vol. 21:5 (Mayo 1965) 247-252.

<sup>30</sup>Hanay, Emil B. 'The Possibilities for an Economic Reorganization of Minifundia in the Colombian Highlands,' Ph.D. Dissertation, University of Wisconsin, in process, also Orlando Fals Borda, Peasant Society in the Colombian Andes. A Sociological Study of Saucio. Gainesville: University of Florida Press (1955) 277 p.

August 1967

FITTING AGRICULTURAL EXTENSION TO DEVELOPMENT NEEDS

THE COLOMBIAN PROBLEM\*

By Herman Felstehausen\*\*

Colombia like many other developing nations, faces the difficult task of increasing food production while at the same time trying to improve incomes, services, living conditions and political rights for the majority of the nation's people. In the agricultural sector this task is generally defined as one of getting a large number of traditional, unskilled, inefficient and isolated farmers to manage their resources better, improve their <sup>\*</sup>levels of technology, and market their products more wisely -- with the goal of increasing both production and welfare. One of the institutions which has been especially useful for this purpose in the industrialized nations is what most of us call agricultural extension.

But in Colombia, the development problems are more serious and agriculture has not responded dramatically to extension and other services as it has in industrialized nations.

This paper has two purposes. One is to present a description of the factors limiting farm production in Colombia along with the ways extension institutions have tried to deal with them. The second is to suggest some ways in which agricultural extension services might be made more appropriate to Colombia's development needs.

Agricultural extension programs in Colombia are conducted mainly by semi-official agencies which provide extension services as a part of more elaborate assistance objectives. The two main

semi-official agencies are the National Federation of Coffee Growers and the Colombian Agrarian Reform Institute (INCORA).

The Coffee Federation is interested in improving the quality of coffee and the efficiency with which it is grown. This usually results in increasing the quantity produced too, but more production is not a stated goal since there is a national surplus. INCORA provides production credit to medium-sized and enterprising small farms and gives technical assistance in the form of loan supervision.

There are numerous other semi-official agencies which also have extension offices such as the Instituto de Fomento Algodonero (IFA) (cotton), Instituto de Fomento Tabacalero (INTABACO) (tobacco), Federación Nacional de Arroceros (rice), Procebada (barley), Federación de Cacaoteros (cocoa), Federación Nacional de Productores de Cereales (FENALCE) (cereals), Caja Agraria (agricultural bank), and the Banco Ganadero (livestock bank) with departmental Fondos Ganaderos. There are three main regional corporations, CAR for the Sabana of Bogotá, CVC in the Valle del Cauca, and CVM in the Magdalena and Sinú, plus literally dozens of other specialized and decentralized agencies. Many of the departments (states) also have small extension divisions. These organizations will not be considered here since they have little or no permanent field level personnel in extension work or they provide only select services to a defined class of farmers. As an example, CAR operates a highly technical farm management service for about 140 of the best farmers in the Sabana de Bogotá.

Two governmental agencies have specifically organized extension programs of sufficient size to mention here. They are the National Ministry of Agriculture and an extension program conducted by the Department (state) of Antioquia through the departmental secretary of agriculture. In July the Ministry of Agriculture turned its extension division over to the Instituto Colombiano Agropecuario (ICA), the national agricultural research center, in order to combine research and extension in one semi-official agency.

In addition to the four official and semi-official extension services, there are two community based extension activities which because of their scope of activities need to be included. They are Acción Comunal and Acción Cultural Popular.

Acción Comunal consists of local community development boards with the mandate to undertake a wide variety of projects from building schools to setting up agricultural test plots. Local boards (juntas) can obtain a legal charter and have been sanctioned by national law since 1958.<sup>2</sup> These boards are scattered throughout Colombia and represent thousands of rural people. As such they provide one of the country's brightest hopes for an eventual grass-roots agricultural service organization.

Acción Cultural Popular (ACPO), commonly known as Radio Sutatenza, was started in 1948 by Father José Joaquín Salcedo G. who at that time was a rural parish priest working in an isolated valley in the Colombian highlands. Working largely through the church, Salcedo has established rural training programs throughout the densely populated parts of Colombia. Powerful radio transmitters,

both standard and short wave bands, broadcast agricultural programs, music and radio-school instruction over the country. In addition ACPO publishes the largest circulation farm paper in Colombia which is sold in more than 1,000 rural communities. It also conducts regular school training programs for campesino youth as a way to train rural leaders who in turn organize local classes and improvement projects. Salcedo's fighting theme is education for peasants. And he has also accomplished a large number of farm improvement projects in the process.<sup>3</sup>

#### Extension Philosophy and the Colombian Problem

In an attempt to improve organizational plans for agricultural services, Colombia, like many other nations after World War II, has called for the help of a variety of foreign experts in addition to devising a series of plans of her own. During the past 20 years Colombia has been visited by North Americans, British, French, Dutch, Germans, Israelis, other Latin Americans, the FAO, OAS, World Bank, AID and others.<sup>4</sup> As might be expected, the recommendations are varied and the experts do not agree on whether extension services should be governmental (either state or national) or semi-official as is now the predominate case. Yet all apply a limited and traditional definition of what extension organizations should do, reflecting their North American or Western European training and origin.

They give almost no attention to farmer control or voice in extension services -- a point these same experts probably would not

omit if they were working in their own countries. They provide few or no analyses of related community institutions which can be either natural complements or natural barriers to effective extension activities.

Attention has been focused primarily on information and new technology which is only part of what a peasant farmer -- or any other class of farmer -- needs. This point is nicely illustrated by the story of an information man visiting a peasant community in the mountains near Bogotá. As he and his companions paused for a moment on a steep mountain trail, they looked up and saw a farm hut and potato patch nearly falling off the slope. The communications man half seriously said, "That farmer needs information!" Of course he does as does everyone. But the farmer on the slope also needs many things an information service will never provide.

Modern agriculture means roads to make travel to farms possible, banks to lend credit, rules to guarantee access to land, local organizations to represent farmer interests, local government to protect life and property and to direct public investments, dealers to sell and service farm machinery, schools to educate farm children, health facilities to treat accidents and disease, public utilities to improve home living, local newspapers, radio stations, telephones and postal services to exchange information, markets for products -- and in Colombia, a sympathetic priest and a public-spirited town boss to encourage the development of these institutions.

In the United States, agricultural extension agencies are often able to provide the added boost needed to make farms more productive. But that was after the local government, commercial dealers, schools, markets, roads and even agricultural colleges were already installed.<sup>5</sup> It is unrealistic to assume that an extension service whose major function is to provide information can work effectively in a community where information is only one of about a dozen major inputs needed. Under these circumstances we need to look for an extension service which is more appropriate to the needs of a developing -- not a developed -- country.

The vast majority of farms in Colombia are of the peasant subsistence type. In 1960 there were approximately 1.2 million farms in Colombia.<sup>6</sup> Estimates are that the number of farms since then has been increasing by about two percent per year due to new settlement and continuing division of existing holdings.<sup>7</sup> In some areas near Bogotá, the increase is as high as 12 percent per year.<sup>8</sup>

There is also a wide spread in size and capitalization of farms with a few thousand families controlling much of the best agricultural land. Two-thirds of Colombian farms are less than five hectares in size. Nearly one-half of all farm families are workers, administrators, renters, share-croppers and others who do not own the land they cultivate.<sup>9</sup>

Besides this, rural Colombia faces a severe lack of inputs, services and urban demand needed to make farms produce. And there is no clear view as to how much extension agencies should become involved in building the infrastructure needed to provide these inputs and services.

Current inventories indicate that agricultural inputs and rural services in some regions of Colombia are available at such low levels that per capita increases in agricultural productivity are almost impossible.<sup>10</sup> This is a sobering conclusion because it means that the development task is not one of simply improving what is there -- the extension man's objective -- but it is a job of creating service structures where none now exists or where existing ones have reached the limits of their potential.

As will be quickly evident, an extension program which desires to work under these conditions needs to be fashioned differently than common diffusion and adoption models would suggest.

Extension services in the developed countries concentrate on providing technical advice that will help the producer with farm oriented problems. Extension is especially designed to resolve problems arising inside the farm. That is, with questions related to the use of fertilizers and pest controls, crop rotation and farm management, mechanization, new seeds, improved livestock, and soil and water conservation. But farming, like any other production process, involves a mix of "inputs," many of which are regulated or managed outside and not inside the farm. Country roads, schools, public health, credit, markets, public utilities, mass media, protection of life and property, public rules, justice, taxation and spending powers are all external factors. In industrialized countries these factors are referred to as local or public services and are usually provided by local governments through some kind of farmer participation.

In the United States and Western Europe where most of the external needs have been met, technical and farm oriented agriculture advice and the emphasis on farmer patterns of adoption are productive extension approaches. In an underdeveloped country, it is different. Underdevelopment by definition means that many things are lacking besides technical know-how. Not only are many farmers uninformed and backward, but the system of public services is in such a state of disorganization that many of these farmers could not do much better if they wished to. Thus when problems outside of the farm are as serious or more serious than those inside the farm, the traditional Western model for agricultural extension is not adequate. This is the case in Colombia.

There are differences in relationships between extension and the community in Colombia and North America or Western Europe. In nations with modern agriculture, the farmer is surrounded by a framework of organizations of his own design. He is directly connected with local services and determines how they will be organized and operated. Extension rests on support from farmers as well as the government and is controlled by the farmer users.

Extension services in Colombia are different. They generally are supported and controlled by the central government or a centralized agency. Farmer organizations with broad representation are unknown. Local governments function poorly. Extension agencies reach only a part of the total farm population. Some commercial farmers with economic means and personal acquaintances

go directly to the central government for assistance and service. Some argue that this is the only way for a modern commercial farm to survive in Colombia.<sup>11</sup> Their conclusion is probably correct, but it can never be the solution for the one million farmers who have neither the means nor the access. To assist them broad base services will have to be devised.

Many find it hard to believe that external farm factors are limiting agricultural progress in Colombia. To admit this, of course, changes completely the role of agricultural extension. Here are a few examples from research conducted by the Land Tenure Center and others in Colombia.

A 31 municipality (county) region of historic Eastern Antioquia composed of 11,000 square kilometers of land and a half million persons has only 1,000 kilometers of roads.<sup>12</sup> Most farms are accessible only on foot or by pack animal. Evidence from some parts show that animal costs are as much as 10 times the cost of hauling comparable distances by truck.<sup>13</sup> In some places the needed roads could be paid for in three to five years by savings in hauling costs of trucks compared to animals. Yet in 1965 these municipalities did not build one kilometer of road.

In the same region which has about 80,000 farms, only a few are mechanized. Our inventory indicates that there are only 100 agricultural tractors in the whole region and no machinery dealers. One commercial farmer told us that if it were not for the fact that he had a private plane he could not risk the use of machinery. He flies to the national or departmental capital in the case of break-downs.

Most rural Colombians suffer from a lack of educational opportunities. Farm youth typically receive one or two years of low quality primary education in rural schools. Families with economic means send their children to private schools in towns and cities. Many upper class families refuse to live in the country and thus become absentee landlords because of poor schools as well as limited health facilities, poor transportation and other services.<sup>14</sup>

A shortage of medical facilities and preventative practices is one of the factors deterring development. Haney found that some people reject migration to frontier zones because of the low levels of services, including health.<sup>15</sup>

About half of all practicing doctors in Colombia live in Bogotá. Some areas, including one in our study in Eastern Antioquia, have as many as 50 thousand inhabitants per available doctor. A recent study indicates that only eight percent of rural Colombians received medical attention last year.<sup>16</sup>

Other problems present serious limitations to the rural family that honestly wants to expand production. Credit, when available, often carries with it other obligations. There is a need for improved marketing systems. Public utilities such as electricity and running water are almost completely lacking in the country-side. Many farms do not have a clear title or ownership and boundaries are often unclear.

Almost all of the services listed above require some degree of governmental sponsorship, protection, control or support. Many require governmental finance at either the local or regional level.

Local government income in Colombia comes mainly from three sources -- land taxes, commercial licenses and a share of departmental beer and liquor taxes. Of these three, the only one which still has potential for considerable expansion is the land tax. The rate is now four mills per 1,000 of assessed valuation on both rural and urban properties. This rate is set by national law and cannot be adjusted by the municipalities to fit their local needs. To complicate the matter, assessments are grossly outdated in many areas and tax delinquency runs as high as 50 percent.<sup>17</sup>

In the 31 municipality area of Eastern Antioquia total local government revenues come to about one million dollars annually. This is two dollars per person. Most of this budget goes for salaries of local officials and miscellaneous maintenance costs leaving almost nothing for roads, schools or new services.

Acción Comunal and semi-official agencies such as the Coffee Federation are sometimes more important in providing for local services than are all units of government combined. While this is laudatory on the part of these agencies, the support is too temporary and piece-meal to meet long range needs.

#### Agricultural Extension in the Colombian Setting

The general agricultural extension goal in Colombia is: "to increase the agricultural productivity of the country and the welfare of rural people."<sup>18</sup> The six main extension services use somewhat different means but all emphasize this theme.

The extension division of the Colombian Ministry of Agriculture (now operated by ICA) had a total budget last year of 2,690,145 pesos (16.25 pesos equal one dollar). Of that amount more than two million pesos were needed just to pay salaries and wages. The division consists of 92 persons many of whom worked only part time in the field. There are almost no signs left of the massive program called STACA built up in the late 1950's with U.S. foreign assistance.

But to talk about the extension division really tells only part of the story of the work carried on by the Ministry of Agriculture. Probably more important in terms of aiding Colombian farm families are the programs conducted by the crops, livestock and natural resources divisions. These divisions, while mainly concerned with inspection and control, claim to have distributed more than 100,000 fruit trees, made available more than a million tree seedlings for reforestation, and aided in disease control for more than six million head of cattle. The livestock division claims to have given more demonstrations and assisted more people in 1966 than the extension division with a budget also more than twice as large as the extension division.<sup>19</sup>

The move of the extension division from the Ministry to ICA will give extension better access to basic research but it does not appear that it will improve its ability to deal with rural service problems which are just as critical in Colombian development.

The most successful agricultural extension program in Colombia is conducted by the National Federation of Coffee Growers. There are several reasons for its greater success. First, it works only in coffee areas -- this reduces the territory to about one-third of the municipalities in the country. Second, it has moved into the area of building infrastructure which local governments usually fail to provide. And third, it has a stable source of income through a six percent tax on all coffee export sales.

The Coffee Federation employs more than 500 workers in extension type programs throughout the country. These workers give instructions and demonstrations on weeding methods, proper tree trimming, renovating and fertilizing, and the mechanics of design and maintenance of coffee processing equipment. The coffee agents also cooperate with the Banco Cafetero in helping farmers obtain production loans and in supervising the investments.

The Coffee Federation recognizes that many of its most urgent requests are for social services. The six percent tax on export coffee gives the Federation more than 300 million pesos annually for extension and service. In 1965 the Federation invested 32.5 million pesos in building 450 kilometers of rural roads and 70 bridges and repairing another 320 kilometers of existing roads. It spent another 18 million pesos on improving housing and installing water and sewerage systems. More than 21.7 million pesos went for rural and village schools and another 3.3 million to help local community action groups carry out a variety of projects.<sup>20</sup>

The extension budget in 1965 amounted to 30 million pesos.<sup>21</sup> In addition to this and its social programs, the Federation runs a large coffee experiment station and substations with a total budget of about 13 million pesos. The Manuel Mejía Foundation, which receives funds from the Coffee Federation, runs a vocations school and gives high school level and technical training.

The fact that the amount of funds spent on farmer assistance activities is sizable can be seen by its relationship to local governmental expenditure for similar programs. Antioquia's main coffee zone includes 39 of the department's 106 municipalities. In 1965 these municipalities spent less than 10 million pesos for road and school maintenance and construction. They did not build one kilometer of rural road during the year and contributed to the construction of only a few schools. At the same time, the Coffee Federation in Antioquia built 54 kilometers of new road and six bridges and constructed 20 new schools and aided others. Altogether it spent nearly as much on schools, roads, public utilities and housing as did local units of government in the same region.

During the past five years local government revenues have been gradually eroded by inflation. As this happens, rural communities look more and more to the semi-official agencies such as the Coffee Federation to provide the needed services. At the same time the Federation is trying to turn these efforts back to the municipalities since it cannot meet an almost endless need with a fixed budget.

This discussion does not mean the Coffee Federation extension program is an ideal type. It, like most of the other organizations, ignores the small farms. The general policy is to give primary assistance to farms of five hectares and above. This automatically eliminated half of the nation's 300,000 coffee farmers.<sup>22</sup> The Federation does almost nothing to help small and landless farmers develop alternative income sources even though this is a stated objective. While the Federation is theoretically democratically controlled by the growers, top level management sets the policy for the expenditure of funds.

INCORA is the second largest extension program in Colombia, although its program could probably more properly be called loan supervision. Lending to medium sized and small farmers is the main activity of INCORA. At the end of 1966 INCORA had about 265 million pesos out on loan to farmers under its supervised credit activity. The credit program is handled through about 90 zone offices with 440 loan supervisors in the field.<sup>23</sup>

Under the program, farmers are supposed to receive a monthly visit from the supervisor who gives the farmer technical advice about production problems and sees that the credit is wisely invested. In practice, however, after the loan is made the supervisor often has little new information to offer. The advice of supervisors often takes the form of "You had better spray those potatoes." (No consideration as to how or why in technical terms.) Or, "You should put some fertilizer on those plantains." (To do so would be economically unsound because of the low price of plantains.)<sup>24</sup>

INCORA supervisors say they can visit about 50 clients a month if they work steadily. On this basis 440 supervisors could make 22,000 farm calls a month. They in fact reported 17,408 calls in the month of November, 1966. By the end of 1966 the number of borrowers had grown to 17,207 with an average loan of more than 15,000 pesos each. Supervision staff is still being increased and loans have been steadily enlarged partly to help reduce supervision costs.<sup>25</sup> INCORA also gives other valuable services including the granting of land titles. However, this service is concentrated in frontier zones and does little for farmers in old established regions.

The Departmental Secretary of Agriculture of Antioquia has the best organized regional or state level extension program in Colombia. It employs nearly 100 persons at all levels with 95 percent of these located in eight field offices throughout the department. Each field office has a vehicle for transportation. Programs are designed around the improvement of crops, livestock or the home. The main shortcoming of the program is that the agents have little to offer the farmers except sincere well-meant advice.

The central office publishes agricultural bulletins but not in sufficient numbers to give away freely. Agents are not responsive to any particular farmer's group and appear to do little to mobilize other resources which are often needed for improved farm operations. The programs are seldom addressed to needs such as schools, health facilities, roads, mechanization, land and local institutions.

Community development agencies such as Acción Comunal and Acción Cultural Popular, are often excluded from lists of extension agencies, but their efforts represent one of the most dynamic aspects of Colombian rural development.

Both agencies are organized at the local level, make use of local resources and talent and try to fill in where local governments fail to act. Acción Comunal employs about 450 full-time community agents called promotores and hundreds of other part-time and volunteer workers. There are approximately 9,000 local boards established throughout the country. Matthew Edel reports that investments by the local community boards were between 10 and 13 million dollars in 1964 -- much greater than direct investments by departmental governments and about the same as total government investments in the departments.<sup>26</sup>

Acción Comunal is the main builder of new schools in Colombia -- more than 700 per year. This increase in schools is slightly higher than the growth rate of the population.<sup>27</sup>

Acción Cultural Popular concentrates its efforts in radio courses. It claims to give literacy training to more than 200,000 Colombian peasants each year. It has trained more than 5,000 rural leaders and has organized several thousand rural citizens' groups.<sup>28</sup>

#### Extension for Development Conditions

Colombian agricultural extension is far too elaborate to document fully in one article. What has been said up to this point

is intended as background to the kinds of problems extension workers face and the kinds of services which have been attempted.

There are numerous charges that the United States pattern of extension does not work in Colombia.<sup>29</sup> Many complain that programs do not face the serious barriers which block rural development. The charge is clear and appears to be justified. Yet suggestions for alternative systems are often lacking.

Taking into account the problems we have discussed, there are at least four requirements which must be partly met if agricultural extension expects to have a significant impact on Colombian rural development.

1) The service must be concerned with how land, capital, equipment, labor, education, transportation and other inputs are allocated and controlled, not just with how they are used.

2) The service, or various services combined, must have a wide base of operation so that any one of Colombia's 1.2 million farmers has at least some chance of being helped.

3) The service must have organized farmer support which will defend it financially as well as politically.

4) The service must conduct at least some fact-finding applied research to more adequately identify current problems and make them a part of the extension program.

The way to meet these requirements is more obscure. No country in the world has yet devised an extension service to deal with the wide range of issues mentioned in this paper. Also we must remember that even in Colombia we are not starting with a clean slate. There are already large extension organizations established and operating.

In order to make maximum use of already existing agencies while at the same time trying to improve services to Colombian farmers, I would like to suggest the following.

First, that we recognize that the service needed by a modern commercial farm is considerably different from that required by a campesino. Two different types of extension services need to be organized -- one to provide individualized commercial service, the other directed at mass audiences. Both need to attack community as well as farm problems.

Second, we need to recognize that neither foreigners nor Colombians know enough about what will work in Colombia. In order to maximize the experimentation and minimize the magnitude of the errors, each agency should set up a series of pilot projects with a variety of trials. These might include experiments with free legal services to assist in land titling and settlement of local disputes, the formation of "citizens' committees" to pressure for local roads and schools, experiments with cooperative cultivation of the land, operation of machinery pools, provision for village plaza price reporting, the design of a simple set of weights and measures for farm products, and other similar ideas.

United States extension methods, insofar as they work in Colombia, are best adapted to the commercial farm group. These farmers are in the best position to take technical advice, obtain the necessary new inputs, change management practices and absorb the risk of adopting new practices. Yet they face some problems in common with the campesinos. Public services are lacking everywhere although the capitalized farm is often able to circumvent

the local system by installing private water, electricity, roads, airstrips and the like.

Extension agencies cannot hope to have much impact in directly providing high cost, broad-use services such as roads, schools, public health and public utilities. All require some viable form of taxation to be financed. But extension might play a role in getting the tax increased and efficiently used.

The Coffee Federation, INCORA, and to some extent other agencies, provide direct support to public services. But what they can do is limited by budgets and other organizational demands. In the long run it may be better to direct a much larger share of that investment to providing leadership and pressure against local and departmental governments to stimulate them to apply their taxation and public works instruments more effectively.

All extension services need to organize community development divisions, not so much to undertake projects of their own, but to assist farmers in pressuring government agencies for roads, schools, health facilities, public utilities, markets and other services. The real key to the success of extension in Colombia will be what it can do to help farmers unite into a force which will be able to carry out demands for better services. Local government will have to be improved in the process.

Extension programs for small farms should be oriented heavily to group approaches. There are two reasons for this. First, the number of campesinos is so large that no agency can hope to hire and train the needed personnel to work on an individual

basis. Second, many of the restrictions and barriers which a campesino faces are not because he lacks technical knowledge, but because he is to some extent victimized by other social classes as well as members of his own class. Under these conditions he needs to improve his "bargaining power" by combining his forces with others like him.

Nothing has been said in this paper about training. But as you can readily see, training for the kinds of programs outlined here would certainly have to be different from the agronomic training most extension workers in Colombia now receive. This will have to be the subject of another paper.

Several studies indicate that campesinos often have little incentive to increase production because new earnings are quickly skimmed off by marketing agents, money lenders, family sickness, the church, or ceremonial customs such as beer drinking.<sup>30</sup> There is no reason why extension organizations, if they had strong farmer support, could not challenge local power holders, work for more efficient local government, and establish systems of incentives for greater savings and investment.

Acción Comunal provides a good organizational tool which extension agencies could use in starting group activities. Some extension agents who act as promoters for local community action projects have had excellent success in organizing crop test plots, cooperatives, new land settlements and other activities. One agent employed in this way can reach many more farmers with greater impact than a technician trying to make individual farm calls.

Another possible organizational device is the "Farmer Users' Group" which was established by National Decree 755 of May of this year. This decree provides for the organization of farmer groups consisting of those who use public services -- just about everyone.

The instruments are available. What is needed now are agencies such as extension to provide personnel to help with the organizational task and to provide technical skills to undertake projects which are meaningful to campesinos. Extension services also need some fact-finding research services which will be oriented to defining rural problems in this complex setting. That job will not be performed by the agricultural experiment station nor, in most parts of Colombia, by the universities. A successful extension program will depend on its ability to adapt quickly to individual problems and to make changes in approach as the problems change.

This is the kind of extension that Colombia needs.