AN ANALYSIS OF EXISTING HOUSING PROGRAMS IN THE COMMONWEALTH OF PUERTO RICO WITH SPECIAL EMPHASIS ON AIDED SELF-HELP ACTIVITIES

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"Often it is believed that a single expert or agency has developed a house of such high standards and at such low cost that no further research is needed. No such magic housing formula exists.

INTRODUCTION

It has been stated that housing is in a state of crisis all over the world. Too many millions of families are living in an unhealthy environment and in dilapidated huts with dirt floors and without the most primitive sanitary facilities. The home which is supposed to provide shelter against the weather and a place for rest and recover after the daily struggles of life, weighs heavily on the spirit and the flesh of man. The results in terms of social deterioration, frustration, and crippling of man's creative powers and of his drive to master his own destiny through his own efforts are so important to our civilization as to fully justify the deep concern which we are witnessing in the study and efforts to find a solution to the problem.

For our common good, for the common good of the world, this condition of neglect is not desirable and should not prevail much longer if those millions of families are to continue to be the bulwark of our social order. The social climate of this century is such that it is not advisable to dream and hope, it is not advisable to expect that this problem will be solved by "fiat". Too much of our priceless heritage is at a stake even a calculated risk.

This gathering of the Caribbean neighborhood which has been made possible by the Caribbean Commission, and the Technical Cooperation Administration, U.S.A., is one of the promising signs of the interest generated in this hemisphere in the housing problem of low income families—the masses of the population in both the old and the new world. That providing adequate housing is a public responsibility, is being realized by many countries. The sooner it is realized the better it will be for the free world we all want to live in.

This report is an attempt to summarize the housing programs developed in the Commonwealth of Puerto Rico and to prove into aided self-help and mutual aid housing activities as they have developed in the Puerto Rican scene. Of course our housing problem is similar, in many respects, to that of other Caribbean areas, and probably similar to that of many other areas of the tropical world.

The Housing Problem in Puerto Rico

We have heard over and over that Puerto Rico is one of the most densely populated countries of the world. According to the 1950 Census, there were 2,210,703 inhabitants in an area of 3,420 sq. mi., or a population density of about 645 persons per square mile. We are not happy to mention this socio-economic reality, and even if we were, today we could not brag because of this fact, since we have with us our good friends from Barbados which supports a population density about twice higher than ours. In common with other Caribbean areas, Puerto Rico has an agrarian economy. On the other hand, we have a population density which is characteristic of highly industrialized countries. Such a population density and scarce natural resource have contributed to create social and economic dislocations such as unemployment, low income, low level of services and facilities, the growth of slums, and a general housing shortage which so far private capital and government programs have proved unable to face effectively.
As elsewhere, the roots of the housing problem are deeply embedded in the socio-economic structure. Education, health, income levels, land values, manpower, level of technological development and economic development in general, are among the many factors that contribute to create or to make difficult its solution. However, solving these problems is, by far, a long term proposition, and it is obvious that the solution of the housing problem should not wait for the solution of the other problems.

In order to give an idea of our housing situation we can point out that it has been estimated that about 50% of the urban population lives in areas classified as slums which are characterized by (1) high densities (too small size lots), (2) poor street layout (3) lack of open spaces, (4) unsatisfactory topographic conditions (low land with very high water table or steep slopes), (5) lack of sanitary improvements. *

It has been estimated that about 70% of the dwelling units of the urban areas require major repairs, or complete replacement. Though in the last 10 years the Aqueduct and Sewerage Authority and the Water Resources Authority have made great strides, still we have about 45% of the urban dwellings without water supply inside the house, and, about 38% without electric light.

In the rural areas it has been estimated that over 50% of the families (130,000) are living in shacks and sub-standard houses requiring replacement. Many of these families live as squatters in large land holdings.

The most common type of rural house consists of three rooms, usually a small living room used also as a dining room, a bedroom, and a kitchen. Two thirds of the rural families live under crowded conditions with more than two persons to

a room. The largest number of houses have wood floors and wood walls. Others, the "bohío" have walls and roof made of straw. Most of these houses are far from rainproof and do not offer any protection against tropical hurricanes. It has been stated that 61.4 percent of all rural families live in houses only about 15 feet x 15 feet in dimensions or smaller.* Undoubtedly, most of these families live in houses unfit for human occupancy.

The most common sources of water supply are springs, streams, rivers, and surface wells.

In terms of accessibility to highways, trading centers, schools and other services, a large proportion of the rural families, specially those that have not been resettled yet in rural communities, or close settlements, under the Land Law, are at a great disadvantage because of the scattered type of rural settlement. This is a great handicap for their improvement in relation to health habits, education, social contacts and interest in self improvement.

From the above statements it is clear that a great job remains to be done to improve housing conditions in both the urban and rural areas. The evaluation of what has been done, in the light of what remains to be done, and the increasing magnitude and complexity of the problem, makes us believe that, following the traditional approach neither the government or private construction industry, nor both, will be able, in the foreseeable future, to cope with the problem of properly housing the masses of the population. This is not to underestimate the capacity of government and private capital, it is rather an objective realization of the unquestionable fact that the methods used so far have not proved to be successful—to say the least.

If we were to estimate the investment necessary, at present level or construction costs, the figures would run so high that we could safely say that Puerto Rico will not be able to face its housing shortage even under a most

optimistic long term plan. Of course, during the last decade there has been a substantial improvement in housing and the problem is being faced on several fronts through different approaches; namely measures to foster the private construction industry, public housing and slum clearance in general, land distribution and the development of new system to provide lots with minimum services and facilities. But the "oracle" still reads "no enough".

What We Have Done

We now turn to what we have done in Puerto Rico to face our housing problem. In this environment of scientific study and objective analysis, I know that the story of failure is as significant as the story of success and we will not hesitate throughout this sessions to point what we have found out that does not work, through the expensive and frustrating method of trial and error. In this sense a brief review of the programs is meaningful.

The Homestead Commission

Institutionalized land reform and housing improvement started in Puerto Rico with the Homestead Commission Act of 1921. The Commission was authorized to provide small farms and lots to the rural peasantry and to build housing projects for urban laborers. Long term loans were made. The activities of the Commission were successively turned over to a number of agencies and finally, in 1945, handed to the Land Authority and later to the Social Programs Administration of the Department of Agriculture. Under this program 1719 urban lots and about 2,500 rural plots were provided.

The urban program lacked the neccessary planning. Some projects have been successful, others have turned into slums. In the rural areas the underdeveloped social concept that land distribution per se was a good thing prevailed. Thirty
years have passed and still we continue to administer this program with all the difficulties of a program that made a poor start.

The Puerto Rico Reconstruction Administration

The Puerto Rico Reconstruction Administration started operations in 1935 and was entrusted a broad rural and urban reconstruction program. By 1940 the program had reached its maximum development and started tapering off its activities. A total of 1,460 dwellings units were build in urban areas. In the rural areas it sponsored our first broad community improvement program including, land distribution, housing projects and other services and facilities. Over 10,000 lots were distributed and a total of 7,066 rural dwellings were built.

The program was far ahead of the earlier Homestead Commission activities, but still fell short both in its rural and urban long term planning, and education. It must be credited with a genuine interest in over all socio-economic development.

Public Housing Authorities

The Puerto Rico Housing Authority was organized to undertake and develop public housing and slum clearance in all the municipalities of the Island except in San Juan, Ponce and Mayaguez which organized local housing authorities. So far the Puerto Rico Housing Authorities have built 9,984 new units.* These housing projects, with the exception of "land and utilities" meet very high standards.

Housing Authorities carry on their programs mostly by the use of Federal (USA) funds. The Commonwealth government also has made substantive contributions.

In the realm of low-cost housing, the Puerto Rico Housing Authorities have contributed with the idea of "Land and Utilities" which continues to be a promising approach specially where economic resources are very limited. The Authorities buy the land and provide such facilities as streets, sidewalks,

* As of June 30, 1943 there were 7,490 units under construction.
electric light, water and sewer system. (In the minimum type no sidewalks or sewer are provided inside the house).

A total of 3,999 lots have been provided under this program. Most of them financed by the Commonwealth of Puerto Rico. Families move their own houses into these projects and a lot of improvement is observed as years go by.

More recently, the Puerto Rico Housing Authority and the Social Program Administration, started a joint experiment on aided self-help and mutual aid housing in one of the "land and utilities" projects. Fourteen houses are in an advanced stage of construction. The Housing Authority finances the project while the Social Programs Administration is in charge of organizing the Community.

In this project, which consists of 14 units, the dwellings are 30 feet x 20 feet and includes 3 sleeping rooms, a dining-living room, a kitchen, bathroom with sanitary facilities, and a porch. It is a concrete blocks and reinforced concrete columns and slab structure.

The lots have a minimum of 250 sq. meters.

When the project is finished it will be refinanced by a private bank which will keep a mortgage on both the house and the lot. Families will have forty years to pay their loan at 5% interest.

Model Housing Board

The Model Housing Board created in 1934 was empowered to design and build experimental houses to serve as model of sanitation, comfort and convenience. The Board has carried on a number of small experimental projects, but the impact on housing programs has not been significant. A total of 126 units have been built under this experimental program.

The activities of the Board are under study and everything points out towards a redirection in its activities so that it will better serve both the public and private housing construction programs.
Farmers Home Administration

The Farmers Home Administration, which started operations in 1938 as the Farm Security Administration, is a Federal Agency (USA) in charge of a family-farm program. It provides long term loans to tenants, sharecroppers and other agricultural workers to buy family-type farms and to build their homes. About 800 families have received the benefits of the program.

The Social Programs Administration

Rural Resettlement (Title V of the Land Law)

The Social Programs Administration of the Department of Agriculture has been entrusted a broad rural resettlement program which is intended to serve as a basic for general community improvement.* Through its Rural Community Program, plots of 1/4 to 3 acres are provided in usufruct for rural landless farm laborers. This land ownership represents the realization of the dream of every farm laborer: a plot where he can build his home, plant some subsistence crops, raise some domestic animals, rear a family, and, above all, provide for the freedom to exercise his democratic rights and to sell his labor in the open market without the limitation of dependency which characterized his life as squatter (agregados). This feeling of freedom is a psychological restoration of man for his struggles. There is a rebirth of the powers and potentialities of a real citizen. Allow me to say here that a man who does not share the discussion of his problems, who is not a participant in the solution of those problems, who does not exercise his rights and performs his duties—he may be a man or a woman; he is a human being—but he is not a citizen of a democracy.

About 30,000 families have already been resettled in 194 rural communities, thereby remarking the scattered pattern of rural settlement existing in Puerto Rico. The program will be completed in the next five years by resettling about 30,000 more families.

* A home improvement program is also carried out. Through this program homemakers are trained in the use of native and low cost materials to furnish their homes.
The rural communities or villages, so organized, run from 100 to 500 families. They are designed following the most progressive practices in rural community planning. The layout provides for the establishment of such services and facilities as schools, health center, parks, consumer's cooperatives, churches, stores and others. The subdivision contemplates the most economic means for providing streets, water and electric facilities. To this end the physical setting is of crucial importance. Furthermore, it helps to provide the proper climate for community life, which in turn, facilitates cooperative education and direct group action. The "Community Action Plan", sponsored by the Social Programs Administration has shown that mutual aid and self-help thrive best where an integrated community life exists.

Through the Community Action Plan the families of the rural communities have built classrooms, community centers, school lunchrooms, drilled deep wells to provide water supply, have fenced and improved community pastures, improved streets and roads and carried on many other community improvement projects.

On the last 4 years it has been estimated that improvements valued at about $300,000 (US) have been completed.

It has been in these rural communities that the aided self-help rural housing program which will be discussed in detail further on, has developed with great success.

Rural Resettlement (Family Farm Program - Title VI of the Land Law)

The Social Programs Administration is also in charge of a rural resettlement program intended to provide family farms to tenants, sharecroppers, and squatters. A general community improvement program is contemplated. For this reason emphasis has been placed on the purchase of large estates and their subdivision into family farms averaging 20 acres each. Housing is provided by the families themselves and it is expected that the aided self-help and mutual aid program will reach these families in the near future.
A total of 536 farms have been established under this program.

Minimum Urbanizations.

The latest development in Puerto Rico, so far as the broader aided self-help and mutual aid activities goes, is The Minimum Urbanization Program. We have come to realize an unquestionable fact: In spite of the different housing programs and economic improvement, we have not been able to cope effectively with the quality of our housing, shortage, and the growth of slums. This realization lead the Executive and Legislature to endorse a new idea which has been called "Minimum Urbanization".

The purpose of this program, which is about to be started by the Social Programs Administration of the Department of Agriculture, is to provide lots adjacent to urban areas so as to take care of the natural expansion of the towns. This growth takes place mostly through migration from the rural areas. Lots will be provided also for landless peasants who squatter farms adjacent to towns. The lots distributed will have access to minimum services and facilities e.g., water supply (not inside the house) and the necessary construction work to guarantee a healthy environment. No dwellings or streets will be provided to start with. The families are expected to move into the new lots whatever house they can.

Of course, the new subdivisions will be carefully planned as the most progressive and modern developments. Community services and facilities are expected to be provided following aided self-help methods after the families have moved to their new lots. The program is conceived on the basis of a broad community improvement program through mutual aid and self-help and general community participation in the solution of their problems.

The program will be started with about 1000 lots during this year.
Under the overwhelming pressure of the need for community improvement and the scarce resources available the idea of "aided self-help and mutual aid" (Community Action Plan),* as an institutional approach to the problem, was brewed.

No doubt, there is power in the idea that if community life is to be effectively improved it will depend to a large extent on the direct application of community efforts and maximum use of community resources. This is both, a need, because of prevailing economic conditions, and a most desirable approach as a training school for democratic action.

An aided self-help and mutual aid program requires understanding of problems and a desire to do something about them. The most important asset is not the cash on hand—though that is important—but the decision and the will to help ourselves. This is the reason why education for the development of proper attitudes is a crucial importance in such programs. Our first experience points out clearly that the development of a proper attitude is the only reliable basis for the continuous effort necessary in a housing project and is the only permanent basis for any other general community improvement program.

The aided self-help housing program, as part of a broader community improvement program, is based on the proposition that democracy begins in the community. One of its purposes has been to discover methods and techniques whereby communities can be stimulated to help themselves through cooperation and group action. It has proceeded with the conviction that each individual affected must come better to understand his problems if he is to take part in evolving and executing simple plans for the solution of those problems. Only as he assumes that part and that responsibility can we hope to create a permanent base for our democratic order. It is the indelible responsibility of those who are in position to do so, to help create the proper climate for this growth in citizenship to take place.

* In Puerto Rico we are using the term "Community Action Plan" to include housing as well as all other activities based on self-help and mutual aid with economic and technical assistance from the Government.
In the next few pages an attempt is made to present the general principles, methods and procedures in Puerto Rico's Aided Self-Help Housing Program. Of course we are not attempting to provide a formula or pattern, except possible the idea that each country must develop its own pattern according to its customs, traditions, set of values, and ways of living. The principles are of universal application but require careful adaptation to be successful.

The First Experiment in Aided Self-Help Housing

In the fall of 1949, exactly four years ago, the new idea of mutual aid and self-help with economic assistance from the government was given its first trial in a shelter improvement program in Puerto Rico. Twelve peasants* of rural community "San José" of Toa Baja, after many sessions of study, discussion and planning, pioneered in the new field of cooperation as applied to the building of concrete blocks and reinforced concrete houses to substitute their dilapidated homes. A year of strenuous work, uncertainty and learning, went by before they happily started to tear down their shabby shacks and move their scanty belongings into the new and modern dwelling which they had built at a cash cost of about $300 (US).*

Today we will attempt to summarize the methods and the techniques which originated in that project and which have been further developed later on. As stated before, we think that adaptation to the prevailing conditions of each country is required, but basically, the principles that are evolving are valid under a variety of circumstances.

In order to make a long story short I shall expound my comments on five important areas which require action if we are to have aided self-help as one of the solutions to housing improvement. There are many others, such as health, education, economic development, technological development, etc., but that is

* Because of group organization requirements later projects have been based on groups of 15 families.

** The market value of the house is estimated at over $1,000 (US).
more of a long term proposition and today we are interested in what can we do now, starting where we are.

This important areas are security of tenure, financing, design and community organization and administration.

Security of Tenure

One of the important problems related to the improvement of housing through self-help is security of tenure over the land where the home is to be built. It is not reasonable to expect from a family the efforts and sacrifices necessary, to build a permanent house when its right over the land on which the house is built is subject to be abrogated at the will of another person. There must be security of tenure in and aided self-help housing improvement program.

In Puerto Rico the problem of security of tenure has been solved. In the rural areas lots are provided by the government in close settlements. This lots are about 1,000 square meters in area and area provided for life in usufruct. The right of life usufruct can be inherited. In the urban areas lots are rented with the right to ownership or are sold in long term installments. Under the Minimum Urbanizations program lots will be provided in usufruct.

Financing

In spite of the low cost per unit ($300 US) of our aided self-help and mutual aid housing program, financing is always and important factor. This is an area were the use of ingenuity and taking reasonable risks may be justified.

In Puerto Rico resources from the government general fund have been used to finance low-cost housing programs. The aided self-help and mutual aid housing program for the rural areas is now subsidized up to about 50 percent of the cost of construction materials and other charges, excluding of course, the labor which is contributed by the families. The subsidy is intended to bridge the gap between the cost of the house to the government and the amount that a low income family can pay. The other 50 percent is offered as a loan to be paid, without interest, in a maximum of 10 years.
In the "land and utilities" approach, the government finances the purchase of the land and provides all services and facilities. The families pay the loan made in 20 years. In this case families will move their homes to the new lots with the assistance of the housing agency. In the Minimum Urbanizations the government will buy the land.

The financing by a private bank will be used in the case of the first urban aided self-help housing projects. The bank will loan about $1,500 (US) for the house and the lot. It seems that there are possibilities for further exploring this area of private capital investment.

The possibilities of organizing savings associations which has been indicated by Mr. Jacob Crane, from the Housing and Home Finance Agency, USA, deserves careful consideration in any long term plan.

Design

It is no secret that housing design has not made great strides. Man has been satisfied with what he had and the trustees of his housing improvement program have not shown much imagination. The time is past for engineers, architects, builders and housing experts, to lead in revising secular designs. There are grounds for much improvement, which, of course, we all hope will help to make our homes more comfortable, will lower construction costs, will broaden the use of construction materials and will simplify construction methods.

In our rural housing program we started with a 324 square feet unit (18' x 18') which can be expanded at any time the family has the resources available. The house consists of a living-dining room which can also be used as a sleeping room; two bedrooms and a porch. The frame kitchen as well as the doors and windows, are built out of salvage material from the existing house. Wiring for electricity is provided. Sanitary facilities consists of a privy outside the house.
After the program was recognized as a promising approach to the problem of low-cost housing changes in design have taken place very fast. First the use of prefabricated slabs was introduced successfully. It simplified the construction of the roof and speeded up the program. Later on a set of forms has been used which will help to shorten the construction period to about 4 months per project. In this case the house is built of reinforced concrete and the kitchen is included as part of the house. We have kept the construction costs down to the $300 we started with.

Of course concrete blocks and reinforced concrete columns and slab houses continue to be built. There is no doubt that his method is effective and in many cases it may be the only way to start an aided self-help and mutual aid housing program. The equipment necessary, a block making machine and a small concrete mixer, is inexpensive and easily operated, the construction techniques are easy to learn, the chances for faulty construction are reduced to a minimum. Though the completion of each project takes from 8 to 10 months, or more, a large scale program can be developed without difficulties. At the present time we have already built, or we have under construction over 300 units most of them following this method.*

Community and Group Organization

The following steps give a general idea of the methods and procedures followed in organizing a community to carry on self-help and mutual aid housing program with economic cooperation from the government.

1. A general meeting of the community is held to discuss community problems and explain the Community Action Plan (general community improvement through self-help and mutual aid).

Housing improvement is discussed as one of the many community problems.

* The education program which always precedes construction has been started for the construction of 1,000 new units. The program has gone beyond the experimental stage and now we move into a large scale construction.
Written and illustrative material is distributed and discussed at the meeting.

Families are oriented toward new meetings and further discussion of their problems. Government technicians will be available for other meetings if the families wish so.

2. Additional sessions, usually 3 or 4, are held until the general interest and positive attitudes are established and the group organizer feels that the proper climate exists for a successful project.

3. Candidates are selected among the interested families on the basis of a careful study to determine their eligibility. Prospective candidates are investigated and visited at home and a written report of each is prepared. The final selection is based on these reports and a final evaluation by the group organizer and on the recommendations of local community leaders.

The selection of candidates is one of the most important steps in starting an aided self-help housing program. Success breeds success and failure breeds failure. A good start leads to a successful ending. It should be stated that no risks should be taken when starting the first aided self-help program. The failure of the first aided self-help program will mean the end of such programs for a long time to come.

4. When the candidates have been chosen they are called to a meeting with representatives from the housing agency. The program is discussed in full and working relations are established. The candidates choose from among themselves the other members of their working teams (3 per group) and the schedule of work is decided upon. A minimum of three men must be on the job every weekday and the whole group must work on Saturdays or Sundays.

Before the actual construction starts, a final formal meeting is held where a permanent committee of three members of the group is elected. This Committee
which operates until the end of the project is very useful in maintaining good working relations and in serving as liaison between the group and the central office. With this completed, the actual construction phase of the project begins.

The starting of construction brings about a number of other problems which will be in direct relationship to the effectiveness of the orientation and education work done previous to this stage. In general we can expect that some of the members of the group will fail to be present on the job as planned. You can also expect the problems of human relations which naturally results when you must have 15 or more persons working together for a long time. It is the duty of all concerned with the project from the foreman to the group organizer to see that such problems are solved as soon as possible so that no permanent harm is done to the unity of purpose that must prevail.

Efficient Administration

The last area, though not of least importance, I should like to call your attention to is Administration—efficient Administration. Keeping administrative costs as low as possible is as important as keeping construction as low as possible. I suspect that unless we can keep administrative costs in direct relation to construction costs aided self-help in housing will be facing difficulties especially when we call at the doors of the legislature for appropriations. In this same line of thinking and to guarantee efficient administration and low costs it is important to keep proper controls on all phases of the program.

Efficient administration will be closely associated with the government officials who are in charge of the program. In this respect we have found out that one of their basic assets should be an unfailing faith in man and a sincere devotion to public service and to the service of low income families.