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A Study of the Radio Schools in Colombia and of Their Relevance for the Development of Education in Mozambique

Francisco de Sousa Monteiro

Loyola University Chicago

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A STUDY OF THE RADIO SCHOOLS IN COLOMBIA AND OF THEIR RELEVANCE FOR THE DEVELOPMENT OF EDUCATION IN MOZAMBIQUE

by

Francisco de Sousa Monteiro, S.J., Lic. Phil.

A Thesis Presented to the Faculty of the Graduate School of Loyola University, Chicago, in Partial Fulfillment of the Requirements for the Degree of Master of Arts

1968
ADVISER:

Professor John W. Wozniak, Chairman
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Grateful appreciation is also due to Acción Cultural Popular, especially to Mrs. Margarita Ortega Acosta, Director of the Department of Public Relations, for the material concerning Acción Cultural Popular promptly sent to me.
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CHAPTER I
EDUCATION IN COLOMBIA AND IN MOZAMBIQUE

Description of the Problem

A socio-economic-educational circle can be found in every country. In developed countries this circle is positive: a high standard of living creates better economic opportunities, which bring about a continuous educational development. In such countries a considerable amount of money is allotted to educational research which leads to a better education for an increasing number of people. And more schools at all levels are created. As a result of such educational progress, the social status of people improves; and thus the circle continues its spiral movement upwards.

In developing countries that circle is negative or vicious. Low social structures lead to a lack of economic opportunities; these lead to a lack of economic opportunities; these lead to lack of education which leads again to the first negative position, social stagnation. The major flaws of developing countries are the following: starvation and other social impasses, poverty, illiteracy. Such state of
affairs can last in a particular country for years, as well as for centuries. Fortunately these countries are not isolated. Geographically and culturally they are part of larger units which are the continents and the sub-continents. Each continent or sub-continent has its own resources which at a given time in history spring forward. When this happens, there is in that particular continent or sub-continent a socio-economic-educational revolution of worldwide consequences.

Here and there in today's developing continents, sparks of that revolution have appeared which have started to break through the vicious circles of the countries within their boundaries. One such spark is the movement of Radiophonic Schools which started in 1948 in a developing country of South America: Colombia. Since 1948 the Colombian Radio Schools have not ceased to increase in numbers and in educational achievements which have revealed themselves as having the utmost interest not only for Colombia, but also for other countries and other continents.

Mozambique in Southeast Africa, is, like Colombia, a developing country. Mozambique suffers from a socio-economic-educational circle whose gravity is common to many African countries. Like in all African countries, there is in Mozambique, a great need for swift, efficient, massive progress
The socio-economic-educational vicious circle which hinders the progress of Mozambique, must be broken quickly, and quickly must it be substituted by a positive circle which will allow Mozambique to be classified among the developed countries. This swiftness of action is the wind which blows all over Africa today. This is indeed a remarkable period in the history of Africa. Throughout the centuries other areas of the world have opened themselves to progress and to world recognition, like Africa is doing today. No other continent however has achieved what Africa is achieving in such a short period of time.

It is believed more and more today what the gateway towards full development is education, the last of the three factors that we have been considering as a circle. In the 1964 Conference of the African States and Unesco at Addis Ababa, it was decided to increase scolarization from 40% to 70% by 1970 in Africa, and to exterminate infant illiteracy in Africa by 1980.

Within the educational area itself, there are several vicious circles, mainly in developing countries. One such circle is poverty which hinders the capacity of country to build enough schools; the lack of schools hinders scolarization. Another vicious circle is the lack of teachers which impedes the proliferation of schools, this
factor impeding the increase of literacy. It is estimated that in 1950 there were 105 million adult illiterates in Africa. Today adult illiteracy is still up in the 90%'s in many African countries. In 1950, 47.5% of the adult population of Colombia was illiterate. From 1954 until 1962 the Radiophonic Schools alone have taught how to read, write and compute to 213,743 students, which is approximately 1.4% of the total population of Colombia for an average year between 1954 and 1962.

The use of radio in education, mainly to promote fundamental education in developing countries, is becoming more and more common. Colombia is internationally considered to be the leading country in the use of radio schools. The problem that this thesis endeavours to analyze is a comparison between Colombia and Mozambique, and between Colombia's radio schools within the general educational framework of Colombia, and the general educational framework of Mozambique. Would radio schools boost education in Mozambique? If so, to what extent? This is the problem discussed in this thesis.

Review of Related Literature

In reviewing the possible related literature, I consulted the material which follows, some of which was further used in this thesis: Africa (London), American Dissertations on Foreign Education, Annuaire Statistique
Most of the research done on educational broadcasting, has been limited to developed educational systems in which radio is used as a complement to the activity of the teacher in conventional classrooms. The Colombian radio schools,
however, are not a complement to but a substitute of the teacher.

Roger Clausse submitted a report to Unesco in 1949, concerning educational radio in the fight against illiteracy in general. In that report Clausse points out that against the two basic characteristics of illiteracy which are the lack of teachers and poverty, radio may be the ideal instrument to bring about a swift solution. Clausse argues from the two outstanding merits of radio which are the fact that radio requires only a few technicians, and that it is a very effective and practical tool of collective education. I intend to study these merits of the radio schools in the concrete situation of Colombia, and prospectively in Mozambique.

In 1950 J. G. Williams described Radio School Sutatenza (Colombia) as an experiment which may well show the way to a solution of the problem of fundamental education in the rural areas of Colombia. On the same study, Williams gives a favorable account of the pilot project which was going on in

---

1Unesco, Broadcasting to Schools, Paris, 1949, pp. 185-188.
Northern Rhodesia (today Zambia) on educational broadcasting. Along the same lines, in 1953 A. Terrisse and Ba Ibrahima studies a combination of educational broadcasting and of radio schools for the learning of French in Guinea.

E. K. T. Coles writing about Radio and TV in adult education, in 1965, stated that educational radio and television are still at the experimental stage in Africa, and that there is need for much thorough research.

In 1959 Sebastián Ferrer Martín evaluated the Colombian radio schools (also called Escuelas Radiofónicas de Acción Cultural Popular (ACPO), or Escuelas Radiofónicas de Suratenza (from the village where they first started) ) thus:

It is evident that the radiophonic schools do not obtain results in literacy as rapidly as a good teacher would in direct contact with his pupils, nor are the schools so effective since each student cannot receive the individual care he needs. But given the lack of teachers and of schools in

---


Columbia, as well as their uneven distribution, and the practically non-existent schools for adults in the rural zones, the radiophonic schools do alleviate the situation. ...For every 1,000 inhabitants there are 14.4 radiophonic schools and 1.5 government schools.5

Camilo Torres Restrepo and Berta Corredor Rodriguez made a sociological evaluation of the Radiophonic Schools of Colombia. Their conclusions are as follows:

The system of radiophonic schools in itself is effective. It is an adequate response to a real problem: the dispersion of the people.

Radio Sutatenza is a factor in social change, affecting principally the attitudes of the peasant, making him desire both technical and cultural progress. However, the improvements in kind and amount obtained do not correspond to what is needed.

The results obtained by Radio Sutatenza are more visible in the change of focus in the life of the peasant than in the change of standard of living. This is due primarily to the fact that Sutatenza has initiated an educational program and has not attempted a reform of structure.6

Finally, in 1965 Sister Primrose evaluated the effectiveness of the educational program of the Radiophonic Schools of Sutatenza on the life of the Colombian peasant

5Quoted in Sister Vincent Marie Primrose, A Study of the Effectiveness of the Educational Program of the Radiophonic Schools of Sutatenza on the Life of the Colombian Peasant Farmer, Ph. D. Dissertation at St. Louis University, 1965, manuscript xeroxed by University Microfilms, Ann Arbor, pp. 14-15.

6Camilo Torres Restrepo y Berta Corredor Rodriguez, Las Escuelas Radiofónicas de Sutatenza-Colombia, FERES, Fribourg-Bogota, 1961, pp. 53-54. Translated by Sister V. M. Primrose, o.c. pp. 16-17.
farmer. Sister Primrose drew the conclusion that the radio schools have effectively penetrated the mountain barriers of Colombia. According to Sister Primrose, Radio Sutatenza's most outstanding success is its training a considerable number of young rural leaders. Although only 49% of the young women and 46% of the young men cooperate with the radio schools after leaving the training institutes, this leadership program carried out by Sutatenza seems to have had good results.

Among the pitfalls that Sister Primrose found at Sutatenza, is the fact that the textbooks used by the radio schools are too difficult for an efficient literacy training; and the fact that the radio schools have failed to gain universal acceptance in Colombia, this being due to Colombia's cultural and social differences and to Sutatenza's lack of adaptation to those differences.?

As far as the writer knows, no study has been attempted on the particular topic of this thesis. After the research which has been carried out in Colombia; given the lack of previous educational radio experiments in Mozambique, and the lack of educational research in Mozambique; and given the urgency of promoting mass education in Mozambique, it seems that a planning comparative study between Colombia and Mozambique, with emphasis on statistical data, is what is

most needed at this moment. That is the gap that this thesis endeavours to fill.

**Scope and Procedures**

My purpose in preparing this thesis was to find out whether or not a radio school network similar to the one operating in Colombia, would meet the most urgent educational needs of Mozambique. Subordinated to this basic question are the following questions that this thesis tries to answer: did the radiophonic schools in Colombia succeed in speeding up Colombia's education? If so, what basic factors were involved in that success? Would those basic factors be reproducible in Mozambique? Which results would a radio schools network have on the education of Mozambique?

We should now specify the sense that the term "education" has throughout this thesis. When a country passes from a low level of education to an average level of education, its main characteristic is its reaching between 95% and 100% of adult literacy and of children enrollment in school. This means that in such a country practically all adults know how to read, to write and to compute, and practically all children of school age go to school.

When a country reaches a high level of education, such level is determined by the percentage of high school graduates who go on to college. The three stages of educational
development of a country -- underdevelopment, average level and high level -- are therefore interdependent. Both Colombia and Mozambique are developing countries, although Colombia is far more developed than Mozambique. Developing countries belong to the first category of educational underdevelopment. They are still struggling with the problems of illiteracy and scholarization. Since the whole educational development of a country depends upon literacy and scholarization, and since Colombia and Mozambique are developing countries, the term education throughout this thesis will have the primary meaning of literacy both of adults and children.

This thesis has a peculiar background. The Jesuit Fathers have been engaged in a variety of educational enterprises in Mozambique for the last 25 years. One of the results of their educational experience was the realization that in order to speed up massive education in Mozambique, a mass medium like radio, which apparently had been so successful in Colombia, should be resorted to. Since 1963 several Jesuit Fathers have been studying this matter in its different aspects. This thesis is a result of those efforts. The author himself worked for two years in Mozambique, in a variety of educational situations and projects, which dealt mainly with fundamental education. Rev. Domingos José da
Silva, S.J. who is currently getting acquainted with Radio Sutatenza in Colombia, has helped this endeavour by furnishing to the author his first hand observations.

The author conducted interviews with high Officials of the Education Bureau of the Ministry of Overseas in Lisbon, on the subject of the development of education in Mozambique, and on the possible advantages of a radio school network for Mozambique. Those interviews were not conducted in a formally academic way, given the exploratory rather than experimental nature of this thesis. They were however very fruitful for the purpose of this thesis, and their results are recorded in the end of Chapter IV and in Appendices B and C. Moreover the author made inquiries from the Colombian Ministry of Education and from Accion Cultural Popular which are recorded in Appendix A.

In order to further his knowledge of the results of experimentations made on educational radio elsewhere in Africa, the author contacted Rev. Fr. Tollenier, Director of the Service of Educational Radio (S.T.A.R.) currently in operation in Congo. The material concerning S.T.A.R. is partially presented in Appendix D.

Finally, an extensive study of written sources, both published and unpublished, and thorough comparisons of statistical data, constituted a major methodological procedure
in the preparation of this thesis, the reason for it being the exploratory, planning nature of this endeavour, and the practicality of its purpose. This thesis presents a report on the Colombia's radio schools and on Mozambique's education, and the conclusions that the author drew from the data that he presents.

**Limitations**

This thesis is not strictly speaking the result of an experimental research, for the reasons presented above. Inspite of the fact that its results tend to affect the whole educational situation in Mozambique, including the secondary, technical and higher education, these aspects are not explicitly focused upon in this study. This thesis is explicitly concerned mainly with adult literacy and with children scholarization.

Concerned as it is only with Colombia and with Mozambique, this thesis does not study neither other successful radio schools elsewhere in the world, nor the characteristics of African education as such. It was felt that these limitations were demanded by the particular nature of this study, by academic conciseness, and that they favored rather than hindered the entire result of this endeavour.
CHAPTER II
COLOMBIA AND MOZAMBIQUE

Geographic Factors

Colombia has an area of 439,519 square miles; the area of Mozambique is 297,731 square miles. The rural population of Colombia in 1951 was 61.3% of the total population of 11,548,172. Mozambique had in 1950 a population of 5,732,317 of whom 89% approximately was rural. In 1950 the largest city in Mozambique was Quelimane with a population of 1,422,259; there were a total of 8 cities in Mozambique having populations between 12,000 and 142,000 each. In 1951 the largest city in Colombia was Bototá with a population of 638,562; there were 23 cities with populations ranging between 28,000 and 638,000 each.\(^1\)

Topographically Mozambique (Map 2) is made up mainly of flat coastal lowlands, rising toward the west to a plateau 300 to 2,000 feet above sea level, and on the western border to a higher plateau (6,000 to 8,000 feet), with

\(^1\)Data taken from and based upon Encyclopedia Britannica, World Atlas, Chicago, 1957.
mountains in the north reaching a height of over 8,000 feet.

The Andes Mountains divide just North of Colombia's (Map 1) southern border with Ecuador into three separate chains. The western and central chains run roughly parallel with the Pacific coast, extending northward as far as the Caribbean coastal lowlands. The central chain is the highest range of the Colombian Andes, with several volcanic cones whose snow-covered peaks rise to 18,000 feet. On the margin of the Caribbean stands the Sierra Nevada de Santa Marta, an isolated block of mountains composed of a triangular massif of granite, some of the peaks of which reach as high as 19,000 feet. The area South and east of the Andean ranges is largely composed of river plains divided among the affluents of the Orinoco and Amazon rivers; immediately adjoining the mountains are open plains, but as the distance from the cordillera increases, the plains give place to almost uninhabited and largely unexplored jungle. The Pacific coastal area is also characterized by jungle vegetation. The difference between the high almost half of Colombia and the low part of Colombia is apparent in Map 1.

A low level of public health, malaria, malnutrition and inadequate medical facilities, are characteristics of both Colombia and Mozambique.² Tropical climate in the plains,

Map 1.
MAP OF COLOMBIA (From Encyclopedia Brittanica, World Atlas, Chicago, 1957)

Oblique Conic Conformal Projection
SCALE 1,800,000 1 Inch = 126 Statute Miles

ribbean Sea

Colombia

Caribe

Orinoco River

Amazon River

Ecuador

Peru

Brazil
cooler in the plateaus (Mozambique) and in the mountains (Colombia), is also a distinctive feature of both countries.

Comparing Maps 1 and 2 with Maps 3 and 4 we see that both in Colombia and in Mozambique the population is concentrated on the mountains (Colombia) or plateaus (Mozambique), the reason for it being that the highlands are more fertile and are easier to cultivate than the lowlands. Moreover the climate of the highlands is far better than the climate of the lowlands in tropical countries like Colombia and Mozambique.

Map 4 shows that the largest part of Colombia has a population density of only 0 to 19.3 persons per km² (0 to 50 persons per square mile). In fact 69% of Colombia's soil is unexploited. Likewise, Map 4 shows that only a tiny portion of Mozambique has a population density over 19.3 persons per km² (over 50 persons per square mile). The United States of America, for instance, has a population density over 19.3 persons per km² in more than half of its area.

DISTRIBUTION OF POPULATION

One dot represents 50,000 persons
Assuming that each dot is a small sphere, cities of 500,000 or more are represented by spheres which are proportionate in volume to the metropolitan population.

- cities of 500,000
- 0 cities of 5,000,000

This map represents the distribution of population by showing the absolute numbers in terms of dots.
DENSITY

19.3 - 38.6 persons per km²

1.9 - 19.3

MOZAMBIQUE
TABLE 1
RATE OF INCREASE OF POPULATION AND OF POPULATION DENSITY IN
COLOMBIA AND IN MOZAMBIQUE

<table>
<thead>
<tr>
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<th>Colombia</th>
<th>Mozambique</th>
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<tr>
<td>Population</td>
<td>10,545(^a)</td>
<td>6,959(^a)</td>
</tr>
<tr>
<td>Pop. Density</td>
<td>9.3(^b)</td>
<td>9(^c)</td>
</tr>
<tr>
<td>1947</td>
<td>1965</td>
<td>Rate of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase</td>
</tr>
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\(^a\) Thousands.
\(^b\) Persons per km\(^2\).
\(^c\) 1964.
\(^d\) 1937.

Table 1 shows that both in Colombia and in Mozambique, the rate of increase of population is higher than the rate of increase of population density. This means that the dispersion of the population tends only to increase. The dispersion of the population is one of the geographic factors that makes the swift expansion of conventional education to be a practical impossibility in Colombia and Mozambique. Since the population is spread over so large territories, in thousands of small communities formed by a handful of families; and given the distances, the lack of roads and the
inhospitableness of huge areas, the building of conventional schools and the assignment of teachers for those schools, in such proportion that the whole population in school age would be able to go to school, is, for a long time to come, little less than an utopia.

**Socioeconomic Structures**

Three fourths of the Colombian population is rural, the urban population being only 25%. The veredas where the peasants usually dwell, are so hidden in the mountain vastness that one could live in Colombia for a long time without ever becoming aware of them.

The conditions of the peasants' homes, 68% of which have dirt floors, 92.6% of which lack water; 88.7% of which have no outhouses; and 97.4% of which are without bathing facilities, are heightened by the lack of knowledge on the part of the women, in housekeeping and child care. Meals are monotonous and badly cooked. 55% of the people drink no milk; 65% eat no meat; 75% no fruit; and 85% no vegetables. The efficient criterion to measure malnutrition in a given population is its coefficient of mortality for the age group of the 1 to 4 years old. There is malnutrition when the coefficient is above 10%. In Columbia the coefficient of

---

4 Gustavo Perez Ramirez, *o.c.* p. 35.
5 Vincent Marie Primrose, *o.c.* pp. 23-25.
children mortality was 42% in 1957.  

The deficiency of hygienics is shown most evidently in the high coefficient of mortality of the total population: 12.1%. In 1958 there were in Colombia 2.5 doctors for each 10,000 inhabitants, two thirds of which lived in cities.  

The mixture of the Colombian population is shown in the fact that in 1951, the percentage of people living 3 to 5 persons in a room was 62.3%. Only 30.2%, which is less than 1/3 of the population lived 1 to 2 persons in each room. Since the Colombian population increases by 2.2% a year, the housing problem tends to become increasingly aggravated. The main cause of this problem is the low level of income of the population. 

4.6% of the Colombian population gets 40.6% of the national income, whereas 95.4% of the population -- almost the entire population -- receives only 59.4% of the national income. This situation is common to the whole Latin American continent, since 20% of its population receives only 50% of the continent's income. The per capita yearly income of Colombia is $252 (in comparison with $2,324 in the U.S.A.; $285 in Japan; $423 in Venezuela; $55 in Ecuador; $52 in

---

6 G. Perez R., o.c. p. 101
7 Ibid., pp. 103-104.
Tanganyika -- in 1958).

The distribution of wealth is uneven also for the rural population considered alone. 6.7% of the rural population in Colombia receives 29.3% of the rural income, whereas 93.3% receives only 70.7% of the rural income.\(^9\) Gustavo Perez quotes Fourastié as he says:

"the man who is undernourished and who lacks reserve funds inspite of a 12-hour daily work, lives a precarious and unstable life which keeps him practically from any long term concern, and thereby from any true intellectual and often enough even moral concern."\(^{10}\)

Coming now to analyse somewhat closer the family structure in Colombia, we find that 48% of the total population is less than 15 years old. This fact indicates the high indexes of numerical composition of the family in Colombia. Consequently, the Colombian head of the family has a heavy family burden on his shoulders, and needs therefore an adequate family budget.\(^{11}\) We just saw above, the inadequacy of the family budget of the majority of the population of Colombia.

Several sociological studies point to the high expenditures in food, in Colombia. These are not due to the fact that people have a good and abundant diet, as we have seen, but to the fact of the high costs of food and of the low

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\(^9\)Ibid., p. 89.
\(^{10}\)Ibid., p. 91.
family income. In a sample, 50% of the families were found to have yearly nutrition expenditures which exceeded their yearly income. Vigginia Gutierrez quotes Duque Gómez saying that the worst and most serious impact that economic and cultural deprivation makes on the peasant of Manta (a district of Colombia that was taken as a sample) is his poor diet. Somewhat indicative of the Colombian poverty are the following percentages of what a low income community spends. The community chosen was Chambacú, Cartagena, which in 1955 had a population of 8,687 persons.

80.4% in food
4.9% in house rent
4.3% in various services
3.6% in combustible
2.6% in education
2.3% in other items
1.9% in transportation.

The family structure of this same community is as follows:

42% live in concubinage
28% are married
16% are single.  

Another characteristic of poverty in Colombia is the high consumption of alcohol. Alcohol gets a good part of the family budget; the malnutrition of the family is related to this fact. There is for instance relatively small consumption

12 Ibid., pp. 69-70.
13 Ibid., pp. 76-77.
of milk, which ought to be a basic element in a diet for children.

Among the low income urban population, the sense of economic responsibility of the male head of the family is far less than what it ought to be. He thinks that his contribution towards the welfare of his family is a gift that he freely makes to his family, rather than a basic duty for him. As a consequence, he will spend a good part of his money for his own recreation, v.g. in beer, liquors, etc., apart from the interests of his family, or even against the vital needs of his family. If the relations between husband and wife or between the man and his woman companion, are good, the woman and her children will have the benefit of an average diet; if not, they will have to suffer a minimum diet or even the complete absence of the male contribution to their nutrition.

Another social problem in Colombia is the imbalance in spending whatever money the family may possess. Too much is spent in utilities. The peasant farmer eats and drinks in 2 days or in one night the whole of his weekly wages, condemning himself by so doing, to endure hunger for the rest of the week.\(^{14}\)

The social situation of Mozambique has been less

\(^{14}\text{Ibid.}, \text{ pp. 82-86}\)
studied than that of Colombia. Socially speaking, Mozambique is still in a much worse condition than Colombia. In 1954 Mozambique had about .41 doctors for each 10,000 inhabitants (2.5 in Colombia). Mozambique had only 80 hospitals. Around 1951 Mozambique had .6 beds per 1,000 inhabitants, whereas Colombia had 2.7 beds, the U.S.A. 9.5 and France 11.9.

Mozambique is mainly an agricultural country. It has areas of plantation agriculture, collecting agriculture and seasonal grazing. Over 90% of the population of Mozambique lives almost entirely by subsistence farming. Although an estimated 1/3 of the total land area is suitable for cultivation, only about 1% of the land is farmed. 2% of the total population cultivated in 1954 332,111 hectares (798,654 acres) of cane sugar, fresh fruit, corn, copra and sisal. 98% of the population farmed an estimated 500,000 hectares (1,235,500 acres) of foodstuffs necessary for their survival, of cotton, corn, cashew nuts, rice, peanuts, manioc, copra and other crops. Some 75 million hectares (185,325,000 acres) of land were undistributed at the end of 1955. Some 90% of the total land area is forested but commercial production of lumber is still small.

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16 The Worldmark Encyclopaedia, p. 835.
The poverty of the largest part of the population of Mozambique is evident everywhere. Lack of portents and sometimes complete hunger lead to a variety of diseases and to a high coefficient of infant and adult mortality (and therefore to a short life expectancy).

Around 1950 the net increase between birth and death rates (natural increase per 1,000) was as follows: 17

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate (per 1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozambique</td>
<td>2.4</td>
</tr>
<tr>
<td>Colombia</td>
<td>22.5</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>13.9</td>
</tr>
<tr>
<td>France</td>
<td>7.9</td>
</tr>
</tbody>
</table>

these rates being an indication that in Mozambique the mortality is too high, and that in Colombia the population explosion is too high. The life expectancy was in 1958:

- 49 years in Colombia;
- 63.6 years in France;
- 71 years in the U.S.A.; and between 45 and 50 years approximately in Mozambique.

The houses in Mozambique are mostly huts built with branches of trees and mud; the roofs are made of straw. Sometimes people as well as their chickens and sheep dwell in the same house.

Table 2 gives a brief picture of the economic situations of Colombia and Mozambique.

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18 Gustavo Perez Ramirez e Isaac Wust, La Iglesia en Colombia, FERES, Friburgo y Bogotá, 1961, p. 44.
### TABLE 2

**BRIEF VIEW OF THE ECONOMICS OF COLOMBIA AND MOZAMBIQUE**

<table>
<thead>
<tr>
<th></th>
<th>Colombia</th>
<th>Mozambique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Production</td>
<td>135,478,049</td>
<td>2,008,019</td>
</tr>
<tr>
<td>Number of Manufacturing Establishments</td>
<td>8,217</td>
<td>157</td>
</tr>
<tr>
<td>Total Imports</td>
<td>546,723,139</td>
<td>83,497,994</td>
</tr>
<tr>
<td>Total Exports</td>
<td>596,131,576</td>
<td>61,693,728</td>
</tr>
</tbody>
</table>


*a* U.S. Dollars.  
*b* 1952.  
*c* 1954.

The budget of Mozambique increased by 586.8% from 1938 until 1962. The national income of Colombia increased by 545% from 1950 until 1963. These increases seem to be spectacular; true they reveal the potential wealth of the two countries. However the socio-economic situation of Colombia and of Mozambique is still one of poverty, malnutrition, exploitation of their wealth by few persons, and heavy dependence upon other nations for their survival.
The yearly income per capita was in 1958:

2,324 U.S. dollars in the U.S.A.
285 " " Japan
197 " " Colombia (1951)
67 " " Mozambique.

Colombia and Mozambique are underdeveloped rural countries. Such socio-economic physiognomy both results and conditions the educational structures of both countries. This is what we are about to examine in detail in the following chapters.
CHAPTER III
COLOMBIA AND ITS RADIO SCHOOLS

The Radio Schools in the General Context of Colombian Education

Unesco experts have determined that the achievement and maintenance of functional literacy in a society requires three things: (1) primary school attendance for at least four years for practically all children; (2) an extensive adult literacy campaign; and (3) a program of continuing adult education. A literacy rate of 30 to 40% may be a prerequisite to per capita incomes exceeding $200 in most cases and $300 in all cases.¹

In 1951 Colombia had a yearly income per capita of $197, an adult literacy rate of 62%, and an adjusted school enrollment ratio at the first and second levels (percentage ratio based on the enrollment at the 1st and 2nd levels of education, and the estimated population 5-19 years old, adjusted to the actual duration of schooling) of only 30% (1950) -- Poland in 1950 had an adjusted school enrollment ratio of 72%--.

¹Unesco, Adult Literacy and Economic and Social Development, 1964, p. 2.
In 1963 the adult literacy rate in Colombia was still less than 67%. In the same year 42.2% of the population 10 to 17 years old were illiterate. 2

The total illiteracy rate in Colombia dropped from 57.7% in 1918 to 41.8% in 1960; however the absolute number of illiterates doubled from 2,215,000 in 1918 to 4,502,070 in 1960. 3 The reason for this difference is the population explosion. 4

An average of 62.3% of the rural population is illiterate. One of the reasons for such high level of illiteracy is the fact that there are schools for only 58% of the children of school age. 1,115,000 children (47% of all Colombian children) do not go to school each year. Moreover the literacy instruction given in school is of inferior quality since the curriculum is too academic and the teacher body is deficient. 5 One of the major conclusions of Sister Primrose's dissertation (quoted above) is that the Radio Schools use textbooks which are too difficult, in their literacy campaigns.

5. G. Perez R., La Iglesia en Colombia, pp. 45-47.
The educational problems of Colombia are further increased by the fact that 53% of the children who do go to school in rural areas, drop out at the end of the 1st year of primary school. Out of 100 children who start primary school in the rural areas, only 6% go on to the third grade, and only 1% to the 4th grade. Only 3% of all the children of school age in Colombia, receive a 4th grade education. The North American, Russian or Swiss child studies 12,000 hours; the Colombian child studies only 2,100 hours.

There are not enough teachers for the needs of Colombia. In 1960 there was a shortage of 17,230 teachers in relation to the shortage of classrooms, in Colombia. The shortage of teachers is however not only quantitative but also qualitative. 42.8% of the teachers in urban areas and 30.4% of the teachers in rural areas (a total of 56%) do not have a diploma.

According to a study directed by Alejandro Bernal Escobar, on the education in Colombia, from 1951 through 1963 there was discrimination between urban schools (having a 5-year curriculum) and rural schools; the rural schools were further divided into rural schools for one sex (4-year curriculum) and alternated rural schools (2-year curriculum).
Such a discriminatory system was found to be inefficient and structurally wrong. In 1963 a new law was issued which unified the education of both urban and rural areas, and extended it to 5 years. As a consequence, the peasant child was given the same opportunities that before were reserved exclusively to the urban child. 7

The vocational and technical secondary education in Colombia includes the following subdivisions: industrial education (9 to 5-year curriculum) which is operative mainly in industrial areas; technical institutes (7-year curriculum) which is operative mainly in major industrial centers; and commercial education (4 + 2 years duration). There is also agricultural and cattle-rising education which is classified thus: (1) Vocational agricultural (5th year of primary education + 2 years); (2) Aptitude courses for peasants and their families in areas under influence of vocational schools; (3) Normal agricultural (6 + 2 years).

The requirements for anyone to enter the vocational agricultural schools are the following: to be the son of peasants; to have studied in a rural primary school; to have good health; the parents should have some income.

7 A. Bernal E., o.c. pp. 68-69.
There are also the following types of vocational education: Feminine Vocational Education which is further divided into: Feminine Politechnical (5th year of primary + 3 to 5 years); Schools to train women for visiting rural homes (4 years after the 5th year of primary school; 18 years is the minimum age required for admission to these schools); and Schools of Auxiliaries of rural nurses (3 years after the 5th year of primary; 18 years of age required for admission).  

In 1944 the educational budget of Colombia was 5.2% of the National budget. In 1950 the public expenditure in education was still only 5.31% of the national budget. 1957 marks a landmark in education in Colombia. A quinquennial educational plan was published by the Ministry of Education in five volumes entitled "Informe del Proyecto para el Plan Quinquenal"; moreover, a law was issued assigning 10% of the yearly national budget to public education. In 1960 the educational budget was however still only 9.4% of the national budget. In 1961 it was 9.57%. In 1962 it increased sharply to 15.17%; in 1963 it decreased to 13.78% and in 1964 it was 14.39%. The percentage increase of the national budget assigned to education between 1958 and 1962 was 277%.  

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8 Ibid, pp. 67-75.
in 1962 the National and Departmental Government of Colombia allocated 41% of the total amount of its educational budget to primary education, this being the largest single item followed by higher education with 15.7%; the lowest item in the educational budget was scientific research with .4%. In spite of its high place within the educational budget, primary education is still one of the most serious problems that the Colombian Government has to face, since 85% of the primary schools are owned and supported by the Government, and since primary education is free. Private education is concentrated mainly on the area of secondary education. A law was issued in 1960 determining that starting in 1965, all primary education teachers should be paid by the Government; the Government would also pay for all educational materials and for 75% of the cost of new buildings, as well as for school insurance expenses and for the schools' supervisors. 9

In 1962 there were in Colombia the following public institutions designed to give a community development education:

1,300 night centers of literacy training for adults,
21 full time day centers of literacy training for adults,
20 teams of fundamental educators working among developing communities

9Ibid., pp. 92-95.
20 rural "nuclei" working in more than 100 rural communities for the development of the integral community welfare; 22,827 youths and adults were reached by these nuclei.

4,736 boards of community action, engaged in 2,840 social welfare activities, 1/3 of which are educational (schools, literacy campaigns, etc.).

Among the public services for fundamental agricultural education, there were in Colombia in 1962:

- 5 rural cooperatives engaged in the organization of 5 pilot farms,
- 600 clubs with a membership of more than 12,000 youths,
- 70 clubs with a membership of more than 807 housewives who receive practical training in housekeeping,
- 8 programmes of development of the native communities.

The following private institutions are engaged in socio-educational work in Colombia:

The National Federation of Coffee-makers is promoting a campaign in 71,930 farms; the campaign consists in teaching how to use machinery in the cultivation of the coffee;

The Institute of Tobacco Development and the Institute of Cotton Development are also carrying out campaigns similar to the previous one, along with literacy training campaigns;

The Social Crusade, staffed by Colombian leaders, is engaged in literacy and social campaigns.10

According to Bernal Escobar, among the activities in which the Catholic Church is engaged in Colombia, Acción Cultural Popular is the one which has had greater expansion. 11

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10 Ibid., pp. 107 ff.
11 Ibid., pp. 223 ff.
The idea of radiophonic teaching has caught on quickly in other Latin American countries, until today every one of them can boast its radio schools.\(^{12}\) Sister Primrose sketches the story of the Radio Schools in Colombia:

In 1947 a newly ordained priest, José Joaquín Salcedo, was assigned to a rural mountain parish in Sutatenza, Colombia. Faced by the almost impossible task of catechizing his parishioners, Father Salcedo combined his hobby of radio operator with his profession of priest-teacher and gave the world a new medium of education: radiophonic schools. Having begun with the idea of reaching the people in order to give them religious instruction, Father Salcedo soon developed an integrated plan of fundamental education for the adult peasant of Colombia. As a result, lessons in health, literacy, arithmetic, agriculture, and religion have been broadcast daily for the past twenty years. These instructions are received by the peasants over transistorized radios in their little mud huts which are scattered throughout the Andes. The most educated member of the family, who can at least read and write the letters of the alphabet, directs the classes as they come over the radio.

For the parish records, a strict account is kept of those who attend the radio classes and examinations from Radio Sutatenza are taken at the end of the school term. Father Salcedo's plan has grown to include supplementary educational materials written to accompany the radio instruction, and training institutes for the preparation of leaders for the radiophonic schools.\(^{13}\)

Table 3 shows the chronology of the Colombian Radio Schools

\(^{12}\) V. M. Primrose, o.c. p.2

\(^{13}\) Ibid., pp.1-2.
<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>May 31</td>
<td>Fr. Salcedo is ordained to the priesthood.</td>
</tr>
<tr>
<td></td>
<td>August 23</td>
<td>Fr. Salcedo arrives at Sutatenza in the Andes, as an assistant Pastor.</td>
</tr>
<tr>
<td></td>
<td>September 28</td>
<td>The first transmitter (100 watts) and the first radio set are solemnly blessed.</td>
</tr>
<tr>
<td></td>
<td>November 19</td>
<td>First cultural program is transmitted and received in the three first battery sets.</td>
</tr>
<tr>
<td>1949</td>
<td>October 18</td>
<td>The Radio Schools under the name of Acción Cultural Popular receive official approval.</td>
</tr>
<tr>
<td></td>
<td>July 13</td>
<td>The third transmitter (1,000 watts) is made ready for operation.</td>
</tr>
<tr>
<td>1954</td>
<td>October 20</td>
<td>An Institute of training of rural leaders is opened in Sutatenza, with capacity for 125 students.</td>
</tr>
<tr>
<td>1955</td>
<td>August 15</td>
<td>Radio Sutatenza starts its transmissions from Bogota.</td>
</tr>
<tr>
<td>1958</td>
<td>June 29</td>
<td>29,000 copies of the first issue of the weekly newspaper &quot;El Campesino&quot; are put in circulation.</td>
</tr>
<tr>
<td></td>
<td>September 16</td>
<td>The headquarters of ACBO are transferred to Bogota.</td>
</tr>
<tr>
<td>1960</td>
<td>June 12</td>
<td>In Sutatenza, two new transmitters with 50 and 10 kilowatts start transmitting the programs of Sutatenza's secondary course.</td>
</tr>
<tr>
<td>1966</td>
<td>August 15 and 16</td>
<td>The Presidents of Chile and of Venezuela visit the ACBO headquarters in Bogota.</td>
</tr>
</tbody>
</table>
|      | September 1st | Mons. Salcedo receives the award "Executive" from the International Society of Radio and TV Professionals (Holland) in recognition of his outstanding
contributions for the world broadcasting.

Sources: ACPO, Informe Anual, 1966, pp. 112-115.

From 1958 until 1966, 1,294 persons (Bishops, Priests, Religious, Government officials, Ambassadors, Reporters, experts in education, economics, sociology, radio and TV. and students) from 40 countries of Africa, America, Asia and Europe, have visited the Radio Schools in Colombia. 14

Figure 1 shows the diversification of the activities of ACPO, all centered upon radio. These activities which are geared towards the instruction and betterment of the life of the Colombian peasants, are the following (Figure 1 from top to bottom):

1) Schools of training of rural leaders (Institutos Campesinos). In these Schools, 250 men and 300 women a year, receive an intensive 6-month training in community action. Since 1954 until 1966, 2,491 men and 2,700 women (total: 5,191 leaders) have graduated from these schools which are

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14 These and the following data, figures and map were taken from the sources above indicated for Table 3, and from: ACPO, Sus Principios y Medios de Acción, 4th ed., 1966.
Elementos de acción de ACPO
Para la educación integral cristiana del pueblo.

Correspondencia
Periódico
Institutos Campesinos
Radio
Cartillas
Grabaciones
Cursos de Extensión
Biblioteca del Campesino

Fig. 1. ELEMENTS OF ACTION OF ACPO.
now three. Out of these leaders, 46% of the men and 49.5% of the women will work actively for ACPO community programs. In 1966 these leaders had set up 5,400 radio sets; organized 6,852 Radio Schools; visited 13,164 Radio Schools; initiated 9,030 immediate auxiliaries in their work at the radio schools; and helped out in the following social improvements:

### TABLE 4

**SOCIAL BETTERMENTS CARRIED OUT UNDER THE LEADERSHIP OF ACPO.**

<table>
<thead>
<tr>
<th></th>
<th>1966 Activity of Rural Leaders</th>
<th>ACPO Total 1954-1965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houses improved&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1,032</td>
<td>72,048</td>
</tr>
<tr>
<td>New homes</td>
<td></td>
<td>29,871</td>
</tr>
<tr>
<td>Rural aqueducts</td>
<td>564</td>
<td>23,830</td>
</tr>
<tr>
<td>Sports fields</td>
<td>1,002</td>
<td>8,929</td>
</tr>
<tr>
<td>Kitchen gardens&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1,932</td>
<td>81,347</td>
</tr>
<tr>
<td>Latrines</td>
<td>642</td>
<td>35,444</td>
</tr>
<tr>
<td>Bridges built&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td>5,099</td>
</tr>
<tr>
<td>Trees planted</td>
<td></td>
<td>3,804,805</td>
</tr>
<tr>
<td>Fosses of fertilizers</td>
<td>1,788</td>
<td>110,198</td>
</tr>
</tbody>
</table>


<sup>a</sup>See Figure 2.

<sup>b</sup>See Figure 3.

<sup>c</sup>See Figure 4.
Fig. 2. CAMPAIGN FOR THE BETTERMENT OF THE HOME.

CAMPAÑA DE MEJORAMIENTO DE LA VIVIENDA
CAMPANÁ
DE MEJORAMIENTO
DE LA NUTRICIÓN

EL HOMBRE DEBE SENTIR LA NECESIDAD DE UNA MEJOR NUTRICIÓN PARA EL Y PARA SU FAMILIA; TIENE ADENAS QUE PROCURAR LA CONSECUICIÓN Y PREPARACIÓN DE LOS ALIMENTOS NECESARIOS PARA TODOS.
EL HOMBRE SUJETO ES EL FUNDAMENTO DEL DESARROLLO VERDADERO.
Mail (Correspondencia): from 1953 until 1966 there were 457,764 letters received from and answered to the peasants of Colombia, at ACPO.

The weekly newspaper (Periodico) El Campesino: from 1950 until 1966 -- 32,543,517 copies of El Campesino circulated in Colombia; El Campesino is the largest weekly and the third larger of all periodicals in Colombia, circulation wise.

Radio: this central activity of ACPO we shall consider in greater detail in the next subdivision of this chapter.

Primers (Cartillas): from 1948 until 1966, 296,986 collections of 5 Primers (Health, Alphabet, Number, Land, I Believe in God) were distributed free to the peasants, along with:

1,938,008 notebooks
1,939,957 pencils,
10,048 basketballs
475,321 catechisms,

and hundreds of thousands of other primers (on agriculture, the cow, the pig, the poultry-yard) and pamphlets.

Records and tapes (Grabaciones): from 1963 to 1966 ACPO printed 596,065 records; its four broadcasting services were equipped with 15,836 records, in 1966.

Extension Courses (Cursos de Extensión) are given to Priests and Lay leaders. Their goal is to further the
knowledge of the participants, on ACPO activities and on the technique of teaching by radio. From 1954 until 1966 there were 1,033 such courses which were attended by 59,890 persons.

(8) **Rural Libraries (Biblioteca del Campesino):**

in order to maintain and further the literacy of the neo-literate, ACPO has published 10 collections of 10 books each on the following subjects: the truth, the home, famous biographies, general culture and history, jokes and sports, geology, sciences, literature, arts, and other world major events.

We shall examine now in more detail the contribution that the radio schools made towards the educational development of Colombia, by means of comparing the achievements of the radio schools with the achievements of the conventional schools in Colombia.

**Contribution of the Radio Schools to the Educational Development of Colombia**

In Colombia the radio schools were an educational success because they reached people who were never otherwise reached by conventional schools or teachers. ACPO's adult education programs received a favorable reaction from the peasants who through their radio were able, for the first time to make contact with the modern world. Figure 5 shows
the complex organizational structure of the radio schools. In 1966 ACPO was staffed by 29,225 persons. Map 5 shows that the radio schools operate mainly on the mountain chains, where the population density is higher (see Maps 3 and 4).

From Sutatenza, 4 short wave transmitters with a total of 95 kilowatts cover the whole country. 4 other long wave transmitters -- one in Sutatenza (Boyacá) (250 watts); one in Belenoito (Boyacá) (1 kilowatt); one in Bogotá (Cundinamarca) (10 kilowatts); and one in Medellín (Antioquia) (10 kilowatts) -- cover the central part of the Andea mountains. The districts where the 4 long wave transmitters operate -- Antioquia, Boyacá and Cundinamarca -- are also the three leading districts in the whole country in: number of radio schools; number of illiterate persons registered in the radio schools; number of copies of the weekly "El Campesino" sold; number of extension courses organized; and number of persons who attended the extension courses; number of rural leaders who were trained in the Rural Institutes.

The radio schools operate at home where relatives and neighbors gather together for one hour each day (the same program is repeated at four different hours every day, so that the peasants may choose the time most convenient for them) to listen to the 2,512 hours yearly transmitted for
Map 5. DISTRIBUTION OF RADIO SCHOOLS IN COLOMBIA, 1962.
literacy students; and to the 9,293 hours of other cultural programs transmitted yearly for illiterates.

One hour of literacy instruction by radio is divided into: 25 minutes of reading and writing; 18 minutes of arithmetic; and the rest of the time is spent in instructions on health, rural economy, and spirituality.

The classes are supervised by an "Immediate Auxiliary", the last position in the hierarchy of the staff of ACPO. In 1966 there were 22,129 Auxiliaries (a sensible decrease from 28,535 that they were in 1965). In class, the Auxiliary coordinates the listening to the radio with the use of the primers, charts, notebooks, pencils, and the weekly "El Campesino".

If a group of students (children and adults) builds a sports field, ACPO gives them free a ball and a pair of rims for basketball. From 1948 until 1966 ACPO gave out 8,268 pairs of rims and 10,048 balls, to the peasants.

A total of 10,873 hours of classes and cultural programs are transmitted yearly for the neo-literates. In 1965 there were 120,324 neo-literates (called "adelantados") registered in the radio schools. Out of these, 66,484 took the final exam and 69.15% of these were approved and received the secondary course diploma.
Concerning the use of the radio schools at home, Sister Primrose found the following facts:

One impression gained by the writer and later confirmed by the Leaders of Sutatenza was that family schools tend to become audition centers rather than schools. The members of the family tired after a strenuous day's work, are content to play the radio without going to the trouble of using a classroom procedure. One of the conclusions of the report on the "Use of Radiophonie Teaching in Fundamental Education" made in El Salvador and Honduras was that literacy is higher among students in large classes than in smaller ones. The reasons set forth by Mr. John A. Broedeck, the chief investigator of the report, are the better classroom procedures that prevail with a large group, the stimulation of other learners, and the fact that large groups are usually found near the center of the town where better teachers are available and where closer supervision by the priests is possible.

The growth of family schools in Colombia has been a natural as well as a directed outcome. It was natural insofar as all the peasants that could possibly afford a radio wanted to buy one, especially if a neighbor had one. It was a directed outcome insofar as the priests who had to settle the disputes and problems that arise from bringing together people who had had little social experience, began to think that neighborhood radio schools were being introduced too soon to the peasant groups. 15

We come now to the core of this thesis. We want to find further numerical evidence of the contribution of the Radio Schools to the educational development of Colombia. Table 5 shows that whereas there was an increase of 156% in the students of fundamental and rural education (adult and children) between 1950 and 1963 in Colombia, the increase of

15 V. M. Primrose, o.c. pp. 160-161.
### TABLE 5

**FUNDAMENTAL AND RURAL EDUCATION IN COLOMBIA IN 1950, 1958, 1963.**

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>1958</th>
<th>1963</th>
<th>Rate of Increase 1950-63</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Official urban</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and rural</td>
<td>11,522</td>
<td></td>
<td>20,214</td>
<td></td>
</tr>
<tr>
<td>primary schools</td>
<td>758,156</td>
<td></td>
<td>1,786,556</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>17,448</td>
<td></td>
<td>44,250</td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Private urban</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and rural</td>
<td></td>
<td>596</td>
<td></td>
<td>2,537</td>
</tr>
<tr>
<td>primary schools</td>
<td></td>
<td>50,338</td>
<td></td>
<td>309,852</td>
</tr>
<tr>
<td>students</td>
<td></td>
<td>2,049</td>
<td></td>
<td>13,564</td>
</tr>
<tr>
<td>teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total primary schools</strong></td>
<td>12,118</td>
<td>17,738</td>
<td>22,751</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>808,494</td>
<td>1,493,123</td>
<td>2,096,408</td>
<td>159%</td>
</tr>
<tr>
<td>teachers</td>
<td>19,497</td>
<td>38,061</td>
<td>57,814</td>
<td></td>
</tr>
<tr>
<td><strong>Official adult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>night schools</td>
<td>290</td>
<td>354</td>
<td>194</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>13,230</td>
<td>17,704</td>
<td>11,203</td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td>389</td>
<td>502</td>
<td>366</td>
<td></td>
</tr>
<tr>
<td><strong>Private adult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>night schools</td>
<td>4</td>
<td>10</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>526</td>
<td>727</td>
<td>1,770</td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td>16</td>
<td>35</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td><strong>Total adult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>night schools</td>
<td>294</td>
<td>364</td>
<td>216</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>13,756</td>
<td>18,431</td>
<td>12,973</td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td>405</td>
<td>537</td>
<td>447</td>
<td></td>
</tr>
<tr>
<td><strong>Official schools for peasant women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Private schools for peasant women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total schools for peasant women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total fundamental education for adults</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>schools</td>
<td>294</td>
<td></td>
<td></td>
<td>263</td>
</tr>
<tr>
<td>students</td>
<td>13,756</td>
<td></td>
<td></td>
<td>15,268</td>
</tr>
<tr>
<td>teachers</td>
<td>405</td>
<td></td>
<td></td>
<td>753</td>
</tr>
<tr>
<td><strong>Rate of Increase 1950-63</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1950</td>
<td>1958</td>
<td>1963</td>
<td>Rate of Increase 1950-1963</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Total fundamental education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>schools</td>
<td>12,417</td>
<td></td>
<td>23,014</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>822,250</td>
<td>2,112,172</td>
<td>156%</td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td>19,902</td>
<td>38,598</td>
<td>58,567</td>
<td></td>
</tr>
<tr>
<td>Radio Schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>schools</td>
<td>303</td>
<td>17,162</td>
<td>24,059</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>3,636</td>
<td>145,248</td>
<td>227,735</td>
<td>6.17%</td>
</tr>
<tr>
<td>teachers</td>
<td>21,317</td>
<td>24,101</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total fundamental education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>schools</td>
<td>12,715</td>
<td></td>
<td>47,073</td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>825,886</td>
<td>2,340,168</td>
<td>183%</td>
<td></td>
</tr>
<tr>
<td>teachers</td>
<td>59,915</td>
<td>82,668</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio Schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total public expenditure in education</td>
<td>125,100</td>
<td>194</td>
<td>5,914</td>
<td>554,240</td>
</tr>
<tr>
<td>primary education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adult education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>radio schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>total</td>
<td>34,686</td>
<td>316,527</td>
<td>(17,690)</td>
<td>(90,859)</td>
</tr>
<tr>
<td>In the ColombianEducation, the Radio Schools represent an increase of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>students</td>
<td>.44%</td>
<td></td>
<td>10.7%</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** 1 to 8 - See Page 56.

**Sources:**
- ACPO, Las Escuelas Radiofónicas y su Labor de 1957 a 1963.
- Departamento Administrativo Nacional de Estadística, Anuario General de Estadística, Colombia 1963, Colombia 1965.
FIGURE 6

RATES OF INCREASE OF POPULATION, LITERACY AND FUNDAMENTAL EDUCATION IN COLOMBIA

Rate of increase of Population

1937-1947 xxxxxxxxxxxxxxxxxxxxxxxxxxxx 23.6%
1947-1959 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 31%

Rate of increase of Literacy

1918-1940/45 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 32.3%
1940/45-1960 xxxxxxx 7.3%

Rate of increase of fundamental education (students at primary schools for 1916-1950; students at primary, rural and radio schools for 1950-1963)

1916-1950 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 132%
1950-1963 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 183%

Rate of increase of fundamental and rural education in Colombia in the period of 1950-1963 over the period of 1916-1950.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 38.6%

Absolute increase in fundamental and rural education due to the Radio schools between 1950 and 1963.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 17.3%
the students of the Radio Schools in the same period was 6.17%. The Radio Schools were therefore the cause of the total increase of students of fundamental and rural education in Colombia between 1950 and 1963 being 183%.

In 1950 the Radio Schools increased by .44% the number of students of fundamental and rural education in Colombia. In 1963 the same number was increased by 10.7% on the account of the Radio Schools. Figure 6 shows that

1 The figures out of which the proportions of this figure were made, were taken from U.N. and Unesco sources (see Bibliography) and from: The Worldmark Encyclopedia; and Encyclopedic Britannica. The percentage of literates in the whole population (see Table 6) for 1960 was calculated to be 60.1%, the average of the figure proposed by The Worldmark Encyclopedia (62%) and by G. Perez R., La Iglesia en Colombia (58.2%). The rate of increase of the population of Colombia from 1959 until 1965 was 28.6%.

Notes of Table 5:
1 "Hogares para Campesinas"
2 Night schools+schools for peasant women; excluding radio schools.
3 Radio Schools include also children
4 Immediate Auxiliaries
5 Out of whom 23,509 rural schools and 550 urban schools.
6 Out of whom 220,996 rural students, and 6,739 urban students.
7 Thousands of Pesos.
8 Thousands of U.S. dollars.
the increase of population in 1947-59 was the cause of the smaller increase of literacy in the period of 1940/45-1960. Since literacy is a datum which implies the progress of the ages of the population, and since there are different criteria of measuring literacy, a more precise datum -- the rate of increase of fundamental education -- was used in our comparison. The relevance of this figure is to show the global progress of education in Colombia after the Radio Schools started to operate in 1948; the period corresponding to the existence of the Radio Schools is represented roughly in the second column of each pair of data in Figure 6. The last percentage, at the bottom of Figure 6 shows the absolute increase between 183% (rate of increase of fundamental education including the radio schools) and 156% (rate of increase of total fundamental education excluding the radio schools -- see Table 5 -- ) which is due to the radio schools. Table 6 shows in absolute percentages the progress of literacy in Colombia.
TABLE 6
PROGRESS OF LITERACY IN COLOMBIA

<table>
<thead>
<tr>
<th></th>
<th>1918</th>
<th>1940-45</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.3%a</td>
<td>56%</td>
<td>60.1%b</td>
<td></td>
</tr>
</tbody>
</table>

a Percentages of the total population.
b See note 16.

FIG. 7
CONTRIBUTION OF THE RADIO SCHOOLS TO THE EDUCATION IN COLOMBIA

44.8% 38.6%

O = Rate of increase of fundamental and rural education in Colombia in the period of 1950-1963 over the period of 1916-1950
X = Percentage of the preceding rate of increase which is due to the Radio Schools.

Figure 7 shows that the activities of the Radio Schools account for 44.8% of the rate of increase of fundamental and rural education in Colombia in the period of 1950-1963 over the period of 1916-1950. This is our
most significant datum.  

It shows that without the Radio Schools, the progress of basic education in Colombia would have been about half of what it was, and the increase in literacy showed in Table 6 and in Figure 6, would have been proportionately smaller. The huge contribution of the Radio Schools towards the progress of education in Colombia, is therefore evident.

Figure 8 shows the whole action of ACPO as based upon the Radio Schools, that is, that mass medium which was found to cope best with the geographical and socio-economic problems of Colombia.

TABLE 7

ILLITERATES IN COLOMBIA IN 1963

<table>
<thead>
<tr>
<th></th>
<th>7 to 14 years old</th>
<th>15 years old and over</th>
<th>Total Population in 1963: 15,097,640</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>7 to 14 years old</td>
<td>15 years old and over</td>
</tr>
<tr>
<td>Literates</td>
<td>1,318,890</td>
<td>5,460,540</td>
<td>2,894,390</td>
</tr>
<tr>
<td>Illiterates</td>
<td>1,695,450</td>
<td>3,230,650</td>
<td>741,960</td>
</tr>
<tr>
<td>Total</td>
<td>3,014,340</td>
<td>8,691,190</td>
<td>3,636,350</td>
</tr>
</tbody>
</table>


17 Obtained from the absolute increase of fundamental education due to the Radio Schools between 1950 and 1963 (17.3% -- see Fig. 6), and the rate of increase of fundamental and rural education in the period of 1950-63 over the period of 1916-50 (38.6% -- see Fig. 6).
Fig. 8. Organizational Structure of ACPO centered upon the Radio Schools.

ACCION CULTURAL POPULAR
UNA INSTITUCION

OBJETIVO:
LA EDUCACION FUNDAMENTAL E INTEGRAL DEL PUEBLO

ESPIRITUALIDAD
SALUD
ALFABETO
NUMERO
ECONOMIA
Y TRABAJO

CAMPANAS

ELEMENTOS DE ACCION.

RADIO
PERIODICO
CORRESPONDENCIA
INSTITUCIONES
CURSOS DE EXTENSION
CARTILLAS
GRABACIONES
BIBLIOTECA

ESTIMULOS

ORGANIZACION REGIONAL

ORGANIZACION LOCAL

DIRIGENTES CAMPESINOS

- ESCUELA-RADIOFONICA.

CELUL VITAL DEL MOVIMIENTO

UN MOVIMIENTO "ASCENDENTE"
LA INCORPORACION CONSCIENTE Y LIBRE DEL PUEBLO A SU PROPIO MEJORAMIENTO.
TABLE 8

COLOMBIAN FUNDAMENTAL EDUCATION FOR ADULTS IN HIGH SCHOOLS.
1963

<table>
<thead>
<tr>
<th>Registered</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>8,497</td>
<td>4,476</td>
</tr>
<tr>
<td>Below 15 years old</td>
<td>1,427</td>
<td>827</td>
</tr>
<tr>
<td>15-20 years old</td>
<td>3,020</td>
<td>1,461</td>
</tr>
<tr>
<td>21-25 years old</td>
<td>1,694</td>
<td>948</td>
</tr>
<tr>
<td>26-30 years old</td>
<td>1,008</td>
<td>573</td>
</tr>
<tr>
<td>31-35 years old</td>
<td>608</td>
<td>290</td>
</tr>
<tr>
<td>36-40 years old</td>
<td>427</td>
<td>207</td>
</tr>
<tr>
<td>Over 40 years old</td>
<td>313</td>
<td>170</td>
</tr>
<tr>
<td>Illiterates, Total</td>
<td>4,231</td>
<td>2,711</td>
</tr>
</tbody>
</table>

| Became literates during 1963| 3,131   | 2,184    |

Source: Same as Table 7

Tables 7 and 8 compared with Tables 9, 10 and 11 further illustrate in absolute figures, the achievements of the Radio Schools in curbing illiteracy in Colombia.
TABLE 9
STUDENTS REGISTERED IN 1963 AT THE RADIO SCHOOLS,
ACCORDING TO AGE, LITERACY AND SEX

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Below 14 years old</th>
<th>Above 14 years old</th>
<th>MEN</th>
<th>Total</th>
<th>Literate</th>
<th>Illiterate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>227,735</td>
<td>99,896</td>
<td>127,839</td>
<td>114,201</td>
<td>58,693</td>
<td>55,508</td>
<td></td>
</tr>
<tr>
<td>Rural areas</td>
<td>220,996</td>
<td>99,896</td>
<td>121,100</td>
<td>109,048</td>
<td>56,994</td>
<td>52,054</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6,739</td>
<td>6,739</td>
<td></td>
<td>5,152</td>
<td>1,699</td>
<td>3,454</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Literate</th>
<th>Illiterate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>113,534</td>
<td>57,819</td>
<td>55,715</td>
</tr>
<tr>
<td>Total</td>
<td>111,948</td>
<td>57,035</td>
<td>54,913</td>
</tr>
<tr>
<td>Urban areas</td>
<td>1,586</td>
<td>784</td>
<td>802</td>
</tr>
</tbody>
</table>

Source: same as Table 7
### TABLE 10

**NUMBER OF STUDENTS AND RESULTS OBTAINED IN LITERACY TRAINING AT NIGHT SCHOOLS AND AT RADIO SCHOOLS, 1963**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterates registered at</td>
<td>6,962</td>
<td>4,251</td>
<td>2,711</td>
</tr>
<tr>
<td>Night Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterates registered at</td>
<td>111,223</td>
<td>55,508</td>
<td>55,715</td>
</tr>
<tr>
<td>Radio Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Became Literates at</td>
<td>5,315</td>
<td>3,131</td>
<td>2,184</td>
</tr>
<tr>
<td>Night Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Became Literates at</td>
<td>32,209</td>
<td>18,984</td>
<td>13,225</td>
</tr>
<tr>
<td>Radio Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 11

**LITERACY RESULTS OF THE RADIO SCHOOLS**

<table>
<thead>
<tr>
<th></th>
<th>Illiterates Registered</th>
<th>Became Literate</th>
</tr>
</thead>
<tbody>
<tr>
<td>In 1965</td>
<td>120,591</td>
<td>48,900</td>
</tr>
<tr>
<td>Armed Forces in their barracks from 1956 until 1966</td>
<td>25,992</td>
<td>17,113</td>
</tr>
<tr>
<td>Prisoners in jails from 1956 until 1965</td>
<td>35,585</td>
<td>22,379</td>
</tr>
</tbody>
</table>

**Source:** ACPO, *Informe Anual 1966.*
Figure 9 shows the results of the literacy campaigns (alfabetización) of the Radio Schools in what concerns rural economy (economía rural) and in what concerns reading and writing (lectura y escritura), in thousands (miles) of persons and between the years (años) 1957-1962.

Figure 9 also shows the progress of the students (alumnos) and of the Radio Schools (Escuelas Radiofónicas) between 1957-1962.

Table 12 complets Fig. 9 for the years 1964-1966.

This chapter presented statistical evidence of the fact that the Radio Schools have been a major factor in the educational development of Colombia. This conclusion is confirmed by the interest that the Government of Colombia has shown for the Radio Schools, by the cooperation that it has given to ACPO, and by the praises that international experts in education unanimously give to the achievements of ACPO.
RESULTADOS DE LA ALFABETIZACIÓN
1957-1962

FIG. 9. Results of the Literacy Campaigns of the Radio Schools.
TABLE 12
1964-65 FIGURES OF THE RADIO SCHOOLS

<table>
<thead>
<tr>
<th>Years</th>
<th>Radio Schools</th>
<th>Students</th>
<th>Hours of transmission</th>
<th>Became literate in reading and writing</th>
<th>Trained in rural economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>26,101</td>
<td>238,563</td>
<td>35,345</td>
<td>33,067</td>
<td>53,964</td>
</tr>
<tr>
<td>1965</td>
<td>28,535</td>
<td>240,915</td>
<td>38,431</td>
<td>48,900</td>
<td>45,977</td>
</tr>
<tr>
<td>1966</td>
<td>22,129</td>
<td>200,161</td>
<td>40,132</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1954-</td>
<td>1965</td>
<td></td>
<td>327,919</td>
<td></td>
<td>562,971</td>
</tr>
</tbody>
</table>


*This general designation includes literacy students, rural economy students and 2nd course students (the 2nd course is fundamental education).*
CHAPTER IV

EDUCATION IN MOZAMBIQUE

Historical Development

1799 saw the creation of the first school in Mozambique, located in the capital which was at that time the city of Mozambique (see Map 2). In 1854, 8 other primary schools were created in the main cities of Mozambique.¹

In 1926 the Portuguese Government entrusted the care for the fundamental education in Mozambique to the Portuguese Catholic Missions. The literacy instruction to be given in Mozambique, since the Law No. 168 issued in 1929, is: reading and writing Portuguese, and computation.²

The Law No. 31,027 issued in 1941, following the Missionary Agreement which was a part of the Concordat made

¹Board of Education, Panorama of Education in the Province of Mozambique, January 1964, Lourenço Marques 1964, p. 35.

between Portugal and the Holy See in 1940, confirmed the Catholic Missions as trustees of the fundamental education in Mozambique.

In September 10, 1964, the Law No. 45,998 took away from the Catholic Missions the trusteeship of the fundamental education in Mozambique, and provided for the expansion of government owned schools. Since 1869 there has been a pre-primary and a primary education in Mozambique, the pre-primary being spent mainly in learning Portuguese, since the mother tongue of about 98% of the population of Mozambique is not Portuguese.

In 1964 Law No. 45,908 ruled that the pre-primary education should be given in one year; the primary education is given in four years. Both are compulsory and free for children between 6 and 12 years old.³

In 1964 Law No. 46,464 decreed the creation of agricultural elementary and secondary schools in Mozambique.⁴

Since 1959 the Jesuit Fathers have been studying the possibilities and advantages of the creation of Radio Schools

in Mozambique. In 1963 they obtained a permit to operate Radio Schools in the district of Tete.  

**Past and Predicted Development of Conventional Education**

From 1937 until 1965 the population of Mozambique increased 47.3% (see Table 1). From 1960 (population: 6,593,000) until 1965 (population: 6,959,000) the population of Mozambique increased 5.5%.

The total of illiterate persons in Mozambique was 99% of the population, in 1940/45. The adult illiterates in Mozambique in 1950 were 97.5% of the adult population. Comparing these two figures -- which are the only ones available on illiteracy in Mozambique -- in spite of their diversity, the rate of increase of literacy in Mozambique between 1943 and 1950 comes to be about .15%.

---

5 See Appendix B.

6 Encyclopædia Britannica, Book of the Year 1964.


8 Unesco sources -- see Bibliography.
The only further data which are available on adult literacy training in Mozambique are the following: the evening courses in 1960 were 33; in 1962/63 they were 145 with 3,627 students; in 1963/64 they were 150 with about 4,500 students. The increase of students in the evening courses between 1963 and 1964 was 24%. 9

**TABLE 13**

**SUMMARY OF THE RATES OF INCREASE OF ADULT EDUCATION AND LITERACY IN MOZAMBIQUE**

<table>
<thead>
<tr>
<th></th>
<th>In the</th>
<th>A span of years</th>
<th>Rate of increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult education</td>
<td>1963-64</td>
<td>1</td>
<td>24%</td>
</tr>
<tr>
<td>Literacy</td>
<td>1943-50</td>
<td>7</td>
<td>.15%</td>
</tr>
</tbody>
</table>

9Board of Education, cc p. 37.
# Table 14

## Pre-Primary and Primary Education in Mozambique from 1929-1966

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-Primary Schools</th>
<th>Pre-Primary Students</th>
<th>Primary Schools</th>
<th>Primary Students</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>258</td>
<td>30,613</td>
<td>23</td>
<td>3,079</td>
<td>45</td>
</tr>
<tr>
<td>1930</td>
<td>214</td>
<td>25,368</td>
<td>59</td>
<td>10,018</td>
<td></td>
</tr>
<tr>
<td>1951</td>
<td>998</td>
<td>137,272</td>
<td>1,119</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>2,000</td>
<td>251,395</td>
<td>2,091</td>
<td>11,919</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>2,793</td>
<td>361,966</td>
<td>3,111</td>
<td>18,512</td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>2,828</td>
<td>368,927</td>
<td>3,199</td>
<td>37,486</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>2,958</td>
<td>370,212</td>
<td>3,311</td>
<td>42,637</td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>3,318</td>
<td>396,100</td>
<td>3,797</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td>3,590</td>
<td>4,236</td>
<td>70,443</td>
<td>1,278</td>
<td></td>
</tr>
<tr>
<td>1966</td>
<td>3,226</td>
<td>351,412</td>
<td>3,843</td>
<td>93,341</td>
<td>2,949</td>
</tr>
</tbody>
</table>

**Rate of Increase**

- 1929-1961: 11.05%
- 1961-1966: Decrease

**Rate of increase 1961 (406,413) - 1966 (444,753 total students**

- Pre-primary + Primary: 9.4%

**Sources (of the figures; rates found by the writer):**


E. A. Pires, o.o.

Continued - Pg. 72
Table 13 is a summary of the rates of increase of adult education and literacy. The inadequacy of the data available is evident. However Table 13 does give a picture of the slow pace of adult education in Mozambique. The literacy figure being a function of the total population, and the adult education figure being an absolute figure, the last one represents therefore a very low rate of increase.

Table 14 shows the progress of fundamental education in Mozambique from 1929 until 1966.

Table 15 shows the progress of the percentage ratio of the enrollment at the first level of education compared to the estimated population 5 to 14 years old (school enrollment ratio at the 1st level); the progress of the percentage ratio of the enrollment at the first and second levels of education compared to the estimated population 5 to 19 years old, this percentage being adjusted to the actual duration of schooling -- the adjustment has the advantage of making the data internationally more comparable than the previous percentage which is not adjusted --; and the progress of the expenditure in official primary education.

Continued from Pg. 71.

Board of Education, o.c.
O. Boléo, O.c.

Institutos de Educação e Ensino e sua Frequência em Dezembro de 1965, see Appendix C.
In 1963/64 the total population of Mozambique was 6,578,604; using the percentage of 19% indicated by Unesco as representative of the children in school age for that population, there were in Mozambique, according to the estimate of the Mozambique Board of Education, 1,249,934 children in school age in 1963/64. The total children in school in 1963/64 were 422,338 that is 33.8% of the children of school age. In 1959/60 the children in school were 32% of the children in school age. In 4 years (1960-1964), according to the data of this source, the increase of scholarization in Mozambique was 5.6%.

Whereas the school enrollment ratio should be identically the same thing as scholarization (from the French word 'scholarization') or schooling, Tables 15 and 16 show that there is a considerable difference between the data concerning the school enrollment ratio in 1960 -- both ratios, at the 1st level only and at the 1st and 2nd levels, are 26% --, and the scholarization in the same year -- 32%. The difference is still larger in what concerns the rate of increase: in 10 years the school enrollment ratio increased 116%, and in 5 years 52.9%; the scholarization increased only 5.6% in 4 years. The qualifications in Table 16

10 Direcção P. dos S. de Educação, o.o. pp. 16-17.
### TABLE 15

**SCHOOL ENROLLMENT RATIO AND EXPENDITURE IN OFFICIAL PRIMARY EDUCATION IN MOZAMBIQUE (1950-1962)**

<table>
<thead>
<tr>
<th>Year</th>
<th>School enrollment ratio - 1st level</th>
<th>Adjusted school enrollment ratio 1st &amp; 2nd level</th>
<th>Expenditure in official primary educationa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>12%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>18%</td>
<td>17%</td>
<td>27,154</td>
</tr>
<tr>
<td>1957</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1958</td>
<td></td>
<td></td>
<td>31,882</td>
</tr>
<tr>
<td>1960</td>
<td>26%</td>
<td>26%</td>
<td>36,941</td>
</tr>
<tr>
<td>1961</td>
<td></td>
<td></td>
<td>44,869</td>
</tr>
<tr>
<td>1962</td>
<td></td>
<td></td>
<td>52,223</td>
</tr>
</tbody>
</table>

**Rate of increase**

<table>
<thead>
<tr>
<th>Period</th>
<th>1st level</th>
<th>2nd level</th>
<th>3rd level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955-60</td>
<td>44.4%</td>
<td>52.9%</td>
<td></td>
</tr>
<tr>
<td>1950-60</td>
<td>116%</td>
<td>116%</td>
<td></td>
</tr>
<tr>
<td>1957-62</td>
<td></td>
<td></td>
<td>92.3%</td>
</tr>
</tbody>
</table>

aThousands of Escudos (From 1960 through 1964, 28.75 Escudos = 1 U.S. dollar; 1,000 Escudos = 34.78 U.S. dollars).

**Sources:** UnN. and Unesco sources (see Bibliography).

O. Dolfo, o.c.

Encyclopedia Britannica.
# Table 16

Predicted Development of Adjusted School Enrollment Ratio at the First and Second Levels, and of Scholarization in Mozambique

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>'55</th>
<th>'60</th>
<th>'64</th>
<th>50-'60</th>
<th>116</th>
<th>56</th>
<th>85</th>
<th>100</th>
<th>'60-'64</th>
<th>32</th>
<th>33.8</th>
<th>5.6</th>
<th>35.7</th>
<th>37.7</th>
<th>39.8</th>
<th>42.3</th>
<th>54.6</th>
<th>93.1</th>
<th>98.3</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adj. sch. enroll. 1st &amp; 2nd levels</td>
<td>12</td>
<td>17</td>
<td>26</td>
<td></td>
<td>50-'60</td>
<td>116</td>
<td>56</td>
<td>85</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Scholarization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

*Figures are %.*
are based on the hypothesis of an evolution of school enrollment, scholarization and population, at the same rate of increase of that found previously to the year predicted. The difference of the rates of increase of the two factors that we are studying are reflected most evidently in our predictions.

According to Table 16, by 1977 Mozambique will reach 100% of school enrollment in relation to the estimated population 5 to 19 years old. According to the same Table, 100% of scholarization will be reached in Mozambique only around the year 2045. The difference between the two predictions is 68 years, which is a considerable difference indeed.

However, since we need an operational date, we shall use the average date between 1977 and 2045, 2011 as the year when Mozambique will reach 100% of school enrollment ratio or of scholarization, at an average rate of increase of 60.8%.

Table 17 shows a close relation between the rate of increase of population and the rate of increase of the total of primary students; and a certain relation between the rate of increase of expenditure in official primary education and the average rate of increase of school enrollment ratio or scholarization.
Considering that, in Poland, for instance, in 1965, 98\% of the total population was literate, and that in Poland also, the adjusted school enrollment ratio at the 1st and 2nd levels was 93\% in 1960; it is obvious that Mozambique is very far from reaching an ideal educational level, if its educational progress is to continue to be confined to the present conventional type of education.

From May 15 until May 25, 1961, the Conference of the Organization of African States (OEA) (of which Mozambique is not a member) met in Addis-Ababa to deliberate about the development of education in Africa. Among other conclusions, the Conference recommended that the progress of education in relation to the population at each level of education, be the one presented in Table 18. According to this Table, by 1981 the school enrollment ratio at the first level or scholarization should be 100\%, that is, 30 years before the year 2011, when, according to our prediction, the same percentage will be reached in Mozambique, if Mozambique is to keep relying solely upon conventional schools as it has been until the present time.

The Conference of the OEA further recommended that the African States increase the percentage of their national income to be spent in education from 3\% in 1961 to 4\% by
TABLE 17

SUMMARY OF RATES OF INCREASE OF POPULATION, PRIMARY STUDENTS, EXPENDITURE IN OFFICIAL PRIMARY EDUCATION AND THE AVERAGE OF SCHOOL ENROLLMENT RATIO OR SCHOLARIZATION, IN MOZAMBIQUE.

<table>
<thead>
<tr>
<th></th>
<th>In the years</th>
<th>A span of years</th>
<th>Rate of Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>1960-1965</td>
<td>5</td>
<td>5.5%</td>
</tr>
<tr>
<td>Total students</td>
<td>1961-1966</td>
<td>5</td>
<td>9.4%</td>
</tr>
<tr>
<td>pre-primary + primary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditure in</td>
<td>1957-1962</td>
<td>5</td>
<td>92.3%</td>
</tr>
<tr>
<td>official primary education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average school</td>
<td>1950-1960</td>
<td>10</td>
<td>60.8%</td>
</tr>
<tr>
<td>enrollment ratio</td>
<td>1960-1964</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>or scholarization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# TABLE 18

**RECOMMENDATIONS OF THE OEA CONCERNING THE DEVELOPMENT OF EDUCATION IN AFRICA**

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Education</th>
<th>Secondary Education</th>
<th>Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-61</td>
<td>40</td>
<td>3</td>
<td>.2</td>
</tr>
<tr>
<td>1965-66</td>
<td>51</td>
<td>9</td>
<td>.2</td>
</tr>
<tr>
<td>1970-71</td>
<td>71</td>
<td>15</td>
<td>.4</td>
</tr>
<tr>
<td>1980-81</td>
<td>100</td>
<td>23</td>
<td>2</td>
</tr>
</tbody>
</table>

**Source:** see note 11.

*All figures are % of the population in age of primary, secondary and higher education.*

1965, and to 6% by 1980.  

Table 19 shows that in 1958 the percentage of the national income of Mozambique spent in education was only .56% (see the limitations to this figure in Table 19).  

Table 20 shows that in 1962 only 2.7% of the budget of Mozambique was spent in education (see again the limitations to that figure, indicated in Table 20). It is evident

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**Note:** Resoluções da Conferencia de Estados Africanos sobre o Desenvolvimento da Educação em Africa" in Ultramar V, 2 (1964) pp. 252-255.
TABLE 19
PUBLIC EXPENDITURE IN EDUCATION AND NATIONAL INCOME,
MOZAMBIQUE 1958

1. Official primary education 31,882a
2. Technical and Vocational educationalb (1959)c 22,303a
3. Secondary educationb 17,397a
Total 68,072a (= 2,367c)
4. National income4 e 11,745,105a (=417,678e)
5. % of National income spent in education .56%

Source of 1,2,3; O. Bolso, o.c. pp. 100-105.
a Thousand Escudos.
b Excluding expenses in building or adapting schools.
c From 1961 until 1964 the total expenditure in technical education including building and adapting expenses was 116,179a.
d In 1962 the total budget of Mozambique was 3,996,000a.
e Thousand U.S. dollars.

therefore that in 1962 the percentage of national income of Mozambique (not available to the writer) spent in education was sensibly less than the 3% indicated by the Conference of the OEA to be the average in the African States in 1961, since the total budget of Mozambique in 1962 was about

12 Ibid., p. 255.
TABLE 20
PUBLIC EXPENDITURE IN EDUCATION AND TOTAL BUDGET, MOZAMBIQUE - 1962

| 1. Official Primary education      | 52,223<sup>a</sup> |
| 2. Technical and vocational education<sup>b</sup> | 32,992<sup>a</sup> |
| 3. Secondary education<sup>b</sup>     | 26,536<sup>a</sup> |
| Total                               | 111,751<sup>a</sup> (≈ 3,886<sup>c</sup>) |
| 4. Total budget                     | 3,996,000<sup>a</sup> (≈138,981<sup>c</sup>) |
| 5. % of total budget spent in education | 2.7% |

Source of 1,2,3: same as Table 19.

<sup>a</sup>Thousand Escudos.

<sup>b</sup>Excluding expenses in building or adapting schools.

<sup>c</sup>Thousand U.S. dollars.

one third of the national income of Mozambique in 1958, and since an estimate of the cost of buildings and their adaptation (based upon Table 19, note c) increases the percentage of the total budget spent in education in 1962, to only 3%.

And if we recall that this fact is verified in spite of the high rate of increase of 92.3% in expenditure in official primary education from 1957 until 1962, the need for Mozambique to accelerate its educational development; and the inability of the conventional educational structure
to do so, is still more patent.

From the interviews that the writer had with the Director and with the First Inspector of the Education Bureau of the Portuguese Ministry of Overseas in Lisbon, in June 1967, the writer draws the conclusion that there is no evidence that there will be in the near future, a sensible change of the educational situation of Mozambique just described, the reason being precisely that the efforts lately done for the progress of conventional education in Mozambique, both on the part of the Government and on the part of the Catholic Church, and of other private institutions, were considerable; and apparently as much public money has been spent in conventional education in Mozambique, as Mozambique could afford.
CHAPTER V
SUMMARY AND CONCLUSIONS

Suitability of Colombia's Radio Schools for Mozambique

In Chapter II similar geographic conditions were found to exist in Colombia and in Mozambique, in what concerns the dispersion of the population. The radio schools in Colombia aimed at and succeeded in reaching the population that conventional education could not reach. In Mozambique the same problems (proportionately to Mozambique's smaller population) are one of the major factors of the failure of conventional education to meet Mozambique's educational needs, within the schedule required by the necessary progress of Mozambique.

Chapter II also showed that there are proportionately similar socio-economic problems in Colombia and in Mozambique. Again, as the results of the radio schools presented in Chapter III show, the radio schools in Colombia successfully coped with the social problems of the rural population of Colombia. There seems to be every indication that a radio school network in Mozambique which would follow the path of the radio schools of Colombia, with minor necessary
adaptations, would also be successful in coping with the socio-economic problems of rural Mozambique. The writer found no essential differences between the poverty described as prevalent in Colombia, and the poverty which likewise hinders the development of Mozambique.

The radio schools as described in Chapter III seem therefore to be quite suitable for reproduction in Mozambique, with certain non-essential adaptations (See Appendix B).

Chapter IV showed that in Mozambique the conventional type of education is unable of coping with the urgent educational needs of the country. The use of mass media is therefore the best solution which is left for the problem of the massive and swift educational development of Mozambique. The necessity and convenience of the use of radio schools for Mozambique, is therefore established by all the facts available.

Following is the French text of two recommendations made by the 1961 Conference of the Organization of African States, concerning adult education in Africa (the same is equally applicable to children enrollment in school):

Que les gouvernements fassent tous leurs efforts pour améliorer et développer leurs services de radiodiffusion éducative, et pour créer, des qu'ils le peuvent, des services de télévision éducative a l'intention des adultes; Qu'étant donné les difficultés matérielles, financières et techniques qui entravent le développement de ces méthodes d'éducation nouvelles et efficaces, l'Unesco poursuive ses recherches dans ce domaine en organisant des réunions d'experts et des
expériences-pilotes, et qu'elle tienne les
gouvernements africains au courant de toutes les
possibilités nouvelles qui pourraient être ainsi
mises en lumière.¹

These recommendations further confirm the conclusions of
this thesis.

Predicted Development of Education in Mozambique with
the Aid of Radio Schools

Figure 7 showed that 44.8% of the increase of
fundamental education in Colombia, in the period of 1950-1963,
over the period of 1916-1950, was due to the Radio Schools.
If a pilot-project (as recommended by the Conference of
the African States²) of literacy instruction by Radio would
start in Mozambique in October 1968 -- as it is scheduled to
start -- by March 1970 the first school of literacy
instructors to operate in each radio school, could be
started. Each group of about 300 instructors receives
an intensive 6-month training. Approximately 50% of the
trainees is expected to persevere at the service of the
Radio Schools.

On the preceding hypothesis, by July 1971 the first
150 radio schools would be operating with about 1,800 students

¹"Resoluções da Conferencia de Estados Africanos sobre
²See Note 1.
(at an average of 12 students per radio school), in Mozambique.

From 1950 until 1963 the number of students of the Radio Schools in Colombia increased by 2.171%. Supposing that the Radio Schools in Mozambique increase by 2.000% between 1971 and 1984, by 1984 the total number of their students would be 109,800.

If the population continues to increase at the same rate of 5.5% that it has increased between 1960 and 1965, by 1984 the population of Mozambique will be 8,483,922. In 1984 there will be 1,611,945 children in school age, out of whom only 44.9% (maintaining the scholarization rate of increase of 5.6% indicated in Table 6) will have the possibility of going to a conventional school.

The students of the Radio Schools will be in 1984 6.7% of the total number of children of school age; in 1984 there will be 723,763 children in conventional schools (according to the rate of increase of scholarization at 5.6% - See Table 16; in 1984 the Radio Schools in Mozambique would increase the scholarization from 44.9% to 51.6%. The students of the radio schools would represent in 1984 an increase of 6.7% in scholarization.

Table 21 shows the data just mentioned, along with the premises upon which the predictions were based, and the contribution that the radio schools would make towards the
development of the education in Mozambique. Such contribution would be, as predicted, that full scholarization would be reached by 2011 as the combined data of Table 16 led us to predict, but 25 years earlier, by 1986.

By 1986 the Radio Schools of Mozambique would have surpassed the conventional schools in the number of their students, and would have surpassed the conventional schools in the percentage of children who, thanks to the radio schools, would be able to receive an education.

Every prediction is uncertain because of the many unpredictable factors which will alter the reality. However our prediction is based upon the fact of the increase of the Radio Schools in Colombia, and upon the fact of the increase of conventional education in Mozambique. If this last factor would accelerate and the expansion of the radio schools in Mozambique would slow down in relation to the radio schools of Colombia, the margin of error of our prediction would increase; but if either accelerate or the first factor slows down whereas the last factor accelerates, our prediction will be very much indicative of the advantages of a radio school network for Mozambique to fulfill its greatest human need: to accelerate its universal education.

Unesco estimated that the cost per pupil enrolled in a literacy course given in a conventional classroom situation,
### TABLE 21

PREDICTED DEVELOPMENT OF EDUCATION IN MOZAMBIQUE WITH THE AID OF RADIO SCHOOLS

<table>
<thead>
<tr>
<th></th>
<th>1971</th>
<th>1984</th>
<th>1986</th>
<th>Rate of increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>7,422,504</td>
<td>8,483,922</td>
<td>8,670,568</td>
<td></td>
</tr>
<tr>
<td>Children in school age</td>
<td>1,410,180</td>
<td>1,611,945</td>
<td>1,647,408</td>
<td>5.5%a</td>
</tr>
<tr>
<td>Children in conventional schools</td>
<td>548,067</td>
<td>723,763</td>
<td>759,455</td>
<td>5.6%c</td>
</tr>
<tr>
<td>Conventional Scholarization</td>
<td>36.19%</td>
<td>44.9%</td>
<td>46.1%</td>
<td></td>
</tr>
<tr>
<td>Children in radio schools</td>
<td>1,800</td>
<td>109,800</td>
<td>1,013,098</td>
<td>6,000%d</td>
</tr>
<tr>
<td>Radio school scholarization</td>
<td>.12%</td>
<td>6.7%</td>
<td>61.8%</td>
<td></td>
</tr>
<tr>
<td>Total scholarization</td>
<td>36.31%</td>
<td>51.6%</td>
<td>100%e</td>
<td></td>
</tr>
</tbody>
</table>

---

**a** See Table 17.

**b** 19% of total population according to Unesco.

**c** See Table 16.

**d** See Table 5.

**e** Precisely 107.9%, that is, the 100% will be reached by 1985-1986.
with the duration of 10 months, in Africa, is $7.35.\textsuperscript{3}

Each student of a conventional primary school in Colombia costs per year $10.01 (79.00 Pesos), according to 1957 data. Each student of the Radiophonic schools of Colombia costs yearly $2.29 (20.66 Pesos) according to 1964 data.\textsuperscript{4}

These figures give further evidence of the advantages of the radio schools in so far as economy is concerned. A country which is so much dependent upon economic factors as Mozambique is, will certainly find in the radio schools a cheap, fast, efficient way of developing its education and thereby of breaking through the socio-economic-educational vicious circle that we analyzed in Chapter I.

\textsuperscript{3}Unesco, Adult Literacy and Economic and Social Development, United National Economic and Social Council, 1964, pp. 2 ff.

\textsuperscript{4}ACPO, Acción Cultural Popular en Cifras, 1964, p.7.
APPENDIX A

INQUIRY FROM THE COLOMBIAN MINISTRY OF EDUCATION AND FROM ACCION CULTURAL POPULAR

Following is the text of an inquiry that the writer made from the Colombian Ministry of Education, Bogotá", and from Acción Cultural Popular, Bogotá. The Ministry of Education did not reply. In this thesis the writer used the Government data published in several Colombian Government Yearbooks (see Bibliography), which were available in some Libraries in Chicago.

ACPO replied by sending 5 booklets with the latest statistics. This material was widely used in this thesis and is listed in the Bibliography.

The text of the inquiry is as follows:

Quería pedir a Ud. el grande favor de me enviar o indicar la manera de obtener datos que expriman:

1. La contribución que las Escuelas Radiofónicas de Sutatenza han hecho hacia la alfabetización de los adultos desde 1950 hasta 1965. Estos datos serían más claros si Ud. pudiera contestar o indicarme los medios de obtener una contestación a las dos preguntas siguientes:
a. Desde 1950 hasta 1965 quanto adultos (más de 15 años) han sido alfabetizados por medio de las Escuelas Radiofónicas? 

b. Desde 1950 hasta 1965 quanto adultos han sido alfabetizados por otras Escuelas, oficiales y privadas (excluyendo las Escuelas Radiofónicas)?

2. La contribución que las Escuelas Radiofónicas de Sutatenza han hecho hacia la escolarización de niños (menos de 15 años) desde 1950 hasta 1965.

a. Desde 1950 hasta 1965 quantos niños han tenido por lo menos un año de escuela por medio de las Escuelas Radiofónicas?

b. Desde 1950 hasta 1965 quantos niños han tenido por lo menos un año de escuela en escuelas oficiales y privadas (excluyendo las Escuelas Radiofónicas)?
APPENDIX B

PROJECT OF ACCELERATION OF THE EDUCATIONAL DEVELOPMENT OF MOZAMBIQUE

The text of the Project which is presented in this Appendix was made by this writer. The Project was officially submitted to the Portuguese Government by the Representative of the Jesuit Fathers before the Portuguese Government, in June 1967. No answer has been received as yet.

In the writing of the Project, wide use was made of the material personally supplied to the writer by the Educational Bureau of the Ministry of Overseas in Lisbon, in June 1967. This material is listed in the Bibliography.

Before the full text of the Project in Portuguese, a Brief Outline of the Project in English is presented, which was also made by the writer and which was used in the U.S.A. in several negotiations concerning the projected Radio Schools in Mozambique.

For a further refinement of the figures presented in the Brief Outline, and in the full Project (Part D, no. 2), see Chapters IV and V of this thesis.
PROJECT FOR THE ACCELERATION OF THE EDUCATIONAL DEVELOPMENT OF MOZAMBIQUE

Brief Outline

A. Data relevant to the project

1. The adult illiteracy in Mozambique is estimated to be over 90%.

2. The scholarization in Mozambique was 33.3% in 1964.

3. The population density of Mozambique was 9/km² in 1964.

B. History of the project

Since 1960 a group of qualified educators, who are engaged in various educational services in Mozambique, considering the facts just mentioned in section A, have been studying the best way to accelerate the educational development of Mozambique.

C. Characteristics of the project

A comparative study of educational solutions in other African and non-African countries which are in an educational and humano-geographical situation similar to that of Mozambique, has shown that the Radiophonic Schools of the type of the ones operating in Colombia, South America, are the most efficient way to supply for the lack of teachers and schools, thus increasing scholarization; to curb illiteracy; and to develop the social status of the population, thus avoiding the falling back into illiteracy.

Therefore the educators above mentioned have decided to
launch a Radio School network to cover the whole Mozambique.

Preliminary talks with the Portuguese Government have had positive results, although not in the financial aspect.

Financially, the Radio Schools once set up, will be self-sufficient by means of a planned union with one of today's most important Commercial Radio networks in Mozambique. The only financial obstacle that the Radio Schools encounter is their initial or set up cost.

D. Relevance of the project

1. Besides its urgency to cope with the educational situation of Mozambique, it will advance the social welfare of the population of Mozambique, the rural as well as the urban, by means of teaching agricultural techniques, housekeeping, hygienics, etc.

2. The Schools will be the first Radiophonic Schools of their type in the whole of Africa.

3. It is a project staffed by dynamic and experienced educators whose foremost aim it is to speed up the human development of Mozambique, in the most creative and effective way.

E. Schedule of the project

1. All plans for buildings and acquisition of materials; negotiations with UNESCO concerning her technical assistance; and financial negotiations are scheduled to be completed by August 1968.
2. Construction of buildings, recruitment of personnel, and 6-month training of monitors (to operate the Radio Schools in loco) are scheduled to be completed by September 1969.

3. The Radio Schools are scheduled to start in operation in October 1969.
PROJECTO DE ACELERAÇÃO DO DESENVOLVI MENTO EDUCACIONAL NA PROVÍNCIA DE MOCAMBIQUE

A. Dados básicos pertinentes ao projecto

1. O surto do ensino primário na Província de Mocambique tem sido nos últimos anos muito notável. No entanto a Digna Direcção Provinical dos Servicos de Educação reconhece que a taxa de escolarização é ainda relativamente baixa e que é difícil satisfazer prontamente o enorme surto de interesse pela escolaridade. (Panorama do Ensino na Província de Mocambique, Lourenco Marques, 1965, pg. 15)


3. A densidade populacional na Província de Mocambique era em 1964 9 por km², o que torna a realização do excelente objectivo da Digna Direcção Provinical dos Servicos de Educação de levar "a instrução básica a todos os recantos da Província" (o. supra cit., loc. cit.) particularmente árdua, em virtude da dificuldade de cobrir populações dispersas e ainda com escassos meios de comunicação, com escolas e professores do tipo convencional.

B. História do projecto

1. Desde 1959, alguns membros da Corporação
Missionária da Companhia de Jesus, devidamente qualificados sob o ponto de vista da sua competência pedagógica, ainda hoje ao serviço da Educação na Província de Mocambique, considerando os factos acima mencionados, teem estudado a melhor maneira de acelerar o desenvolvimento educacional de Mocambique. Feitos diversos estudos comparativos de soluções educacionais em áreas Africanas e não-Africanas que se caracterizam por condicionalismos humano-geográficos e educacionais semelhantes aos da Província de Mocambique, a conclusão a que os referidos Educadores chegaram foi que Escolas Radiofónicas do tipo das que operam na Colômbia, América do Sul, o país internacionalmente considerado modelo de Escolas Radiofónicas por períodos em educação, são o meio mais eficaz para: a) suprir a falta de professores e de escolas convencionais, aumentado assim a escolarização; b) reduzir rapidamente o analfabetismo de adultos; c) desenvolver a economia rural, a higiene e o comportamento cívico da população, evitando o regresso ao analfabetismo.


C. Características do projecto

1. Considerando os factos acima mencionados na seção A, e em prossecução dos dados históricos mencionados
na secção 5, ao abrigo dos Arts. 2º e 11º do Decreto-Lei No. 45 908 de 10 de Setembro de 1964, a Corporação Missionária da Companhia de Jesus propõe-se e para isso formalmente requer, em documento anexo a este projecto, a Sua Exª o Sr. Ministro do Ultramar, a correspondente autorização para lançar um sistema de Escolas Radiofónicas (Também chamadas Rádio Escolar ou Rádio-Escola) em todo o território da Província de Mocambique.

2. Ao abrigo dos Arts. 2º e 92 do Decreto-Lei No 45 908 de 10 de Setembro de 1964, as Escolas Radiofónicas de Mocambique leccionarão o ensino primário elementar constituído por 4 classes precedidas de 1 classe pre-primária, compreendendo seis anos de escolaridade. Ao abrigo do 12º do Art. 78º do mesmo Decreto-Lei No 45 908 de 10 de Setembro de 1964, as Escolas Radiofónicas de Mocambique admitirão alunos a partir dos 15 anos de idade.


4. As Escolas Radiofónicas de Mocambique que pertencerão à categoria de ensino particular, serão administradas directamente pela Corporação Missionária da Companhia de Jesus,
mediante um Conselho de Administração formado pelos Directores dos Serviços: Técnicos, Pedagógicos e Financeiros das Escolas Radiofónicas. As Escolas Radiofónicas poderão ser administradas mediatamente pela Direcção duma Emissora de Radiodifusão, comercial, particular, correntemente em operação legal na Província de Mocambique.

5. a) Está previsto que o financiamento inicial das Escolas Radiofónicas de Mocambique (custo das instalações) será coberto por capitais privados portugueses e norte-americanos, e também por um subsídio do Governo Norte-Americano ao Governo Português para a instituição particular das Escolas Radiofónicas de Mocambique, se por parte dos dois Governos houver a compreensão que em si mesma é possível sem qualquer lesão dos princípios políticos e outros de ambos os Governos, compreensão que é indispensável e urgente para uma obra de tanto alcance como aquela que é o objecto deste projecto.

b) Uma vez que, em virtude do Art. 9º do Decreto-Lei n.º 45 903 de 10 de Setembro de 1964, o ensino primário elementar é gratuito para as crianças dos 6 aos 12 anos de idade, os Professores das Escolas Radiofónicas na Central e os Monitores (operadores das Escolas Radiofónicas in loco) deverão ser remunerados pelas Escolas Radiofónicas e por um subsídio do Governo da Província, proporcional ao ensino gratuito que ministram, sendo para esse efeito equiparados respectivamente.
aos Professores de ensino primário elementar, aos Professores de posto escolar e aos Monitores escolares, ao abrigo dos Arts. 16º, 20º, 1º do Decreto-Lei Nº 45 908 de 10 de Setembro de 1964.

6. As Escolas Radiofónicas constarão de:
   a) Uma Central composta pelos Serviços Centrais de Administração, Secretaria e Programação.
   b) Uma Escola para a formação de Monitores das Escolas Radiofónicas, na Central, onde pessoas com habilitações mínimas da 4ª classe receberão um curso intensivo de 6 meses que os habilitarão a operar as escolas radiofónicas in loco.
   c) Aparelhos receptores fabricados especialmente para captarem únicamente a onda das Escolas Radiofónicas, que o Monitor porá em funcionamento às horas das lições.
   d) Materiais escolares adaptados ao carácter radiofónico das Escolas.
   e) Inspectores das Escolas Radiofónicas destinados a vigiarem itinerantemente o funcionamento das Escolas in loco.

D. Importância do projecto

1. As Escolas Radiofónicas de Mocambique serão as primeiras do seu gênero em todo o continente Africano.

2. Entre 1963 e 1965 o aumento total de escolas do ensino primário na Província de Mocambique foi de 794.

As Escolas Radiofónicas de Mocambique propõem-se criar 400 escolas por ano, ou seja um aumento de 50,3% sobre o
aumento de escolas verificado entre 1963 e 1965. Entre 1964 e 1965 o aumento de alunos do ensino primário na Província de Mocambique foi de 21 076%. As Escolas Radiofônicas propõem-se um aumento de 8 000 alunos por ano, ou seja um aumento de 37% sobre o aumento de alunos verificado entre 1964 e 1965.

3. Os objectivos primários das Escolas Radiofônicas de Mocambique são o desenvolvimento humano da Província de Mocambique e a realização o mais rápida e eficientemente possível na Província de Mocambique da Legislação Escolar promulgada para o Ultramar Português pelo Governo Português.
APPENDIX C

OFFICIAL TABLE OF EDUCATIONAL INSTITUTIONS, TEACHERS, AND STUDENTS IN MOZAMBIQUE, AS OF DECEMBER 31, 1965.

One of the results of the writer's interviews at the Bureau of Education of the Ministry of Overseas in Lisbon, in June 1967, was the following Table especially prepared by the Bureau for the writer, and which has not been published as yet.

Institutos de Educação e Ensino e sua frequencia em 31 de Dezembro de 1965

Mocambique

<table>
<thead>
<tr>
<th>Graus e ramos de Ensino</th>
<th>Institutos Professores</th>
<th>Alunos</th>
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<tr>
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<td>b) Servico Social (Assistentes Sociais)</td>
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<td></td>
<td></td>
<td>12</td>
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</tr>
<tr>
<td>a) Industrial</td>
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<td>b) Commercial</td>
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<td>41</td>
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<td>c) Normal (Magistério Primário Comm)</td>
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<td>11</td>
</tr>
<tr>
<td>d) Agricola</td>
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<td>-</td>
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<tr>
<td>e) Servico Social (Educadoras Sociais)</td>
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<tr>
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<td></td>
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<tr>
<td>2 - Particular</td>
<td>1</td>
<td>7</td>
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102
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<th>Professores</th>
<th>Alunos</th>
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<td>(Elementar e Complementar)</td>
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<td>a) Comercial e Industrial</td>
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<td>2- Particular</td>
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<td>342</td>
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<tr>
<td>b) Magistério de Postos Escolares</td>
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<td>48</td>
<td>872</td>
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<td>872</td>
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<td>c) Agrícola</td>
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<td>d) Serviço Social</td>
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<tr>
<td>2- Particular</td>
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<td>351,412</td>
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<td>941</td>
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<td>b) Agricultura e Veterinária</td>
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<td>c) Agricultura e Florestas</td>
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<tr>
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<td>h) Obras Públicas</td>
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<td>Professores</td>
<td>Alunos</td>
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<td>195</td>
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<td>1) Portos, Caminhos de Ferro e Transportes</td>
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<td>j) Saúde e Assistência</td>
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APPENDIX D

PROGRAM OF ACTIVITIES OF "SERVICE TECHNIQUE AFRICAIN DE RADIO-DIFFUSION", KINSHASA, CONGO

The following text describes a project of educational Radio already operating successfully in Africa. The footnote in page 108 was added by the Director of Star himself, Fr. Tollenier, and updates the information contained in the Program.

The second paragraph of page 109 is particularly relevant for and further confirms the conclusions of this thesis. Facing the impossibility of conventional education to meet the increasing thirst for an education on the part of the African youth, Star sees in Radio the only way of giving an education not only to unscholarized children, but also to children who were able to finish their primary education, but who can not pursue their studies for lack of schools.

Star is already working on the planning of Educational TV in cooperation with the Congolese Government. However the documentation of Star concerning TV is not presented here because its content does not fall under the specific theme of this thesis.

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NOTE SUR LES ACTIVITÉS DE S.T.A.R.

Introduction

Les principes qui sont à la base de la conception de STAR peuvent se résumer comme suit :

- Le Comité Permanent des Ordinaires du Congo a conçu l'ensemble des activités du STAR dans un but strictement éducatif et culturel. STAR-Léo, ainsi que les postes secondaires, resteront essentiellement des studios d'enregistrement qui mettront leurs techniciens et équipement à la disposition de l'émetteur national et des émetteurs régionaux du Congo.

- Le Comité Permanent n'envisage d'aucune manière l'installation d'un poste émetteur et n'y songe pas pour l'avenir.

- STAR n'a qu'une ambition : servir le pays, collaborer à l'élevation culturel, social et moral de la population congolaise et cela sous l'égide des Autorités du Pays. La réalisation d'une série de programmes ne se fera donc qu'après invitation ou approbation des Autorités centrales ou régionales.

- Chaque programme sera présenté comme étant une production de la Radiodiffusion Nationale Congolaise. Étant sur place, STAR veillera à l'adaptation des programmes éducatifs aux situations africaines et à la mentalité congolaise en particulier.

- STAR peut enfin mettre ses techniciens et son équipement à la disposition de la Radiodiffusion Congolaise pour assurer ses émissions au cas où une panne sérieuse empêcherait un fonctionnement normal des installations.

- Les programmes éducatifs, dans le sens très large du mot, garderont un aspect strictement neutre, en ce sens qu'ils pourront être écoutés par tous les Congolais, quelle que soit leur conviction idéologique, tout en excluant cependant une conception matérialiste des valeurs humaines.

./.
La réalisation du plan d'ensemble a été prévue en 3 phases :

A. - La construction à Léopoldville d'un Centre de Radiodiffusion
B. - La construction de 5 postes secondaires
C. - La formation de maîtres-radio et la création de plusieurs centaines de centres d'écoute à l'intérieur du pays.

A. - La première phase s'est achevée fin 1963. Nous disposons actuellement d'un Centre de Diffusion à Léopoldville qui est unique en son genre en Afrique Centrale.

Cette construction comprend :
- un bureau de direction
- un secrétariat
- une salle de conférences
- une discothèque comprenant environ 1,500 disques
- une bandthèque
- un bureau pour le producteur-programmateur
- un bureau de rédaction
- une imprimerie avec une machine Gestetner-offset
- un bureau pour le technicien
- un laboratoire dont une partie est réservée pour faire des copies de bandes
- deux studios d'enregistrement, dont un conçu pour la parole, tandis que le grand studio convient parfaitement pour des chorales, des orchestres ou des groupes (jeux radiophoniques, etc...)
- une technique équipée de matériel professionnel comprenant :
  - 3 enregistreurs STUDER
  - 2 tourne-disques E.M.T.
  - 1 table de mixage donnant la possibilité de mélanger 7 chaînes différentes avec une disposition écho artificiel.

B. - La seconde phase doit prendre fin en 1964.
En vue de l'élaboration rationnelle de la production des programmes éducatifs et culturels pour les émetteurs d'Etat du Congo, une coordination de plusieurs centres secondaires avec le poste central STAR de Léopoldville a été conçue, afin d'arriver à une adaptation aussi concrète que possible aux circonstances locales du Congo, dont les dimensions sont trop vastes pour pouvoir centraliser tout le travail.
Les postes secondaires sont prévus dans chaque ville où il y a un émetteur régional de l'Etat, notamment à Coquilhatville, Stanleyville, Bukavu, Bakwanga et Luluabourg. A Elisabethville, Radio-Collège, qui émet depuis plusieurs années se mettra à la disposition de l'émetteur d'Etat d'Éville. Chaque poste secondaire comprendra une construction de 3 locaux : un petit studio d'enregistrement, une chambre pour l'installation technique avec deux tourne-disques et 2 enregistreurs ordinaires, et un local pour la conservation des disques, bandes et de la documentation.

Le personnel de chaque poste secondaire aura ainsi le moyen de réaliser, sur place, des programmes dans la langue de la région, adaptée à la mentalité. STAR-Léo lui enverra copie de tous les programmes susceptibles de l'intéresser. De son côté, le responsable régional fournirait à STAR-Léo toute documentation ou information utile, à transmettre à d'autres postes secondaires, après traduction dans la langue spécifique. Le poste secondaire, de même que STAR-Léo ne réalisera les programmes qu'après invitation ou approbation par les autorités provinciales.

Quant à l'activité, elle restera sous la responsabilité de STAR-Léo, ceci afin de permettre une coordination et une planification au niveau national.

Les différents domaines dans lesquels nous pouvons, en principe, élaborer des programmes sont aussi vastes que la notion même d'éducation, aussi bien des adultes que de la jeunesse, conçus comme éducation populaire (éducation de base) ou perfectionnement d'un niveau déjà acquis.

Les programmes d'éducation populaire seront présentés dans les quatre langues principales du pays : Kikongo, Lingala, Swahili et Tshiluba. Les programmes à un niveau plus élevé seront présentés en français. Au niveau de l'éducation populaire, les domaines les plus importants sont évidemment l'éducation sanitaire et agricole, l'éducation de la femme et de la jeunesse désœuvrée. À un niveau plus élevé, nous pensons surtout à une Radio-scolaire (cfr. 3ème phase) et à des émissions universitaires qui seront élaborées par l'Université de LOVANIUM de Léopoldville.

Nous voudrions cependant faire un effort tout-à-fait spécial dans le domaine de la radio scolaire. Personne n'ignore le rôle capital qu'est destiné
à jouer la radio dans le développement du Congo. Elle a en effet, l'immense avantage de pouvoir toucher, aussi bien les illétrés que les hommes instruits, et cela, où qu'ils se trouvent. Cette universalité et cette omniprésence de la radio doivent lui permettre de jouer un rôle capital dans la formation et l'éducation, au sens le plus profond du terme, des masses congolaises.

L'infrastructure de l'enseignement s'écroule d'année en année, de façon plus angoissante. Il s'avère impossible de construire dans tout le pays des locaux scolaires nécessaires pour faire face à l'immense soif d'enseignement qui dévore notre jeunesse. Instituteurs et professeurs seront encore longtemps en nombre insuffisant. La Radio, seule, permet aux centaines de jeunes gens et jeunes filles qui n'ont pas l'occasion de poursuivre leurs études au-delà de l'école primaire, et aux milliers d'enfants qui ne peuvent même plus se faire inscrire dans une première année primaire, de recevoir l'enseignement de la radio. A cette fin, une série d'expériences aura lieu dans le courant de l'année 1964 et début 1965 : elles nous permettront de mener à bien une action massive sur le plan régional et même national. Cette première phase pourrait donc durer environ 1 an. En 1965, des maîtres-radio seront spécialement préparés à l'application des différentes techniques de diffusion, pour devenir les responsables de plusieurs centaines de centres d'écoute qui doivent être organisés dans les grands centres et dans les villages de l'intérieur.

En 1965/66, nous prévoyons l'importation du matériel indispensable à un fonctionnement normal de ces centres d'écoute, notamment une radio transistorisée (ne donnant la possibilité d'écoute que sur trois longueurs d'ondes) et un enregistreur-projecteur. Ces instruments permettront d'écouter une émission radio, accompagnée de projection de diapositives. Cette émission pourra, en même temps, être enregistrée de sorte qu'une troisième, éventuellement dixième audition soit possible sous la direction du responsable du centre. Nous pouvons, en même temps, envoyer à chaque centre d'écoute, des bandes comprenant une série de leçons dans un domaine bien déterminé.

Si ces méthodes d'éducation et d'enseignement ont connu très peu de succès jusqu'à ce jour en Afrique Centrale, les circonstances actuelles obligent tous les éducateurs à avoir recours à d'autres méthodes plus économiques et plus efficaces que celles de l'enseignement classique, vu le manque de possibilités financières et de personnel.
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APPROVAL SHEET

The thesis submitted by Reverend Francisco de Sousa Monteiro, S.J. has been read and approved by the director of the thesis. Furthermore, the final copies have been examined by the director and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

Jan. 26, 1968  
Date

[Signature of Adviser]