

PART IV

ECONOMIC ANALYSIS

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CHAPTER 1 EVALUATION METHOD

1-1 Outline

In the present chapter, analysis of the plan and project described in the previous parts will be carried out from the viewpoint of economic considerations.

The long-term effects of educational broadcasting go beyond educational aspects such as reducing the illiteracy rate and emending the gap in educational levels between urban and rural areas, and extend even to the vitalization of the nation's economic and cultural activities.

In evaluating this project, first an evaluation shall be made of the most direct impact which educational broadcasting may have, i.e. the spread of education. Next, secondary and indirect effects of the project will also be taken into consideration.

The evaluation shall be of the so-called "economic" type in which a comparison is made of the project's social costs and its social benefits. This approach has been selected for two reasons: (1) the project does not yield any financial income (owing to RTVD's policy not to collect advertising fees), (2) emphasis is to be placed on the benefits of educational broadcasting to the general public. The financial evaluation will not be made.

An outline of the concepts concerning costs vs. benefit analysis is presented below. In compliance with the programming plan proposed in Part 3, Chapter 1, the project benefits are measured in two terms: in-school educational broadcasting and out-of-school educational broadcasting. The former measures benefits in the form of reduced elementary school education expenditures achieved through the use of educational broadcasting in the schools. The latter measures benefits in the form of reduced educational outlays at three levels

(elementary students including those not attending school, middle school students and illiterate adults) through the use of educational broadcasting as a substitute means of education in the home.

Total cost are comprised of project construction costs and operating costs. The cost of receivers (televisions and radios) for use in schools has been calculated as an affiliated project cost.

The evaluation index used is the Internal Rate of Return (IRR).

In the discounted cash flow analysis, the cost/benefit stream is cut off at the year 2000. The residual value of the steel tower and the broadcasting building at the Alto de la Bandera (both of which can be used even after 2000) in the year 2000 is counted as a minus cost of the year 2000.

1-2 Economic Costs

1-2-1 Estimate of Economic Cost

In most cases, prior to economic analysis the project's financial costs are converted to an economic cost base. For purposes of the present study, however, owing to the difficulty in attaining accurate and detailed calculations in this manner the conversion to economic costs has been treated as described below.

(1) Adjustment of distortion for local currency portion

Local currency portion comprise approximately 6% of the total construction costs of the project. Because the effects on the results of the evaluation are thus small enough that they may be ignored, emendation of the evaluation figure shall not be made.

(2) Shadow wage rate

Because the costs for unskilled laborers are below 1% of the total construction costs incurred at either the Alto de la

Bandera site or the broadcasting building renovation site, shadow wage rates are not applied.

(3) Import taxes

Owing to the importance which is attached to the project's benefits, no import taxes are to be imposed on broadcasting equipment, steel for the tower, receivers and other related items which are imported for the project.

(4) Import taxes on raw materials

Cases exist where import taxes are imposed on raw materials for products which themselves are not imported. Owing to the small scale of the local currency portion for the present project, these outlays are not taken into consideration.

(5) Elimination of taxes

Because a 5% tax is normally imposed in the Dominican Republic on business transactions, a uniform 5% is subtracted from expenses within the local currency portion excluding personnel expenditures. Also, among operating costs, income taxes and other fees (15%) which are included in the average wages (RD\$700/month) of project personnel are excluded from the economic cost.

(6) Land opportunity cost

Because the construction site at the Alto de la Bandera is owned by the Dominican Government (under the management of the military), no outlays are required for its usage. Also, as there are no possibilities of this land being used for other purposes in the near future, there is no need to calculate the opportunity cost of this land as a project cost.

(7) Inflation

The discounted cash flow analysis is carried out entirely using a fixed price basis for 1984. Accordingly, the contingency estimated at 5% of the financial cost is eliminated from economic costs.

(8) Residual value

The life Cost of a steel broadcasting tower is 40 years, that of the broadcasting building at the Alto de la Bandera is 45 years. Because both of these items therefore can be used beyond the year 2000, their residual value calculated by the straight line depreciation method will be put into figures for 2000 as minus costs.

When all of the above procedures are followed, the financial cost figure can be converted to an economic cost figure as shown in Table 1-1.

Table 1-1 Economic Cost of Project

(Unit: 1 x 10³ RD\$ in 1984 price)

Cost Item	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1. Construction Cost														
(1) Foreign Currency	6,093	26,931	2,866											
(2) Local Currency	42	2,215	-											
Sub Total	6,135	29,146	2,866											
2. Operating Cost														
(1) Program Production Cost	-	-	196	236	483	483	483	511	511	511	511	511	511	511
(2) Electric Power Cost	-	-	142	170	170	170	170	170	170	170	170	170	170	170
(3) Project Personnel Cost	-	-	595	714	1,085	1,085	1,085	1,271	1,271	1,271	1,271	1,271	1,271	1,271
(4) Maintenance Cost	-	-	196	236	236	236	236	236	236	236	236	236	236	236
Sub Total			1,129	1,356	1,974	1,974	1,974	2,188	2,188	2,188	2,188	2,188	2,188	2,188
3. Affiliated Project Costs (Receivers)														
			3,630	105	660	510	510	510	510	510	510	510	510	510
Total	6,135	29,146	7,625	1,461	2,634	2,484	2,484	2,698	2,698	2,698	2,698	2,698	2,698	2,698

Note: RD\$2,207 x 1,000: the residual value of the asset (facilities) constructed is assumed as the minus investment of the year 2000 in the above cash flow analysis.

1-2-2 Estimated Operating Cost of Project aimed at Elementary and Middle School Students and Illiterate Adults

The programs to be broadcast under this project include not only educational programming for elementary and middle school students and illiterate adults but also cultural and vocational programs, GTV rebroadcasts, etc. (Table 1-2)

In the present analysis, however, the benefits to be derived from such cultural and vocational programs and GTV rebroadcasts are not considered and benefits are considered only in terms of educational effectiveness of programs aimed at elementary and middle school students and illiterate adults. Accordingly, prior to carrying out the economic analysis it is necessary to recalculate the operating costs corresponding to the educational broadcasting discussed in this analysis. first the operating costs which were calculated in Part 3, Chapter 9, are divided by R-2 and ETV, then computations were derived according to the number of broadcasting hours for each type of program. As a result, approximately 51% of R-2 and some 55% of ETV were tabulated as operating costs. The resulting calculations of operating costs per fiscal year are shown in Table 1-3.

Table 1-2 Number of Broadcasting Hours (Annual)
by Type of Program

(R-2)

(Unit: hour)

	1st Stage	2nd Stage	3rd Stage
Total Broadcasting Hour	3,640	4,576	5,616
1) Program for Elementary School	2,080(57)	2,600(57)	1,820(33)
2) Program for Illiterate Adults	520(14)	260(6)	520(9)
3) Other Programs	1,040(29)	1,716(37)	3,276(58)

Figures in parentheses refer to percentage to total broadcasting hour.

(ETV)

	1st Stage	2nd Stage	3rd Stage
Total Broadcasting Hour	2,912	5,096	5,876
1) Program for Elementary School	-	2,080(41)	2,080(35)
2) Program for Middle School	-	-	260(5)
3) Program for Illiterate Adults	1,040(36)	520(10)	1,196(20)
4) Other Programs	572(20)	780(15)	1,300(22)
5) GTV Rebroadcasts	1,300(44)	1,716(34)	1,040(18)

Figures in parentheses refer to percentage to total broadcasting hour.

Table 1-3 Operating Cost

(Unit: 1×10^3 RD\$)

Year	Operating Cost		ETV
	Total	R-2	
1989	557	305	252
1990	662	360	302
1991	1,088	428	660
1992	1,088	428	660
1993	1,088	428	660
1994	1,184	300	884
1995	1,184	300	884
1996	1,184	300	884
1997	1,184	300	884
1998	1,184	300	884
1999	1,184	300	884
2000	1,184	300	884

1-3 Economic Benefit

1-3-1 Method of Measurement

The benefits of a nationwide educational broadcasting network are seen over a broad range of levels, thereby making it rather difficult to weigh their total social benefit in comprehensive terms. Accordingly, here the benefits shall be measured from the aspect of educational broadcasting use as a substitute means of educating elementary and middle school children and illiterate adults.

1-3-2 In-school Educational Broadcasting

(1) Preliminary assumptions

1) Number of students

Estimation of the number of students to be affected was carried out based on forecasts of the cumulative population and population by age group issued by the Government of the Dominican Republic as well as on an estimate issued by SEEBAC on the number of students in the year 2000. It was assumed that the number of school students would increase each year through 2000 at a uniform rate. (Table 1-4)

Table 1-4 Estimate of Number of Children attending Elementary School
(1986 - 2000)

Year	Number of Children (thousands)
1986	1,217
1987	1,254
1988	1,293
1989	1,333
1990	1,374
1991	1,417
1992	1,455
1993	1,494
1994	1,535
1995	1,575
1996	1,619
1997	1,662
1998	1,708
1999	1,752
2000	1,800

2) Number of hours used for in-school educational broadcasting

While the number of hours during which education broadcasting is to be used in the schools is not determined at present, for the present purposes it was assumed that 1 hour of programming would be used in 2 subjects per day, resulting in 5 hours of broadcasting per week and 165 hours per year, which may be too many as it represents about 26% of 637 hours, the average number of hours which elementary students spend in class during one year. In view of the situation in Japan where 1-3 hours of in-school educational broadcasting is the norm, analysis is also undertaken for schedule of 100 hours of broadcasting per year (3 hrs/wk).

3) School education costs

According to SEEBAC's computations, the per capita cost of school education per year in fiscal 1983 was RD\$74 for elementary students, RD\$96 for middle school students and RD\$43 for adults. (Note: The last two figures were estimated based on the 1982 figures as adjusted by multiplying the growth rate in 1983 over 1982 in educational costs for elementary school students.)

The revised educational costs in 1984 prices, required for the present purposes, are shown in Table 1-5.

Table 1-5 Cost of Education
(pupil/year, in 1984 price)

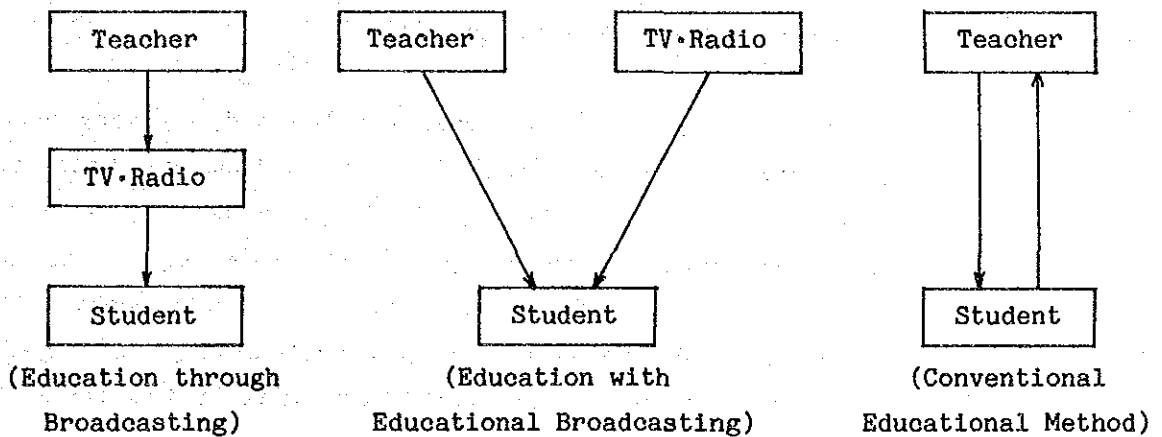
Education Level	Amount (RD\$)
Elementary School	83
Middle School	108
Adult Education	48

4) Effects of in-school educational broadcasting

Fig. 1-1 shows a comparison between conventional educational methods and education through broadcasting.

Fig. 1-1

Concept of Broadcasting Education and Conventional Educational Method



In view of the necessity of measuring project benefits, here the effects of educational broadcasting will be quantitatively studied in terms of attainment of educational purposes.

In performing this study, data from three projects was used as reference materials: "Radio Santa Maria Broadcasting School" (Dominican Republic), "Radio Elementary School" (Mexico) and "Effects of School TV Broadcast on Children in Isolated Villages" (Japan).

In all three of these cases, the results achieved by those persons utilizing educational broadcasting are higher than those of non-users, with the gap measuring between 3 and 15%*. (Detailed data is given in the Appendix.) In research on educational broadcasting in England, the contribution made by educational broadcasting within the mastery of students'

educational materials in the framework of school education has been evaluated at approximately 10%, when all educational means (textbooks, teaching materials, etc.) are cumulatively calculated as 100%.

While the data just referred to cannot be discussed in uniform terms owing to varying social conditions and testing methods. The above mentioned effect of educational TV and radio broadcasting on the education is hereinafter referred to as "effectiveness index". In the present analysis, the effectiveness index is assumed as 10%**.

However, this is only a general value and may vary according to broadcasting content, time and method as well as the environment of the user. Still, in a country such as the Dominican Republic where improvement is needed in the quality of teachers, the effectiveness of educational broadcasting is seen to be outstanding, thereby making it generally appropriate to use a relatively high value in the evaluation.

* In research on the effectiveness of science broadcast programming in Japan, the index of effectiveness is calculated using the following formula:

$$\text{Effectiveness} = \left\{ \frac{\text{rate of correct test scores after broadcasting} - \text{rate of correct test scores before broadcasting}}{100 - \text{rate of correct test scores before broadcasting}} \right\} \times 100$$

When index of effectiveness is calculated based on the project data presented here, television effectiveness is 9-13%, radio about 5%.

** Although it is generally thought that TV education is more effective than radio education, it does not appear here that there is a great difference between the two. For this reason, and taking the degree of frequency of viewer or listener use into consideration, an index of 10% has been used in both cases.

(2) Calculation of benefit

Since the average elementary school student in the Dominican Republic spends some 637 hours in class each year, the per capita cost of school education per hour is approximately RD\$0.13. (1984 price).

When the benefit of educational broadcasting is measured in terms of reduced educational cost per hour per elementary school student by using the said effectiveness index, the resulting figure is RD\$0.013 (0.13×0.1), provided that scholastic ability of students increases in proportion with the required costs.

This figure was then multiplied by the number of broadcasting hours per year (124 hours during first year after poroject start, 165 hours thereafter) and the number of students, in order to calculate the total benefit on an annual basis.

Using this method of calculation, cumulative benefit through the year 2000 amounts to approximately RD\$29.40 million.

1-3-3 Out-of-school Educational Broadcasting

(1) Preliminary assumptions

1) Number of users

As when calculating the number of users of in-school educational broadcasting, the Dominican Government's population forecast and school attendance rate were adopted to estimate the number of middle school students, children not attending elementary schools and the number of illiterate adults, the latter category making reference to the Government's Literacy Plan. The results of these estimates are shown in Table 1-6.

The audience viewing or listening rate was estimated at 4%, or nearly the equivalent of the current RTVD ratings, Reference was also made to data released by a private research company in the Dominican Republic as well as to survey information available through local advertising agencies.

Table 1-6 Estimate of Number of Middle School Students, Illiterate Adults and Children not attending Elementary Schools

(Unit: thousands person)

Year	Middle School Students	Illiterate Adults	Children not attending Elementary Schools
1986	362	544	257
1987	375	490	248
1988	390	446	240
1989	406	404	230
1990	422	334	220
1991	439	278	209
1992	455	228	197
1993	471	188	183
1994	488	157	170
1995	506	128	154
1996	524	107	140
1997	542	90	123
1998	561	72	106
1999	582	59	86
2000	603	0	68

2) Distribution of broadcast receivers

a. TV

As of 1983 the Dominican Republic had approximately 740,000 television sets, or approximately 0.6 sets per household (one set per 8 persons). However, according to data included in the 1981 national census, it is estimated that the rate of diffusion among rural households is only about 1/3 of the above rate for the whole nation.

Nevertheless, in such rural areas it is very common for group television viewing to be carried out at community centers, churches, landowner residences, etc., so in actual terms TV viewing is common to a much higher degree than the census figures would indicate.

The outlook for future TV dispersion envisions a more rapid increase in ownership than the percent income levels rise. It is forecast that the greatest degree of expansion will be seen in the rural areas where TV ownership is currently lagging.

b. Radio

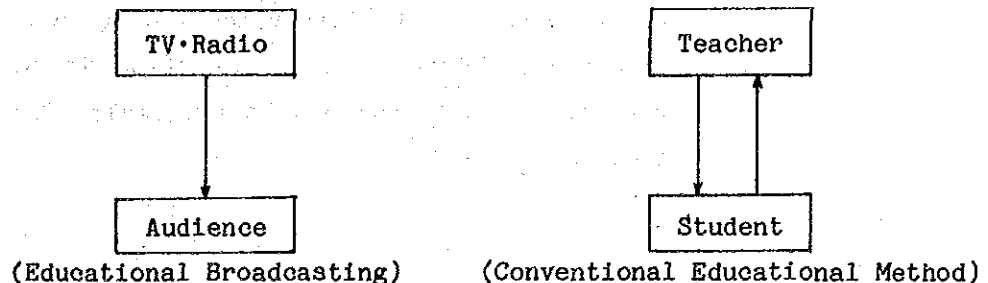
As of 1983 there were approximately 1.6 million radios in use in the country. Some 90% of these sets were equipped for both AM and FM broadcasting.

3) Effects of out-of-school educational broadcasting

Whereas the effectiveness of in-school educational broadcasting was measurable in terms of the gap between educational broadcasting and conventional teaching methods, in the case of at-home education effectiveness is sought through a comparison with educational effectiveness in the classroom. A concept of broadcast and classroom education is shown in Fig. 1-2.

Fig. 1-2

Concept of Educational Broadcasting
and Conventional Educational Method



At present, there is very little quantitative data available to aid in understanding the effects of educational broadcasting into the home*. Nevertheless, in view of the necessity of such an evaluation here, a effectiveness conversion coefficient of educational broadcasting against school education has been estimated and applied to the current analysis by making reference to the experiences of educational specialists and adding the special circumstances relating to the Dominican Republic as discussed below.

According to education specialists, mastery of study content through educational broadcasting is said to range anywhere from 10% to 50% in effectiveness compared with regular class instruction. Precise figures vary according to program content. For example, compared to subjects such as drafting and home economics where the individual study is of great importance, the effectiveness of educational broadcasting is said to be higher for subjects such as language, social studies and science where the absorption of knowledge and information are of great importance.

Also, owing to the relatively low level of education in most developing countries, it is often said that the introduction of educational broadcasting in such countries can be equally effective as in-class instruction. The Dominican Republic is not exception to this observation, and there is considerable room for improvement in such educational assets as teaching facilities, teaching materials and teachers.

In view of the above, the following arguments may be made:

- a. The educational goals of this project may in the narrow sense be said to be improvement in basic education such as literacy. Educational broadcasting is highly compatible with these goals and can be extremely effective in aiding their attainment.

- b. The lower the level of in-school education, the higher the relative effectiveness of educational broadcasting.

As a result, within the range of effectiveness offered by the educational specialists above, it would not appear inappropriate to select a relatively high value for purposes of this evaluation. For this reason, an index of 0.4 was applied.

- * Pertinent comparative research on this subject has been conducted in the case of "Sesame Street." Research has shown that children who watch this program in the home (25-80% of such children simultaneously do not attend educational facilities of any kind) achieve a level of mastery at least equivalent to that of children who attend kindergarten under the supervision of a teacher. ("Children and Television" - Gerald S. Lesser)

(2) Calculation of benefit

As in the case of in-school educational broadcasting used above, the method used to calculate the benefit of out-of-school education is measured based on a comparison of costs with alternate means of education.

The cost of in-school education per student per hour is RD\$0.13 for elementary school students, RD\$0.135 for middle school students and RD\$0.12 for adults (each is calculated by dividing annual education costs by the number of hours in class each year).

These figures were multiplied by the estimated number of users and the number of broadcasting hours for each category of programming as well as by the aforementioned effectiveness conversion coefficient, to produce the total benefit per year.

Using this calculation method, the cumulative benefit recorded through the year 2000 figures to approximately RD\$80.86 million.

CHAPTER 2 EVALUATION AND PROPOSALS

2-1 Evaluation

(1) Internal rate of return

When an evaluation is performed using the methods described in the previous chapter, on a total investment of RD\$57.7 million the cumulative benefit accrued through the year 2000 is RD\$110.26 million. The internal rate of return (IRR) of the project is therefore 13.8%.

However, these results have been evaluated under the various assumptions which have already been described, and the values obtained through this analysis should only be considered as references in judging the profitability of this project. Accordingly, these values can serve as an aid in judging the project's economic propriety.

It must also be noted that, as explained earlier, the evaluation results are limited in scope to elementary and middle school students and illiterate adults. However, in the event that broadcasting services were actually implemented, the project would have its effects not only on these groups, but would also conceivably directly or indirectly have the following effects as well.

- * Impact of language and vocational training programs on mastery of special technologies;
- * Impact of programs aimed at teachers on cultivating teachers and improving the quality of teaching;
- * Impact of pre-school education in terms of child training;
- * Impact of cultural programs on raising the cultural level of the public.

Other conceivable benefits of the project cover a wide range of areas including economic, cultural and political aspects, e.g. effectiveness in improving public health and hygiene, in

improving social lifestyles and family life, in improving the labor productivity of the nation, etc. Most of these benefits are intangible. Nevertheless, when these nonmeasurable benefits are added in, the future IRR of the project can be assumed to be higher than the figure which was attained through the present analysis.

(2) Sensitivity analysis

Here, various key parameters shall be selected and examination will be made to see how the IRR changes as the conditions of each parameter change, assuming that all other factors remain constant.

1) Change in number of hours of educational broadcasting in schools

In the base case of analysis given above, the number of hours during which educational broadcasting is to be used in schools was set at 1 hour per day per student. Judging from present class schedules, this amount of time is believed to exceed actual likelihood. Here, then, in calculating the IRR the number of hours of broadcasting in the school was set at 3 hours per week (in the case of the Dominican Republic, this figure yields an annual total of 100 hours, or 40% less than in the base case).

2) Change in number of hours of broadcast usage outside schools

The effectiveness of educational broadcasting through a nationwide broadcasting network depends on the rate of usage (demand) of those who receive the broadcasts. Therefore, in order to analyze the sensitivity of audience usage against the IRR, the IRR was calculated for the case where the viewing/listening rate declined by 1% (from 4% to 3%).

3) Change in operating costs

Calculation of operating costs also can be expected to undergo a certain amount of fluctuation if some degree of change occurs in the basic conditions under which the calculation was

made (personnel planning, salaries, etc.). The IRR was therefore calculated for the case where a 10% increase in operating costs is required.

The results of the calculations of the evaluation indices and of the sensitivity analyses are shown in Table 1-7.

Table 1-7 Economic Evaluation

	Base Case	*1	*2	*3
Base Case	13.833	11.284	9.177	6.244
10% up of Operating Cost	13.560	10.991	8.866	5.901

Note: *1 Number of Hours of Educational Broadcasting in Schools:
40% Decrease (165 hrs → 100 hrs)

*2 Audience Viewing/Listening Rate:
1% Down (4% → 3%)

*3 Number of Hours of Educational Broadcasting in Schools:
40% Decrease and
Audience Viewing/Listening Rate:
1% Down

Also, the evaluation period of the project has been set to extend through the year 2000. In projects such as this, however, where enormous capital investment outlays are required during the early phases, it is also necessary to compare costs and benefits through the long range.

Assuming that a fixed rate of growth in demand (number of students) will be seen even after the year 2000, the IRR was calculated through the year 2006 (the project life being 20 years) as 16.4%.

(3) Social impact of the educational broadcasting project

The evaluation presented so far has been an analysis of educational effectiveness in a narrow sense. When educational broadcasting services are actually implemented, a broad range of results appear both directly and indirectly. Here, several aspects of the project's social impact shall be considered.

1) Effectiveness in expanding the productive population and labor productivity

As one of its most important policies, the Dominican Government is presently exerting efforts to train the nation's citizens in technology as a means of expanding the productive population. In order to expand the productive population in addition to national economic development it is also necessary to take positive steps to develop the nation's human resources.

Against this background, educational broadcasting can play a fundamental role in aiding in these tasks by creating educational opportunities and raising the quality of education. Specifically, vocational training programs can be directly effective in aiding in the mastery of occupational skills. Furthermore, by expanding access to basic education it is possible indirectly to expand the number of skilled workers in the labor force and create a high-quality labor force.

2) Effectiveness in overcoming educational problems in rural areas

According to SEEBAC, the following problems, both qualitative and quantitative, have been indicated in conjunction with education in the nation's rural areas.

- Among elementary school students living in rural areas, many serve as a source of labor for the family, a situation which makes it difficult for such students to spend an adequate number of hours in the classroom.

- Owing to the small size of some rural schools, some students are compelled to discontinue their education or to commute to schools at a distance from their home area.
- The number of persons not receiving education in rural areas is seen to be double the figure for urban areas (source: 1981 national census).
- Approximately 57% of all teachers at rural schools do not hold certified teaching licenses (1980), reflecting a wide gap between the rural and urban (In case of urban, approx. 29%) situations.
- The rate of illiteracy among persons 5 years of age and older is 20.9% in urban areas and 43% in rural areas (both figures based on data of 1981 national census).

In areas where there is only a limited access to educational opportunity, through educational broadcasting it is possible to promote the spread of education and correct the gap existing between the urban and rural areas. This is also significant in terms of both national and regional economic and social development.

3) Effectiveness in lowering school failure and dropout rates

One of the major problems in education today in the Dominican Republic is the low rate of residualism among school students. In addition, the rate of failure to advance to the higher grade level is between 6-13% among elementary school students, and it is said that approximately 40% of all students entering school withdraw before completing their elementary education for economic and other reasons. The high rate of failure is also causing relative expansion in the number of students in the lower grades of elementary school (nearly 67% of all students in public elementary schools are in the first 3 grades), leading to a shortage of classrooms.

Under these circumstances, it is highly conceivable that the effective use of an educational program using audio-visual media can spur scholastic interest and thereby serve to lower the dropout and failure rates.

4) Effectiveness in cultivating teachers

In addition to improving educational facilities (schools, etc.), one of the most fundamental conditions to good education is the cultivation of high-quality educators. This problem is one of great urgency today in the Dominican Republic.

According to data for 1980, some 45% of all teachers do not hold a formal teaching certificate. The situation is even more severe when limited to rural areas, where nearly 57% of all teachers are unlicensed.

Under the project at hand, it has been proposed that the educational broadcasting programming plan should include programs targeted at teachers, in order to cultivate the high-quality teachers needed. Effective use of such programming can have highly favorable results within a relatively short period of time.

5) Financial impact

During the 10-year period from 1974 to 1983, revenues received by RTVD through advertising etc. accounted for an average of approximately 65% of total annual income. Additional required funds are supplied by the Government in the form of a subsidy.

The educational broadcasting project itself shall require approximately RD\$39.85 million as construction costs, and approximately RD\$1.5-2.5 million per year just for operating costs. If all of the required operating costs are sought from the Government as a subsidy, the resulting cumulative subsidy amount will be approximately RD\$2.5-3.5 million annually.

A broadcasting project is guaranteed to operate smoothly only when all of its parts function organically. Even if the educational broadcasting system operates, this alone cannot ensure adequate broadcast services.

In this respect also, in order to operate this project soundly, RTVD should relocate programs now on the general broadcasting station which are appropriate as educational programs and place them on the new educational station. In the vacated program slots, it should then organize programs of greater income potential through advertising fees. Also, operation of education broadcasting demands a large staff, and in order to minimize operating costs in this category RTVD should consider rearranging its current staff to permit efficient use of the same personnel for the educational station whenever possible.

In the same respect, the cooperative relationship with SEEBAC must exceed assistance in only the technical aspects of planning educational programming and extend to the formation of a cooperative system free of financial waste, achieved through efficient management and operation.

2-2 Conclusion and Proposals

While it is hard to deny that the results of the cost/benefit calculation will have meaning in terms of the project's ultimate adoption, the implementation of the educational broadcasting project is totally in line with the production targets of the Government of the Dominican Republic. When education is given full consideration, the IRR given in the results of the analysis is believed not to be so low as to prohibit the project's implementation. An educational broadcasting project by nature should be operated as a non-profit project for the benefit of the public. If the Government can assume the necessary operating costs of the project, we believe that the project should indeed be implemented.

However, if the Government attempts to carry out the project on a fully nationwide basis, an enormous capital investment shall be required. Moreover, because it is necessary also to

install broadcast receivers as a prerequisite to in-school broadcasting, the problems involved in carrying out the project are by no means minor. The benefits of this project do not appear simultaneous with the implementation of an educational broadcasting system; rather, they appear gradually over the long range.

In view of the fact also that the Dominican Republic is currently making strong efforts to spread education as one of the nation's most important policies, this project can be said to have great significance. Still, in executing the project it shall be necessary to give full consideration to all matters to ensure that problems will not emerge in terms of capital procurement, personnel acquisition, etc. in the future.

CHAPTER 3 CAPITAL PLAN

While the capital plan for this project is not set at the present time, the capital demand and defrayment methods, in the event that the project were implemented, are shown in Table 1-8.

Among construction costs, it has been assumed that the portion involving foreign currency would be supplied from abroad in the form of a long-term loan. It was also assumed a Government subsidy would be applied as internal capital against all operating costs.

The conditions for the overseas loan of course are also pending. However, for the present purposes the following conditions were assumed: interest 5.5%, deferment period 4 years, repayment period including deferment period 17 years.

A major feature of this project is the fact that it engenders no income. Accordingly, the capital plan which is described here is designed to show the pattern of the Government's fiscal burden in dealing with the deficits produced by the project. Because such deficits are borne by the Government, the deficit for a given year is not carried over to the following year.

Table 1-8 Capital Plan of Project

(Unit: 1 x 10³ RD\$)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1. Cash Inflow	6,395	30,478	4,237	1,515	2,212	2,212	2,212	2,460	2,460	2,460	2,460	2,460	2,460	2,460
1.1 Gov. Contribution	44	2,320	1,263	1,515	2,212	2,212	2,212	2,460	2,460	2,460	2,460	2,460	2,460	2,460
1.2 Long Term Foreign Loan	6,351	28,158	2,974	-	-	-	-	-	-	-	-	-	-	-
2. Cash Outflow	6,570	31,602	6,217	3,577	7,077	6,919	6,760	6,850	6,691	6,532	6,374	6,215	6,057	5,898
2.1 Construction Cost	6,395	30,478	2,974	-	-	-	-	-	-	-	-	-	-	-
2.2 Operation Cost	-	-	1,263	1,515	2,212	2,212	2,212	2,460	2,460	2,460	2,460	2,460	2,460	2,460
2.3 Repayment of Foreign Loan	-	-	-	-	2,883	2,883	2,883	2,883	2,883	2,883	2,883	2,883	2,883	2,883
2.4 Payment of Interest	175	1,124	1,980	2,062	1,982	1,824	1,665	1,507	1,348	1,189	1,031	872	714	555
3. Surplus/Deficit	-175	-1,124	-1,980	-2,062	-4,865	-4,707	-4,548	-4,390	-4,231	-4,072	-3,914	-3,755	-3,597	-3,438

Note: The outstanding balance of long-term foreign loan to be repaid after 2000 is RD\$8,653 million.

ATTACHMENT

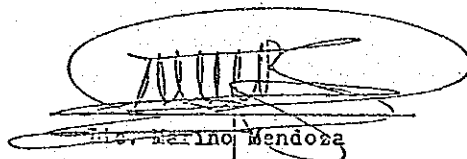
Attachment 1

Attachment 2

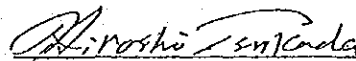
SCOPE OF WORK
FOR
THE FEASIBILITY STUDY ON
THE RADIO AND TELEVISION DEVELOPMENT PROJECT
IN
THE DOMINICAN REPUBLIC

AGREED UPON BETWEEN
RADIOTELEVISION DOMINICANA
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Santo Domingo April, 1984



~~Mr. Marino Mendoza~~
General Director
RADIOTELEVISION
DOMINICANA (RTVD)



Hiroshi TSUKADA
LEADER OF THE JAPANESE
PRELIMINARY STUDY TEAM,
JAPAN INTERNATIONAL
COOPERATION AGENCY (JICA)

I. INTRODUCTION

In response to the request of the Government of the Dominican Republic, the Government of Japan has decided to conduct the feasibility study on the Radio and Television Development Project (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

The Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will carry out the Study in close cooperation with Radiotelevisión Dominicana (hereinafter referred to as "RTVD") and the authorities concerned of the Government of the Dominican Republic.

The present document sets forth the Scope of Work for the Study.

II. OBJECTIVE OF THE STUDY

The Study aims to conduct the feasibility study of establishing stations for cultural broadcasting radio and television network.

III. OUTLINE OF THE STUDY

1. Study area

Throughout the country

2. Scope of the Study

The Study will consist of field work in Dominican Republic and analysis work in Japan.

Contents to be covered by the Study are as follows.


- 1). To establish stations for cultural broadcasting radio and television network.
- 2). To modify existing facilities in compliance with established cultural network.

Items to be covered by the Study are as follows.

- 1). Field work
 - A. Collection of data and information
 - a. General statistics on population, education, economy, etc.
 - b. Laws, regulations and codes concerning broadcasting
 - c. Organization and personnel
 - d. Broadcasting development plan
 - e. Existing facilities
 - transmission facilities
 - program transmission facilities
 - studio facilities
 - other relevant facilities
 - f. Other reference data
 - maps, electric power services, meteorological data, etc.
 - B. Field Survey
 - a. Present situation of broadcasting facilities and other relevant facilities
 - b. Topographic condition
 - c. other needed
- 2). Analysis Work
 - A. Preparation of the Alternatives



Handwritten signature and initials, possibly 'P. J.' and '2/1'.

- 
- B. Identification of appropriate plan
 - a. Basic management plan
 - b. Program planning
 - c. Channel plan
 - d. Facilities plan
 - e. Selection of site
 - f. Construction plan
 - g. Staff plan
 - h. Estimation of initial investment, management, operation and maintenance costs
 - i. Recommendation of management and operation
 - j. Preparation of implementation schedule
 - C. Evaluations
 - a. Financial analysis
 - b. Economic analysis

IV. SCHEDULE OF STUDY

The study shall be undertaken in accordance with the schedule of Study. (refer to the Annex).

V. REPORT

JICA will prepare and submit the following reports in English to the Government of the Dominican Republic.


1. Inception report (20 copies)
at the beginning of the field survey

2. Progress report (20 copies)
at the end of the field survey
3. Interim report (20 copies)
within two and a half (2.5) months after completion
of the field survey
4. Draft final report (20 copies)
within four (4) months after completion of the field
survey
5. Final report (50 copies)
within one and a half (1.5) months after the receipt
of the comments on the draft final report.

VII. UNDERTAKING OF THE GOVERNMENT OF THE DOMINICAN REPUBLIC

The Government of Dominican Republic shall accord privileges, immunities and other benefit to the JICA Study Team (hereinafter referred to as "the Team"), and through the authorities concerned, take necessary measures to facilitate smooth conduct of the Study.

1. RTVD shall make necessary arrangements with the cooperation of other relevant organizations for the followings;
 - 1). to secure the safety of the Team.
 - 2). to permit the members of the Team to enter, leave and sojourn in Dominican Republic for the duration of their assignment therein, and exempt from alien registration requirements and consular fees.

- 
- 3). to exempt the members of the Team from taxes, duties, fees and any other charges on equipment, machinery and other materials brought into Dominican Republic for the conduct of the Study.
 - 4). to exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study.
 - 5). to provide necessary facilities to the Team for the remittance as well as the utilization of funds introduced into Dominican Republic from Japan in connections with the implementation of the Study.
 - 6). to coordinate visits to public organizations and places required for the Study.
 - 7). to give facilities all informations and data related to the Study and send these out of Dominican Republic to Japan.
 - 8). to arrange necessary transportation for the field survey.
 - 9). to provide medical services as needed, its expenses will be chargeable on the members of the Team.
2. The Government of Dominican Republic shall bear claims, if any arises, against the members of the Team resulting from, occuring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study.

except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team .

3. RTVD shall, at its own expense provide the Teams during the Study period with the following, in cooperation with other relevant regulations:
 - 1). available data and information related to the Study
 - 2). counterpart personnel for smooth transfer of technology
 - 3). suitable office space with necessary equipment in Dominican Republic
 - 4). credentials or identification cards

VIII. UNDERTAKING OF THE GOVERNMENT OF JAPAN

For the implementation of the Study, the Government of Japan will, in accordance with the relevant laws and regulations in force in Japan, through JICA, take necessary measures;

- 1). to dispatch, at its own expense, the Team to Dominican Republic.
- 2). to perform technology transfer to the Dominican counterpart personnel in the course of the Study.

IX. LANGUAGE

In case there is any divergence of interpretation of this Scope of Work, which is done in English and in Spanish, the English text shall prevail.








X. CONSULTATION

JICA and RTVD will consult with each other in respect of any matter that is not agreed upon in this document and any arise from or in connection with the Study.

A handwritten signature in black ink, consisting of a large, stylized initial 'M' or 'W' enclosed in a vertical oval, with several horizontal strokes below it.

Annex

STUDY SCHEDULE (TENTATIVE)

Item	Month	1	2	3	4	5	6	7	8	9	10
Field Survey											
Preparation of Interim and Draft Final Report											
Explanation of Interim and Draft Final Report											
Preparation of Final Report											
Report											
		*	*		*	*	*		*	*	
		Inception Report	Progress Report		Interim Report	Interim Report	Draft Final Report	Draft Final Report	Final Report	Final Report	



work in Dominican Republic



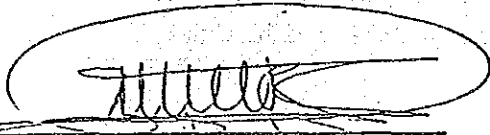
work in Japan

Remarks:

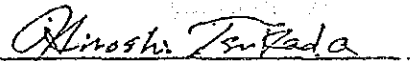
ALCANCE DE TRABAJOS
PARA
EL PROYECTO DE LA RED DE RADIO Y TELEVISION CULTURAL NACIONAL
EN
LA REPUBLICA DOMINICANA

ACORDADO ENTRE
LA RADIO TELEVISION DOMINICANA
Y
LA AGENCIA DE COOPERACION INTERNACIONAL DEL JAPON

Santo Domingo, abril de 1984



~~L. E. Mendoza~~
Director General
RADIOTELEVISION DOMINICANA
(RTVD)



Ing. Hiroshi Tsukada
Jefe de Misión
AGENCIA DE COOPERACION
INTERNACIONAL DEL JAPON
(JICA)

I. INTRODUCCION

En respuesta a la solicitud del Gobierno de la República Dominicana, el Gobierno del Japón ha decidido realizar el Estudio de Factibilidad del Proyecto de la Red de Radio y Televisión Cultural Nacional, que en lo adelante se denominará "El Estudio", de acuerdo a las leyes y reglamentos vigentes en el Japón.

La Agencia de Cooperación Internacional del Japón, que en lo adelante se denominará "JICA", organización oficial responsable de la implementación de programas de cooperación técnica del Gobierno del Japón, llevará a cabo el Estudio en estrecha cooperación con la Radiotelevisión Dominicana, que en lo adelante se denominará "RTVD", y demás autoridades relacionadas al Gobierno de la República Dominicana.

El presente documento constituye el Alcance de Trabajos de el Estudio arriba mencionado.

II. OBJETIVO DE EL ESTUDIO

Realizar el Estudio de Factibilidad para el establecimiento de estaciones de la Red de Radio y Televisión Cultural Nacional.

III. RESEÑA DE EL ESTUDIO

1. Zona de estudio

Todo el territorio nacional

2. Alcance del estudio

El estudio comprenderá trabajos de campo en la República Dominicana y análisis de las informaciones reunidas en el Japón.

El contenido de el Estudio cubrirá lo siguiente:

- 1). establecer las estaciones para la Red de Radio y Televisión Cultural Nacional.
- 2). modificar las facilidades existentes en relación al establecimiento de la Red Cultural.

Los trabajos que cubrirá el Estudio:

1). Trabajos de Campo

A. Colección de datos e informaciones.

- a. Estadística general de población, educación economía, etc.
- b. Leyes, reglamentos y ordenanzas relacionadas a la Radio y Televisión.
- c. Organización y personal.
- d. Plan de desarrollo de la Radio y Teledifusión.
- e. Facilidades existentes.
 - facilidades de transmisión
 - facilidades de transmisión de programas
 - facilidades de estudio
 - otras facilidades
- f. Otros datos
 - mapa, servicio eléctrico, datos de meteorología, etc.

B. Estudio sobre el terreno

- a. Condición presente de las facilidades existentes y otras facilidades.
- b. Condición de la topografía.
- c. Otras necesidades.

2). Trabajos de Análisis

A. Preparación de Alternativas.

- B. Identificación de un plan apropiado
 - a. Plan básico de administración
 - b. Planificación de programas
 - c. Plan de frecuencias
 - d. Plan de facilidades físicas
 - e. Selección de la ubicación
 - f. Plan de construcción
 - f. Plan de necesidades de personal
 - h. Estimado del costo de inversión inicial, administración, operación y mantenimiento
 - i. Recomendaciones para la administración y operación
 - j. Preparación del programa de ejecución.

- G. Evaluación
 - a. Análisis financiero
 - b. Análisis económico

IV. ITINERARIO DE EL ESTUDIO

El Estudio se llevará a cabo de acuerdo al itinerario de el Estudio (ver el Anexo).

V. INFORMES

JICA preparará y presentará los siguientes informes en inglés al Gobierno de la República Dominicana.

1. Informe Inicial (20 copias)
al comienzo de los trabajos de campo.
2. Informe Progresivo (20 copias)
al final de los trabajos de campo.

3. Informe Intermedio (20 copias)
dos meses y medio (2.5) después de terminado los trabajos de campo.
4. Borrador del Informe Final (20 copias)
cuatro meses (4) después de terminado los trabajos de campo.
5. Informe final (50 copias)
un mes y medio (1.5) después de recibir los comentarios sobre el borrador del informe final.

VII. CONTRIBUCIONES DEL GOBIERNO DE LA REPUBLICA DOMINICANA

El Gobierno de la República Dominicana otorgará privilegios, inmunidades y otras facilidades, a las Misiones de Estudio del Japón, que en lo adelante se denominará "las Misiones", y a través de las autoridades competentes, tomará las medidas necesarias para facilitar la rápida ejecución de el Estudio.

1. RTVD hará cualquier arreglo necesario en cooperación con otras organizaciones competentes, para:
 - 1) Garantizar la seguridad de las Misiones.
 - 2) Permitir a los miembros de las Misiones, entrar, salir y permanecer en la República Dominicana durante el tiempo de su trabajo y eximirlos de los requisitos de registro y tarifas consulares exigidos a los extranjeros.

- 3). Eximir a los miembros de las Misiones del pago de aquellos impuestos, derechos, tarifas y otras cargas que incurrieren por traer a la República Dominicana equipos, maquinarias y otros materiales necesarios para la ejecución de el Estudio.
- 4). Eximir a los miembros de las Misiones del pago del impuesto a la renta y otras cargas de cualquier tipo que pudieren surgir en relación a los viáticos pagados a los miembros de las Misiones por sus servicios relativos a la implementación de el Estudio.
- 5). Proveer a las Misiones las facilidades de lugar para remitir así como para utilizar los fondos introducidos a la República Dominicana desde el Japón en relación a la implementación de el Estudio.
- 6). Coordinar visitas a los lugares y organismos públicos y privados, necesarios para la realización de el Estudio.
- 7). Facilitar a las Misiones todas las informaciones y documentos relacionados con el Estudio, así como el traslado de los mismos al Japón.
- 8). Proveer todo el transporte necesario para los trabajos de campo.

- 9). Garantizar la prestación de servicios médicos a las Misiones durante su estadía en la República Dominicana en el caso de que fuera necesario. Los gastos serán cubiertos por las Misiones.
2. El Gobierno de la República Dominicana se hará responsable de las reclamaciones, si se presenta alguna, contra las Misiones que pudieren surgir como resultante del cumplimiento de sus deberes, durante el mismo, o en relación con el mismo, salvo en caso de que los dos Gobiernos se pongan de acuerdo en que tales reclamaciones se originan de negligencia grave o mala conducta intencional por parte de los miembros de las Misiones.
3. En caso de que fuera necesario, RTVD proveerá a las Misiones a su propio costo y en cooperación con otras entidades pertinentes, lo siguiente:
 - 1). datos e informes disponibles relacionados con el Estudio.
 - 2). personal contraparte para la transferencia de tecnología.
 - 3). una adecuada oficina equipada en la República Dominicana.
 - 4). credenciales o documentos de identificación.

VIII. CONTRIBUCIONES DEL GOBIERNO DEL JAPON

El Gobierno del Japón, de acuerdo a las leyes y reglamentos vigentes en el Japón, tomará a través de JICA las,

siguientes medidas necesarias para la ejecución de el Estudio.

- 1). Enviar por su cuenta a las Misiones de Estudio a la República Dominicana.
- 2). Implementar la transferencia de tecnología en el curso del Estudio al personal contraparte de la República Dominicana.

IX. LENGUAJE





















En caso de que surgiere cualquier divergencia de interpretación del presente Alcance de Trabajos, el cual está hecho tanto en inglés como en español, el texto en inglés prevalecerá.

X. CONSULTAS

JICA Y RTVD se consultarán mutuamente con respecto a cualquier asunto que no esté acordado en el presente documento que pudiere surgir en relación a el Estudio.

ANEXO

PROGRAMA DEL ESTUDIO (TENTATIVO)

Item	Mas	1	2	3	4	5	6	7	8	9	10
Estudio en Republica Dominicana											
Preparacion del Intermedio y Borrador Informe Final											
Explicacion del Intermedio y Borrador Informe Final											
Preparacion del Informe Final											
Informe	*	*	*	*	*	*	*	*	*	*	*
	Informe de Inicial	Informe Progresivo	Informe del Intermedio	Borrador del Informe Final	Informe Final	Borrador del Informe Final	Informe Final	Borrador del Informe Final	Informe Final	Borrador del Informe Final	Informe Final



trabajos de campo



análisis en Japón

Notas:

Minutes of discussions on Scope of Work for
Feasibility Study on the Radio and Television Development
Project in the Dominican Republic

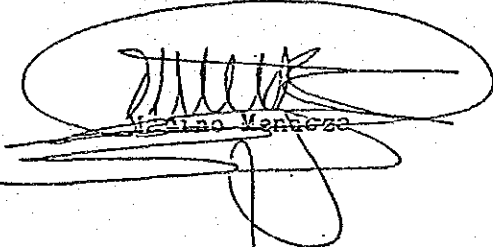
In response to the request of the Government of Dominican Republic, the Preliminary Study Team (the Team) was sent by the Japan International Cooperation Agency (JICA) to discuss a Scope of Work (S/W) for the Feasibility Study on the Radio and Television Development Project in the Dominican Republic.

The Study Team headed by Mr. Hiroshi Tsukada has stay in Dominican Republic from 1st to 11th April 1984, and made a series discussions with Radiotelevisión Dominicana (RTVD).

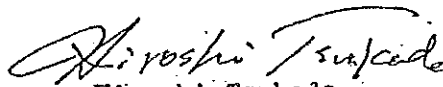
A list of attendance in the meeting is attached as Annex.

Draft of Scope of Work proposed by the Team was Discussed and agreed between the Team and RTVD minor modifications.

Santo Domingo April 6, 1984



Rafael Meneses



Hiroshi Tsukada

List of Attendance

ANNEX

Radiotelevisión Dominicana

Mr. Marino Mendoza	Director General RTVD
Mr. Lulio Moscoso Espinosa	Sub Director of RTVD, TV. División
Mr. José Js. Díaz	Sub Director of RTVD, Radio División
Mr. Cristian R. Then	
Mr. Facundo Michel	
Mr. Arístides Binet	

Preliminary Study Team

Mr. Hiroshi Tsukada	(Leader)
Mr. Seishin Ojima	(Member)
Mr. Koretaka Ogata	(Member)
Mr. Koichiro So	(Member)

MINUTA DE LAS DISCUSIONES SOBRE EL ALCANCE DE TRABAJOS
PARA EL PROYECTO DE LA RED DE RADIO Y TELEVISION CULTU-
RAL NACIONAL EN LA REPUBLICA DOMINICANA

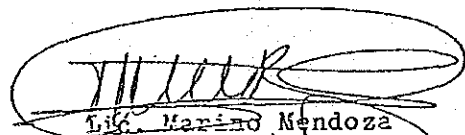
En respuesta a la solicitud del Gobierno de la Repú-
blica Dominicana, la Misión Preliminar del Estudio del
Japón (la Misión) fue enviada por la Agencia de Coopera-
ción Internacional del Japón (JICA) a fin de discutir
el Alcance de Trabajos para el Proyecto de la Red de
Radio y Televisión Cultural Nacional en la República
Dominicana.


La Misión, encabezada por el Señor Ing. Hiroshi Tsukada
permaneció en la República Dominicana desde el 1 al 11 de
abril de 1964, y sostuvo una serie de discusiones con las
autoridades de la Radiotelevisión Dominicana (RTVD).

La lista de los asistentes se detalla en el anexo.

El borrador del Alcance de Trabajos, propuesto por la
Misión, fue discutido y aceptado por la Misión y la RTVD,
con modificaciones menores.

Santo Domingo 6 de abril de 1984


Lic. Marino Mendoza


Ing. Hiroshi Tsukada

List of Attendance

ANNEX

Radiotelevisión Dominicana

Mr. Marino Mendoza	Director General RTVD
Mr. Lulio Moscoso Espinosa	Sub Director of RTVD, TV División
Mr. José Js. Díaz	Sub Director of RTVD, Radio Divis
Mr. Cristian R. Then	
Mr. Facundo Michel	
Mr. Arístides Binet	

Preliminary Study Team

Mr. Hiroshi Tsukada	(Leader)
Mr. Seishin Ojima	(Member)
Mr. Koretaka Ogata	(Member)
Mr. Koichiro So	(Member)

ITINERARY OF THE STUDY1. ITINERARY OF THE SURVEY (FIRST VISIT)

1984

- Aug. 27(Mon) Depart Tokyo.
- 28(Tue) Arrive Sto. Domingo, Dominican Republic.
- 29(Wed) Courtesy call to Japanese Embassy and to JICA office:
(Mr. H. Tsukada, Mr. T. Miura,
Mr. K. So, Mr. K. Hibino)
Visit RTVD to submit Inception Report.
Team meeting.
- 30(Thu) Explanation of Inception Report.
- 31(Fri) Explanation of Inception Report and Meetings of dif-
ferent groups.
Signing of Minutes.
Team meeting.
- Sept. 1(Sat) Team meeting.
- 2(Sun) Team meeting.
- 3(Mon) Pre-arrangements for site survey.
- 4(Tue) Group 1 : Explain Inception Report to RTVD radio
group.
Preparations for trip to Alto de la Bandera district.
Courtesy call to Secretariado Administrativo de la
Presidencia, Secretariado Técnico de la
Presidencia, Secretaría de Educación, Bellas
Artes y Culto.
(Mr. H. Tsukada, Mr. T. Miura and Mr. K. So)
- 5(Wed) Group 1 : 1st day on spot investigation of Alto de la
Bandera district.
Group 2A: Study of the private commercial broadcasting
stations and gathering of information
material.
Return to Japan: Mr. H. Tsukada and Mr. K. So.
- 6(Thu) Group 1 : 2nd day on spot investigation of Alto de la
Bandera district.
Group 2A: Meeting with RTVD and gathering of informa-
tion material.
- 7(Fri) Group 1 : 3rd day on spot investigation of Alto de la
Bandera district.
Group 2A: Gathering of information material.

- Sept. 8(Sat) Team meeting.
 Group 1 : Field-strength measurement (park area near hotel) and adjustment of data.
 Group 2A: Adjustment of reference material.
- 9(Sun) Group 1 : Field-strength measurement (park area near hotel) and adjustment of data.
 Group 2A: Adjustment of reference material.
- 10(Mon) Group 1 : First day on spot investigation of La Romana district.
 Group 2A: Meeting with RTVD radio group.
 Meeting with Secretaría de Educación, Bellas Artes y Culto (SEEBAC).
 (Mr. T. Miura and Mr. T. Karigane)
- 11(Tue) Group 1 : 2nd day on spot investigation of La Romana district.
 Group 2A: Meeting with RTVD radio group.
 Group 2B: Arrive Dominican Republic.
- 12(Wed) Group 1 : 3rd day on spot investigation of La Romana district.
 Groups 2A and 2B: Meeting with RTVD radio group.
 Team meeting.
- 13(Thu) Meeting with RTVD to set up principle for future investigation planning.
- 14(Fri) Group 1 : Investigation of Villa Mella.
 Group 2A: Meeting with Secretaría de Obras Públicas y Comunicaciones and gathering of informational material.
 Group 2B: Meeting with Secretaría de Educación, Bellas Artes y Culto (accompanied by Mr. T. Miura and Mr. T. Karigane)
- 15(Sat) Group 1 : Meeting with RTVD and investigation of facilities.
 Groups 2A and 2B: Adjustment of reference material.
- 16(Sun) Group 1 : Investigation of Villa Mella (accompanied by Mr. T. Miura) and adjustment of reference data.
 Team meeting.
 Adjustment of reference material.
- 17(Mon) Group 1 : First day on spot investigation of Santiago district.
 (accompanied by Mr. T. Miura)
 Group 2A: Investigation of RTVD facilities and meeting with Colegio Dominicano de Ingenieros, Arquitectos y Agrimensores (CODIA) and gathering of information material.
 Group 2B: Meeting with SEEBAC and gathering of reference material.

- Sept. 18(Tue) Group 1 : 2nd day on spot investigation of Santiago district. (Mr. T. Miura and Mr. M. Kikuchi return to Sto. Domingo)
Meeting with Mr. Tsuta of Dirección General de Telecomunicaciones (DGT).
(Mr. T. Miura and Mr. M. Kikuchi)
- Group 2A: Investigation of RTVD facilities, and meeting with CODIA and gathering of information material.
- Group 2B: Visit and meeting with Oficina Nacional de Estadística and gathering of reference material.
- 19(Wed) Group 1 : 3rd day on spot investigation of Santiago district.
Mr. M. Kikuchi: Meeting with DGT and gathering of information material.
- Group 2A: Investigation of RTVD facilities.
- Group 2B: Meeting with Publicitaria.
- 20(Thu) Group 1 : 4th day on spot investigation of Santiago district.
- Group 2A: Investigation of RTVD facilities, and meeting with SEEBAC.
- Group 2B: Meeting with Sub-Secretario of SEEBAC. (accompanied by Mr. T. Miura)
- 21(Fri) Group 1 : Meeting with DGT.
- Group 2A: Investigation of RTVD facilities.
- Group 2B: Meeting with Publicitaria and gathering of reference material.
- 22(Sat) Group 1 : Field-strength measurement within city area of Sto. Domingo.
- Group 2A: Gathering of reference material.
- Group 2B: Gathering of reference material.
- Team discussions.
- 23(Sun) Adjustment of data and gathering of reference material.
Mr. M. Kikuchi and Mr. M. Mizutani: Return to Japan.
- 24(Mon) Group 1 : First day on spot investigation of Barahona district.
- Groups 2A and 2B: Meeting with RTVD.
- 25(Tue) Group 1 : 2nd day on spot investigation of Barahona district.
- Group 2A: Investigation of RTVD facilities.
- Group 2B: Meetings with Banco Central and others.
- 26(Wed) Group 1 : 3rd day on spot investigation of Barahona district.
- Group 2A and 2B: Meeting with SEEBAC. (accompanied by Mr. T. Miura)

- Sept. 27(Thu) Group 1 : 4th day on spot investigation of Barahona district.
 Group 2A: Investigation of RTVD facilities.
 Group 2B: Meetings with Banco Central, and with Aduana.
- 28(Fri) Group 1 : 5th day on spot investigation of Barahona district.
 Group 2A: Investigation of RTVD facilities.
 Group 2B: Meeting with RADECO.
- 29(Sat) Drawing up of Progress Report.
- 30(Sun) Drawing up of Progress Report.
- Oct. 1(Mon) Drawing up of Progress Report.
- 2(Tue) Meeting with Secretariado Administrativo de la Presidencia. (Mr. T. Miura and Mr. K. Ogata)
 Meeting with Oficina Nacional de Estadistica, and with Banco Central, gathering of reference material. (Mr. J. Yamazaki)
 Courtesy farewell visit to SEEBAC.
 (Mr. T. Karigane and Mr. J. Yamazaki)
 Meeting with DGT and gathering of reference material.
 Explanation of Progress Report outline to RTVD.
- 3(Wed) Explanation of Progress Report outline to RTVD.
 Drawing up of Minutes.
- 4(Thu) Drawing up of Minutes.
 Outdoor demonstration of Spectrum Analyzer.
 Signing of Minutes.
 Donation of Spectrum Analyzer.
- 5(Fri) Arranging of take-home equipment.
 Report to Japanese Embassy and to JICA office on completion of Survey.
- 6(Sat) Preparations for return to Japan.
- 7(Sun) Depart Sto. Domingo.
- 9(Tue) Arrive Tokyo.

NOTE: MEMBERS OF THE MISSION (FIRST VISIT)

Mr. Hiroshi Tsukada*	Aug. 27 - Sept. 7		MPT
Mr. Mitsutoshi Kikuchi	Aug. 27 - Sept. 25	Group 1	MPT
Mr. Toshinori Miura	Aug. 27 - Oct. 9		AJTS
Mr. Yutaka Hara	Aug. 27 - Oct. 9	Group 1	AJTS
Mr. Tadashi Kinoshita	Aug. 27 - Oct. 9	Group 1	AJTS
Mr. Masatada Mizutani	Aug. 27 - Sept. 25	Group 1 and 2A	AJTS
Mr. Kenji Hibino	Aug. 27 - Oct. 9	Group 2A	AJTS
Mr. Toru Karigane	Aug. 27 - Oct. 9	Group 2A	AJTS
Mr. Koretaka Ogata	Sept. 10 - Oct. 9	Group 2B	NHK
Mr. Junkichi Yamazaki	Sept. 10 - Oct. 9	Group 2B	AJTS
Mr. Koichiro So**	Aug. 27 - Sept. 7		JICA

* Head

** Operational Coordination

MPT : Ministry of Posts and Telecommunications
 AJTS : All Japan Radio & Television Engineering Services Co., Ltd.
 NHK : Japan Broadcasting Corporation
 JICA : Japan International Cooperation Agency

2. ITINERARY OF THE SECOND VISIT

1985

Jan. 14(Mon) Depart Tokyo.
 15(Tue) Arrive Sto. Domingo.
 Report to JICA.
 16(Wed) Report to Japanese Embassy.
 (Mr. H. Tsukada and Mr. T. Miura)
 Courtesy call to SEEBAC and other offices and further
 study of reference material.
 (Mr. T. Karigane and Mr. J. Yamazaki)
 Explanation and enquiries on Interim Report to RTVD.
 17(Thu) Explanation and enquiries on Interim Report to RTVD.
 Team meeting.
 18(Fri) Explanation and enquiries with SEEBAC.
 19(Sat) Meeting and discussion with RTVD.
 20(Sun) Mr. H. Saito of JICA: Arrive Sto. Domingo.
 Team discussion meeting.

- Jan. 21(Mon) Team discussion meeting.
- 22(Tue) Explanation and discussions with Secretaría de Deportes y Educación Física and Secretaría de Agricultura.
Discussion with RTVD.
Report to Japanese Embassy.
- 23(Wed) Discussions with Secretaría de Deportes y Educación Física, Secretaría de Agricultura, and SEEBAC.
- 24(Thu) Drawing up and signing of Minutes.
- 25(Fri) Depart Sto. Domingo.
- 27(Sun) Arrive Tokyo.

NOTE: MEMBERS OF THE MISSION (SECOND VISIT)

Head	Mr. Hiroshi Tsukada	MPT
	Mr. Toshinori Miura	AJTS
	Mr. Toru Karigane	AJTS
	Mr. Yutaka Hara	AJTS
	Mr. Junkichi Yamazaki	AJTS
	Mr. Koretaka Ogata	NHK
Operational Coordination	Mr. Hiroshi Saito	JICA

3. ITINERARY OF THE THIRD VISIT

1985

- Mar. 10(Sun) Depart Tokyo.
- 11(Mon) Arrive Sto. Domingo.
Report to JICA.
- 12(Tue) Report to Japanese Embassy.
Submission of Draft Final Report to RTVD.
- 13(Wed) Explanation of Draft Final Report to SEEBAC and RTVD.
- 14(Thu) Explanation of Draft Final Report to SEEBAC and RTVD.
- 15(Fri) Enquiries and discussions on Draft Final Report.
Confirmation of contents of Minutes.
- 16(Sat) Drawing up of Minutes.
Discussions with RTVD.
- 17(Sun) Team meeting.
- 18(Mon) Signing of Minutes.
Report to Japanese Embassy and to JICA office.
- 19(Tue) Depart Sto. Domingo.
- 21(Thu) Arrive Tokyo.

NOTE: MEMBERS OF THE MISSION (THIRD VISIT)

Head	Mr. Hiroshi Tsukada	MPT
	Mr. Toshinori Miura	AJTS
	Mr. Kenji Hibino	AJTS
	Mr. Junkichi Yamazaki	AJTS
Operational Coordination	Mr. Koichirō So	JICA

MINUTES OF DISCUSSIONS CONCERNING THE DRAFT
FINAL REPORT ON FEASIBILITY STUDY FOR THE
RADIO AND TELEVISION DEVELOPMENT PROJECT IN
THE DOMINICAN REPUBLIC

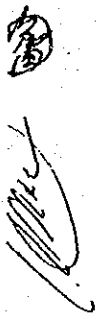
In accordance with the tentative schedule of the scope of work for the Feasibility Study, the Japan International Cooperation Agency (JICA) Study Team, headed by Mr. Hiroshi Tsukada, presented the Draft Final Report (20 copies of English version and 20 copies of Spanish version) to the Radio Television of the Dominican Republic (RTVD) on 12th March, 1985.

The JICA Study Team explained in detail the contents of the Draft Final Report to RTVD and the Dominican authorities concerned with SEEBAC (Secretaría de Estado de Educación, Bellas Artes y Culturas; the Ministry of Education).

The Dominican side and the JICA Study Team held a series of discussions in a friendly manner from 12th to 18th of March, 1985, and the Dominican side accepted the contents of the Draft Final Report with some corrections of the Spanish expression.

The participants' lists are in the Attachment 1.

Signed in Santo Domingo, D. N., Dominican Republic, on 18th March, 1985, both originals in English and Spanish with the same significance.


塚田 宏

Mr. Hiroshi Tsukada
Leader of Japanese Study Team
Japan International Cooperation
Agency


Lic. Marino Mendoza

General Director of Radio
Television Dominicana

PARTICIPANTS' LIST OF RIVD

Marino Mendoza : General Director

Lulio Moscoso : Sub-Director, TV Engineering
Department

José de Jesús Díaz : Sub-Director, Radio Engineering
Department

Jean Louis Jorge : General Coordinator, TV Production
Department

Yolanda Franjul : Manager, Commercial Department

Jesús Rivera : In Charge of Radio Programming
Department

Mercedes González : In Charge of TV Programming
Department

Hernán F. Imbert : In Charge of Personnel Department

Marcia Fernández Valdez : Accounting Department

Rafaela Capellán : In Charge of News Department

José M. Ogando : TV Technical Staff

Ramón Binet : " " "

Cristian R. Then : " " "

Danilo Peguero : " " "

Facundo Michel : " " "

Eusebio Camilo : " " "

PARTICIPANTS' LIST OF THE
MINISTRY OF EDUCATION (SEEBAC)

Dra. Teresa Peña : Director, Department General
of Educational Methods

Migdalia Martínez : Staff, Department General of
Educational Methods

Nicolás S. Gómera : Staff, Department General of
Educational Methods



PARTICIPANTS' LIST OF JICA

Hiroshi Tsukada : (Leader)
Deputy Director, Land Communication
Division, Radio Department,
Telecommunication Bureau

Toshinori Miura : (Sub-Leader)
Acting Director, International Division,
All Japan Radio & Television
Engineering Service Co., Ltd. (AJIS)

Kenji Hibino : (Broadcasting Engineer)
Manager, International Division, AJIS

Junkichi Yamazaki : (Financial and Economic Analyst)
Economist, International Division, AJIS

Koichiro So : (Coordinator)
Second Development Survey Division
Social Development Cooperation Department,
JICA.

MINUTA SOBRE LAS DISCUSIONES CONCERNIENTES AL BORRADOR DEL
INFORME FINAL DEL ESTUDIO DE FACITBILIDAD PARA EL PROYECTO
DE DESARROLLO DE RADIO Y TELEVISION EN LA REPUBLICA DOMI-
NICANA.-

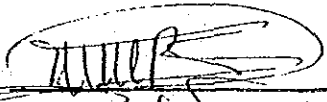
De acuerdo con el proyectado programa de trabajo para el estudio de factibilidad, la misión de estudio de la Agencia Internacional de Cooperación Japonesa (JICA), encabezada por el Ing. Hiroshi Tsukada, presentó el borrador del informe final con 20 copias en inglés y 20 copias en español a la Radiotelevisora de la República Dominicana (RTVD), el 12 de marzo de 1985.

La misión de estudio de la JICA explicó en detalle el contenido del borrador del informe final a la Radiotelevisión Dominicana y a las autoridades de Secretaría de Estado de Educación, Bellas Artes y Cultos (SEEBAC).

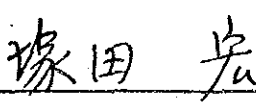
La contrapartida dominicana y la misión de estudio de la JICA sostuvieron una serie de discusiones amistosas desde el 12 al 18 de marzo de 1985, en la cual, la contrapartida dominicana ha aceptado el contenido del borrador del informe final con algunas correcciones de expresiones en español.

La lista de participantes está en el anexo I.

Firmado en Santo Domingo, Distrito Nacional, el 18 de marzo de 1985, teniendo ambos originales en inglés y español el mismo significado.


Marino Mendoza,

Director General de
Radio Televisión Dominicana


Horoshi Tsukada

Jefe de la Misión de Estudio de la
Agencia Internacional de Cooperación
Japonesa

Anexo 1 (1)

PARTICIPANTES DE RADIO TELEVISION DOMINICANA

Marino Mendoza	:	Director General
Julio Moscoso	:	Sub-Director Técnico de Televisión
José de Jesús Díaz	:	Sub-Director Técnico de Radio
Jean Louis Jorge	:	Encargado de Producción
Yolanda Franjul	:	Gerente Departamento Comercial
Jesús Rivera	:	Encargado Departamento Programación de Radio
Mercedes González	:	Encargada de Programación de Televisión
Hernán F. Imbert	:	Encargado del Departamento de Personal
Marcia Fernández Valdez	:	Departamento de Contabilidad
Rafaela Capellán	:	Encargada Departamento de Noticias
José M. Ogando	:	Técnico de Televisión
Ramón Binet	:	" "
Cristian Then	:	" "
Danilo Peguero	:	" "
Facundo Michel	:	" "
Eusebio Camilo	:	" "



PARTICIPANTES POR LA SECRETARIA DE ESTADO DE
EDUCACION, BELLAS ARTES Y CULTOS

Dra. Teresa Peña : Directora General de la
Dirección General de Medios
Educativos.

Migdalia Martínez : Técnico de la Dirección General
de Medios Educativos.

Nicolás Górrera : Técnico,
Dirección General de
Medios Educativos.

Handwritten signature and initials in the left margin, including a large stylized 'M' and some illegible characters below it.

PARTICIPANTES POR LA JICA

Hiroshi Tsukada : Jefe de la Misión del Japón

Toshinori Miura : Sub-Jefe de la Misión Japonesa

Kenji Hibino : Gerente de AJTS

Junkichi Yamazaki : Economista de AJTS

Koichiro So : Coordinador, 2a. División de
Estudio del Desarrollo de la JICA



Handwritten signature and initials, possibly 'Hb' and '(3)', in a circular stamp.

APPENDIX

Comparison of Median Examination Scores of Sixth Grade Students in Schools with Radiophonic and Conventional Classroom Methods in The Radio Santa Maria Model, The Dominican Republic

Subject	Median Score		Gain	Rate
	(A) Radiophonic Students	(B) Conventional Classroom Students		
Spanish Language	74.6	71.9	2.7	1.038
Spanish Grammar	65.8	59.3	6.5	1.110
Mathematics	53.3	50.8	2.5	1.049
Natural Sciences	69.0	65.0	4.0	1.062
Dominican Economy	60.6	54.6	6.0	1.110
Social Studies	79.5	68.9	10.6	1.154

Source: An Alternative Pattern of Basic Education:
A Case Study of Radio Santa Maria

Comparison of Median Examination Scores of Eighth Grade Students in Schools with Radiophonic and Conventional Classroom Methods in The Radio Santa Maria Model, The Dominican Republic

Subject	Median Score		Gain	Rate
	(A) Radiophonic Students	(B) Conventional Classroom Students		
Spanish Language	78.4	76.2	2.2	1.029
Spanish Grammar	65.3	63.1	2.2	1.035
Mathematics	53.3	51.9	1.4	1.027
Natural Sciences	63.1	-	-	-
English	70.0	-	-	-
Social Studies	64.5	-	-	-

Source: An Alternative Pattern of Basic Education:
A Case Study of Radio Santa Maria

Means and Gain Scores in Arithmetic and Spanish for Radio and Non-Radio Schools in September and December in the Mexican Radioprimeria Project

	<u>Arithmetic</u>		<u>Spanish</u>	
	Radio Class	Non-Radio	Radio Class	Non-Radio
September	15.7	20.3	26.4	30.1
December	19.3	23.2	30.1	32.4
Gain	3.6	2.9	3.7	2.3

Source: Radio for Education and Development:
Case Studies
World Bank

Comparison of The Test Results Obtained by Two Groups (TV-Group & Control-Group) in The Experimental Study in Japan

Subject		TV-Group	Control Group
Intelligence	Before	45.4	46.2
	After	52.6	48.9
	Gain	7.2	2.7
Social Studies	Before	44.9	43.2
	After	45.9	43.1
	Gain	1.0	-0.1
Science	Before	42.9	41.0
	After	47.9	42.3
	Gain	5.0	1.3

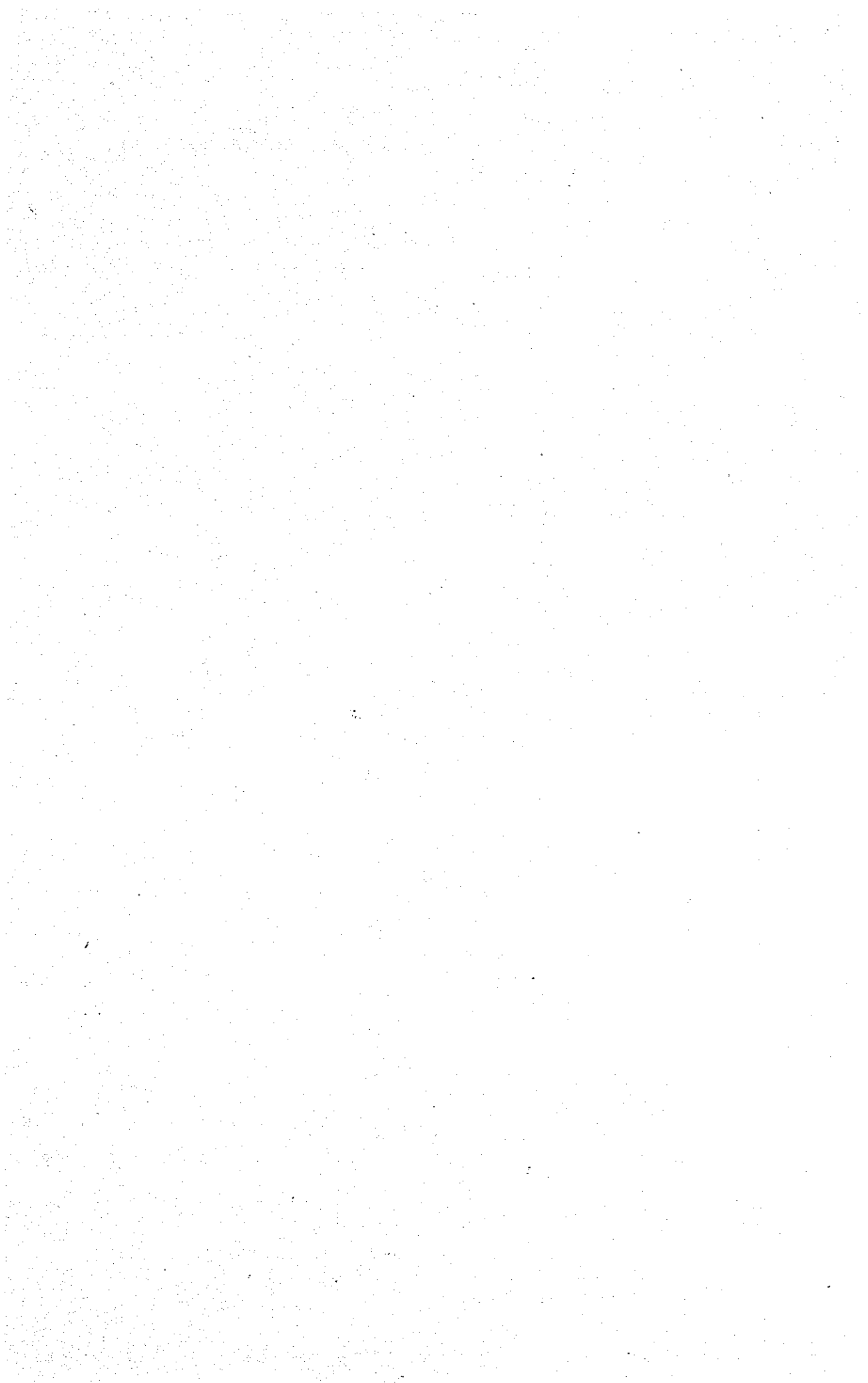
Before: Mean Score for Two Groups Before the Experimental Study

After : Mean Score for Two Groups One Year After the Experimental Study

Source: The Effect of TV School Broadcast on Children in Isolated Villeges, NHK, Isao Tsuji

CASH FLOW STATEMENT

NO.	YEAR	CAPITAL OUTLAY	OPERATING COST	INCOME	NET CASH FLOW	CUMULATIVE CASH FLOW
1	1987	6135.0	0.0	0.0	-6135.0	-6135.0
2	1988	29146.0	0.0	0.0	-29146.0	-35281.0
3	1989	2866.0	4187.0	4574.0	-2479.0	-37760.0
4	1990	0.0	767.0	5927.0	5160.0	-32600.0
5	1991	0.0	1748.0	10207.0	8459.0	-24141.0
6	1992	0.0	1598.0	10475.0	8877.0	-15264.0
7	1993	0.0	1598.0	10343.0	8745.0	-6519.0
8	1994	0.0	1694.0	9661.0	7967.0	1448.0
9	1995	0.0	1694.0	9643.0	7949.0	9397.0
10	1996	0.0	1694.0	9829.0	8135.0	17532.0
11	1997	0.0	1694.0	9819.0	8125.0	25657.0
12	1998	0.0	1694.0	9928.0	8234.0	33891.0
13	1999	0.0	1694.0	10012.0	8318.0	42209.0
14	2000	-2207.0	1694.0	9841.0	10354.0	52563.0
TOTAL		35940.0	21756.0	110259.0	52563.0	



JICA