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REGIONAL PLANNING FOR INTEGRATED DEVELOPMENT IN THE DOMINICAN REPUBLIC

A Report Prepared for the Oficina Nacional de Planificación, República Dominicana and the United States Agency for International Development Under Contract No. AID/DSAN-C-0060

Regional Planning and Area Development Project
905 University Avenue
Madison, Wisconsin 53706
Telephone: 608/263-5242
Cable: OVERWIS

TABLE OF CONTENTS

PREFACE

This report presents the findings and recommendations of a University of Wisconsin-Madison Regional Planning and Area Development Project team that visited the Dominican Republic in May and June 1980. The mission was formed in response to a request for technical assistance from the Oficina Nacional de Planificación (ONAPLAN) of the Secretariado Técnico de la Presidencia which was forwarded to the United States Agency for International Development/Dominican Republic.

The team members were:

Prof. Warren Bilkey, School of Business, University of Wisconsin-Madison

Prof. Hugh Cook, Department of Agricultural Economics, University of Wisconsin-Madison

Mr. Michael Hoffman, University of Wisconsin-Madison, Regional Planning and Area Development Project

Prof. Leo Jakobson, Department of Urban and Regional Planning, University of Wisconsin-Madison, Co-Director, Regional Planning and Area Development Project (Chief-of-Party)

Prof. Robert Smith, Department of Civil and Environmental Engineering, University of Wisconsin-Madison

The Wisconsin team was funded under the Area Development Contract that the University of Wisconsin has with the Bureau of Development Support, Office of Rural Development and Development Administration (DS/RAD) of USAID/Washington (Contract No. AID/DSAN-C-0060).

The team members wish to thank the members of ONAPLAN, the many other Dominican citizens and officials, and the USAID/DR staff--all of whom provided considerable assistance and information.

I. INTRODUCTION

The University of Wisconsin Regional Planning and Area Development Project (RPADP) provided a technical assistance team for the Dominican Republic in May 1980. This mission was formed in response to a request from the Oficina Nacional de Planificación (ONAPLAN) of the Technical Secretariat of the Presidency of the Dominican Republic transmitted to the United States Agency for International Development/Dominican Republic (USAID/DR). Among its other activities ONAPLAN is responsible for formulating regional development plans and annual capital improvement programs for the country. The office is also heavily involved in rehabilitation planning due to the tremendous damage caused by hurricanes David and Frederick in August and September 1979.

The request for technical assistance covered a wide variety of subjects. The team and USAID felt that the proper response was an exploratory mission that would make a general assessment of the situation and lay

the groundwork for follow-up assistance should USAID/DR and the Government of the Dominican Republic desire it. In addition to specific functional areas of technical assistance, the team and USAID also thought it necessary to consider the institutional context within which development assistance would be provided.

Discussions between USAID/DR and ONAPLAN determined that the RPADP team would devote its attention to problems in the Southwest and southcentral areas of the country (see Map 1). The southcentral area of the country was most severely damaged by the hurricanes, while the southwestern portion of the nation is a lagging region which has received little development assistance in the past and which falls within the USAID mandate to assist the poorest of the poor.[1]

The RPADP team undertook a preliminary analysis of the following subjects:

- The prospects for the development of agriculture and agro-industry in southwestern Dominican Republic
- An evaluation of manufacturing and marketing possibilities in southwestern Dominican Republic
- An assessment of infrastructure needs and planning in southcentral and southwestern Dominican Republic
- An assessment of the opportunities for regional planning for integrated rural development in the Dominican Republic

These foci were in response to the needs articulated by ONAPLAN and represent, in the RPADP team's opinion, a good starting point for discussing the kinds of technical assistance that the RPADP could bring to ONAPLAN and USAID/DR's regional development efforts.

This report, therefore, will discuss the specific findings and suggestions in each of these areas and then synthesize these efforts into a suggested framework for collaboration between ONAPLAN, USAID/DR, and the RPADP.

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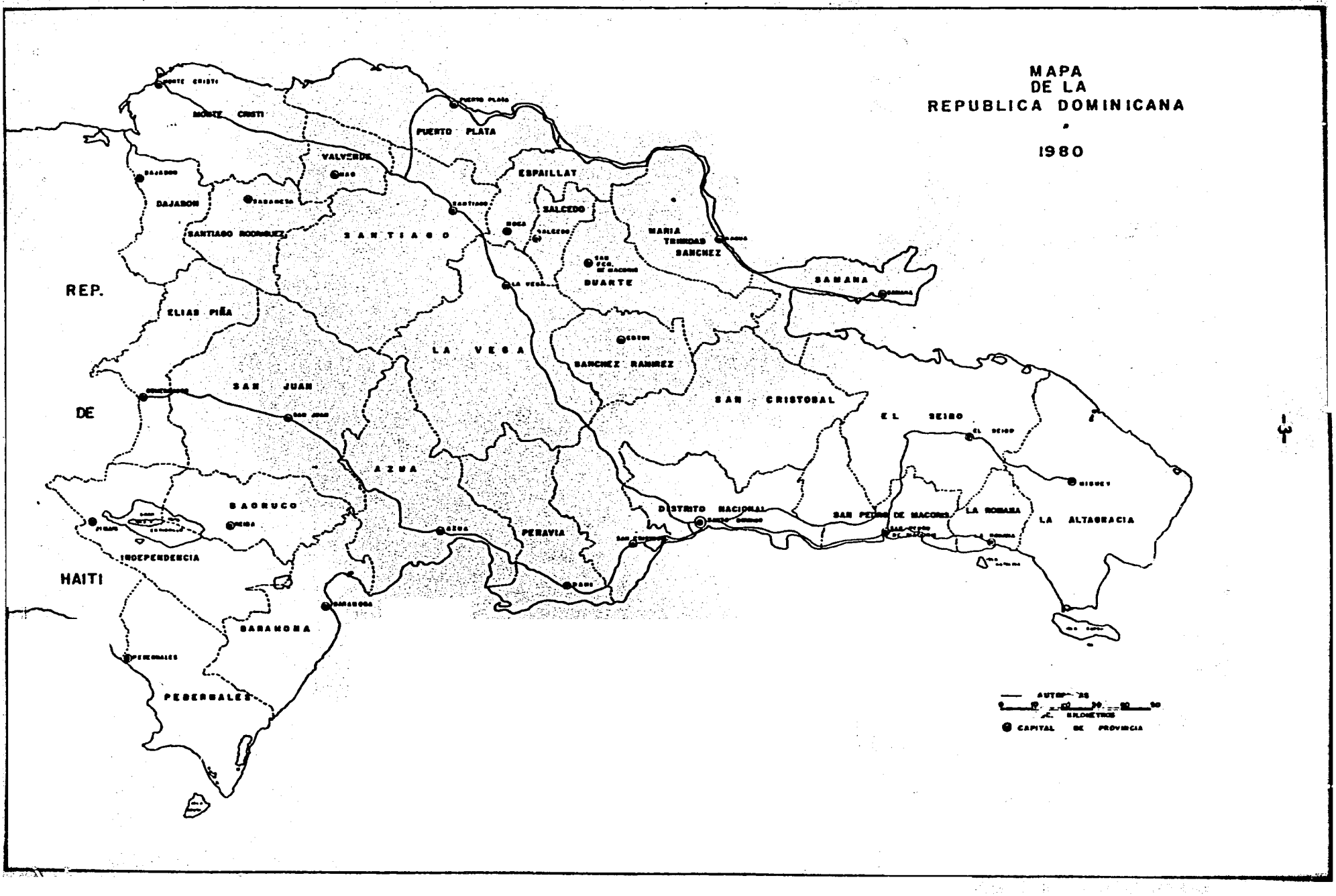
1. Oficina Nacional de Planificación (ONAPLAN), Informe Final Relativo al Seminario Región Suroeste, Plandes 29 (Santo Domingo, 1976).

Map 1


MAPA
DE LA
REPUBLICA DOMINICANA
1980
REP.
DE
HAITI
MONTE CRISTI
PUERTO PLATA
VALVERDE
DAJABON
SANTIAGO RODRIGUEZ
SANTIAGO
ESPAILLAT
SALCEDO
MARIA TRINIDAD SANCHEZ
DUARTE
SAMANA
ELIAS PIÑA
LA VEGA
SANCHEZ RAMIREZ
SAN JUAN
AZUA
SAN CRISTOBAL
EL SEIBO
BAORUCO
INDEPENDENCIA
PERAVIA
DISTRITO NACIONAL
SAN PEDRO DE MACORIS
LA ROMANA
LA ALTAGRACIA
BARAHONA
PEDERNALES
CAPITAL DE PROVINCIA

II. PRELIMINARY ANALYSIS: RESOURCES, INFRASTRUCTURE, AND PRODUCTION

A. OVERVIEW

The team believes that a reliable agricultural base can be established in the southwestern area, although such agriculture and related agro-industry would not support more than about one-third of the existing population at minimum acceptable living standards. Nevertheless, if agricultural production can be adequately developed and maintained, agricultural processing appears to have sufficient promise to warrant attention. Development of marketing will, of course, be a necessary adjunct.

Nonagricultural manufacturing will probably be difficult to develop in the Southwest in the near future. Our observations suggest that attention should be given to the possibility of sewing and assembly operations; this suggestion is based on our assessment of the resource base, of which a more detailed analysis follows.

B. WATER RESOURCES

The development of the Dominican Republic's water resources for both hydroelectric power and irrigation is a key factor in current economic development efforts. A major nationwide study of water resources was completed in 1976.[2] Recommendations for irrigation projects were based on initial benefit-cost ratios for each potential project.

Currently, a major study of groundwater in the Southwest is being financed by The Interamerican Development Bank. No information was available on the current studies being conducted by the governmental agency responsible for water resource projects, the Instituto Nacional de Recursos Hidráulicos (INDHRI), except that the major emphasis is on irrigation projects for the northcentral or Cibao region. There is some question as to the general technical capacity of INDHRI. One example is the poor design and management of the irrigation project near Azua. Because of inadequate drainage and overuse of water in some areas near Azua, a large area has been flooded or made excessively saline. The problem is particularly severe in the Ysura agrarian reform project area near Azua. There is some indication that INDHRI is overstaffed, causing most of its budget to be expended on salaries, with little remaining for capital investments and maintenance of existing facilities.

Given the above situation, emphasis on local-level extension education aimed at improving irrigation practices may well be a cost-effective policy. However, the basic data required for effective use of the irrigation system at the local level may not be currently available. A recent report on land use indicated that the potential for irrigation could not be evaluated because the means for measuring the capacity of the irrigation canals and data on the efficiency of irrigation in specific areas does not exist.[3]

A regional, multisectoral approach to the siltation problem is clearly needed. The experiences of Plan Sierra in watershed management in the northcentral region would be worth studying as a prototype for integrated watershed management in the Southwest.

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2. Instituto Nacional de Recursos Hidráulicos (INDHRI), Plan Nacional de Aprovechamiento de Recursos Hidráulicos (Santo Domingo, 1975).

3. Sistema de Inventario y Evaluacion de los Recursos Agropecuarios (SIEDRA), Uso Potencial de la Tierra: Evaluación del Recurso del Agua, Doc. 3, Secretaría de Estado de Agricultura, Subsecretaria de Recursos Naturales (Santo Domingo, 1979).

C. SOIL RESOURCES

The country's soil resources are being studied by the Programa Sistema de Inventario y Evaluación de los Recursos Agropecuarios (SIEDRA) of the Secretaría de Estado de Agricultura (SEA), with technical assistance provided by Michigan State University. Because of the emphasis on using satellite-based remote-sensing technology, the soil resource data available from SIEDRA is at a macro-scale, but detailed soil and agricultural production data are being collected by the regional offices of SEA. The collection of such basic data at the local level would be simplified if recent aerial photographs were available. However, a national program for making aerial surveys at regular intervals does not currently exist.

D. TRANSPORTATION

A multimodal transportation study was completed in July 1978. Two of the study's main recommendations were: (1) development of a plan for local roads, and (2) improvement of data collection and project evaluation methods. The study placed considerable emphasis on the transportation implications of development plans: "The expansion of cultivated lands will require large amounts of funds for the construction of local roads." But the study concluded that further research is needed "to determine if areas of latent demand exist where development is limited by lack of transportation and lack of access to markets."[4]

Historically, maintenance of both major highways and local roads has been almost totally ignored. Now, however, emphasis is being placed on maintaining primary and secondary highways through a $15 million World Bank loan approved in 1975. A highway maintenance program has been developed and Dominican staff are being trained to run the program.

A rural feeder road rehabilitation and maintenance program will be developed under a joint USAID-Caminos Vecinales project over a five-year period. The $10 million AID loan will be matched by $17.3 million from the Dominican government. The local roads project is designed to encourage local responsibility for road maintenance.

From a regional planning perspective, the procedure for establishing priorities for the rehabilitation and maintenance of local roads should be related to regional development goals. As outlined by AID, the local roads program is designed to spread the improvements to benefit as much of the rural population as possible. An alternative strategy of maximizing the economic returns from a project should also be explored.

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4. Secretaría de Estado de Obras Publicas y Communicaciones, Estudio Técnico--Economico del Sector Transports, vols. 1 and 2 (July 1978).

Because the rural roads program does not involve the construction or reconstruction of any roads, no new direct sources of erosion are expected. However, in view of the critical importance of reducing soil erosion to protect dams and irrigation programs, study is needed of the best means of using local roads rehabilitation and maintenance to reduce erosion.

E. PROSPECTS FOR AGRICULTURAL DEVELOPMENT

The prospects for increasing agricultural production in the southwestern region appear to be better than the prospects for agro-industry. This hypothesis may be analyzed in some detail, beginning with ONAPLAN's request of the team to assess the possibilities for four agricultural enterprises:

(1) Cotton. Expanded cotton production is feasible if water can be brought in or if the available water supply is more effectively managed. Another precondition for expanded production is the reduction of boll weevil damage. A cotton gin is presently located in Santo Domingo. Another could be used in the Southwest. Cottonseed crushing is currently being done in a cotton oil plant in Santo Domingo that is said to have excess capacity. Various products can be made from cotton oil and linters, but it would be uneconomical to haul raw oil and linters to the Southwest for processing.

(2) Castor beans. An advantage of castor bean production is that the beans can be grown on very dry land. However, thousands of tons of beans would be necessary to justify a crushing plant. Small farmers would need to be trained in order to produce and assemble the necessary volume. The employment created by introducing a processing plant for castor beans would be minimal, even if large hectarages were planted.

(3) Grapes. Grapes have been cultivated around Neiba for a long time, but at present the vines are rapidly dying from an apparently unidentified disease. There is no point in building a processing plant for grapes until disease is brought under control.

(4) Grain sorghum. Apparently, sorghum production could be greatly increased with expanded availability of inputs to farmers. Sorghum requires additional water, but less than half as much as does cotton. A few local grain elevators and feed mills could handle any likely production--around 50,000 tons within 5 years. Employment generated would not exceed 150 persons.

Agricultural officials knowledgeable about the Southwest believe that the following crops should be expanded: beans, corn, rice, coffee, pigeon peas, vegetables, sorghum, citrus, and avocados. They claim that the production of these crops could be expanded by 30 percent with the present water supply if other inputs were adequate; i.e., credit, fertilizer, chemicals, machinery.

Of these crops, marketing would be the most expensive and difficult for vegetables, citrus, and avocados. For domestic buyers, the products must be washed, sorted for size and general quality (though grading may not be necessary), trimmed, and boxed in serviceable crates. Also, the volume produced must be large enough to assure supplies to whatever outlets are sought, and to justify regular trucking operations. These products are perishable and must be moved rapidly to retail stores or central markets. All of these requirements could be met by growers' associations if skilled managers exist or can be readily trained. Both the market preparation and the cultivation of these crops are labor intensive.

Additionally, a method for communicating market news to growers and merchants would have to be arranged to facilitate marketing of these crops. Otherwise, market gluts will cause violent price fluctuations.

There has been some consideration of attempting to export these crops, and this possibility should be explored. The international market, however, has higher quality standards than domestic trade. Competition in the export market will be encountered from countries such as Costa Rica and Mexico. Some agricultural officials have thought of exporting to the U.S., but markets in question are supplied domestically for all but a few weeks of the year. Direct export through port facilities in the Southwest should be considered.

There is evidence that canning holds promise for economic development. Canning plants already are established at Santiago for tomato juice, catsup, paste, and perhaps other products of high quality. A modern canning plant already exists at Azua which is said to can a variety of items such as pigeon peas, pickles, juices, and the like. If the volume of canning crops were to increase by about 50 percent, existing plants could probably handle the increased supply. If an additional 200-300 hectares were brought into cultivation, another investor would probably be willing to establish another canning plant in the Southwest. Canning plants tend to be labor intensive and might employ 50-100 workers.

An additional note: honey bees should also be considered as a possibility for agricultural production in the region.

1. Adaptive Research Needs

The most striking shortage in the southwestern area is adaptive or applied research aimed at strengthening the basis for agricultural production.

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1. Adaptive Research Needs

The most striking shortage in the southwestern area is adaptive or applied research aimed at strengthening the basis for agricultural production.

Development of such a capacity would call for facilities and personnel for practical applied research. A dramatic example of this research need is grape disease, which at the present rate will kill all commercial grape vines in three-to-five years. Yet officials in Santo Domingo are planning a facility to process grapes in the southwest region, apparently unaware that the grapes are dying off. Adaptive research would seek out what is known about grape diseases in the U.S., Chile, and Western Europe, and adapt it to local conditions and problems. Other diseases of commercial importance are present in coffee berries, cotton bolls, and corn.

Perhaps the 80 hectare experimental farm at the Ysura project could be expanded. It is new and is now working on cotton, corn, sorghum, and plantain production problems. Small local substations may be needed for (1) rainfed agriculture, (2) irrigated agriculture, and (3) highland agriculture (coffee and perhaps citrus).

The experimental station system could:

(1) Do adaptive or applied research on plant diseases.

(2) Adapt more productive and marketable varieties from other parts of the world: e.g., grapes from California, Chile, France, or Spain, long staple cotton from Egypt or the Sudan, and so on.

(3) Operate nurseries, for example to produce leucana seedlings for planting on hillsides for charcoal and to check erosion.

The skilled personnel necessary to develop such a capability include plant pathologists, soils specialists, agronomists, horticulturalists, water management specialists, and agricultural economists. While the start-up time for complete development of such an experimental station system would be several years, immediate benefits would accrue if the effort were located in the region and if its work was focused on current and pressing problems.

F. MANUFACTURING

The Southwest has both advantages and disadvantages for manufacturing. Its most apparent advantages are: potential for agricultural processing, electrical production, and solar energy production; low wage rates; women having good manual dexterity (resulting from sewing skills); and low labor costs. Some petroleum is reported and there are bauxite, salt, and gypsum deposits as well. The region's most apparent disadvantages are the insecurity of future agricultural output due to a reputedly rapid siltation of dam reservoirs; deficiencies in physical and institutional infrastructure; and shortages of entrepreneurial, managerial, technical, and labor skills.

It appears to the team that current efforts to develop manufacturing in the Southwest should concentrate on two approaches. One is "project

development." This could be done best by first making an inventory of all project development studies so far undertaken in the Dominican Republic, and then determining those that might be relevant to the Southwest. If too few are available, additional studies should be undertaken regarding the feasibility establishing, in the Southwest, various assembly operations for export, food processing, and charcoal production.

A second approach for developing manufacturing is "business stimulation." This would involve surveying firms already in the region plus firms outside the region in regard to their managers' perceptions of obstacles to manufacturing in the Southwest. Their investment intentions regarding the Southwest also could be assessed. The perceived obstacles that correlate inversely with investment intentions then would be regarded as infrastructural projects (physical and/or institutional) that the government might undertake to stimulate manufacturing in the region.

For example, suppose that firms not intending to invest in the Southwest perceive insufficient bank credit as a serious obstacle to investing there, while firms intending to invest in the Southwest do not perceive insufficient bank credit as a serious obstacle to investing in the region. This would imply that certain firms have alternative sources of financing, and that increasing bank credit availability would stimulate manufacturing by firms not having access to finance. On the other hand, supposing that firms that do plan to invest in the Southwest and firms that do not both regard taxes as a relatively minor obstacle to manufacturing there. Then it could be concluded that merely reducing taxes probably would have little or no stimulating effect on manufacturing in the Southwest. A good business stimulation study could be far-reaching in identifying particular physical and infrastructural projects that would stimulate desired manufacturing. This kind of study already has been made in the Dominican Republic, but it is now dated.[5] While both project development studies and business stimulation studies could be undertaken, the former probably would be more promising under present conditions in the Dominican Republic.

The strategy for developing manufacturing that has the greatest likelihood for success is one which draws on the region's resources, both human and raw material. The women's manual dexterity should be conducive to establishing assembly operations for export on a freeport basis, such as Texas Instrument Company's assembly of electronic calculators in El Salvador, or the manufacture of baseballs and other sporting goods in Haiti. Foods can be processed for the Dominican market and/or

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5. W.J. Bilkey, Industrial Stimulation (Lexington, Mass.: Heath Lexington Books, 1970).

for export, insofar as adequate food can be produced and good quality is attained (Brugál's tomato processing plant in Azua is an example). Irrigation appears to be critical for food production; dams must not be destroyed by siltation if food processing is to have a future. Applied research might identify crops that could be grown with limited water and that could be processed--possibly olives, for example.

Large areas of the Southwest probably are nonirrigable due to topography and water limitations. Currently, scrub brush and cacti grow there. Some of the scrub brush produces much more wood than others. Possibly these "better" plants might be cultivated; or perhaps other species such as Leucana (referred to earlier in this report) could be introduced to replace present scrub brush and cacti. Such species (biomass) grown on hillsides would help reduce the erosion that currently is silting dams, and if cut systematically could be used to produce charcoal. Some of the scrub brush is currently used for charcoal production, but the volume is small and no charcoal ovens were evident. Present charcoal production methods are very crude, and probably waste much of the wood. Developing charcoal production by using soil-retaining plants in nonirrigable areas of the Southwest seems to be of tremendous strategic importance for the following reasons:

(1) It could provide low-income people with an alternative to deforesting steep hillsides, which causes the erosion that reputedly will fill dam reservoirs within ten years.

(2) Charcoal production is labor intensive and can provide employment for many poor people.

(3) Increased charcoal production can reduce the country's petroleum imports, thus helping the balance of payments.

(4) Charcoal marketing already is developed in the Southwest.

The gypsum and the salt produced in the Southwest are reputedly of rather poor quality. If so, they would not provide a basis for manufacturing. Bauxite is another matter, however. ALCOA's first bauxite mining contract with the Dominican Government was made about forty years ago, followed by a very modest price adjustment more than fifteen years ago. Possibilities for a reasonable renegotiation of present terms could be explored. ALCOA's current payments for Dominican bauxite probably are low by international standards, and there is some evidence that ALCOA's profits from the Dominican bauxite have exceeded their mining investments in the Dominican Republic by many times. If these impressions are correct, a reasonable price renegotiation could provide funds for developing the Southwest. Perhaps ALCOA could be asked to develop certain kinds of firms in the Southwest as an alternative to bauxite price renegotiation.

G. ENERGY

An additional opportunity for economic development in the region is the existence of Lago Enriquillo, a large saline inland lake located in the Southwest. The potential of this lake as an energy source through use as a solar pond needs to be explored. The term "solar pond" refers to a body of water that collects the sun's heat and stores it so that the heat remains and is not dissipated as occurs in most bodies of water. It is the salt content of the pond, or more precisely the presence of layers or gradients of increasing salinity from top to bottom, that causes heat to be stored at the bottom.

The technology to generate energy from saline lakes is already developed and in use in Israel and elsewhere. Israeli estimates show that electricity generated by such efforts is cost competitive with both conventional and nuclear generation while not causing environmental degradation.[6] Little is known about the suitability of Lago Enriquillo for such use, but the current energy situation and the desirability of using a regional energy supply for development indicate that this possibility should be explored.

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6. Richelle Lisse, Salt Gradient Solar Ponds, Report prepared for the University of Wisconsin Regional Planning and Area Development Project (Madison, 1980).

III. PRELIMINARY ANALYSIS: INSTITUTIONAL ISSUES

A. AN INTEGRATED APPROACH TO AREA DEVELOPMENT

The design of a regional development program for the Dominican Republic is, of course, tied to one's ideas about the meaning of regional development. Currently, both within USAID and among other development technicians, the vogue is to speak of integrated approaches, area development strategies, regional approaches, and so on. We feel that these ideas are generally aimed in the right direction, but that careful attention must be given to their content in order for a coherent program to be fashioned. Unfortunately, what one often sees is the label without the substance--a situation where the rhetoric of integrated regional development is used to justify a grab bag of unrelated and often conflicting programs and projects.

The first step in creating a logical program, then, is to discuss what we mean by an integrated approach to area development. The following is not meant to be a rigorous academic discussion but rather a pragmatic statement useful for marshalling resources in a way which will quickly lead to action and results.

1. Area Focus

A key aspect of an integrated approach to development is a spatial or area focus. Simply put, this means concentrating programs and investment in a geographical area as opposed to an economic or functional sector, e.g., small-scale industry or health. It also implies at least an initial emphasis on one part of the nation rather than the country as a whole. This is intended to permit concentration of resources in poorer areas in an attempt to avoid the classic attraction of resources to capital cities and other relatively better developed nodes.

2. Integrated Focus

The corollary of a spatial or area focus is the integrated nature of the approach, i.e., the focus on all aspects of development--social as well as economic. Given that all aspects of development are interrelated, and that obstacles to development and change can take a variety of forms, a multisectoral attack is needed. Not only must one consider all aspects and interrelationships within the purview of a given project, but one also needs to examine the interrelationships among all development activities operating in a specific area. This leads to the need for an integrated approach to development that considers the internal and external impacts of each project and brings together diverse activities as one part of the area's planning activity.

3. Regional Focus

The regional consideration addresses the question of defining a suitable area for an integrated approach. In many countries, including the Dominican Republic, some action has occurred in the direction of creating subnational regions for development administration. Such efforts are frequently attached to the rhetoric or substance of decentralization, and the regional approach to integrated area development attempts to build upon this impetus.

However, the suitability of a given region for an integrated area development project requires more than its existence as a piece of subnational geography. This approach implies that the regions must have some institutional coherence. In the ideal case, this institutional aspect could be a regional development authority with substantial funding and broad power to implement and manage a wide range of development programs. In reality, however, what one should look for is at least a minimal commitment by the national government for creating an institutional

structure which can effectively address development problems at the regional level. This commitment should exist in tangible, not just rhetorical, form and be evidenced by regional institutional arrangements and funding.

4. Urbanization and Rural Development

While agriculture will be the basis for much of the development effort in the Southwest as well as elsewhere in the Dominican Republic, the role of urban centers and urbanization must also be recognized. The concept of an integrated and area-based approach implies that rural and urban concerns should be addressed jointly; they are, in fact, different facets of the same problems. Attempting to tackle development problems while ignoring either the urban or the rural dimension is a fruitless exercise. Therefore, integrated regional development must look at issues such as migration, off-farm employment, and the marketing of agricultural products--all of which clarify the urban-rural interrelationship.

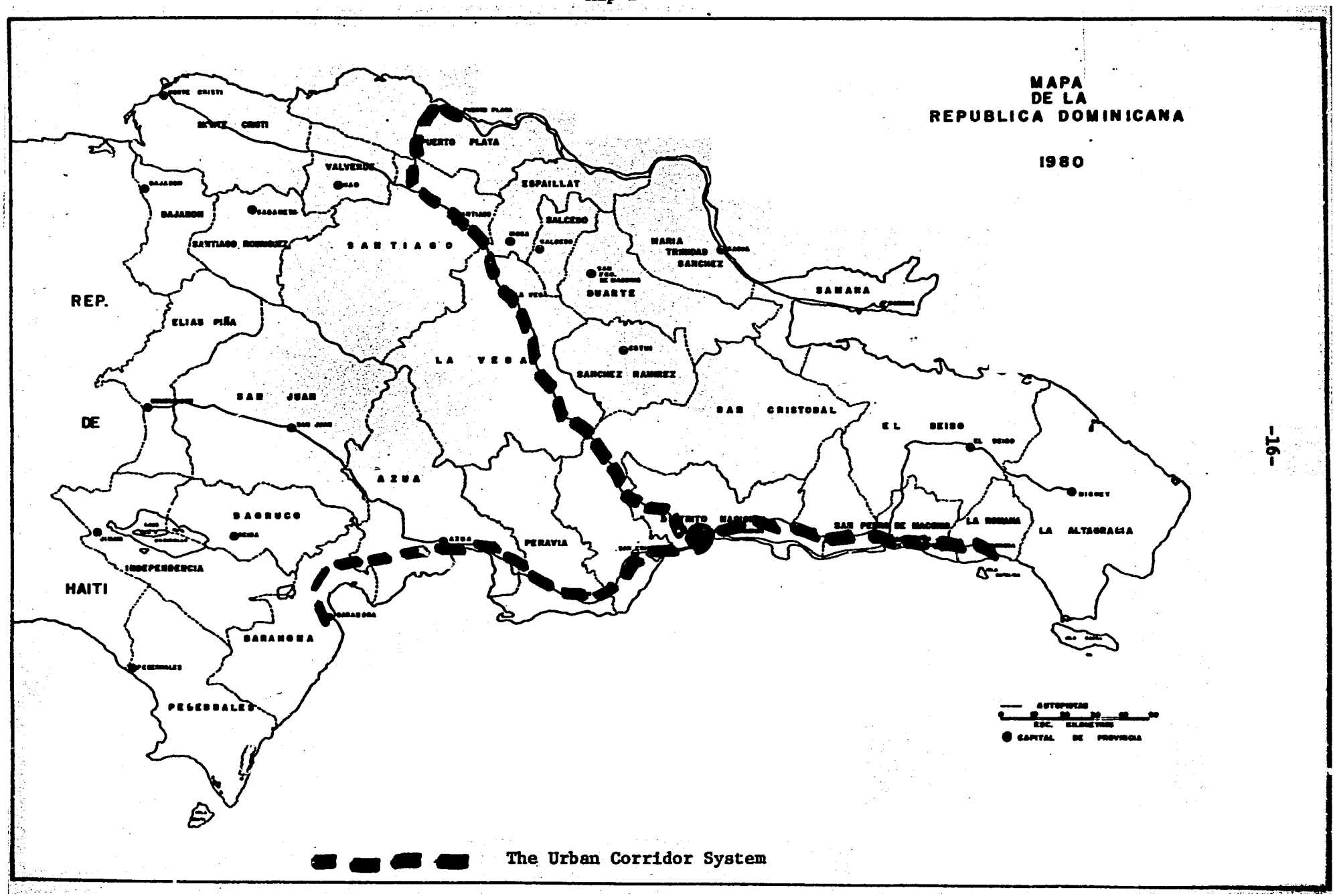
This interrelationship is particularly important in the Dominican Republic because an unusually high percentage of the population resides in urban places. (Dominican sources estimate 65 percent to 70 percent of the population will be urban in 1985.) Therefore, some attention must be paid to the urbanization pattern in the Dominican Republic and its implications for future urban growth.

Urbanization has occurred along several corridors in the Dominican Republic, all focused on Santo Domingo and to a lesser extent on Santiago (see Map 2). This of course is not unusual and the transportation system that goes along with such a pattern is a common one for former colonial nations: everything flows toward the capital. The physical geography of the island also plays a significant role with the mountain ranges reinforcing the pattern.

Traditionally, development practice suggests correcting this pattern by linking urban centers in a hierarchical network, as suggested by central place theory. According to this theory, each city would have links to a whole hierarchy of urban places, not just to the next stop on the road to the capital.

A common development prescription, then, has been to focus attention on two issues. First, gaps in the hierarchical (lognormal) distribution of cities have to be filled. Intermediate-sized towns and cities are proposed to fill in the theoretical gaps between small towns and the capital. Second, attention is focused on completing the missing links in the transportation system; i.e., all these urban places have to be linked together by roads forming a complete network, as opposed to several corridors.

Map 2


MAPA
DE LA
REPUBLICA DOMINICANA
1980
REP.
DE
HAITI
PUERTO PLATA
VALVERDE
ESPAILLAT
SALCEDO
SANTIAGO
MARIA TRINIDAD SANCHEZ
SAMANA
DUARTE
ELIAS PIÑA
LA VEGA
SANCHEZ RAMIREZ
SAN JUAN
SAN CRISTOBAL
EL SEIBO
AZUA
BAORUCO
PERAVIA
SAN PEDRO DE MACORIS
LA ROMANA
LA ALTAGRACIA
INDEPENDENCIA
BARAHONA
PEDERNALES
AUTOPISTAS
CAPITAL DE PROVINCIA
The Urban Corridor System

We suggest that this approach is inappropriate in most developing countries. Attention instead should be focused on supporting existing urban centers and planning for the integration of those centers into their surrounding regions. The pattern of future transportation should be aimed at extending access into the existing urbanization corridors rather than attempting to forge linkages between the corridors.

It must be remembered, however, that supporting existing urban centers and increasing access to those centers does not mean unchecked urban growth or favoring urban over rural development. On the contrary, an integrated approach to development means seeking a balance between urban and rural, and supporting, for example, urban functions that enhance rural development. One example would be better road access to urban markets for agricultural produce and better facilities within the urban area for processing that produce.

In summary then, it is our view that development should be planned for and managed on an area basis, in an integrated fashion, and in a region in which the government is interested and committed to creating and maintaining appropriate institutions for guiding change and development.

B. AN ACTION-ORIENTED APPROACH TO DEVELOPMENT PLANNING

Planning has been so often criticized for being unrealistic, impotent, and just plain useless that the criticism has become trite. Nevertheless, much of the criticism is accurate, to the detriment of both the profession and its clients. However, the alternative--whether couched in terms of no planning or budgeting, or whatever--is also very unsatisfactory. Given a country where a substantial part of the development activity occurs through the public sector, planning inevitably will occur. In simple terms, governments will act, in a more or less rational manner, to design, organize, implement, and guide social and economic change. This is planning. No planning is not an option; rather the choice amounts to how planning will be done, and how to avoid the classic problems associated with its practice.

Recently, it has become clear that a variety of people and agencies, both inside and outside the planning profession, are engaged in planning activities that can be termed action-oriented planning approaches. The RPADP's efforts in this direction have been termed the sketch plan approach, while others speak in terms of reduced planning or other similar phrases.

Generally these efforts--the sketch plan process in particular--are concerned with a realistic approach to development planning that will avoid past problems while encouraging change. This means an emphasis on the following themes:

(1) Action Orientation. This orientation means that one uses existing studies and data and combines them with one's initial impressions to get concrete projects underway quickly. Rather than waiting for studies and plans to be started, processed, and completed, one begins development projects on a pilot or experimental basis and uses the lessons learned from such projects to guide the planning effort in a realistic direction.

(2) Dynamic and Continuous Approach. This approach avoids static plans and concepts. Instead, planning proposals should be open-ended and tolerant, reflecting the fact that goals and values change over time. A plan that cannot accommodate and utilize these factors of change is bound to be rendered impotent by them.

(3) Junctural Focus. "Junctural" refers to the fact that the planning process should be capable of seizing unexpected opportunities and putting them to work. These opportunities--whether they are institutional changes such as a new development authority, or unique resource configurations such as the possibility of a solar pond at Lake Enriquillo--are often the stuff that get the development process moving and provide a focus for continued efforts.[7]

C. THE ADMINISTRATION OF DEVELOPMENT IN THE DOMINICAN REPUBLIC

1. Dominican Initiatives

The Government of Dominican Republic has made a substantial administrative and financial commitment to establish program and project administration on a regional basis. This is an important change in as much as government decision making has been highly centralized in the past. This move toward decentralization is seen both in line agencies' activities and procedures and in the work of ONAPLAN in developing both regional development plans and regional capital improvement programs.

However, a review of the current status of governmental regionalization activity shows that each agency has approached the decentralization question with a view, quite naturally, to its own needs and requirements. The result is that various parts of the government are at different points in the decentralization process, with different regional configurations and different distributions of administrative functions.

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7. For a fuller description, see Michael L. Hoffman and Leo Jakobson, The Sketch Plan: A Conceptual Framework (Madison: University of Wisconsin Regional Planning and Area Development Project, 1979).

These variations have been recognized by the Dominican Republic government, and several efforts have been made to harmonize the regions geographically in order to assure effective coordination of programs and implementation. The latest and most thorough effort is collaborating the staffs of a number of different agencies.[8] This effort resulted in a proposal for a single homogeneous set of regions, allowing sufficient flexibility for the needs of the various agencies. Currently this proposal is awaiting approval by the President.

2. Decentralization as a Conditional Good

The previous discussion has proceeded on the assumption that decentralization or regionalization is intrinsically good. We suggest that decentralization may or may not be good, and that further consideration is necessary to determine its consequences. We propose to outline a framework for examining the decentralization/regionalization question and then review the status of regionalization in the Dominican Republic.

3. Forms of Decentralization

Government decentralization can be achieved in a number of ways.[9] First, distinctions can be made between functional and areal decentralization. Functional decentralization focuses on the transfer of authority to perform specific tasks to organizations that are functionally specialized and that operate nationally or at least across local jurisdictions. The transfer or delegation of authority from a central ministry to public corporations to build and maintain highways, provide health care, or market grain is a form of functional decentralization, as is transferring planning and decision-making authority from a central ministry staff in the capital city to the ministry's field staff located in offices distributed throughout the country. Functional decentralization is most often concerned with increasing a central ministry's efficiency by organizing its field offices to serve a "target population" scattered throughout the country, without regard to subnational political jurisdictions.

Areal decentralization, on the other hand, is always primarily concerned with sharing or transferring responsibility for the production and delivery of public goods and services to organizations within well defined spatial or political boundaries. It is usually designed to

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8. Propuesta de Regionalización Administrativa (Santo Domingo, 1979).

9. This section has been abridged from Dennis P. Rondinelli, Administrative Decentralization and Area Development Planning in East Africa, Occasional Paper no. 1 (Madison: University of Wisconsin Regional Planning and Area Development Project, 1980) pp. 14-20.

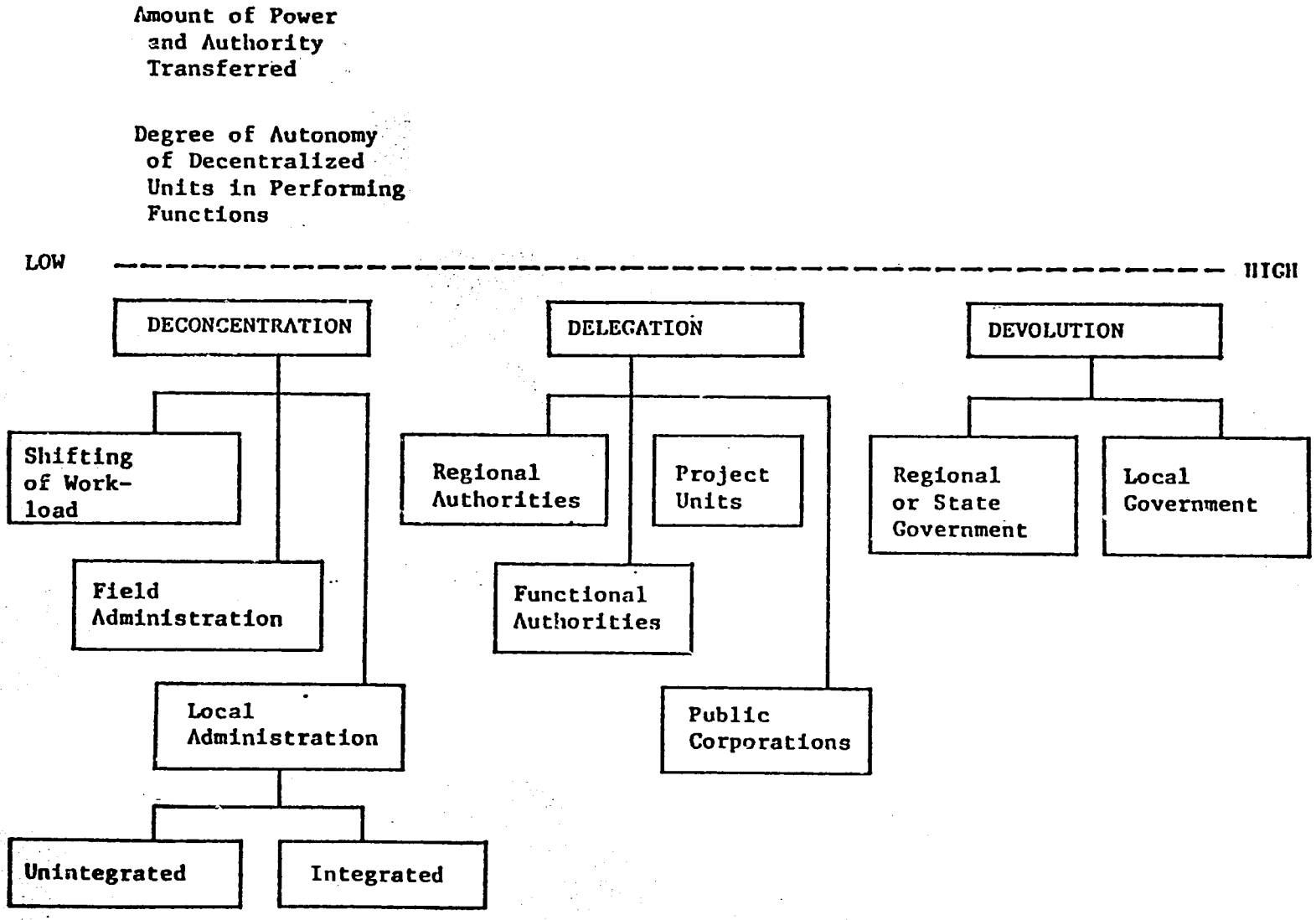
provide administrative units or government organizations within a specific area--usually a political jurisdiction such as a province, district, city, town, or a socially defined or geographic region--with the authority to plan and carry out activities for improving the welfare of the people living within that area, or at "targeting" investments, financial allocations, and service delivery to people living within its boundaries. Thus the creation of regional development authorities, integrated area development programs, and community development corporations is a form of areal decentralization. The devolution of power and authority to perform functions previously controlled by central government agencies to provinces, districts, and municipalities is also a form of areal decentralization. Usually, in areal decentralization the transfer of authority is to organizations that may legally perform those functions only within specific spatial or political boundaries.

A second distinction can be made among deconcentration, delegation, and devolution as three forms of administrative decentralization. These forms of decentralization may be viewed as being on a continuum, with the degree of decentralization varying with the amount of power that central government agencies transfer to other organizations. At one extreme, as noted earlier, deconcentration may involve only the redistribution of planning, decision making, or management responsibilities among levels of central administration through a shifting of workload from central ministry headquarters to its own field offices, or through the establishment of field agencies with some discretion and control over operations. Creation of local administration--subordinate units of government responsible to a central authority--is also a form of deconcentration. More extensive decentralization can be achieved by the delegation of responsibility to perform public functions to organizations not wholly controlled by central government agencies or with some semiautonomous authority--such as public corporations, regional development and planning authorities (power corporations or marketing boards), and autonomous project units. Finally, the most extreme form of decentralization is devolution of authority from the central ministries to other units of government such as provinces, municipalities, or cities. The central government either entirely "divests" itself of responsibility for performing certain functions and makes them the obligation of other units of government, or maintains only very loose supervisory control over the performance of those functions by subordinate units of government (see Figure 1).

For development purposes, the strength of local government units--in terms of salient functions they perform, the skill and professionalism of local officials, their financial resource base, and the effectiveness with which they carry out their responsibilities--may be much more significant than is their legal status as independent units. Indeed, as Uphoff and Esman have pointed out, "local institutions which are separated and isolated from other levels are likely to be impotent developmentally. Local autonomy by itself provides little leverage for development." They argue that it is the interaction network under which

Figure 1

ALTERNATIVE FORMS OF ADMINISTRATIVE DECENTRALIZATION



local governments operate that determines their ability to promote development. "What makes the most difference are systems or networks of organization that make local development more than an enclave phenomenon. Thus, we found linkage to be a more significant variable than autonomy when it comes to promoting rural development." For devolution to be meaningful, there must be close relationships between the central government and local units, with each performing those functions for which they are most suited and each having resources to perform the functions effectively.

Thus, various forms of decentralization must be analyzed on a continuum. Each form of decentralization has different implications for institutional arrangements, the degree of transfer of authority and power, local citizen participation, preconditions for successful implementation, and advantages or benefits for the political system. In reality, although there are differences among the various forms of decentralization, they are not mutually exclusive. All governments consist of some combination of these forms of decentralized administration, with the amount of authority transferred to decentralized units differing from country to country.

4. Current Status of Decentralization and Regionalization

Based upon the data and observations of this preliminary mission, we can note that most of the regionalization activity in the Dominican Republic falls under the heading of deconcentration. This involves the shifting of workloads to regional offices and the regional administration of programs and projects. In other words, a secretariat has a set of regional offices which undertake studies and analyses in the region and administer programs, all of which, in a more centralized system, would be done in the capital.

This effort, in which ministries have shifted some of their workload to regional offices, needs to be distinguished from the administration of regional plans and programs, which is still concentrated or centralized. This is the case with the regional planning effort currently being carried out by ONAPLAN; i.e., it is a highly centralized effort which is disaggregated regionally.

Additionally, it should be remembered that all decentralization--or, in this case, deconcentration--has been done on a functional rather than an areal basis. In other words, rather than passing power down to local or regional agencies, deconcentration has occurred along functional lines through the creation of regional offices within different ministries.

Finally, it should be noted that most of this deconcentration of activities to the regional level has occurred in an unintegrated and uncoordinated fashion. This means that the regional offices of the secretariats and other public institutions have no formal means of coordinated

or integrated operation. Each agency administers its own program according to its own mandate.

D. REGIONALIZATION AND INTEGRATED AREA DEVELOPMENT

There are, arguably, a number of routes to economic and social development. However, our concern here is with an integrated approach to the development of regions. The effort which the Dominican government has already made toward decentralization and regionalization is a significant step in this direction, and we hope that national and donor agency policies will continue to build on the current foundation.

Nevertheless, as we noted at the beginning of this section, decentralization is a conditional good, and further pursuit of decentralization should not be done without a clear purpose. We suggest that development can best occur by linking decentralization to an integrated approach to regional development through regional planning. Achievement of such an approach would require that the regionalization effort be pushed in the following directions:

(1) Greater coordination and integration of functional activities

(2) Establishment of a regional development planning, programming, and management capacity in the region

(3) Delegation of appropriate development decision-making authority to the regional level

In other words, the decentralization and regionalization effort should be aimed, in the long run, at establishing a capacity within the region to plan and implement development programs and projects. Such an effort cannot occur in one decisive stroke; but government and donor agency policies should continue to move, step by step, in the direction of increasing regional capacity.

IV. OPPORTUNITIES FOR DEVELOPMENT

A. SELECTING REGIONS FOR DEVELOPMENT

The RPADP team was asked by ONAPLAN and USAID/DR to investigate the southwestern region and southcentral area of the country. These areas, while geographically adjacent, are quite diverse physically and institutionally and present quite different opportunities for development.

The southcentral area investigated is a small part of a larger region which includes Santo Domingo. This larger region has been delimited in different ways at different times, but the section in question is generally defined as the area most adversely affected by the hurricanes of 1979. Currently, the area's most pressing needs are related to the hurricane damage. Much of the damage remains unrepaired, despite substantial efforts by the Dominican government and various donor agencies.

Given the situation in the southcentral area, donor assistance should be quick and aimed directly at projects that can meet immediate needs for housing, health, and so on. At this time, the area is not a propitious location for longer run developmental activities such as institution building, decentralization, training, and so on. These activities may well be appropriate later, but at present the needs are much more pressing and direct. The area does not present an appropriate environment for starting a regional development program, however suitable the situation may be for other forms of technical assistance.

A regional development program should focus on creating a capacity within a region to plan, implement, and manage development. This involves training staff, creating and strengthening institutions, and preparing plans for both immediate and long range action. In the southcentral area, however, not only does the immediacy of the need argue against this approach but the hurricane-affected area has no distinct institutional base. The area is not designated as a target region in the proposed reorganization plan suggested by ONAPLAN and others, nor is it considered a target region by any of the other secretariats. This might not be a problem, if, for example, the local or provincial government operated differently or if some other institutional gap is too large an obstacle for rapid initiation of an integrated regional development project. This does not, however, argue against the need for development assistance to this area. Rather, it argues against the regional planning and area development approach discussed here.

Unlike the southcentral area, the Southwest provides a unique opportunity for the introduction of an integrated area development project. The region is fairly cohesive with institutional structures already in place. Further, a substantial body of studies, reports, and plans already exists that can be used as a foundation for action. These factors are discussed below.

1. Institutional Initiatives

The Dominican Government has made a commitment to a form of decentralization in the Southwest that is supportive of a regional approach to integrated area development. The government has created an agency, the Instituto para el Desarrollo del Suroeste (INDESUR), designed to promote the integrated development of the southwest.[10] Specifically, this agency is empowered to recommend priorities for implementing projects; to propose a budget for public investment; and to work with national agencies, private groups, and international organizations in order to promote the region's economic and social development.

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10. República Dominicana, Gaceta Oficial de la República Dominicana, Decreto Numero 1332, Nov. 20, 1979.

The agency is intended to promote an integrated approach to regional development through coordinating the programs and investments of the range of agencies operating in the region and developing integrated proposals and plans for growth and change. As a whole, the establishment of this agency is a sound indication that the Dominican Republic is committed to a strategy of integrated regional development in the Southwest.

Currently, an Executive Secretary, Dr. Rafael A. Diaz Vasquez, has been appointed to head INDESUR and about 13 professional staff members have been hired. The agency is organized into a project unit and a programming unit and has area offices in Barahona and San Juan. It is currently at work on a number of studies and projects involving agriculture, health, transportation, and other activities.

A second institutional innovation which is significant for integrated development in the Southwest involves recent attempts by the Secretaría de Estado de Agricultura (SEA) to coordinate its diverse efforts in the region. Eight separate divisions of SEA have been operating in the area, each with its own set of plans and programs. Recently, however, a structure has been established to begin to coordinate and integrate these activities within the region; well trained personnel have been hired and work has begun. In addition, SEA has begun integrating some of its regional activity in the south with those of INDESUR.

2. Other Resource Investment in the Southwest

In addition to the above efforts, several other activities have occurred in the Southwest that bolster the notion that the Dominican government is firmly supporting the region's economic and social development. First, is the elaboration of what USAID/DR has termed "a reasonably thorough and realistic four-year development plan for the Southwest."[11] While this plan follows a traditional format--a format that may present difficulties in implementation--it still represents a serious effort to begin an integrated approach to development.

Second, a university has recently been created at Azua, also the site of INDESUR and one of the regional offices of SEA. While the university is only beginning, the opportunities it presents are substantial. Not only does a university increase the residents' potential for employment, but it also provides a basis for beginning to adapt research and technology to the area's specific problems through links to INDESUR and other regional agencies. In Chapter II of this report, we have noted the need for adaptive agricultural research in the region.

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11. U.S. Agency for International Development/Dominican Republic, Country Development Strategy Statement (CDSS), FY 1982 (Santo Domingo, 1980) p. 35.

Finally, it should be noted that UNESCO has been involved in development work in the Southwest through ONAPLAN's regional planning effort. This effort has been significant in moving the region's planning activities forward. Unfortunately, UNESCO's involvement is currently coming to an end; and some replacement should be found to continue the momentum that UNESCO has generated.

B. USAID PROGRAMS AND PROJECTS

The above analysis suggests that the Southwest is a prime candidate for rural regional development assistance. As the AID Country Development Strategy Statement (CDSS) notes, the Southwest has one of the highest concentrations of poor in the country.[12] This fact alone, however, would not support the assessment that the area is appropriate for an integrated regional development program. But when the region's economic conditions are coupled with the initiatives begun by the Government of the Dominican Republic, the region appears to offer an opportunity for such a program.

It could be argued that in per capita terms the return on investment is not high because only 13 percent of the nation's population is located in the Southwest. But several factors are persuasive against this argument.

To begin, development assistance in the Southwest should not be looked at as a one-time effort. Rather, the development program there would serve as a prototype for similar strategies in other areas of the country. Hence, a calculation of cost and benefits needs to take more into account than only the size of the regional population.

In other words, efforts in the Southwest would also benefit the nation as a whole: the number of Dominican officials trained to plan for and manage development would be increased, and, most importantly, the potential exists to develop a model decentralization effort that is pragmatic and effective. Therefore, one should view the Southwest as both a lagging region to be developed and as a heuristic model which can guide future decentralization.

Again, it should be remembered that given the unique institutional investments already in place in the area--a situation not existing elsewhere in the Dominican Republic--the start-up costs could be considerably less and the probability of success would be greatly increased compared to other regions of the country.

Given the Southwest's potential, the team suggests that USAID/DR focus its FY-1982 Rural Regional Development Project to the area in conjunction with INDESUR's activities. As the CDSS has noted, the Regional Rural Development Project is "designed to assist the Government in developing

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12. CDSS, p. 3.

more effective methods of dealing with poverty within the context of responding to local problems and development potential."[13] The situation in the Southwest presents an opportunity to meet these objectives that should not be ignored.

In addition to the regional development program, other USAID/DR projects can be tied together under the umbrella of integrated regional development. This is not to suggest that all these activities should be focused exclusively in the Southwest, but only that some of their efforts could be directed to that region under the organizing framework of the Regional Rural Development Project. Such projects could include the small industry/business project and some of the small farm agriculture projects.[14] The return from combining these projects into an integrated approach to development in one region could exceed the potential return from separated, unintegrated projects.

C. CONCLUSION

As noted earlier, integrated regional development should be focused on:

(1) Greater coordination and integration of functional activities

(2) Establishment of a development planning, programming, and management capacity at the regional level

(3) Delegation of an appropriate development decision-making authority to the regional level

To this end we propose that USAID/DR, with the concurrence of ONAPLAN and the Dominican Government, use the resources of the University of Wisconsin Regional Planning and Area Development Project to establish a technical assistance and training project to assist ONAPLAN and other Dominican agencies. This project would focus on:

(1) Linking USAID/DR's regional development project to INDESUR

(2) Providing technical assistance in specific functional areas such as irrigation, transportation, energy, and agriculture under the umbrella of a regional planning and development program

(3) Focusing (1) and (2) on institution building and on-the-job training so as to increase the capacity for regional planning, development, and meaningful decentralization in the Dominican Republic

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13. CDSS, p. 50.

14. U.S. Agency for International Development/Dominican Republic, Annual Budget Submission, FY 1982 (Santo Domingo, 1980).

The team strongly believes that a collaborative effort along the above lines is the best focus for USAID/DR's regional development efforts and the most effective way to build on the work already underway in the Dominican Republic.

ANNEX A

DAILY ACTIVITIES FOR THE REGIONAL PLANNING AND AREA DEVELOPMENT PROJECT SHORT-TERM CONSULTING MISSION IN THE DOMINICAN REPUBLIC

May 27, 1980	Team traveled to the Dominican Republic.
May 28-29	Briefing from USAID/Santo Domingo officers: Dr. Philip Schwab, Mission Director Ron Venessia, Deputy Director John Cleary, Program Director Ken Ellis, Rural Development and Agriculture Officer Al Rivelli, Health and Population Officer Charles Blankenstein, Capital Development Officer Felipe Montigu, Rural Development Officer Arthur Valdez, Disaster Relief Advisor Aaron Benjamin, Urban Planning Officer Briefing by David H. Coore, Representative of the InterAmerican Development Bank, Santo Domingo. Meeting with Frank Demoya, Head of Employment and Migration Studies for ONAPLAN.
May 30	Briefing by Luís Ortega, Sub-Director for Regional Planning, ONAPLAN. Briefing by members of UNICEF mission in Dominican Republic. Additional meetings with USAID Mission officers.
May 31	Field trip to Northwest and Cibao, including the cities of Santiago, San José de las Matas, Moca, and San Francisco de Macoris.
June 2	Meetings with ONAPLAN staff including: Dr. Ligia Echaverria Sánchez, Asesor Jurídico Joaquin Diaz, Chief of Agricultural Division Fernando Ramírez Hued, Chief of Infrastructure and Energy Additional meetings with USAID Mission personnel. Discussion with Tomás A. Partoriza, President of Compañía. Financiara Dominicana, S.A. Visit with Robert R. Anlauf, Agriculture Attache for U.S. Embassy and his assistant.

June 3	Meeting with Maritza García, Program Director of the Dominican Secretariat of Industry and Commerce. Briefing from Director of Inter-American Development Bank Mission in the Dominican Republic. Meeting with Fernando Guardia, United Nations Development Program Advisor to ONAPLAN. Meeting with Nelson Ramírez, Consejo nacional de Población y Familia. Meeting with Jerry LaGra at the Instituto Inter-American de Ciencias Agrícoles. Meeting with Ms. Betty Facey, USAID staff engineer responsible for USAID's Local Roads Loan Program.
June 4	Meeting with Samuel Encarnación, Head of Regional Planning for Secretariat of Agriculture. Meeting with Director of IICA. Meeting with Dr. Gilberto Concepción, Director of Division of Analytical Services, INDOTEC. Meeting with ONAPLAN staff. Field trip to southcentral area with Benedicta Fortuna of ONAPLAN. Meeting with Benito Ortega, Director of Agriculture Ministry Planning Office in Bani. Tour of hydroelectric dam at Valdesia and soil conservation projects at San José de Ocoa.
June 5	Field trip to southwest area around Azua. Meeting with Raphael Dias Basque of the Instituto de Desarrollo Suroeste. Briefing on YSURA agrarian reform program by Dr. Cesar López, Funcionario Para el Desarrollo, Integral Agropecurio. Meetings with several Dominican officials including: Director of Inter-Institutional Coordination Program in Azua, officials of YSURA project, and Fernando Duron, Regional Director of Agriculture in San Juan de la Maguana.
June 6	Meeting with Regional Division of Secretariat of Education. Meeting with Dra. Sonia Condeline and Lic. Maricela Duval of Regional Planning Division of the Secretariat of Public Health. Meeting with Francis González, Director of Irrigation of INDRHI. Meeting with Fernando Campo of Ministry of Agriculture, Division of Soils and Water. Meeting with Gretel Castellano of ONAPLAN Natural Resources Division. Additional meetings with USAID staff.
June 7-8	Travel to U.S.