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URBAN LAND MANAGEMENT IN THE CARIBBEAN

**Proceedings of a
USAID-Sponsored Conference
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**Regional Housing and Urban Development
Office for the Caribbean
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PREFACE

This document summarizes the proceedings of a three-day workshop held in Castries, St. Lucia, July 25-27, 1989. The workshop was sponsored by our Office (USAID's Regional Housing and Urban Development Office for the Caribbean) and designed and implemented under our Regional Network and Training Program (RNTP). It focused on what has become a key challenge faced by all Caribbean countries--urban land management.

The importance of the issue was brought forcefully to everyone's attention at our 1988 Barbados Conference which offered a number of presentations on informal sector housing in our region. The inadequate delivery of serviced land was highlighted as perhaps the most fundamental constraint in the provision of decent shelter for the urban poor. Since then, the importance of land management has been stressed in a number of other contexts in policy discussions throughout the Caribbean. For example, significant improvement in land management capabilities is seen as vital to preventing serious environmental deterioration, facilitating business development and job creation, and protecting the physical assets that are the basis for the region's tourist trade. It became clear that officials from many countries wanted to learn more about how this issue could be addressed.

Our Regional Shelter Network representatives helped us with ideas for the workshop. The Network is made up of representatives appointed by housing and urban development Ministers from most countries in the region. It was set up to facilitate the collection and dissemination of information of interest to sector professionals and to promote greater contact between them. At the first Network meeting (in Jamaica in March 1988), the representatives generally felt that conferences should give more emphasis to participatory experiences, and less to traditional formal presentations.

With that idea as our starting point, we devised a new approach for this workshop. Three countries were selected to serve as the focus for our deliberations: Belize, St. Lucia, and St. Vincent. We commissioned background papers to be prepared ahead of time to describe explain each country's current urban land conditions, policies, and problems. When the workshop began, all 50 participants were assigned to one of three teams to examine urban land management in these countries. A senior Caribbean professional served as facilitator for each of the teams. The teams: (1) heard and discussed presentations of the background papers by the authors; (2) examined policy issues as stimulated by the papers and discussions; and (3) developed an outline strategy for urban land management in their country.

While most of the time in the workshop schedule was devoted to team meetings, these were supplemented by a series of technical presentations. Subjects included: (1) the overall nature urban land management and an understanding of land markets; (2) policy and institutional aspects

of land management; (3) approaches to reforming land regulations; and (4) land policy and the informal sector. In addition, demonstrations were offered on computer based land information techniques and computer models to assist project site planning and cost analysis.

During the final morning of the workshop each team presented their proposals and all were discussed in a plenary session. Also, all participants were asked to fill out a form evaluating the workshop experience. Analysis of these forms has shown that the workshop had some rough edges; for example, clearer guidelines for the conduct of the team sessions would have been helpful in some cases, and some presentations could have been sharpened to offer more immediately practical solutions to problems that had been raised. Nonetheless, the participants overwhelmingly endorsed the format (emphasis on team sessions with definite outputs to be produced) and encouraged us to support similar region-wide workshops on other key policy issues in the future.

This document contains all of the papers produced by and for the workshop. Part I (Chapters 1-3) presents the land strategy outlines proposed by the country teams. No one expected the teams to produce very complete proposals after only three days of work. Yet we think the results were insightful in all cases, and we have forwarded them to the relevant Ministers in each of our three case countries for their review and consideration. Part II (Chapters 4-6) contains the country papers prepared before the workshop, and Part III (Chapters 7-9) contains the technical presentations.

The work of many people was required to make the workshop a success. In particular, we would like to thank the Government of St. Lucia for allowing us to hold the workshop in St. Lucia. Special appreciation also goes to the country presenters (Carolyn Trench-Sandiford of Belize, Pat Phillip of St. Lucia, and Bentley Browne of St. Vincent), the team facilitators (Ivan Laughlin of Trinidad, Clive Laidley of Jamaica, and Compton Dick of Guyana), G. Thomas Kingsley of The Urban Institute (who helped with conference design and pre-conference management), Henry P. Minis of the Research Triangle Institute (who assisted in facilitating conference proceedings and the evaluation), George Deikun, Deputy RHUDO Director (who advised on all aspects of the work), and Sonia Miller of the RHUDO who handled most of the logistics.

We would welcome comments from all who review this document concerning ideas for future conferences and other elements of our ongoing Regional Network and Training Program.

Lane Lee Smith, RHUDO Director
Maureen Webber, Director, Regional Network and Training Program

PART I
COUNTRY STRATEGY OUTLINES

**BELIZE
URBAN LAND STRATEGY OUTLINE**

BACKGROUND

Belize is a country of approximately 8,866 square miles or 23,000 square kilometers, including 689 square kilometers of off-shore cays comprised of 450 islands. It is located south of Mexico, northeast of Guatemala and west of the Caribbean Sea. After El Salvador, Belize is the smallest country on the American Continent, and is roughly twice the size of Jamaica. Geographically, Belize is a Central American country, but culturally and historically, it is a part of the Caribbean.

Belize has a current population of 160,000 with a density of 6.9 persons per square kilometer. Approximately 33 percent of the national population resides in Belize City; this represents 55 percent of the total urban population of the country. It is important to note that the national population is a young one, with approximately 60 percent being under 25 years of age.

The economic base of Belize is sugar and citrus, with the former having experienced significant decline in recent times. The elected government of 1984 has given tourism greater emphasis in national development objectives, which implies that land management and planning will need to take a more prominent role so that issues such as land use regulations, development control, and environmental studies--to name a few--are duly taken into account.

Belize is at a crucial stage of its economic and physical development. The policy decisions taken and the strategies adopted in relation to urban land management and development, including as it must all aspects of human settlement, will have a significant bearing on how the country becomes "developed."

Accordingly, with human settlements as a major focus of development strategy, synthesizing as it does issues of population distribution, shelter and land development, productive economic sectors, infrastructural development and social services, the opportunity exists for this Central American-Caricom country to orchestrate and coordinate its development priorities in relation to its own special circumstances and needs.

OVERVIEW

Because land is not in short supply and because agriculture continues to be the mainstay of the economy, Belize has been slow to establish the conventional mechanisms and institutions for urban land management and development.

We consider this to be an advantageous and even exciting circumstance, because it means that the country can now discover, by due process, the relevant institutional structures that could serve and service the development strategies and not be bridled by the imposition of methodologies and practices prepared for other situations.

Our deliberations have revealed that important trends exist at both the formal and informal levels within the Central Government apparatus, gradually evoking a realization that there is a need to accelerate the coordination of the existing institutional framework related to land management, planning and implementation. Undoubtedly this realization has been forged by the fact that the problems of urbanization loom on the not-too-distant horizon.

It is against that background that we identified the following developmental issues:

1. There are three distinct urban forms:

(a) *Belize City* accounts for 33 percent of the national population and 55 percent of the urban population. At present a Comprehensive Development Plan is being prepared by the UDC; in the process using the involvement of the urban communities to influence the plan perspectives. It is expected that this exercise, the first undertaken by the UDC, will serve to demonstrate to the political directorate the importance of the planning process. In addition, there is squatting on the fringes of the city, which could easily escalate if the availability of serviced lots is not urgently addressed.

(b) *The Main Tourism center--San Pedro and Ambergis Cay.* It is here that the tourism thrust fully expresses itself, creating special circumstances related to foreign ownership of land, escalating land prices and, as a result, the gradual exclusion of the Belizean people. A development plan has been prepared for the area by a group of British consultants and is now under review by the Ministry of Natural Resources.

(c) *The Rural Townships.* There are seven such areas spread throughout the country with populations ranging from 3,000 to 10,000 persons. They are set in the agricultural areas and are reasonably well serviced by infrastructure (roads, water and electricity) and air transport. It is fundamentally important that these townships retain their viability and therefore a capacity to expand and grow, thus providing a counter-balance to the urban dominance of Belize City.

2. External pressures of land use take place from two distinctly different quarters:

(a) Foreign ownership and investment in the tourism industry. Such investment is important but needs to be monitored.

(b) Central American refugees entering via Honduras and Guatemala. Undoubtedly Belize is profoundly affected by the politics of the Central American region and as such the influx of refugees continues to be a reality. The annual extent of it is comparable with the official rate of population growth and creates social problems and generates rural squatting. On the positive side, the refugees do provide labor for the agricultural sector and are productive farmers.

3. The need for a coordinated national settlement thrust is based on simultaneous planning and implementation to be fostered. In this regard, the following activities have been noted:

(a) The preparation of a land information system is in process.

(b) There are trends toward coordination of state agencies dealing with land at the level of Central Government.

(c) The possibility exists for an expanded role for the local government activities as evidenced by the activities of the San Pedro Town Board. This points to the kind of mechanisms that would involve the local population in the overall planning and implementation exercise.

(d) There is a lack of effective planning legislation. There is also an expressed desire to maintain flexibility in development standards and to focus on self-sustaining and cost recovery approaches to urban development.

(e) The existing government policy is to provide houses for low- to middle-income earners and the rate of such development is lagging behind urban demand in Belize City.

(f) There is a lack of adequate financial institutions and mechanisms to service a settlement thrust.

Public sector financing for land development and housing is provided through the following agencies:

- The Ministry of Housing and Works via the Housing and Planning Department and Public Works Department.
- Development Finance Corporation.
- Ministry of Finance via Reconstruction and Development.
- Sugar Labourers Welfare Fund.

Private Sector financing is rather small and involves the credit unions and commercial banks. There is no mortgage bank.

RECOMMENDATIONS

Belize City

- Continue the process of community-oriented, short-term action programs and allow these to impact on the objectives of the Comprehensive Development Plan (CDP) for the city which is currently being developed.
- During the period of preparation and approval of the Belize City CDP, every effort should be made to keep pace with the demand for building lots.
- Extend the authority of the Coordinating Committee of the CDP to incorporate advise and review of all interim development proposals, and to treat as a matter of priority the establishment of realistic targets for the future delivery of building plots.

San Pedro-Ambergis Cay

- A priority implementation of land control and development guidelines set out in the Ambergis Cay Master Plan should be undertaken in an attempt to address the pressing need to effectively manage this area of rapid development.
- The experience of this first major tourism area should be applied to other potential areas of tourism development such as Placencia and Caye Caulker.

Rural Settlements

- Develop integrated rural settlements to economically exploit the resources of the rural areas.
- Develop urban facilities for the rural centers which will serve to establish a viable degree of self-sustainability for these settlements.

External Pressures on Land

- Continue Government efforts to address the problem of the large influx of refugees in an integrative manner, recognizing their potential negative impact on efficient land management.
- Orient refugee settlement policy toward interim accommodation until conditions are favorable for repatriation.

Database

- Continue development of land and information systems and establish systems for data analysis and dissemination.
- Ensure that the monitoring of development data, development analysis and *research* are integral parts of the physical planning process.

Institutional Framework

- Formalize existing efforts at integrating relevant agencies and groups concerned with land management--e.g., cross-ministerial and statutory agencies, government and nongovernment organizations, multidisciplinary professionals.
- Establish with the Ministry of Natural Resources a Task Force to develop strategies for providing rural development incentives, such as agricultural development and diversification, rural tourism and the orderly provision of rural services and infrastructure.
- Strengthen institutional capability of local government to expand their role in the development decision-making process.
- Urgently review and update urban planning legislation.
- Adjust urban development policy to emphasize the provision of serviced building lots.

Implementation Framework

- Develop in the short term a program to upgrade technical skills in administrative, financial and project management.
- In collaboration with this training program expand provision of technical posts in government and statutory agencies.
- Create a discrete agency for planning and implementation of settlement projects.
- Expand the role of the Development Finance Corporation or any other appropriate financial agency to include a capability for primary mortgage financing.
- Establish structures for encouraging the private sector to become more involved in shelter-related mortgage financing.
- Examine the potential for generating interest by prospective land purchasers in the Settlements Program by assessing the applicability of the Sou Sou Land approach used in Trinidad and Tobago.

BELIZE TEAM

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ST. LUCIA
URBAN LAND STRATEGY OUTLINE

INTRODUCTION

In our review of the country paper on St. Lucia the team isolated over 25 issues. An attempt was made to discuss each issue with the view to arrange each in order of priority. This route proved to be extremely difficult. It was then decided to group the issues under main headings--namely, those affecting

Policy
Institution
Development
Financial/legislation.

This grouping was convenient insofar as the issues overlap in most instances, and similarities would be taken care of when discussed as a group. The team was arranged so that each major heading was discussed by about four or five persons. The team then reassembled to discuss findings and recommendations.

For the purpose of presentation, the grouping will be under

Policy/planning
Squatting
Environment
Constraints to land delivery/ownership.

POLICY/PLANNING

1. There is no clearly defined land policy except where it relates to crown lands.
2. Land development takes place on an ad hoc, incremental basis.
3. Land use planning as a comprehensive framework does not exist. In practice, planning tends to concentrate on control functions rather than action-oriented planning.
4. There is an insufficiency of staff in the central planning area.
5. Planning regulations and procedures are not formalized.
6. Poor communication exists between institutions involved in planning and regulations.
7. The database is inadequate and requires improvement.

Recommendations

1. There is a need for a clearly defined land policy. This policy should have the stamp of approval of the Cabinet.
2. The institutional framework needs to be strengthened ensuring better communication between departments and agencies involved in land management.
3. The physical planning department should be so structured that it can perform the functions as required under the Town and Country Planning Ordinance.
4. Government is urged to adopt the 1988 Land Use Strategy (or an updated version) as a guide to development.
5. The Government is to be complimented on its efforts to prepare detailed zoning plans and development standards for key sections of the island, and we urge that this effort is given a high priority.

ENVIRONMENT

1. There are the problems of (a) unauthorized encroachment in the national forest, and (b) stripping land of natural vegetation, resulting in soil erosion, a drop in agricultural production, and pollution of streams and rivers.
2. It is evident that there is a lack of coordination between departments responsible for environmental matters.

Recommendations

1. The environmental commission should be revitalized and strengthened.
2. No further consideration should be given to additional opening of access into the central forest area. This position should be maintained even at the expense of the tourism sector interests.
3. Despite recent strengthening of the legislation to protect the forest reserve, it is further recommended that an annual review as to the effectiveness and level of enforcement of conservation initiatives and law should be carried out and corrective action taken as required.
4. Public education programs now being carried out should be continued and expanded, communicating the need for conservation and sensitizing the public as to the need for planning regulation and control.

SQUATTING

1. The exceptional economic growth in St. Lucia, especially in the areas of tourism and manufacturing, serves to increase the rate of the shift from the rural area to the urban centers, specifically the Vieux Fort, Soufriere, and Gros Islet areas.
2. The shift puts increased pressure on an already strained housing and land situation in the urban areas.
3. The government does not have a clear policy on squatting and their position seems to be that of a casual bystander.

Recommendations

1. Government needs to issue a policy on squatting as a matter of urgency.
2. Lands need to be identified and targeted for low-income earners.
3. Government should consider provision of security of tenure to squatters who have been left unmolested for a significant number of years (assuming lands occupied are not prone to disaster).
4. Consideration should be given to relaxing standards in upgraded squatter settlements and low-income designated areas.
5. Consideration should be given to enlisting the assistance of nongovernmental organizations--e.g., church, service clubs--in helping residents to better utilize their resources and energies in improving their position.

CONSTRAINTS TO LAND DELIVERY/OWNERSHIP

1. The result of additional concentration of land ownership is that most urban and rural poor have no access to land.

Recommendations

1. Government should continue the land reform program which has been started.
2. Government should complete the land titling and registration program.
3. The high degree of liquidity in the banking system should be viewed as an opportunity to access funds for housing and land financing.

4. Government-controlled financial institutions should abandon their restrictions on private developers accessing financing only for development of house and land combined. Private developers should be encouraged to develop lots for sale.

5. Incentives should be provided to private developers to function more in the delivery of serviced lots to low-income earners.

6. In view of the fact that the cost of off-site infrastructure is totally borne by the lot owner, it is recommended that government put in the off-site infrastructure and recover costs through a number of mechanisms, such as betterment levies and capital gains taxes.

7. Consideration should be given to periodic review of land values so that government would increase its intake in revenue as the values move upwards. These additional funds can be directed to infrastructure development.

8. In view of the shortage of easily developable level land, and the need to reduce pressure for use of very scarce good agricultural land, we recommend urgent analysis of nonagricultural slopes to determine those that can be developed for residential use under strict control.

9. The Urban Development Corporation should be reactivated and its activities geared not only to the middle-income area but allow for low-income earners.

10. Special legislation should be enacted to allow residential lands earmarked for low-income earners to be vested in the U.D.C. These lands then can be developed in partnership with the private sector.

11. Seed financing should be given to the U.D.C. to be used in providing shelter and lots for low-income earners to be operated on a revolving fund basis. Strict attention should be paid to cost recovery.

ST. LUCIA TEAM

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Mr. Leroy Stewart	Jamaica	Land Economist
Mr. Mario Libers	Trinidad & Tobago	

**ST. VINCENT AND THE GRENADINES
URBAN LAND STRATEGY OUTLINE**

OBJECTIVES

1. To exchange experiences regarding instances and successful approaches to land management.
2. To prepare country-specific recommendations for Government and USAID regarding actions to improve policies, institutional arrangements, the regulatory framework, and other supporting areas of the land management system.

THE ROLE OF INFORMATION IN THE PROCESS OF LAND MANAGEMENT AND DEVELOPMENT

Level 1: Overall Policy and Institutional Considerations

Information on land management and development is a prerequisite for the formation of overall policy and decision making process. It is vital that information collection and dissemination mechanism provides for flows in both directions--i.e., from the community base to planners and decision makers and from these groups to the public at large. Since information is the common thread which links all the different components in the formation of an overall policy, the following recommendations should be taken into consideration.

Level 2: Technical and Administrative Aspects

1. Collect available data on all aspects of land management and development to identify availability ownership--i.e., state vs. private--and also deficiencies in the system should be identified. This would allow for the development of a basic structure for an information base within the overall policy framework, and allow for corrective measures at an early stage.
2. Collect data in areas with deficiencies and develop, form, and maintain a data bank utilizing modern technology available for data analysis and retrieval.
3. Establish an information network within the relevant public sector institutions that have inputs into land management and development. This would help to coordinate their activities and allow for more efficient and effective resource use. It would also reduce duplication and encourage a team approach toward development. This should also allow for the dissemination of the necessary information to the public through a common information network.

4. Mechanisms should be developed to allow for public participation in the planning system through public consultation on major issues.

5. Develop alternative land management strategies relevant to the local environment that would assist in an informed decision-making process.

6. Provide resources to allow for continuous research on the land market system to guide the decision-making process at all levels--i.e., from the political directorate to community base.

7. Professional development must be seen as an important and continuing process. This means that there must be continuous upgrading of skills and exposure to changing practices in the profession. An important aspect of this profession is to employ motivational strategies to bridge the gap between the political directorate and the population. In other words, the professional has to develop also into a good public relations person.

8. Since the population of St. Vincent and the Grenadines is composed mainly of youths--i.e., about 60 percent under the age of 28 years--it is necessary to sensitize the population toward the need for sound land management and development practices, given the scarcity of this resource. This should begin at the earliest possible stage and can be easily incorporated into the schools' curricula. There is a dire need for tertiary education on all aspects of land management which will speak to the realities of the Caribbean environment.

9. There is a need for the use of appropriate techniques in the provision and packaging of information to the public to ensure easy access, readability and understanding.

LEGAL AND INSTITUTIONAL FRAMEWORK

Level 1: Overall Policy and Institutional Consideration

1. Rules and regulations with respect to land use and land management should be enforced without favor.

2. There should be a review of planning to ensure that legislation is adequate for proper land development for the national good.

Level 2: Legal and Technical Aspects

Statutory Controls

1. Land Registration. Legislation should clearly set out the law on this matter and should include the matter of Land Title.

2. Inadequate Legislative Review. Review, amend and upgrade existing legislation where necessary

3. Property Tax. Use property taxes to ensure that areas set aside for agriculture tourism, housing and industrial development are used for these purposes.

4. Public and Private Rights. Government must state what is national property--e.g., beaches, river, etc. Private persons must know what are their rights to these properties.

5. Enforcement of Legislation. Create or strengthen body to deal with issue of breaches and enforcements.

Engineering Standards

1. Create appropriate standards which will ensure safety and minimize infrastructure costs.
2. Develop qualified technical expertise to ensure that standards are adhered to.
3. Address interagency linkages by clearly stating responsibility of each agency involved with land development.

Other

1. Provide lease of 5-10 years suspension of payments for the provision of infrastructure and land cost until income level increases.
2. Provide cross-subsidy to enable affordability of housing units.

SPECIFIC STRATEGIES

From the economic issues identified for improving the present situation of land management in St. Vincent, we have placed in order of importance

1. Cost of developed land
2. Qualified Personnel
3. Funding

THE COST OF DEVELOPED LAND AND HOUSING--AVAILABILITY OF LAND--COST OF INFRASTRUCTURE, SCARCITY, SPECULATION, AND DENSITY

Problem

The land market under the private sector is not working properly to effect equitable distribution, completed documentation, completed infrastructure and the ineffectiveness of the state to intervene and take remedial measures.

The result of the above is that both lead to a limited supply of cheap land for houses, construction areas are underdeveloped and, with the scarcity experienced, this contributes to the problem of squatting, while good residential lands remain unused and idle.

Solution

1. We are suggesting that all lands in the urban area be zoned into commercial, industrial, and residential areas, according to the social, economic and political goals desired.
2. Put in operation a strict supervision through the Town Planning and Urban Development Department that these zones are rigidly observed through approval of all construction in these areas.
3. The covenants on each of these zones should be clearly mentioned and observed.
4. The strategic sale of nationally developed urban residential land by the state should be similar to the rural land distribution program. This would alleviate short-term scarcity as the land market is made to function more efficiently. It can also be used as a mechanism to prevent undue inflation and speculation on scarce developed urban land.
5. Establish an income qualification loan for purchasers as a buffer to avoid a higher price being offered for lands earmarked for low-income housing.
6. The zoning should be coordinated with the method of taxation in support of a proper property taxation system. There must be a fair amount of flexibility in changing and adapting this zoning to accommodate private land owners who are willing to bring developed lands onto the market.
7. The state as a designated agent could act as an information broker by keeping a register of houses and lands for sale and the vendors and purchasers available. By so doing this may help to provide accurate information about the land market and provide some price stability and de-escalation of real estate prices.

8. Underutilization of land is a problem that can be alleviated by:

a. Allowing higher density uses in encouraging this where there are good serviced urban lands available.

b. Utilizing the land taxation system for penalizing under utilization and nonutilization of land while providing incentives for development of a high density. Taxes should be exponential to encourage higher densities.

c. Taxation is a vital instrument to be used to encourage proper utilization of land resources and to provide adequate payment for current services, as well as providing for future expansion of services.

d. There is a need for guaranteed developers' performance and it may become necessary for a Real Estate Developers Act to create a statutory body to supervise the completion of subdivisions and housing schemes as well as protecting depositors' cash. The system should be instituted so that final payment of a serviced lot is to be made only when boundaries are well established, all infrastructure is completed, the certificate of completion from the relevant authorities is available and the certificate of title is ready for delivery. During this process incremental payments by a quality surveyor for the lot is made as incremental development takes place from purchasers' funds held in a special savings account bearing interest. In addition, financial institutions providing interim financing should be made available to developers at low interest rates so that such financial cost will not be passed on to the purchasers. The necessity arises, therefore, for

i. A National Housing Savings Certificate with tax credit incentives when used specifically for real estate purposes and penalties for when it is abused.

ii. A National Housing Trust, where employees and employers contribute to a general fund for increasing the housing stock for low and lower middle income earners.

QUALIFIED PERSONNEL FOR ADMINISTRATION OF LAND POLICIES--RECRUITMENT AND TRAINING

Problem

Qualified personnel in land use management are not available. Where they are available, limited financial resources do not allow for proper remuneration and so they are lost to the country.

Solution

1. Because of the small size of St. Vincent and the Grenadines and other eastern West Indian Islands, there could be a pooling of resources to obtain trained, qualified personnel to carry out the technical work involved in land use management.

2. Incentives in several forms, tangible and intangible, should be made available and should be comparatively attractive, taking into consideration present employees.

3. In the short run, IN-HOUSE TRAINING and upgrading should be done by experts, local or foreign, but preference should be given to those who are very familiar with local conditions.

4. Along with the upgrading of personnel, equipment and offices should also be modernized to make possible the efficient performance of the department established or improved.

FUNDING--LOCAL AND EXTERNAL

Problem

Lack of adequate funding to support the implementation of all the above suggestions.

Solution

1. Local Funding--In the above solutions suggested for solving the problems mentioned, various methods of taxation were indicated, though property tax and income tax should be balanced so as to avoid too great an impact on a certain category of taxpayers.

The House Savings Certificate

The National Housing Trust Scheme

Firms and Service Clubs offering scholarships to CAST and universities for the training required.

Government involvement in establishing the hygienic environment where the right personnel will be recruited for executing the job.

2. Seek External Funding--Where it is possible to mobilize funds externally then this should be done primarily as a grant, if possible, or a soft loan. This can be done where the work to be executed will compensate for the expenditure over time and the where low income groups will be the essential beneficiaries.

3. Economically the land market in St. Vincent is imperfect--hence there is no formal structure where information on real estate matters may be obtained. The opportunities are there for development organizationally which will bring about economic benefits to the country. In so doing the political will must be prepared for changes in some of the institutions presently in operation with decentralization of authorities and responsibilities to these institutions to bring about the planned envisioned economic advantage.

ECONOMIC RECOMMENDATIONS

Whatever is designed must be pragmatic for the present and the future. Because land is a strategic instrument for politicians to be used to their own advantage, it is difficult to see them giving up their political control over this area of power manipulation. Land, as we know, is crucial for the economic, social and environmental advancement of all countries, and for human survival.

The problems of land use management facing St. Vincent are such that the present institutions connected with land use management--e.g., Land Policy Planning and Research, Land Management and Distribution of Public Property, Town and Country Planning Act, etc.--will have to be upgraded technologically in equipment and personnel. There will have to be closer inter-ministry linkages for proper coordinated legislation and action. The follow-up and follow through process by the respective government departments must be executed under supervision of the officer appointed.

It seems necessary for a government real estate development agency and a real estate board to be established to see to it that decisions are carried through to their satisfactory conclusion and this agency would eliminate the functions of the present mini-departments now in existence. This agency should also incorporate the town and country planning function.

ST. VINCENT AND THE GRENADINES TEAM

Workshop Facilitator: Compton Dick (Guyana)
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Participants

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PART II
COUNTRY STUDIES

**BELIZE
URBAN LAND MANAGEMENT AND DEVELOPMENT CONDITIONS**

Carolyn Trench-Sandiford

INTRODUCTION AND EXECUTIVE SUMMARY

Belize is a country of approximately 8,866 square miles or 23,000 square kilometers, including 689 square kilometers of offshore cays comprising 450 islands. It is located south of Mexico, northeast of Guatemala and west of the Caribbean Sea. After El Salvador, Belize is the smallest country on the American Continent, roughly twice the size of Jamaica. Geographically, Belize is a Central American country, but culturally and historically, it is a part of the Caribbean (see Regional Context Map 1).

The northern half of Belize is characterized by low-lying swampy plains, the southern half by considerable topographic variety. The Maya Mountains and Mountain Pine Ridge are located in the south-central area of the country, near the western border, and rise to an elevation of 3,680 feet. The coast of the country is almost entirely low-lying mangrove swamp, seldom more than a few feet above sea level.

A number of major rivers flow throughout the country, including the Rio Hondo, Belize, Sibun, and New Rivers, and until recently were very important transportation routes.

Climactically, the north is considerably drier than the south and receives an average annual precipitation of 60 inches, as opposed to 160 inches in the south.

Administratively, the country is divided into six districts--Corozal, Orange Walk, Cayo, Dangriga, Belize, and Toledo. At least 60 percent of the population lives in the eight major urban areas, with Belize City home to almost 50,000, or 33 percent.

The dominant ethnic group in Belize is the Creole, which comprises 40 percent of the population. Other groups in order of dominance are the Mestizoes, 33 percent, the Mayan Indians, 10 percent, and the Garifunas, 7.6 percent. Other groups include Mennonites, Chinese, Lebanese, and East Indians.

The economic base of Belize is sugar and citrus, with the former having experienced significant decline recently. The elected government of 1984 has given tourism greater emphasis in national development objectives, and thus implies that land management and planning will

need to take a more prominent role in order that issues such as land use regulations, development control, environmental studies, to name a few, are duly taken into account. In addition, policies will have to be formulated to address these issues. This paper seeks to address the current, past, and future trends of land management approaches as it relates to development conditions in Belize. Prior to this however, it must be stated that until recently there has never been any pressure for the management of land resources, as it was often thought to be in abundance.

Very limited measures are currently utilized, as will be described. With accelerated population growth and the influx of Central American refugees, as well as Asian, American and European investors, the demand for land has escalated, thus forcing the government to adapt and develop various methods to manage Belize's land resources.

NATIONAL AND URBAN GROWTH PRESSURES

The Belizean Economy

Belize enjoyed sustained and fairly rapid economic growth in the 1960s and 1970s. Although there was a secular upward trend, economic growth occurred by way of cyclical fluctuations, reflecting the fluctuations in the value of export earnings--particularly from sugar. Between 1970 and 1980, a deficit in the balance of trade grew, though there were increases in some years and decreases in others. Recurrent revenue of Government grew in every year from 1970 to 1980, and maintained a fairly constant ratio to GDP. In a sense this reflected the buoyance of the economy. Except for 1972, there was a surplus in the current account of the fiscal budget. Up to 1980, external debt was marginal, with loan receipts averaging 1.2 percent of GDP for the years 1975 to 1981. On the eve of independence, Belize had no significant debt burden, and most of the external aid received was in the form of grants or loans on extremely concessionary terms.

In 1981 the economy began to stagnate, and it was evident the following year it was in crisis. The thriving re-export trade collapsed because of the Mexican debt crisis of 1982. The terms of trade of the Belizean economy deteriorated rapidly, largely because the decline in the U.S. sugar quota forced Belize to sell more of its sugar on the world market where the price was low, and the deficit in the balance of trade climbed to unprecedented levels as imports began to rise. Up until 1984 growth had been marginal.

The Belizean economy is largely based on agricultural production and the export of those products--primarily sugar, fisheries products, citrus fruits, bananas, and small amounts of cacao and rice--comprised 75 percent of total exports in 1984. Sugar, followed by fisheries exports, are the national's largest earners of foreign exchange. In terms of the gross domestic product the most important economic activities are agriculture (14.6 percent of GDP), manufacturing (14.6 percent), trade, restaurants and hotels (17.5 percent) and transport, storage and communication (11 percent).

The largely rural population of Belize, apparent in a glance at the relative size, is engaged in different occupational activities. By far the largest include agriculture, forestry, fishing, hunting, and animal husbandry, comprising approximately 34 percent of the labor force. Virtually all the population not living in the urban areas is employed by this sector.

Government and community services are also very important employers, accounting for about 10 percent and 7 percent respectively of total employment. The commerce and construction sectors are notably low, with only 6 percent and 4 percent respectively. Table 1 provides a breakdown of the labor force by sector of activity.

Table 1

Labor Force by Sector of Activity

<u>Activity</u>	<u>Labor Force</u>	<u>% Labor Force</u>
Agriculture	14,842	33.92
Mining, Refining, etc.	38	0.08
Manufacturing	4,140	9.46
Electrical, Gas, Water	620	1.41
Construction	1,763	4.03
Commerce	2,734	6.25
Transport, Communications	1,748	3.99
Finance, Insurance	385	.88
Government	4,727	10.80
Community Services	2,909	6.65
Other	4,327	9.89
Not Stated	<u>5,511</u>	<u>12.64</u>
	43,744	100.00

Source: 1980-81 Population Census, Belize

Unemployment, according to the Central Statistical Office, is 14 percent of the national labor force of 47,325; 13 percent and 22 percent among males and females, respectively. Data on underemployment are available, although it can be assumed to be fairly high among lower income groups, particularly in the urban areas.

In 1984 a new government was elected and new priorities were set to strengthen the economy. Its Medium Term Plan (1985-1989) strategy sought to lay the basis for the long-term

development of the economy. Specifically, it concentrated on resolving the fiscal crisis and at the same time encouraged the private sector to solidify plans to rationalize the sugar and banana industries, and to develop shrimp farming, forest-based industries, and tourism.

By 1988, the gross domestic product grew and is estimated to have expanded by 7.6 percent. Almost all sectors contributed to this increase in the Belizean economy. The manufacturing sector grew by almost 40 percent, construction activity by 6.6 percent, tourism by 34.5 percent, and sugar and citrus by 12 percent and 11 percent, respectively.

The monetary factor of the economy was also prosperous, as monetary transactions between Belize and the rest of the world show a surplus in the balance of payments, and there was an acceleration in the private sector credit demand. This caused an increase in loans granted to the productive sectors, such as agriculture, manufacturing, construction, and tourism.

The official development strategy of the Government of Belize is to promote exports as the engine of economic growth. In its long-term plan (1985-2005) it has targeted priority industries such as agro-industry, tourism, mari-culture, forest-based industries, and manufacturing. The development of indigenous sources of energy is also high priority, in order to relieve the pressure energy costs on the import bill. The ultimate purpose of economic development is to improve the standard of living of Belizeans. The government therefore places a high priority on developing Belize's human resources through training and education, and the provision of other basic social services, particularly health and housing.

The current investment trend achieved during 1985-88 augers well for the future growth of Belize's economy toward the 1990s and the realization of the goals of the 1985-2005 plan. the expansion of various sectors is sure to occur as the environment has become more favorable. Increased output is expected from all sectors, especially the tourism sector, which is virtually undeveloped, the manufacturing sector, which seems to attract foreign investors, and agriculture, which is government's number one priority.

Proposed and developing tourist facilities in Belize City, the Cays, Corozal, and other such areas will contribute significantly to the increased demand for land; particularly for urban land where the hotels and tourism associated services are located. The "upswing" of tourism is sure to encourage migration from rural areas for tourism-related employment. This will definitely have an impact on urban land use in areas adjacent to the tourism facilities, which could be both positive and negative.

Increased small-scale manufacturing activity will compete for urban land space which will encourage encroachment on residential areas. On the fringe of towns and villages in rural areas where large-scale manufacturing activity is also increasing, land for village and town expansion is being consumed.

Agricultural development and the demand for more land will affect rural land use as the areas in natural vegetation will decrease to facilitate this expansion.

THE POPULATION

National Population

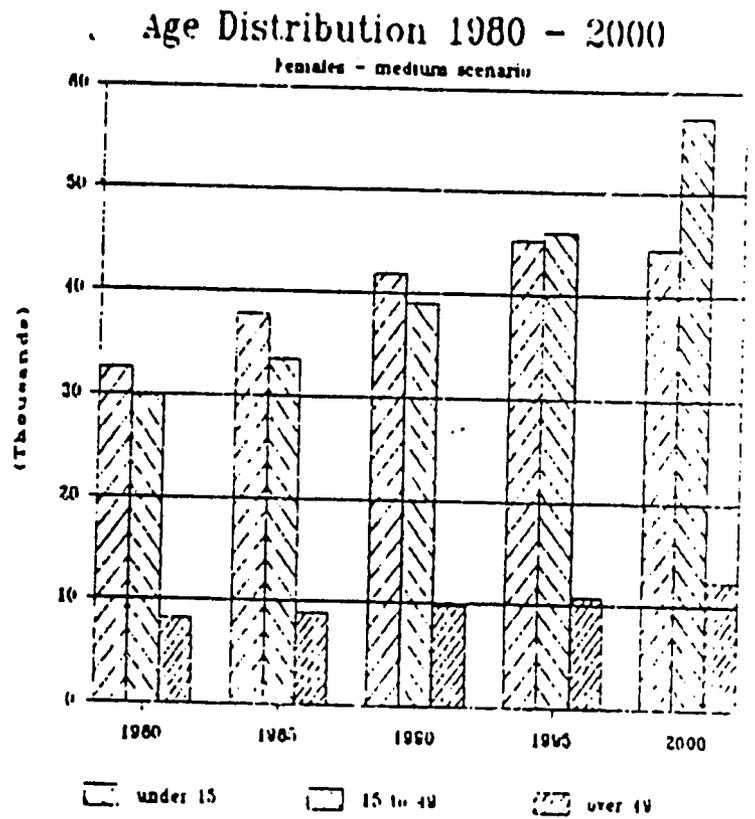
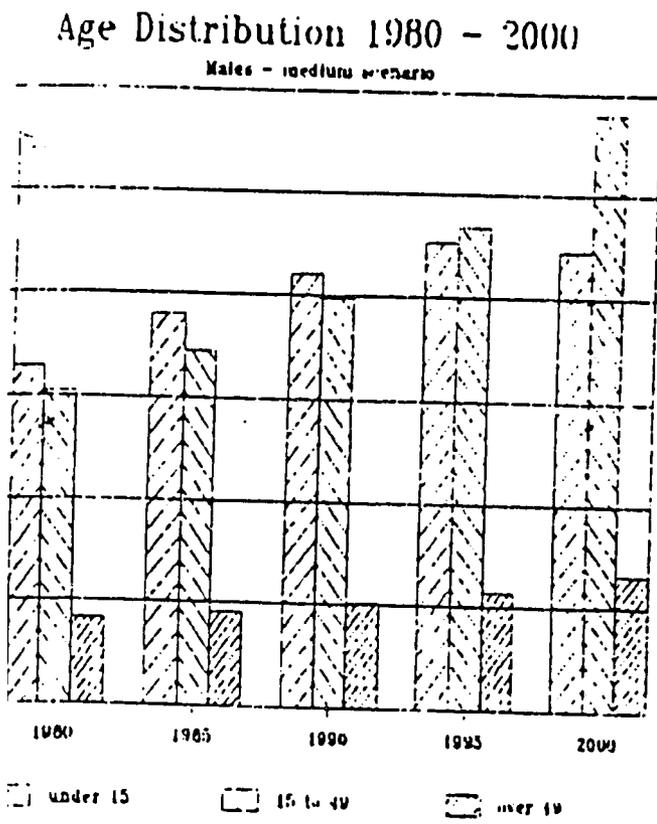
Belize has a relatively low population density. The most recent national census (1980) showed a population of some 143,000 people. The average population density is only 6.2 persons per square kilometer, making Belize one of the least densely populated countries in the western hemisphere. Population growth has been continuous since the 1940s, with an average increase of 30,000 per decade. The growth rate up until 1950 was 4.4 percent per annum, but only 1.7 percent between 1975 and 1980.

Official information on migration in and out of Belize is nonexistent and figures from other scholarly work are very general and speculative. However, recent estimates place the number of Belizeans who have migrated at 50,000 (Palacio 1986). Immigration to Belize is primarily from neighboring Latin American countries. Official levels of immigration has been fairly constant, with about 1,000 foreign nationals entering the country every year. However, the actual number entering the country is undoubtedly much higher than the official statistics suggest. The Central Statistical Office estimates that approximately 25,000 Central American refugees have migrated to Belize between 1970 and 1984, and this rate is continuing. Data on household or family structure are rather scant, although some important facts are available. The Belize Housing Survey (Cooperative Housing Foundation, 1984) reveals that the average household size is 5.1 persons and that 49 percent are headed by women. In 1970, there was a total of 23,065 households, and in 1980 a total of 28,137, which represents an increase of 5,072, or approximately 18 percent.

The structure of the population profile, relatively high birth rate, and dramatically reduced mortality rate all point toward a continued acceleration of population growth, as the youngest segments of the population reach child-bearing age within the next five to twenty years. Projections based on 1980 census data, carried out using the cohort-survival model, estimate total national populations of almost 200,000 in 1990 and 240,000 by 1995. Population pyramids for the national projects are in Figure 1. This assume a constant death rate and do not account for migration patterns. As the population of Belize grows, the fastest growing groups are clearly in the 20-45 range; this group will represent 33 percent of the total population in 1995, as opposed to only 27 percent in 1980. While this employable group expands, the percentage of the school age population (5 to 20 years) will decline 6 percent. As is evident from the pyramids, however, their real number will increase.

Figure 1

Age Distribution, 1980-2000



Urban Population

There are eight major urban centers in Belize. Table 2 provides a breakdown of their population between the period of 1970 to 1980.

<u>Urban Area</u>	<u>Population</u>		<u>Household</u>	
	<u>1970</u>	<u>1980</u>	<u>1970</u>	<u>1980</u>
Belize City	39,050	39,771	7,945	8,437
Corozal	4,682	6,899	873	1,322
Orange Walk	5,539	8,439	929	1,485
Dangriga	6,967	6,661	1,455	1,371
Punta Gorda	2,131	2,396	425	509
San Ignacio	4,327	5,616	748	982
Benque Viejo	1,903	2,435	329	452
Belmopan	<u>274</u>	<u>2,935</u>	<u>61</u>	<u>669</u>
	64,873	75,152	12,765	15,227

Notice that increases occurred in all urban areas except Dangriga. This was a result of economic decline of the citrus industry on which Dangriga depends. This decline encouraged migration to other parts of the country.

A substantial increase occurred in Belmopan in the transition stage from the old capital of Belize City to Belmopan, which also resulted in minimal increase for the city itself. In addition, distinct increases occurred within the sugarbelt towns of Corozal and Orange Walk, a direct consequence of the importance of sugar, as well as the start of the illegal marijuana trade.

Projections for the 1990s will not differ much from what occurred between the 1970s and 1980s with the exception of Belize City and Dangriga. Belize City continues to be the major economic center of the country and a magnet to other urban towns and rural areas.

Also, there is no longer migration to Belmopan where Belize City is concerned. However, it is still continuing by refugees who reside on the outskirts of Belmopan in villages established by the government of Belize and the United Nations.

Recent demand for citrus has created a boom in the industry and population growth for Dangriga is expected to accelerate, mainly from the labor force--most of whom are Central Americans--necessary for the expansion of industry.

LAND CONDITIONS

Belize is blessed with an abundance of rich fertile land. Belize in total is approximately 7.5 million acres. This includes all of the offshore cays. Of this area, 3.0 million acres are suitable for agricultural development--50 percent best suitable for arable farming and 50 percent for grazing.

It is estimated that about 30 percent of the arable land is under cultivation now. Urban areas account for approximately 16,000 acres and mountainous areas approximately 1,500,000 acres.

The remaining area is comprised of cays, which account for approximately 200,000 acres, and natural features such as rivers, lagoons, swamps, and flood plains. Map 2 defines the areas described and Table 3 gives a more detailed breakdown.

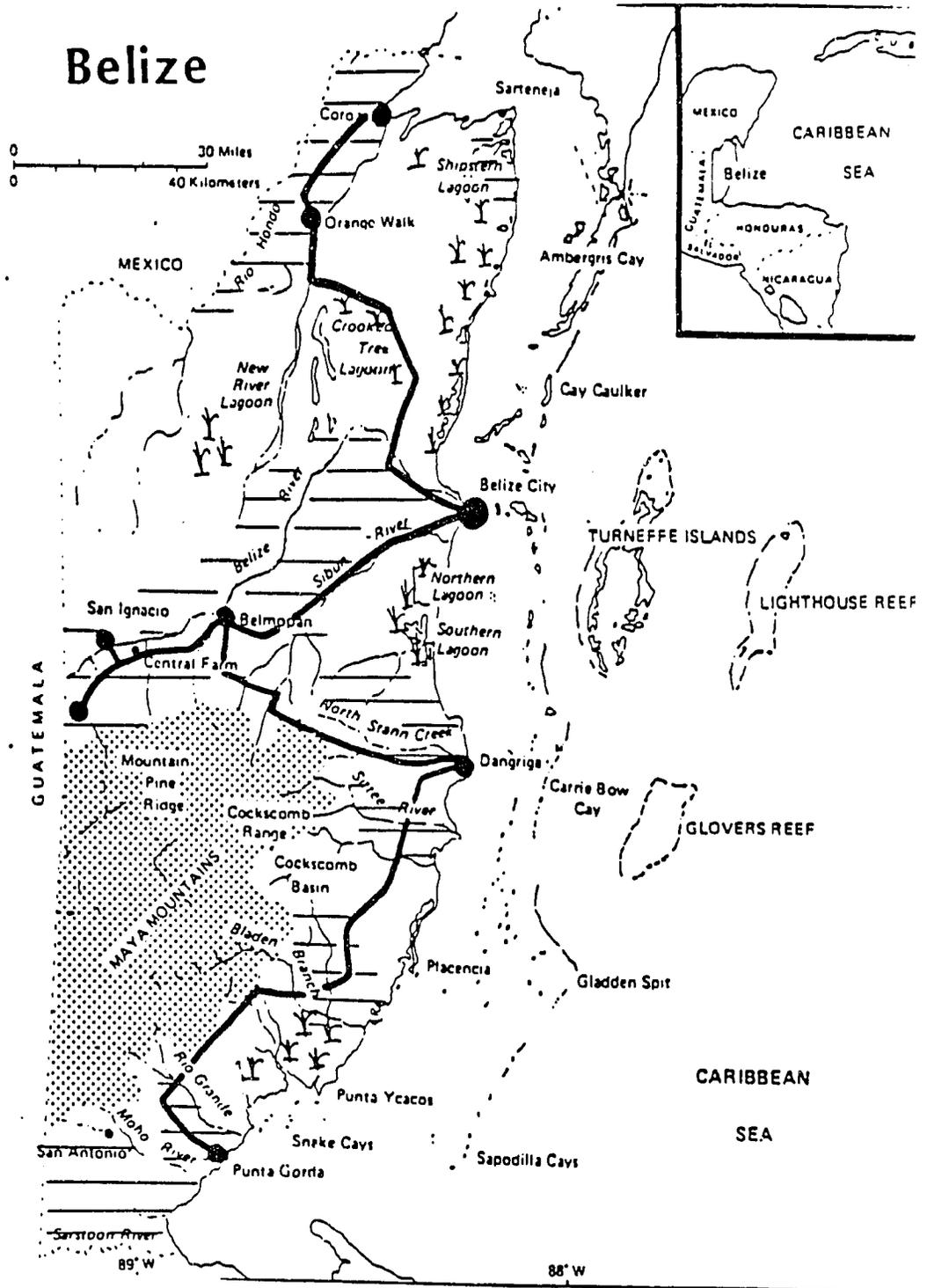
As no data existed to tabulate acreages according to the preceding categories, all figures are estimates. Of the 1,500,000 acres that are suitable for agriculture but not in use, approximately 40 percent are still crown lands. Future land use using the above categories is difficult to estimate. However, comparing population figures and land consumption for 1980, projected urban area needed by 1995 is approximately 1,025 acres.

With recent growth in the citrus and sugar industries, it is obvious that more land will be demanded for agriculture and tourism and their associated sectors. In addition, the growing importance of the secondary and tertiary sectors and population pressure will also affect the changes in land use and value.

Currently, the price of land in Belize varies according to location, development accessibility, etc., and may range between Belize \$30 per acre to Belize \$3,000 per acre. These are the values set by the Chief Valuer of the government of Belize according to the land tax system. This system values privately-owned land outside towns on the "unimproved value" principle, where valuations are based on "market value"--that is, the price you would expect to receive if you were selling the land with no improvements. This type of valuation takes into account the location of the land, land prices in the area, development potential, type of land, size of land, and other relevant factors. Lands within town boundaries are valued according to the status of the lot--that is, whether it is developed or not. If it is developed, then the use is what is utilized to determine

Map 2

Belize



Legend

- Urban areas
- ≡ Land in agricultural use
- ⋈ Land unsuitable for agriculture
- ⋈ Land suitable for agriculture but not in use
- ⋈ Mountainous terrain

Source: USAID 1984.

Table 3

<u>Category</u>	<u>Approximate Area</u>	<u>Percent of Total Area</u>
1	16,000 acres	0.2
2	600,000 acres	8.0
3	1,500,000 acres	20.0
4	1,500,000 acres	20.0
5	<u>3,384,000 acres</u>	<u>51.8</u>
	7,500,000 acres	100.0

Legend

- 1 - Urban areas
- 2 - Land in agricultural use
- 3 - Land in agriculture but not in use
- 4 - Land not appropriate for urban use because of mountainous and rugged terrain
- 5 - Other land not appropriate use because of flood plains, swamps, or other conditions. This includes the cays.

the value. Prime Central Business District areas can command anywhere from \$100 to \$250 per square yard, while lands adjacent to the CBD can command between \$50 and \$100 per square yard.

With the recent escalation in demand for land and the influx of foreigners, particularly Asians and Americans, the prices set by the Chief Valuer are hardly adhered to, as values increase by as much as 500 percent. This is characteristic of the urban and potential tourism areas, particularly Belize City for the former, and San Pedro and Ambergis Cay for the latter. In downtown Belize City, land that 20 years ago sold for \$12,000, is now valued at \$60,000, is being sold for as much as \$300,000. In San Pedro, land which originally cost \$25,000 is now selling for \$500,000. Considering this current trend, land will continue to increase in value and out of the affordability range of Belizeans.

If the current practices continue, it is obvious that problems will be created which will affect the management and development of land in the future. Essential mechanisms are not in place to facilitate the systematic and orderly development of the rural and urban areas, thus encouraging the mismanagement of land. The ad hoc land use patterns will affect the creation of any zoning

regulations that are being developed through the current planning exercises. Escalated land prices will result in increased densities of prime land and the values of outlying areas. Residential development will become more expensive as land availability is decreasing. The acquisition of private lands by government for low-income housing development will stagnate as they will be unable to compete with private investors. In the urban areas, where most of the lands are in private ownership, urban expansion on unsuitable and undeveloped land will occur, as well as squatting by those who are forced out of the housing market. This will also happen as a result of land speculation forcing government to develop lands outside existing urban boundaries which will be costly.

LAND POLICIES

The Ministry of Lands currently has no defined policy on the use and development of land. What does exist are conditions which should be adhered to when land is purchased or leased. Again, these conditions are determined on the basis of whether the land is national or private, or private land with two or more parties involved. *The Crown Lands Ordinance* sets the rules under which national lands are managed, leased, or sold. Normally, these are leased first after submission of a development plan acceptable to the Minister of Natural Resources. Because it is government's policy to allow the use of national lands as collateral for building loans, the importance of a lease certificate is significant. Before the lease certificate is issued, the Land Registry would have satisfied itself that the land is free of legal encumbrances, and that the certificate being issued is for the proper lot and that no duplication exists. This has the effect of reducing risks for the lending agencies and thus should make them more confident and encourage an increase in loans. From the government point of view, this should make for smoother running of its administration of lands. These lands may be sold after certain conditions stipulated in the lease are met. These conditions usually include the minimum cost of the development and the time frame within which it must occur. Other conditions are determined depending on the nature of the development.

National lands may be made available to non-nationals on the following conditions:

- that the development scheme is desirable and can contribute tremendously to the economy, and provided that suitable private lands cannot be obtained
- that allocation will be normally confined to depressed areas of the country so as to stimulate development in those areas.

When non-nationals purchase land from private land owners, such sales are regulated by *The Aliens Landholding Ordinance of 1973*. In short, this ordinance states that an alien cannot own in the aggregate more than one-half acre within the boundaries of a city or town. When a non-national wishes to purchase more than this, he must apply for a license to the Minister of Natural Resources. The Minister may, in his discretion, grant to an alien a license to acquire and hold an

estate in land subject to such terms and conditions in the license specified as he may think fit for the development of the land.

In applying for a license, a development plan must be submitted, as well as the following information:

- the land which is the subject of the sale
- the purpose to which the land is intended to be put
- some information on the applicant
- any other details the Minister may require.

Because there are no specific conditions to which all land about to be developed must adhere, what perpetuates is an ad hoc type of development which encourages mixed and incompatible uses and the development of land unsuitable for such ventures. This can be seen in Belize City, the home of one-third of the population of the country, where suitable land for development is very limited because the city is built on low-lying swamp and mangrove.

Often land is leased to individuals and the time frame of the lease expires because the individual cannot reach or occupy their property for lack of services, infrastructure, and the cost to develop it--that is, to fill it is astronomical and at times equal to at least one-quarter the cost of the building.

In the newly developing areas of Belize City, land is zoned according to a value of which the building must be built, yet land is often distributed by political will rather than affordability. This results in a decrease in land values as buildings with a wide cross-section of values are built regardless of the minimum costs.

Although it is not stated policy, prices for government-owned land tend to be lower than current market value for comparable land. This is, in effect, a subsidy which is passed on to the eventual land purchaser. This only benefits housing development. Other legislation which is utilized to some extent in the management of land is:

The Land Tax Ordinance which deals with the method of valuation and taxing of land lying outside town and city boundaries, as well as allowing for the registration of ownership. In this ordinance, the owner or occupant of the land is the valuer and should submit a form within three months from notice of the chief valuer indicating information such as name, address, number of acres, type of development, acres developed acres not development, owners' assessment of market value, etc.

The Registered Land Ordinance which covers the registration of lands in areas declared for the purpose of the ordinance with an improved system of notification of subdivision and land occupation details. All lands located in a compulsory registration area, as declared by the

minister, must be registered. The ordinance also contains laws regulating the disposition of registered land, including leases, subleases and the extension, surrender, or forfeiture of them and the sale of any other transfer of land.

The Towns Property Tax Ordinance which concerns itself with the valuation, taxing, and registration of ownership in all town properties. All rates paid under this ordinance are placed in credit to the local authority to provide for revenue.

The Hotels Ordinance which requires all hotels to be licensed and registered.

The Land Acquisition Ordinance which empowers the government to acquire land for public purposes.

These procedures, which are part of government's overall land policy to direct capital toward development of land rather than purchase of land, have been effective to some extent in reducing land speculation and price inflation.

These Ministry of Housing and Works, which has the legal power, through the *Housing and Town Planning Ordinance* to prepare planning schemes for the development of particular areas, has only produced one plan for the Corozal area and is currently assisting the Belize City Development Corporation in the preparation of the Belize City Plan. The Corozal Town Plan, utilizing zoning and building regulations, provides a basic tool for the management of that urban area. All other areas of the country are subject to the legislation previously mentioned. This body has yet to formulate policies that will effectively address land management.

THE LAND MANAGEMENT INSTITUTIONAL FRAMEWORK

The cabinet of Belize is headed by the Prime Minister, to whom the ministers responsible for the various ministries report. It is at this level that decisions are made regarding policies related to particular ministries. However, policies are determined by the individual ministries. Figure 2 shows the organizational chart of the various public sector institutions as they are involved in the policy, management, and development aspects of land management. The following provides a more detailed breakdown of the land management institutional framework.

Formulation of Policy

Ministry of Lands--Lands and Survey Department
Ministry of Finance--Office of Financial and General Administration
Ministry of Economic Development--Office of Economic Development
Ministry of Housing and Works--Central Administration Office
Ministry of Social Services--Central Administration Office
Ministry of Electricity, Transport, and Tourism--Central Administration Office

Attorney General Ministry--The Judiciary
Ministry of Home Affairs--Central Administration Office

Land Management

Lands and Survey Department--Ministry of Natural Resources
Housing and Planning Department--Ministry of Housing and Works
Belize City Urban Development Corporation--Ministry of Labour and Social Services
Agriculture Department--Ministry of Agriculture
Forestry Department--Ministry of Agriculture
Registry Department--Attorney General Ministry
Valuation Department--Ministry of Home Affairs
Local Government Authorities--Ministry of Home Affairs

Land Development

Housing and Planning Department--Ministry of Housing and Works
Public Works Department--Ministry of Housing and Works
Water and Sewerage Authority--Ministry of Natural Resources
Belize Electricity Board--Ministry of Electricity, Transport and Communications.

The following describes the various ministries and related institutions, describing, where possible, their mission, organizational structure and capacity, recent performance, and nature of operating problems.

The Ministry of Natural Resources

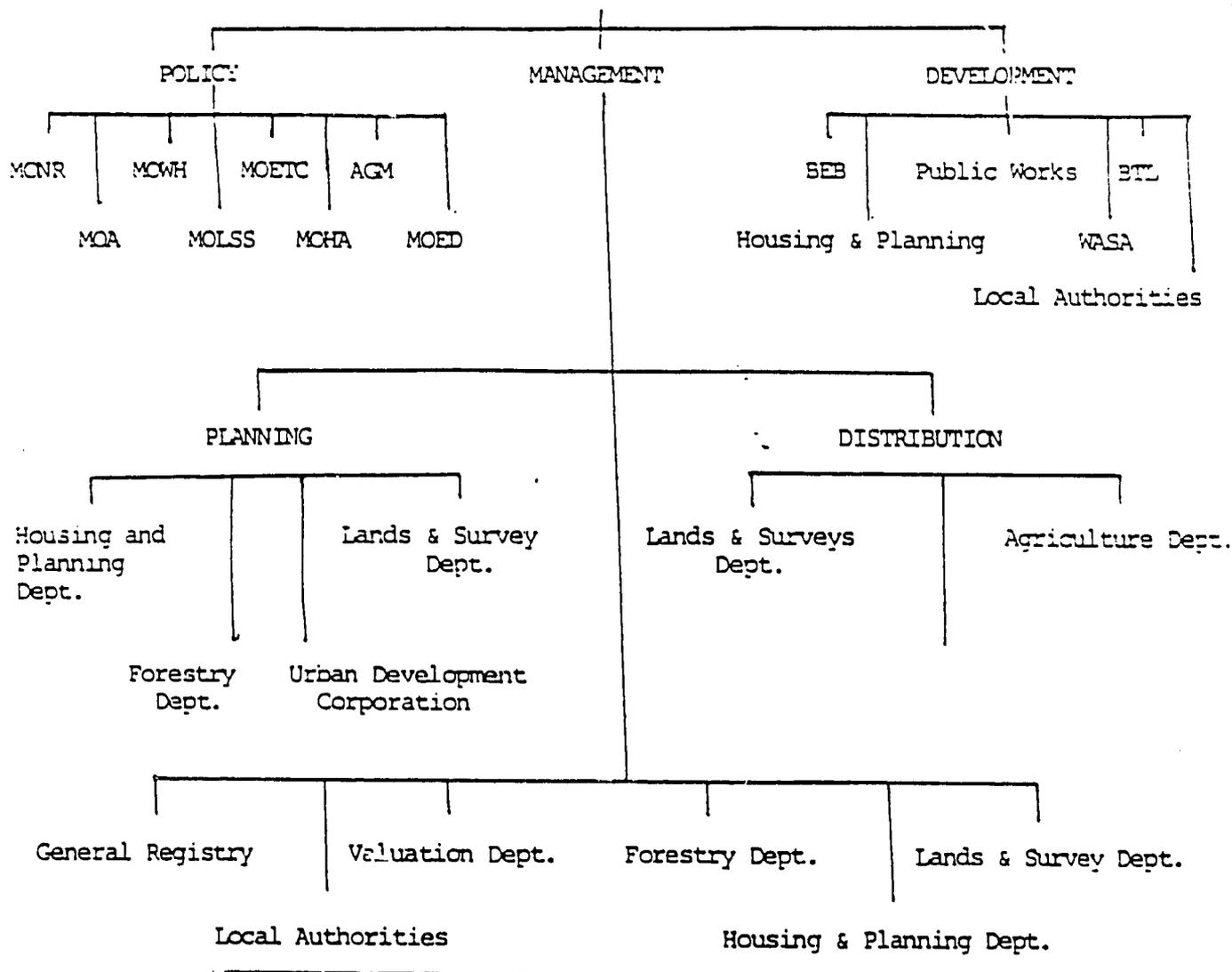
The Ministry of Natural Resources, under the administrative head of a permanent secretary responsible to the minister, is concerned with the formulation and execution of plans and policies of land, surveys, and geology, and water and sanitation. The subjects include:

- land and land settlement
- land surveys
- security of tenure
- surveys
- geological surveys
- minerals and petroleum
- water and sewerage authority.

Expenditures for the year 1987-88 were \$3,604,692; the staff totaled 137 persons.

Figure 2

Land Management Institutional Framework



Abbreviations:

- | | |
|--|--|
| MCNR: Ministry of Natural Resources | MOA: Ministry of Agriculture |
| MCWH: Ministry of Works & Housing | MOHA: Ministry of Home Affairs |
| MOED: Ministry of Economic Development | AGM: Attorney General Ministry |
| MOLSS: Ministry of Labour and Social Services | |
| MOETC: Ministry of Electricity, Transport & Communications | |
| SEB: Belize Electricity Board | BTL: Belize Telecommunications Authority |
| WASA: Water and Sewerage Authority | |

Lands and Survey Department. The Lands Section is headed by the Lands Commissioner who has a staff of 29 persons. Their program involves:

- administration of land in the country, land tenure
- assessment and collection of land tax, rural land utilization tax
- examination of application for land granting of leases, transfers, etc.
- acquisition of land for public purpose
- development of land policy
- correcting and issuing of certificates under the Registered Lands Act.

Expenditures for 1987-88 were \$488,000.

The Surveys Section is headed by the Chief Surveyor who has a staff of 68 officers and an additional 183 part-time employees. Their main function is the administration of the provision of the Lands and Surveys Ordinance, Chapter III. The activities include:

- preparation and rechecking of plans and diagrams for issue
- undertaking cadastral and topographical surveys
- establishment and maintenance of control network
- training and examination of apprentice surveyors
- preparation of Registry Index maps
- checking of survey plans.

Expenditures for the year 1987-88 were \$2,005,692.

Water Sewerage Authority. The water and Sewerage Authority is a statutory body managed by the chief executive officer, who is responsible to the board of directors, who are responsible to the Minister. This body has an operating budget of approximately \$1.5 million. Its duties include:

- management and distribution of water supply
- management of the sewerage disposal system.

In relation to the sewerage disposal connections, only Belize City has a sewerage disposal system and, at present, 33 percent of the population is connected.

The Ministry of Agriculture

The Ministry of Agriculture, under the administrative head of the permanent secretary who is responsible to the Minister, is concerned with the formulation and execution of plans and policies in the field of agriculture, forestry and fisheries. Expenditures for 1987-88 were \$7,694,000 and staff totaled 185.

Agriculture Department. This department is headed by the chief agriculture officer with an established staff of five. Their duties include the overall planning of agricultural development and the review of policies affecting agricultural development.

Forestry Department. This department is headed by the chief forest officer with an established staff of 16. Their activities include the management of the national and forest reserves, conservation programs, etc.

The Ministry of Housing and Works

The Ministry is responsible for the formulation and implementation of policies and matters as they relate to public works, which include the construction and maintenance of roads and bridges, and housing development. It is headed by a permanent secretary responsible to the minister, and has a total established staff of 155. The budget for 1987-88 was \$8,789,000.

Housing Planning Department. The Housing and Planning Department is headed by the Housing and Planning Officer, who is responsible to the permanent secretary in the Ministry of Housing and Works. Functions include the planning, designing, and developing of land for low-income housing and its implementation. It has an established staff of 16 and operating expenditure for 1987-88 was \$140,000. It currently builds approximately 50 houses per year, as well as maintaining its current housing stock.

Public Works Department. This department is responsible for the construction and maintenance of roads and bridges.

The Ministry of Labour and Social Services

The Ministry is responsible for the initiation and review of social and labour policies. It was through this ministry that the Urban Development Corporation was formed. This ministry is headed by the permanent secretary who has a staff of 112. The budget for 1987-88 was \$2,125,012.

Urban Development Corporation. The UDC was established to promote and initiate development in Belize City, and possibly future development in other urban areas--that is, to formulate and develop instruments by which the city's development will be guided and managed in the best interests of the people. It has no budget from the ministry and is dependent on contributions and concessions. It has a staff of six headed by a chief executive officer.

Ministry of Transport, Electricity and Communications

Under the administrative head of the permanent secretary, the Ministry is responsible for the formulation and implementation of policies as they relate to electricity, transport and communications. Expenditures for the year 1987-88 were \$3,011,000.

Belize Electricity Board. The Belize Electricity Board is a statutory body headed by a general manager who is responsible to a board of directors, who in turn are responsible to the minister. They responsible for supplying electrical power to domestic, commercial, and industrial consumers throughout the country.

Belize Telecommunications, Ltd. The Belize Telecommunications Authority is a statutory body headed by a Chief Executive Officer who is responsible to a board of directors who are responsible to the minister. It is their responsibility to supply communication services including telephone, telegraph, etc.

The Ministry of Home Affairs and Local Government

Valuation Department. The Valuation Department is headed by the Valuer and Local Government Officer and is responsible for the conducting of property valuation throughout the country. He has a staff of six and expenditures for 1987-88 were \$104,000.

Town Boards and the Belize City Council. The City Council and Town Boards are responsible for the general management and development of the cities and towns.

The Judiciary

General Registry. The General Registry is headed by a Registrar with a staff of 18. This department is responsible for the registering and issuing of first certificates and titles. Expenditure for the year 1987-88 was \$199,992.

The problems associated with the operation of the previously-stated institutions revolves around the lack of adequate funding to provide the necessary equipment and attract technically trained personnel to perform certain functions. Most ministries and departments are understaffed with regard to trained professionals and underbudgeted. In addition, disorganization compounds the problems more, as breakdown in the lines of communication and authority often exists. These pose severe limitation on the scope and scale of operations which can reasonable by undertaken by this unit.

The private sector involvement in land development is limited to the agriculture, tourism, industry and manufacturing sectors and, to a very minimal extent, in residential development. Where residential development is concerned, it is limited to single units constructed by private

contractors. Only one attempt has been made at a multi-development project, which consists of approximately 30 houses. Private sector involvement in land development also includes the clearing and filling of tracts of lands of approximately 100 acres and subdividing it for sale. This occurs mainly in Belize City, Corozal, and Ambergris Cay. Although no figures are available to define the nature and magnitude of their involvement in other sectors, recent estimates show an investment of over \$5,000 in the tourism industry, and this is expected to become much larger.

FINANCING OF LAND DEVELOPMENT

Public Sector

Through its various ministries and statutory bodies, the public sector has been able to assist, to a great extent, in the financing of land development; and, in particular, to residential land and infrastructural development by the former and industrial and residential development by the latter.

The Ministry of Housing and Works through its Housing and Planning Department finances land development for low-income housing schemes by reclaiming, clearing and filling land wherever necessary, and then constructing houses. It currently receives financing from the government of Belize through government revenues, the Social Security Board, the Caribbean Development Bank through the Development Finance Corporation, and any other agency who is able to provide money at very low interest rates. Through such measures, the department averages approximately 50 houses per year, output depending on the availability of funds. Between 1985 and 1988 the department spent approximately 3 million dollars in its programs.

The Public Works Department of this ministry finances land development through its design and implementation of its infrastructural programs--that is, the construction of roads. Its funding is provided through the government of Belize from government revenues, grants, and loans from international agencies, such as USAID, EEC and EDF.

Development Finance Corporation is in effect the national industrial development bank in Belize and finances land development for industries and, to a limited extent, housing. In the case of the former, in addition to providing money directly to the investor for a particular industrial activity, it also constructs and manages industrial parks which can be rented, leased, or bought. Where housing is concerned, it lends to the individual borrower directly, as well as through an agency, as with the Ministry of Housing. The DFC invested approximately \$109 million in moderate and middle income housing between 1977 and 1985. It performs a wide variety of functions, including the mobilization of funds, primary and secondary mortgage lending, and servicing of mortgage portfolios (*National Housing Policy 1985*). DFC contributed to the construction of 426 units between 1973 and 1982 (*Co-operative Housing Foundation 1982*).

Reconstruction and Development is an arm of the Ministry of Finance and, on the basis of past and present volumes of operations, is one of the largest sources of financing for residential land development. It acts as the local authority for the capital city of Belmopan, as well as providing financing for land development in other parts of the country. An analysis of its staffing pattern would indicate that strengthened capability in technical and inspection sections would be beneficial. Reconddev received \$96,000 from the Ministry of Finance from the 1985-86 budget to finance housing, but is dependent on outside aid. However, recently this aid has fallen short and Reconddev has had to go to the private financial market in order to continue its housing finance. It has focused most of its efforts on Belmopan and, since 1965, has provided a total of 1,300 housing units (*CHF 1982:13*).

Sugar Labourers Welfare Fund derives its funding from a tax on the tonnage of sugar exported annually. Its financing is limited to residential development in the form of loans for the construction of core housing or renovations. It lends exclusively to sugar workers and is dependent on its production. It averages approximately \$100,000 annually. the fund is administered by a board appointed by the government of Belize.

Private Sector

The private sector financial institutions involved in financing land development are:

Credit Unions process loans, of which at least 20 percent are for residential land development. However, due to a lack of substantial long-term assets, in comparison to the commercial banks, credit unions only operate to a limited extent in the mortgage market. Most of their loans are geared toward the purchase of land, rather than its development.

The largest credit union in Belize, the Holy Redeemer Credit Union, issued housing loans totaling approximately \$2 million for the year 1988-89.

Commercial Banks lending activities are for land development for commercial activities as opposed to housing development. they traditionally have not engaged in mortgage lending, or long term housing finance until very recently. There are no mortgage banks in Belize.

Insurance Companies have traditionally provided loans for residential development to its policyholders, but the number has been so small that it constitutes a negligible factor in the total housing market.

The Belize National Building Society is a savings and loan type shift operation and represents the first attempt at mobilizing savings exclusively for the purpose of housing finance. It is still in its infancy and has produced approximately 150 houses through a loan agreement with the government of Venezuela.

CONCLUSIONS: LAND MANAGEMENT ISSUES

The current undeveloped status of the majority of land in Belize now represents for it the opportune moment to complement its present land management system and to become more efficient and effective, thus maximizing its resources without exploiting it.

The existing infrastructure to respond to this is underdeveloped and disorganized. Each institution has its own method and only addresses its individual interests rather than a coordinated one.

Land management should be approached utilizing methods designed and implemented through joint efforts by all parties involved. If such effort were made, then Belize would be capable of managing its resource to a reasonable extent.

The Ministry of Natural Resources is currently involved in an exercise to develop a Land Information System, which will be a tool for legal, administrative economic decision making, and for planning and development of land management. It is including all the institutions previously mentioned which are involved with land management issues so as to create a data base to be usable by all. This is a positive step towards upgrading its approach for effective land management. However, more assertive and aggressive measures need to be developed to increase their capability.

Planning and development control need to take a more prominent role in guiding present and future development. Increased population pressures, not only internally, but from the influx of Central American refugees, Chinese, and Middle East residents, are forcing the development of land beyond the capability of the resources to manage it. In the case of the Central American immigrants who, fleeing from political and economic hardships in their native lands, enter Belize illegally, the impact on the undeveloped land has mostly been negative. They have entered both private and government-owned lands, constructed substandard and inadequate dwellings, and engaged in agricultural practices, exploiting the land and its environs. Those who are legal and are assisted by the United Nations in their refugee programs are provided with land and infrastructure, thus increasing the competition for available lands.

Ministries should direct their policies to provide the right environment for the development of Belize through proper management. Institutions such as Lands and Surveys Department should ensure that conditions attached to development are in tune with the needs of the community. Their land registration system should complement this.

Local government authorities should examine their present rating systems to facilitate fiscal and developmental advantages.

Planning agencies should formulate cost-effective schemes that will realistically address the physical, social, and economic needs of the communities, providing readily available land and services, to promote development.

If these issues are addressed, then Belize will certainly be able to implement an effective and efficient land management system.

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**ST. LUCIA
THE LAND MANAGEMENT SYSTEM**

Pat Phillip

EXECUTIVE SUMMARY

Like most developing countries, St. Lucia has varied and serious land problems, many of which would be alleviated if the land management system on the island was operating efficiently and effectively. This paper explores and highlights the major land management problems and offers working recommendations which, if implemented, could remove or minimize the effects of these impediments in the system.

A broad spectrum of areas are reviewed, including current and projected economic activity, and national and regional population trends. There is a concentration of population in the main urban zone--the Castries/Gros-Island Conurbation--and it is perhaps not surprising that this area also experienced the most significant increases in land prices over the period 1982-88.

The performance of the various sectors of the economy are discussed and it is concluded that the present "buoyancy" in the economy is expected to continue into the 1990s if certain critical issues are addressed and prudent economic policies are adopted.

All aspects of the land system on the island are reviewed, including the performance of the various institutions involved in land development (the financial institutions included), the role of private developers, land policies, and ensuring problems. It is clear that, although the main elements of a land management system are in place in St. Lucia, a number of factors impinge on the ability of the system to function at an optimal level. Some of the most important constraints identified relate to poor legislation and enforcement regulations, a lack of adequate coordination and communication between the institutions involved in land development, stringent conditions attached to accessing loans from the financial institutions to develop land, a lack of a national land policy and land use plans, as well as unaffordable land and building standards.

It must be stressed here that unless there is the will and cooperation of the political directorate to improve the land management system on the island, no significant inroads will be made in removing some of the imperfections in the land system.

INTRODUCTION

St. Lucia is the second largest island in the Windward group and lies between Martinique in the north and St. Vincent in the south. It is roughly lenticular in shape and comprises a total of 238 square miles (616 square kilometers). It is volcanic in origin and is very rugged and mountainous, resulting in very limited amounts of easily developable land being available for development. It is not surprising, therefore, that such land is under tremendous pressure from competing land uses.

Attempts at preserving the agricultural land on the island is proving to be a constant battle, as unauthorized changes of use of some prime lands have been, and continue to be, effected. The implications of this are critical, since the economy has a strong agricultural focus. This is complicated by the fact that the economy is one which is open and dependent, making it very sensitive to fluctuations in international prices. This, together with natural disasters such as hurricanes and droughts, can have crippling effects on the island's future growth.

One of the most noticeable features of urbanization on the island is the rapid growth of squatter settlements. The establishment of these unauthorized communities reflect, in part, an inability of the land use management system to cope with the increasing demands for various land uses.

NATIONAL AND URBAN GROWTH PRESSURES

Note: The analysis contained in this section of the paper relates essentially to the period 1982-87. However, wherever possible, figures for 1980 and 1988 are included.

In 1980 and 1981, St. Lucia suffered the effects of two hurricanes--David and Allen. The economy has since recovered, with real Gross Domestic Product (GDP) growth averaging 4 percent per annum during the 1982-84 period, and 6 percent between 1985-86. Consistent increases in banana output, significant growths in tourism and construction activity have all contributed to the growth of the economy. However, in 1987, the island suffered from a severe drought which resulted in a loss of banana production and ultimately the economy experience a "slowdown." This is evidenced by the fact that during 1987 real GDP grew by only 2.1 percent.

During 1982-87, domestic investment remained relatively high, at around 37 percent of GDP, largely reflecting infrastructural and hotel construction (*World Bank* 1988). In 1987, domestic savings amounted to 24 percent of GDP. It is noteworthy that despite the buoyancy of the economy during the period under review, this has not impacted significantly on decreasing the level of unemployment on the island, which is presently estimated at over 20 percent of the labor force. One explanation is that most of the growth experienced is largely attributable to increased levels of productivity in banana output.

Table 4

Employment by Sector, 1980 and 1985

<u>Sector</u>	<u>Percent Working Population</u>	
	<u>1980</u>	<u>1985</u>
Agriculture, Fisheries, Forests	34.0	33.9
Mining and Quarrying	0.7	0.2
Manufacturing	9.3	10.4
Electricity and Water	1.2	1.4
Construction	8.0	3.2
Wholesale and Retail Trade	8.7	12.2
Hotels and Restaurants	6.5	6.3
Transport and Communications	4.6	4.5
Finance, Insurance, Business Services	2.6	2.6
Community, Social, and Personal Services	24.4	25.3

Source: Annual Statistical Digest, G.O.S.L., 1987.

Table 5

Growth of Sectoral Origin of GDP at Factor Cost -
Constant Prices--Percent Changes

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
GDP	3.0	4.1	5.0	6.0	5.8	2.1
Agriculture	33.0	14.8	8.0	12.3	12.4	- 4.0
Mining & Quarry	- 40.0	- 40.0	0.0	0.0	11.1	10.0
Manufacturing	7.6	10.6	0.0	2.7	1.6	1.0
Utilities	3.4	10.0	7.6	7.0	5.3	6.3
Construction	- 13.1	- 43.6	12.4	14.7	16.0	13.1
Wholesale & Retail	- 41.0	1.3	4.9	3.4	3.9	3.2
Hotels, Restaurants	3.9	10.4	8.1	3.1	6.1	2.9
Banking & Insurance	4.2	8.1	0.7	5.2	3.5	2.7
Real Estate & Owner- Occupied Houses	2.2	2.2	2.1	2.1	2.0	2.0
Producers of Govt. Services	3.1	8.8	3.2	3.6	1.2	1.0
Other Services	4.9	8.1	7.5	4.0	1.9	2.8
Less: Imputed Banking Service Charge	9.2	9.5	9.9	10.1	10.5	10.5

Source: Economic and Social Review, G.O.S.L., 1988.

Table 6

Sectoral Origin of GDP at Factor Cost--
Constant Prices (Percent of GDP)

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
GDP	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	13.2	14.5	4.9	15.9	16.8	15.7
Mining & Quarry	0.8	0.5	0.4	0.4	0.4	0.5
Manufacturing	9.0	9.5	9.1	8.8	8.4	8.3
Utilities	3.2	3.3	3.4	3.5	3.4	3.6
Construction	9.1	4.9	5.3	5.7	6.2	6.9
Transport. & Communication	10.1	11.1	11.1	11.3	11.6	12.0
Wholesale & Retail	15.9	15.4	15.4	11.1	14.8	14.9
Hotels, Restaurants	7.1	7.5	7.7	7.5	7.5	7.6
Banking & Insurance	6.5	6.8	6.5	6.5	6.3	6.5
Real Estate & Owner- Occupied Houses	4.8	4.8	4.6	4.5	4.3	4.3
Producers of Govt. Services	21.0	22.0	21.6	21.1	20.2	19.9
Other Services	4.5	4.7	4.8	4.7	4.6	4.6
Less: Imputed Banking Service Charge	-5.0	-5.4/0	-4.9	-4.81	-4.65	-4.6

Source: Economic and Social Review, G.O.S.L., 1988.

Analysis

Agriculture. From Table 4 it is clear that the agricultural sector continues to employ approximately one-third of the total working population. From 1982 (with the exception of 1987) this sector has shown an increasing contribution to GDP. In 1987, however, there was a reduction, due to a severe drought, which resulted in a fall in the banana production by 19.6 percent. This was the only sector which recorded a negative growth rate (-4 percent) during the 1987 period. The implications of this for the economy as a whole are highlighted by the fact that bananas account for 80 percent of value added in agriculture.

Tourism. The tourism sector employs approximately 6 percent of the total labor force, which appears to be fairly constant over the 5-year period 1980-85. This sector (like all others) experienced a decreased growth rate (in 1987) of 2.9 percent, when compared with a rate of 6.1 percent for 1986 (*World Bank* 1988). Both cruise ship and stay-over visitors have continued to increase. The latter increased at an average rate of 14 percent between 1985 and 1986, while over the same period cruise ship passenger arrivals increased at an average rate of 25 percent.

The slower rate of growth in 1987 has been attributed to the fact that the tourism machinery has been functioning at full capacity. This problem is being addressed by the construction of new hotels and the extension of some of the existing ones. In essence, however, it can be said that the island is presently experiencing a "tourism boom."

Manufacturing. The main manufacturing focuses lie in the assembly of electronic products, the production of furniture, and the manufacturing of garments. The manufacturing sector is comprised of approximately 200 firms (of which some are very small) employing an aggregate of 3,500 workers. Only 10 firms employ more than 100 workers; these have a total of 1,800 workers. In 1986, eight firms produced 91 percent of manufacturing exports (*Economic and Social Review* 1989). Since 1985, growth in the manufacturing sector has been increasing at a decreasing rate (see Table 5), reflecting a lack of dynamism and a closure of some plants. Preliminary figures for 1988, however, indicate some signs of recovery in the sector both in volume and in rate of production. This is due in part to some of the regional markets taking a larger proportion of their share of some locally manufactured products.

Construction Sector. The highest levels of activity were recorded between 1985 and 1986, when this sector reflected a growth rate of 16 percent, which is largely attributable to a high level of activity by both the public and private sectors. Some of the more important public sector projects are the construction of the Government Office Building in Conway, the Point Seraphine Tourist Complex, factory shell construction, and road rehabilitation works. In 1987, the industry accounted for 6.9 percent of GDP, and experienced a growth rate of 13.1 percent. This sector is, therefore, exhibiting a high level of output, which is confirmed by the increasing number of applications which are submitted to the Planning Department for approval.

Financial Sector. The banking system has remained liquid, although since 1985 the rate of increase has been slowing down. In 1987, the rate of growth was 2.7 percent, as compared with 5.2 percent in 1985. It can be safely assumed that this lower growth exhibited in 1987 is directly related to the reduction in banana output and exports during that year as a result of adverse weather conditions. Total bank deposits at the end of 1988 indicated an increase of 24.7 percent over 1987, and the liquidity of the banking system remains high (*Economic and Social Review* 1989).

In 1986, the assets of nonbank financial institutions (e.g., insurance companies) increased by 13 percent, whereas in 1987, they fell by 7.2 percent, and displayed a moderate growth rate of 8.8 percent in 1988. Between the period 1982-87, total premiums (gross direct) collected by insurance companies increased by 84.6 percent, from EC\$16.95 million in 1982 to EC\$31.29 million in 1987, the average annual rate of increase being approximately 14 percent (*Economic and Social Review* 1989).

Other Sectors. Over the period 1982-87, all other sectors, with the exception of Mining/Quarrying and the Wholesale and Retail categories, showed positive rates of growth.

Although the 1987 period reflects decreasing growth rates for all sectors (with the exception of utilities), preliminary estimates for 1988 indicate an increase in growth rates for all sectors of the economy.

PROJECTED ECONOMIC ACTIVITY DURING THE 1990s

There is a general lack of specific data for 1988. However, preliminary estimates reflect an increased buoyancy of the economy over the 1987 period. It is very difficult to project possible rates of change for each sector of the economy due to the unavailability of data; consequently the approach which will be utilized here is to identify the critical issues which, in the consultant's view, will significantly affect the overall performance of the economy during the next decade. This, together with a review of the key projects and policies which will address these issues, will form the basis for a projection of GDP for St. Lucia during the 1990s. The following analysis is representative of a combination of the consultant's and the World Bank's estimates (*World Bank* 1988).

Analysis

Key Sectoral Issues

1. One of the critical concerns regarding the performance of the agricultural sector during the 1990s concerns the level of competition which the Banana Industry will have to contend with on the United Kingdom market. The Lomé III Agreement, which expires in December 1989, provides for protectionist priority treatment of Windward Island bananas on the U.K. market. After 1992, these bananas will have to face open competition with countries operating at lower production costs, such as Latin America. The implications of this for the economy as a whole are clearly highlighted by the fact that bananas account for 80 percent of value-added in agriculture, and the latter contributed some 16 percent of GDP in 1987. The World Bank has identified three major areas where action is required to "protect the agricultural sector. These include:

(a) Diversification of agriculture by concentrating resources on a few replacement crops, such as fruits and vegetables, supported by intensive marketing and promotion abroad.

(b) A possible negotiation for a phase out rather than a termination of preferential treatment.

(c) Increased use of improved inputs in selected banana producing areas with potential for international competitiveness (*World Bank* 1988).

With regard to (a) above, the government has sought to address the problem through the implementation of the Small Farmers Agricultural Development Project, which essentially entails the conversion of marginal banana lands into the production of other crops. The thrust toward

agricultural diversification has been vigorously pursued over recent years, with a focus on the production of nontraditional crops for the North American and European markets.

In response to (b) and (c) above, the new drive in 1988 was toward the education of farmers and the maintenance of strict vigilance on quality control. The St. Lucia Bananas Growers Association is aware of the importance of maintaining quality, as this will be a major issue in the next round of negotiations with the U.K. (*Economic and Social Review* 1989).

2. St. Lucia is experiencing a tourism boom, but increasing growth will be hampered by constraints in the physical capacity of the tourist plant. The World Bank (1988) has recommended that increased hotel capacity needs to be created, as well as the completion of infrastructure, which will pave the way for future expansion in the tourism sector. There are several hotel complexes in the pipeline and a number of others are already under construction. These include:

- The Windjammer Hotel Development in the north of the island commenced construction in 1988 and is due for completion in December 1989. The development will have 120-130 villas, 80 condominium units and other ancillary facilities.
- The Royal St. Lucian Hotel, which has already received planning permission, will consist of 90 suites and is expected to get underway some time this year, with a targeted completion date of September 1990.

At least three other major tourist developments have recently received outline approval from the Development Control Authority.

In addition, the government has already started work on a major infrastructural component--the West Coast Road, which involves the upgrading and widening of the existing road between Castries and Soufriere, thus making the west coast more accessible. Other projects to be pursued include the upgrading of both airports on the island. The Newannorra Airport Improvement Project will cost approximately US\$12 million and involves the expansion of the passenger terminal and airport apron, as well as the construction of a new taxi-way.

In light of the above, the prospects for the future of the tourism sector looks favorable, and this view is supported by the government in the following statement:

With the visibility in the major market areas of the United States of America, Canada and western Europe substantially improved, a result of ministerial policy that requires the St. Lucia Tourist Board to target specific groups or areas in overseas markets, it is expected that the growth trend in stay-over tourist arrivals will be sustained. (*Economic and Social Review* 1988)

It is also expected that the cruise ship passenger arrivals will continue to show a positive growth, especially as a result of the Pointe Seraphine Duty Free Shopping Complex, which offers a wide range of duty-free products. This facility will, without doubt, facilitate the marketing of St. Lucia as a cruise ship destination.

3. The manufacturing sector has been experiencing a slow growth over the period under review, and the World Bank (1988) has indicated that the island needs to improve its investment climate through such measures as investment promotion, better support services, and streamlined regulations if it is to successfully attract investors to the country. It is expected, however, that the manufacturing sector will be boosted from 1989, given further increases in the number of establishments being approved to operate on the island (in fact, in 1988, 17 new enterprises were approved). The Central Government has continued to inject substantial indirect subsidies into the sector and, in 1988, revenues foregone as a result of concession granted (under the Fiscal Incentives Act) amounted to EC\$12.7 million (*Economic and Social Review* 1989).

4. Other service and infrastructural projects which need mentioning here because of their likely impacts on the performance of the economy during the 1990s include the following:

(a) A \$90 million new power plant due for completion in early 1990 is expected to accommodate the electricity requirement of the island in the 1990s and beyond.

(b) The Roseau Dam is a \$108-\$135 million project which will develop water resources to meet the demands for potable water for domestic, commercial, and industrial consumption in Castries and the northwest.

(c) St. Lucia has replaced Barbados as a major trans-shipment point for the rest of the Caribbean and, as a result, both the Vieux-Fort and the Castries ports will be expanded in order to handle the increase in port-related activity. Rehabilitative work, together with the provision of container handling facility, will be undertaken in Vieux-Fort. Presently all containerized cargo for the latter are transported by road to Castries, which is reflected in increased handling rates.

Macroeconomic Issues

The World Bank (1988) has identified wages and salaries as critical macroeconomic issues which will need to be addressed in the 1990s. Presently these account for 52 percent of Central Government's current expenditure. It is important that wage increases are compensated by reductions in the size of the civil service, since a failure to adopt this strategy will result in a fall in public savings and adversely affect investments needed to generate employment.

Medium-Term Prospects--A World Bank Analysis

The country's medium-term prospects are directly dependent on the degree to and speed with which the issues identified above are addressed. The World Bank (1988) estimates that real GDP growth could range between 2 percent and 4 percent per annum on average during the medium term.

If the issues identified are addressed satisfactorily, then a "high scenario" (4.3 percent real GDP growth) projection would apply. This scenario implies a gradual decrease of the balance of payments current account deficit from 14 percent of GDP in 1987 to 4 percent of GDP in 1996.

The "low scenario" projection (2 percent annual GDP growth) will apply if policy actions required to address the issues identified above are not employed. The World Bank, however, is of the view that the government has hitherto followed prudent economic policies and its recent initiatives indicate a continuation of such policies to attain a high scenario.

Table 7

High Scenario--Projected Growth Rates in
Constant 1986 Prices

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
GDP	5.0	4.2	4.1	4.0	4.0	4.0	3.8	3.8	3.8
Agriculture	8.5	3.5	3.5	4.0	4.0	4.0	4.0	4.5	4.5
Manufacturing	5.5	4.0	3.0	3.0	3.5	3.5	4.0	5.0	5.0

Source: World Bank, 1988.

POPULATION TRENDS

St. Lucia is one of the larger islands in the Lesser Antilles and this, coupled with a modest but steady out-migration, has ensured that the island is not considered overpopulated. Between 1946 and 1960 the population grew at an annual average rate of 1.4 percent. However, a significant new stream of migration to the U.K. developed during the late 1950s, to the point where emigration equaled 42 percent of the island's natural population increase. Despite

Table 8

St. Lucia Population Trends

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Total Population	123,773	126,270	128,817	131,415	134,066	136,952	139,529	142,342
Crude Birth Rate per 1,000	30.6	30.6	31.4	31.0	31.0	30.8	28.9	26.9
Crude Death Rate per 1,000	6.8	6.7	6.6	6.0	5.5	6.0	6.0	6.6
Rate of Natural increase per 1,000	23.8	23.9	24.8	25.0	25.5	24.8	22.9	20.3
Out-migration-- % of Population	1.2	1.18	1.15	1.13	1.11	1.09	1.07	1.05
Net Pop. Increase	2,447	2,497	2,547	2,598	2,651	2,705	2,761	2,816
Annual % Growth	2%	2%	2%	2%	2%	2%	2%	2%

Compiled by author.

Source: Annual Statistical Digest, 1986 and 1987.

Table 9

Percentage of Population by Age Cohorts

<u>Ages</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>
0 - 14	45.0	49.6	43.5
15 - 29	23.3	21.3	27.2
30 - 44	14.7	11.6	12.1
45 - 59	10.0	9.8	8.7
60 - 74	5.1	5.5	6.1
75 & over	1.9	2.2	2.4

Source: Annual Statistical Digests, G.O.S.L., 1971 and 1980. 1980-1981 Population Census of the Commonwealth Caribbean, St. Lucia, Volume 1.

St. Lucia's long history of out-migration, population growth rates have still been high, and its fertility levels are among the highest in the region. In 1980 the total population was estimated at 123,773, and 142,342 in 1987, thus exhibiting an annual growth rate of 2 percent (Annual Statistical Digest, 1980 and 1988).

Analysis

Over the period 1980-87, the birth rate fell from 30.6 to 26.9 per 1,000 population. From 1982, there has been a steady decline in the crude birth rate, which is consistent with the fact that for the period under review, the total fertility rate (average number of live births per woman of child-bearing age) decreased from 7 to 4.3. These trends reflect a less dynamic growth pattern and, to a certain degree, have been neutralized by declining death rates of infants and decreasing levels of net migration. Reductions in the crude birth rate are largely attributable to a positive response by the population to family planning education, while decreasing death rates reflect continuous improvements in primary health care.

Since 1983, there has been a steady increase in the level of in-migration, which appears to reflect a return of St. Lucians from the U.K. and the U.S. who migrated in the late 1950s. Indications are that the level of out-migration is decreasing, since several traditional outlets for migration are closing through, for example, changes in the immigration laws in the U.K., U.S., and Canada.

The population of St. Lucia is young, with approximately 92 percent in 1980 being under 60 years old and 44 percent less than 15 years old. In 1980, the percentage of "dependent" population (persons less than 15 years old and over 60 years old) was 52 percent. This has serious implications for the provision of specific services, such as school places, health facilities, and social security.

The average household size increased from 4.2 to 4.6 over the 1960-70 period. Due to the high levels of rural-urban migration, there was an increase in the number of households per housing unit, as members of the extended rural family moved into the houses of relatives residing in the urban area. There was a consequent increase in levels of overcrowding over that time period. The average household size decreased in the 1970-80 period to 4.4, which could be explained by an increase in household formation and the subsequent construction of additional units. It would appear that families previously living in overcrowded conditions were able to house themselves separately. This may be one of the contributing factors to the increased levels of squatting which occurred during that time period.

Population Projection for the 1990s

The assumptions used in this analysis reflect those adopted by the Central Planing Unit (1985), and appear realistic and reliable enough to form the basis for estimating the population for various intervals during the next decade. These assumptions are as follows:

- Birth rates will continue to decline, then fluctuate at around 21-26 per thousand by 1990 and onward.
- Death rates will also decline, to stabilize at 5-6 per 1,000 from 1990 onward.
- The rate of out-migration will continue to fall, reaching as low as 0.5 percent between 1990-2000.
- Annual growth rates will remain at 2 percent, since it is anticipated that a decline in fertility and birth rates will neutralize the effects of increasing levels of in-migration and declining death rates.

Based on the above assumptions, it is estimated that the total population for St. Lucia will be approximately 176,000 by the year 2000 (CPU, 1985). Table 10 provides a breakdown of projected population at various time intervals.

Table 10

Population Projections (Base Year 1987)

<u>Year</u>	<u>Total Population</u>
1987	142,342
1990	149,544
1992	154,558
1995	162,413
1997	167,881
2000	176,441

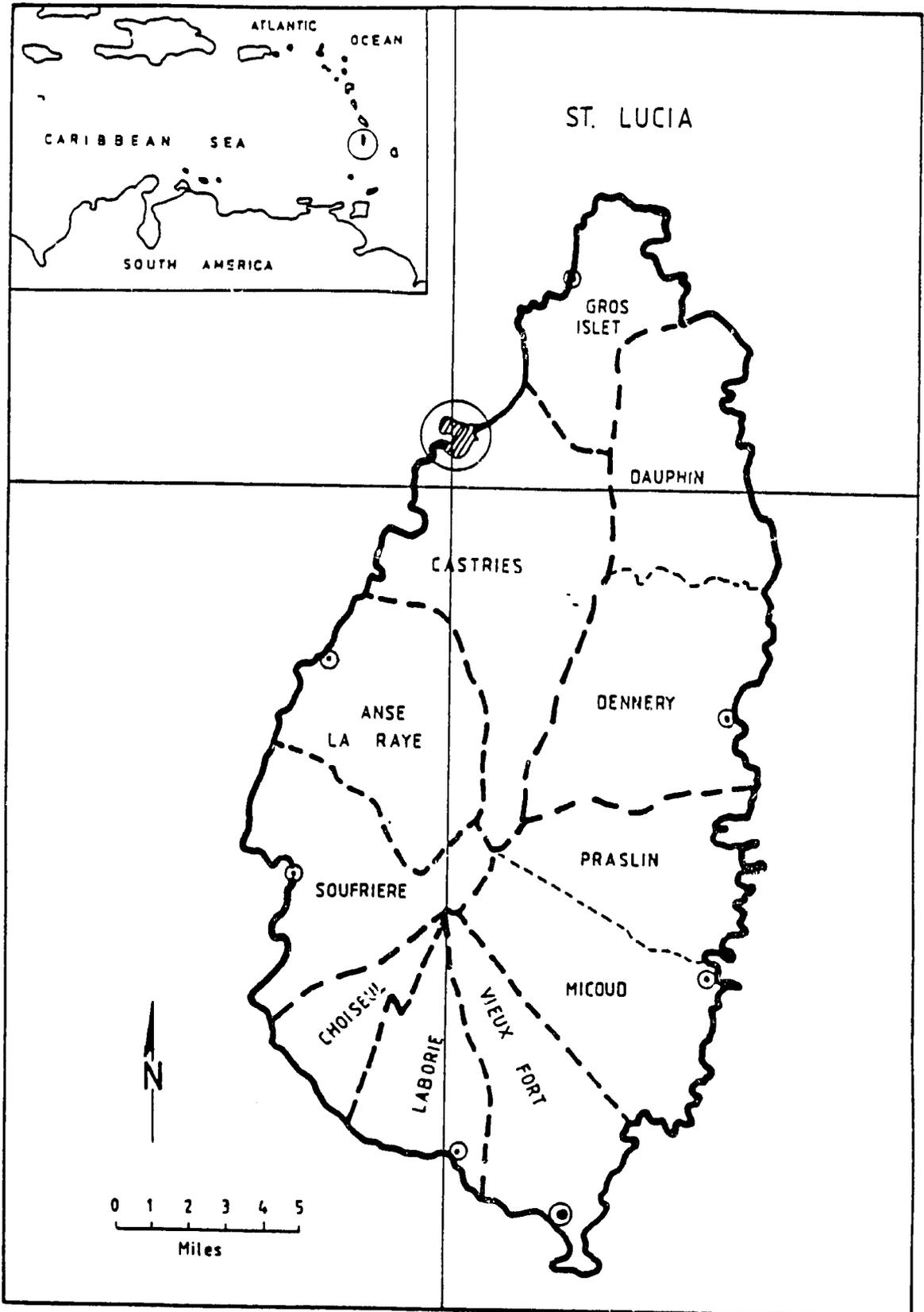
Source: Computed by author.

Implications of Projected Population for 1990-2000 Decade

The implications of these levels of population (Table 10), as identified by the Central Planing Unit (1985), can be summarized as follows:

Map 1

Main Administrative Areas



SOURCE Robotham 1983

61° 00

(a) The economy will be forced to provide for continued high rates of population increase until at least the end of the decade.

(b) The majority of the population will be made up of young people well into the next century. The proportion under 15 years of age will slowly decline.

(c) The education system will be forced to provide for as many as an additional 4,000 school children each year, at least until 2000.

(d) Society will be forced to provide for the demands of young adults, or the potential labor force.

CHANGES IN THE LEVEL OF URBAN POPULATION

In an attempt to present changes in the level of urban population, the author was faced with two choices:

1. Analyze 1970-80 census data, which are the most reliable recent disaggregated statistics available for rural and urban populations.

2. Analyze projected population (by Administrative District) figures for a recent period. However, an attempt at this highlighted flaws in the statistics, in that a constant percentage increase was applied to each district for each particular year (from 1980 onward) and therefore does not reflect any changes on which to base an analysis.

The preferred option was, therefore, to utilize the less recent, but more reliable, census data.

Analysis

Population distribution has continued to show a marked concentration in the Castries/Gros-Islet Conurbation which, in 1980, contained 53 percent of the total population. If the populations of Anse-La-Raye and Dennery are included, statistics indicate that approximately 62 percent of the population live within very easy commuting distance from Castries. In 1980, the country's urban population accounted for 43 percent of the total population, while in 1970 the corresponding figure was 40 percent.

Although most of the districts experienced losses in their urban populations during the period 1970-80, the most important urban areas exhibited positive growth rates. The urban population of the Gros-Islet Administrative Region experienced a phenomenal increase of 180 percent over this same period, and it is logical to conclude that this rate of growth must be due, in part, to some significant level of in-migration, as it cannot be attributed solely to natural increases in the population of that area. The upgrading of the Castries/Gros-Islet Highway in the

late 1970s and early 1980s has made the Gros-Islet district more accessible. This, coupled with its proximity to Castries, has encouraged the movement of population toward this area. It is not surprising, therefore, that this district also exhibited the highest rate of increase in total population over the 1970-80 decade.

In Castries, the urban population increased 23 percent over the 1970-80 period. This is largely due to increasing densities in squatter settlements and rent-yards as a result of rural-urban migration. In View-Fort and Soufriere, the urban populations grew by 28 percent and 32 percent respectively. These levels of growth can be attributed in part to a fairly new trend in rural-urban migration, whereby there is less emphasis on Castries as a destination point and more concentration on some other urban areas. This new move is being experienced in the Vieux-Fort area and is occurring as a result of increased employment opportunities in that district.

It is noticeable that in areas where urban population has decreased, the opposite is true for their rural counterparts, which may be due to the fact that districts exhibiting these characteristics are generally experiencing a decline in commercial activity. Consequently, their population is moving toward the rural environs where they either undertake some level of agricultural activity, or commute to other urban areas for employment. The latter is facilitated by improvements in the transportation system which allow for easy access between rural and urban regions.

LAND CONDITIONS

Note: It is not possible to produce a map showing information required in 3-5 of Section 3a of the Scope of Services, as this level of data is not available. Consequently, the author has prepared two maps (one identifying broad land use areas and the other highlighting physical features) which can be used simultaneously to provide an insight into the relationship between topography and land use.

Recent Changes in Land Use

Note: Although there is no readily available data on land use changes, the author has attempted to estimate these based on observations of planning applications submitted to the Development Control Authority for changes in land use.

One of the most pronounced features of urban growth in St. Lucia has been the high degree of horizontal spread, which implies that the peripheral lands are being used for urban and associated land uses. This phenomenon has become problematic in recent years, as one of the rapidly increasing developments fueling this trend is the growth of squatter settlements. These communities are established on lands which are zoned for other uses (such as commercial, industrial, and agricultural) and it can therefore be concluded that the consolidation of such settlements on these lands has resulted in the latter being used sub-optimally. In support of this argument, three such developments will be briefly reviewed.

Table 11

Acreage of Lands Based on Use Class

<u>Land/Use</u>	<u>Acreage (acres)</u>
Urban Areas	15,000
Prime Agricultural Land (including banana lands)	13,500
Mixed Uses	23,000
Scrub Forest with Scattered Agricultural and Rural Settlement	55,000
Forest and Woodland	<u>46,000</u>
TOTAL	152,500

Source: Adapted from the 1977 National Plan.

1. In Castries, the Faux-a-Chaud squatter settlement is located on lands zoned for the expansion of the port and related facilities. The land is subjected to periodic flooding, but the residents have attempted to address this problem through the construction of "bridges" and by elevating their houses using concrete blocks. These squatters have displayed an ability to adapt to the characteristics of a site which is clearly not suited for residential purposes. Although the community is over 20 years old, and is exhibiting a high degree of consolidation, the point which is being brought to bear is the fact that the density within the development is being rapidly increased. In addition, the community has partly assumed a linear/ribbon type nature, where the settlement is expanding along the La Toc Road to Bananes (along parts of the Castries Harbour). It is clear that new lands zoned essentially for commercial purposes are continually being transformed into residential parcels.

2. Another example of changes in land use through the development of squatter settlements is the establishment of such communities on lands which form part of the National Development Corporation's Industrial Free-zone. Although the corporation is presently pursuing the matter in the courts, a senior officer has informed the author that the ultimate solution to this problem probably lies in the regularization of these settlements, and new areas being brought into industrial use to compensate for the loss of land to residential uses.

3. In other cases, agricultural land is being used for residential purposes, especially by squatters. This is most predominant in rural areas, such as in the Mabouya Valley, where the

Mabouya Valley Project (see page ---) is now underway. the implementation of this project has been hindered in part by the occupation of some of the lands by the squatters, who have erected concrete structures on the agricultural portions of the site and in areas required for infrastructural purposes. Late last year, the compliance staff of the Physical Planning Section/Development Control Authority served enforcement notices on the offenders in an effort to get the site cleared, to facilitate commencement of the project. These persons have been given additional time within which to relocate.

In addition, the fact that some large estates are experiencing decreasing levels of profits has led to the transformation of some large holdings into smaller parcels. The less productive segments of the estates are left uncultivated and are sometimes taken over by squatters. Squatters have also encroached on the forest reserves, and although the forest rangers are attempting to curb this practice through increased patrolling, this has not been very successful. Even the 1983 amendment to the Forest, soil and Water Conservation Act (which provides, among other things, for increased fines to be imposed on squatters in the forest reserves) has not led to a significant reduction in the level of squatting. Encroachment on these lands is still occurring.

The capture of land by squatters appears to be the main channel through which lands zoned for various uses are converted to residential uses. These represent informal or unauthorized land use changes, as they are not sanctioned or approved by the Development Control Authority. Regarding formal land use changes, it appears that in rural areas the trend is toward mixed land uses, whereby residential units are being extended to accommodate commercial (neighborhood) type developments. On the peripheral limits of the central business district of Castries, there is an increasing trend from residential to commercial land uses. It appears, therefore, that in the less urbanized areas the move is toward mixed land uses--mainly residential/commercial--while in the primary urban notes and the immediate periphery, the tendency is toward a complete change from residential to pure commercial.

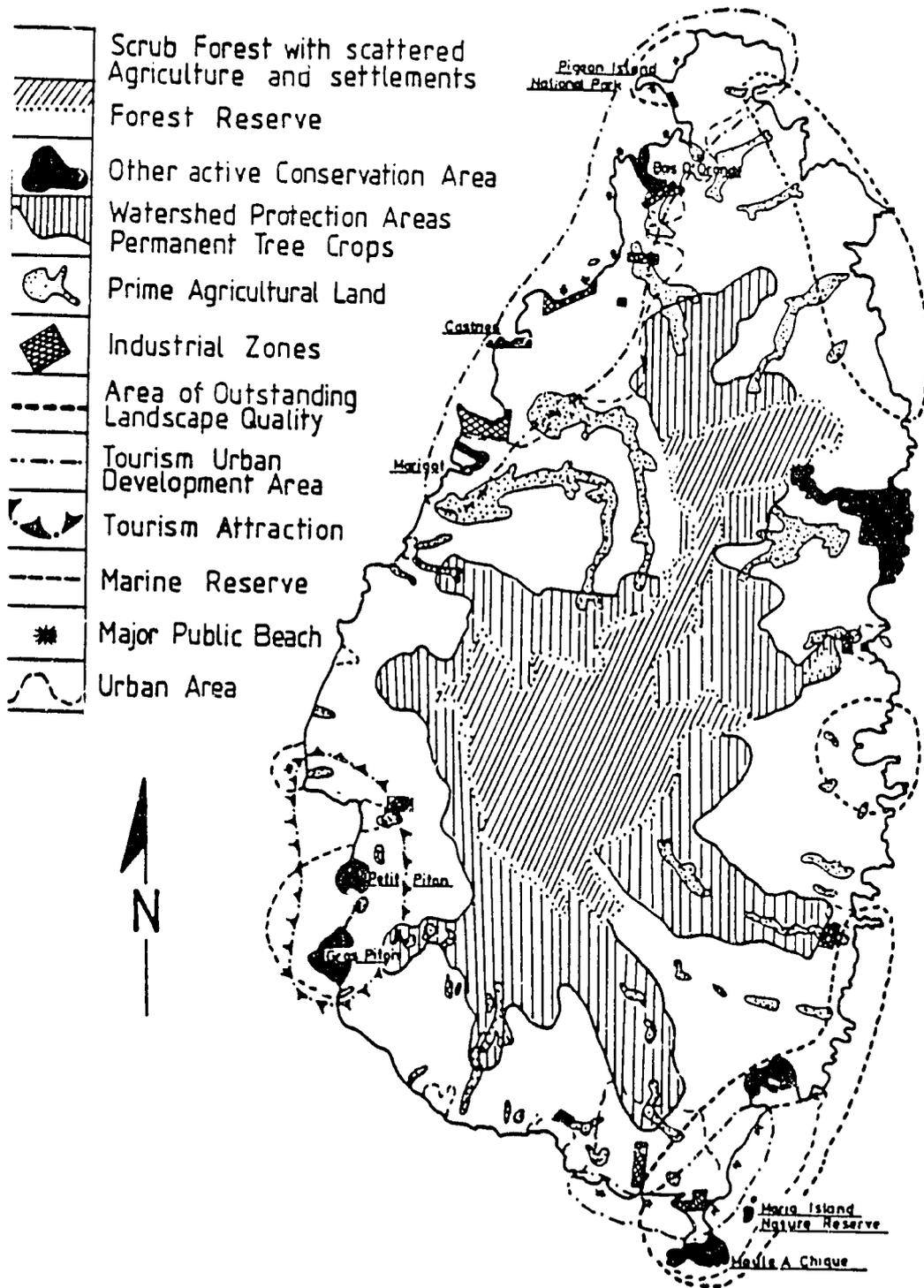
Not as significant as the residential/commercial land use changes is the transformation from residential to industrial uses. Perhaps this is due to the fact that there are specially created industrial parks, and industrial uses are not permitted in residential and other areas if they pose any measure of incompatibility with existing development. Although there is a high level of touristic development occurring on the island, this tends to be located on land zoned for such uses--i.e., in the northwestern part of the island.

Recent Changes in Land Prices

Although there is no land value index for St. Lucia, the author has sought to obtain information on changes in land prices through conversation with various persons involved in land development; namely, land developers and surveyors.

Map 2

Land Use Strategy

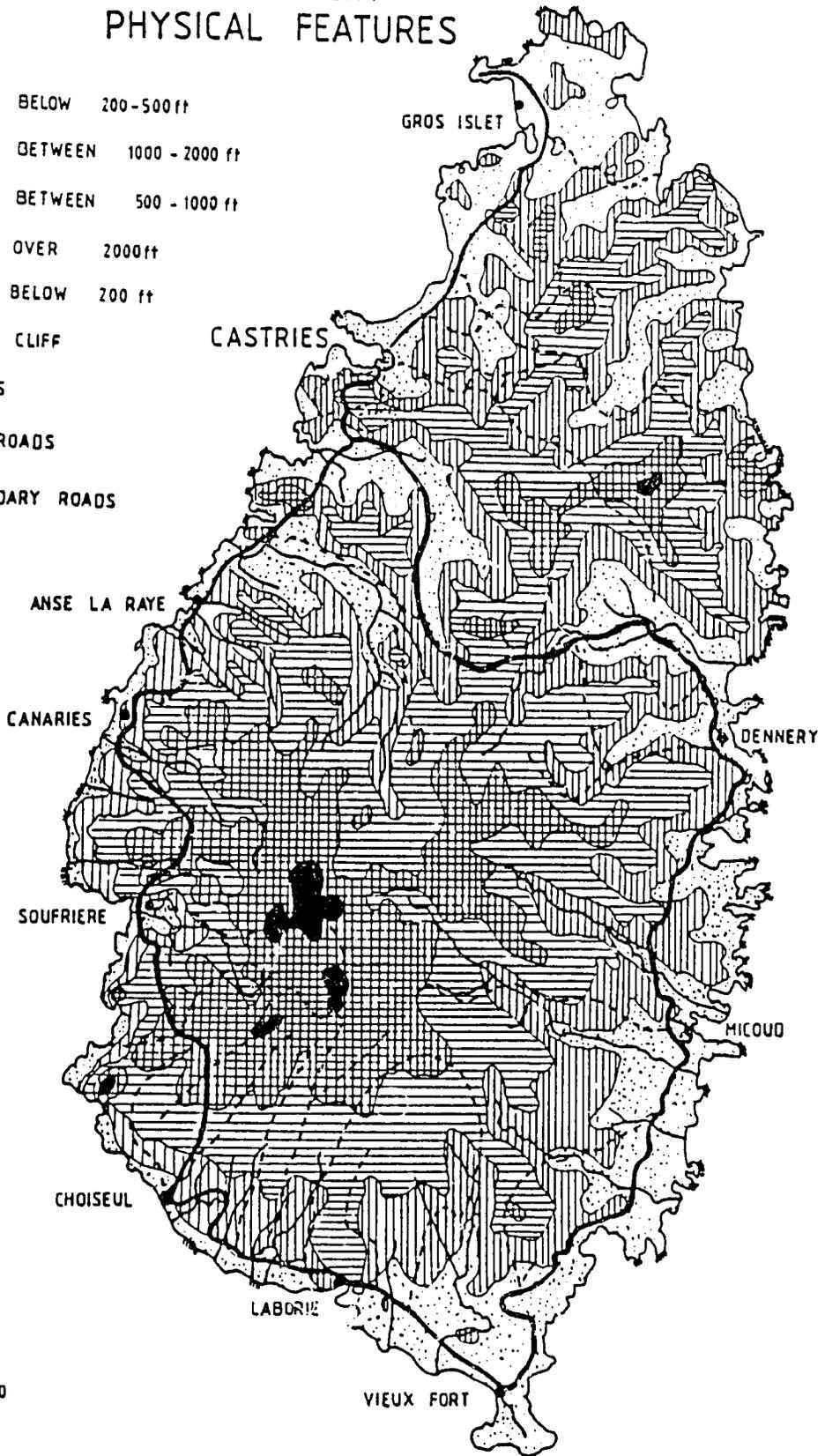


Map 3

ST. LUCIA PHYSICAL FEATURES



- LAND BELOW 200-500 ft
- LAND BETWEEN 1000 - 2000 ft
- LAND BETWEEN 500 - 1000 ft
- LAND OVER 2000 ft
- LAND BELOW 200 ft
- BEACH CLIFF
- RIVERS
- MAIN ROADS
- SECONDARY ROADS



SCALE 1:150,000

Table 12

Estimated Changes in Land Prices
(p.s.f.) 1982-88

<u>Locality</u>	<u>1982 Prices</u>	<u>1988 Prices</u>	<u>Percent Increase</u>	<u>1988 Prices at Constant 1982 Dollars</u>
CASTRIES				
City	40.00	100.00	150	47.00
Urban Periphery (e.g. Marchand)	2.50	5.50	120	2.86
GROS ISLET				
Cap Estate	1.00	3.50	250	1.26
Bonne Terre	1.50	4.50	200	1.75
Rodney Bay	2.50	6.00-10.00	140-300	2.86
DENNERY				
Urban	3.00	4.00	33	3.50
Rural	1.00	2.50	150	1.26
MICCOUD				
Urban	2.00-2.50	3.00-4.00	50-60	2.34-2.86
Rural	1.00	2.50-3.00	150-200	1.26
VIEUX-FORT				
Urban	4.00	5.00	25	4.62
Periphery (residential)	2.00	3.25	62.5	2.34
SOUFRIERE				
General	2.00	3.00	50	2.34
CANARIES				
Urban	1.50	2.00	33	1.75
Rural	1.00	2.50	150	1.26
ANSE-LA-RAYE				
General	1.50	2.00	33	1.75

Source: Computed by the author.

Note: Urban as used in the table refers to the Central Business District.

It is clear from Table 12 that the most significant increases were experienced in the Gros-Islet area (see Map 1), where percentage increases ranged from 140 to 300 over the period 1982-88. This can be attributed to the fact that there are an increasing number of young professionals in the society who are exerting tremendous demand for land in "prestigious" areas, such as Cap Estate, Bonne Terre, and Rodney Bay. In addition, with the upgrading of the Castries/Gros-Islet Highway in the late 1970s and early 1980s, the northern part of the island has become more accessible, which has subjected the lands in the Gros-Islet Administrative District to severe pressures from competing land uses, thus leading to increased land prices.

It is not surprising, however, that prices in the Castries central business district and the immediate peripheral areas have also exhibited high levels of increase, since there is a very high demand for the limited land available for development in that zone.

An interesting trend which is observed from Table 12 is that in all instances where data are disaggregated on the basis of rural and urban areas, it is clear that the land prices in the rural areas have increased at faster rates than in their urban counterparts. This is because in many of these districts the level of activity in the central urban areas is decreasing. Consequently, there is not much pressure on these lands.

In the rural areas of these districts percentage price increases in land over the 1982-88 period range from 150-200. This happened because many of the St. Lucians who migrated to the United Kingdom and North America in the late 1950s are returning home to retire. Many of them prefer to live within the rural environs; this is an increasing trend since the public transportation system allows easy commuting between Castries and the rural areas. There is an increasing demand, therefore, for lands in the rural segments of villages for competing residential and agricultural uses.

The fact that the northwest zone has experienced the most rapid increase in land prices during the period under review is not surprising, since the distribution of population is positively skewed toward this part of the country, putting pressure on lands within this zone for development.

Characterization of the Nature of the Major Land Management Problems during the 1990s

The growth of squatter settlements and slums are symptoms of failures in the land use management system to adjust to the demands of the rapidly increasing population. The absence of both national housing and land policies has contributed significantly to the "capture" of lands best suited for uses other than residential purposes. The fact that there are no private or public sector institutions engaged in the delivery of serviced land for all uses and the lack of low-income housing lots on the market have resulted in further imperfections in the land market. In Vieux-Fort (the second largest town in St. Lucia), for example, it is estimated that the level of squatting

is increasing at the rate of 70 percent per annum. In addition, about 50 percent of the population of Vieux-Fort town reside on "parish" lands (Garnett and Miller, 1988).

The fact that low-income families cannot afford to purchase land within the formal land market reflects a situation whereby they are:

- (a) attempting to purchase lands zoned for uses other than for residential purposes;
- (b) lots are "over-serviced;"
- (c) or demand is very high, thus exerting an upward pressure on land prices.

In St. Lucia, research has revealed that the standards stipulated by the Development Control Authority for the development of land effectively excludes lower income families from participating in the formal land market (Phillip 1988). It appears that unless standards are reduced, low-income families will generally continue to bypass the planning system and capture lands in order to provide shelter for themselves and their families.

The squatting phenomenon will present major problems into the 1990s unless (among other things):

- Affordable lots are provided within the formal land market for low-income families.
- Financial institutions provide easier access to financing for this segment of the population.
- The informal housing sector and the activities of self-helpers are supported by the government and the other actors in the formal housing and land markets.

The transformation of large estates has been increasing at a rapid rate since 1973. This is highlighted by the fact that between 1973-86 the number of large estates--i.e., 50 acres and over--has decreased by one-third, from 122 to 82 estates (*Economic and Social Review* 1987). These large estates have also shown a decline in the level of employment, as only the more productive parts of the plantations are being farmed. This has resulted in the invasion of unfarmed lands by squatters. Poor agricultural practices by the latter, including the cultivation of bananas, for example, on lands more suited to permanent crops, have resulted in high levels of soil erosion and siltation of drains.

St. Lucia generally exhibits steep topography and the indiscriminate removal of natural vegetation has led to a serious erosion problem. This can be attributed in large measure to poor land management practices. For example, in Choiseil and Vieux-Fort, which are relatively dry areas with very shallow soils, the types of crops planted offer very little protection from erosion. In other areas, over-grazing by livestock has resulted in a loss of valuable fertile top soil, and very little can now be done to remedy this situation. It is clear, therefore, that unless appropriate

land management strategies are employed, the resource base of the country will continue to be eroded.

The Chief Forestry Officer has estimated that the annual loss of forest cover in St. Lucia is approximately 2 percent. The problem of reforestation has accelerated in recent times, primarily as a result of the development of roads leading into formerly inaccessible parts of major forest areas. Although the Forest, Soils and Water Conservation Ordinance, through its amendment of 1983, has significantly increased the penalties for squatting in the forest area, this has not succeeded in curbing this practice. In fact, significant damage has already been done to the forest, and trends indicate that the problems of squatting and deforestation will continue.

In St. Lucia, land inheritance is based upon the Code Napoleon, which dictates that land is shared equally among the heirs. In many instances, these parcels are held in family condominium, which presents obstacles to the employment of proper land management practices. Forty-five percent of all holdings in St. Lucia fall under this form of tenure (*Economic and Social Review* 1987), in which land is held jointly by members of the family, each of whom has a legal right to cultivate a portion of the estate. In instances where one or a few members cultivate the entire parcel, they are reluctant to adopt land conservation measures for fear that other heirs may then claim their portions, and in so doing deprive the original cultivators from reaping the full benefits of their investments. Another problem which impacts negatively on the land management system in the country is the fact that where the family decides to "share" the land, the resultant portions may be so small as to render them uneconomical to farm, and these are ultimately converted into other land uses.

Between 1973 and 1984, approximately 14,000 acres of agricultural lands were lost to other uses (agricultural Census of 1973-'74). This indicates a loss of agricultural land at the rate of 1.5 percent per annum. It is critical, therefore, that some measures be introduced to preserve the remaining agricultural lands. Unless this is done, it can safely be assumed that the present trend will continue throughout the 1990s and beyond.

Most of the government Ministries and Statutory Boards have enabling legislation which allows them to impact on the land management system. However, instances of overlap have resulted in duplication of efforts or in critical issues being left unaddressed. Poor communication between the various agencies presents serious constraints to the implementation of strategies aimed at addressing the land management system on an integrated basis. The absence of critical cross-sectorial communication between the various public sector bodies involved in land management has effectively weakened the capacity of agencies to share information which would impact on the functions of other agencies.

Poor legislation and enforcement regulations have severely hindered the ability of many agencies to undertake their regulatory functions effectively. An example of this is the Land Development (interim Control) Act of 1971, enabling legislation of the Development Control

Authority (DCA), which does not provide the Authority with enough "teeth" to make it more effective in controlling unauthorized developments. If these legislative and enforcing powers are not strengthened, it is likely that bodies such as the DCA will be unable to effectively control unauthorized changes of land use and development within the country as a whole. This will have serious implications, since St. Lucia is small and has very limited amounts of easily developable parcels of land.

It has become increasingly apparent that there is a serious need to protect the environment from the damaging effects of some developments. Unless the DCA is empowered with firmer regulations within the context of proper land use plans to guide development, conflicts (land-use) will continue to arise, over which the Planning Authority will have little control.

Clearly, therefore, serious land management problems, ranging from institutional to land practices, are envisaged for the 1990s. However, there are certain measures which the government has recently undertaken in an effort to minimize the effects of some of these problems. These will be discussed under Land Management Issues.

LAND POLICIES

There is no national land policy in St. Lucia, which has critical implications, since (as mentioned earlier) the island is relatively small, has very limited amounts of easily developable lands, and where population pressures are resulting in lands being used sub-optimally. The rugged terrain of the island dictates to a large extent the types of land use which can be accommodated in different areas. In light of the fact that there is no established or formal national land policy, an analysis of the various policies utilized by the different public sector agencies, which impact on the use and development of land, will in some measure present an insight into the framework governing land and its development in St. Lucia.

The DCA was established under the Land Development (Interim Control) Act of 1971, and its amendments, to ensure the orderly and progressive development of land on the island. The DCA is empowered under the Act to prepare and/or adopt schemes for the development of any demarcated area within the island, and to make regulations pertaining to the zoning of land. The Physical Planning Section of the Central Planning Unit, Ministry of Personal, Planning, Establishment and Training, is the Executive Secretariat of the DCA, and performs four main functions:

1. land policy research and formulation
2. land development control
3. building control
4. information services.

In 1983, the technical staff of the DCA prepared a draft sector paper, "A Land Use Strategy," which, although it has never achieved formal status (in the sense that it has never been officially approved by the Cabinet of Ministers), it is worth reviewing here, since there are no formal land use plans for the island. It must be noted, however, that the Physical Planning section is in the process of preparing detailed zoning plans for various sections of the island.

the land use strategy outlines some very broad land use policies which are intended to guide the government's actions and development activities. These policies include:

- A focus on integrated rural development programs to reduce the levels of rural-urban migration.
- The adoption of a Bi-Polar strategy whereby, although development will be encouraged in both Castries and Vieux-Fort, more emphasis will be placed on the latter in an effort to contain rural-urban migration.
- Limits to urban expansion will be established in an attempt to protect agricultural land from urban sprawl.
- Zoning of certain areas for environmental protection purposes.
- Tourism development will be focused in Castries, Gros Islet, Soufriere, and Vieux-Fort.
- The encouragement of industrial activities in Castries, Gros Islet and Vieux-Fort.

These guidelines/policies are articulated in a Land-Use Strategy Map, which together with the National Plan and Development Strategy of 1977 are the main bases used by the DCA in its decision-making process with regard to planning applications. The government's Development Strategy of 1977 is comprised of essentially six main land uses: urban development; mixed agriculture; agricultural expansion and intensification; forest/forest expansion and intensification; special conservation areas; and forest reserves. Even within these broad zoning areas, special developmental policies are applied by the DCA when considering applications for planning permission. The DCA, in its Manual for Developers (1988) states:

Development of all types must be consistent with the Land Use Strategy of the Government, sound planning principles and standards.... (page 21).

With specific regard to agricultural land, the DCA's declared policy is that land which has a high agricultural productive capacity will not be approved for urban or other uses which will render it unusable for agricultural purposes. In addition, minimum lot sizes permitted within an agricultural subdivision are five acres. However, although not a stated policy of the DCA, lot sizes within an agricultural subdivision of less than five acres are usually approved if, for instance, the land is being partitioned among the heirs by the courts and results in the minimum five-acre stipulation being unobtainable. Policies also apply for all other land uses, including areas of outstanding national beauty, the Queen's Chain and Wetlands, to name a few. These

policies are very specific and criteria range from minimum lot sizes, setbacks, and plot coverage to preservation of mature trees on sites being developed.

The control of land subdivision as a specific aspect of planning regulations is a feature of the planning system in St. Lucia. It is important here to highlight some of the major standards stipulated by the DCA which affect the development land, since they contribute in part to the development of squatter settlements and rent yards in the city.

Minimum lot size permitted by the DCA on lands outside the central business districts of all the urban areas is 3,000 square feet, the the proposed method of sewage disposal is by septic tank (this is a regulation of the Public Health department, but impacts on the planning system, since all applications submitted to the DCA must be accompanied by Public Health approval for a suitable method of sewage disposal). As market rates for land general range between \$2.50 and \$5.00 per square foot, this implies that the purchaser of a minimum "acceptable" sized plot requires between \$7,500 and \$15,000 for land alone. The implications of this are that approximately 60 percent of households on the island earn less in one year than the amount required to purchase the cheapest plot of land in the formal land market (Phillip 1988).

Infrastructural standards which apply to residential land subdivision, for instance, include 27 feet road reservations with 14 feet carriageways, which must be constructed of asphalt paving with pebble and/or pumice bases. Drains must be concreted, and each lot must be serviced with electricity and water. In addition, at least 5 percent of the area of land to be developed must be left as open space and therefore cannot be sold by the developer. The loss of revenue to the developer through the creation of open space is counterbalanced by higher prices for the developed portion of the site. The implication of these standards is aptly summarized by Louis (1986), who states:

The cost of infrastructure can be considered as a main deterrent to low income families owning a home.

The fact that these standards stipulated for land development have resulted in land prices which cannot be afforded by the majority of families implies that they are not congruent with the economic and social realities of St. Lucia.

Research (Phillip 1988) has confirmed that unrealistic land development standards have excluded low-income families from participating in the formal land market, and this has contributed significantly to the increase in the level of squatting presently being experienced on the island. It appears that the standards regulating the development of land need to be reviewed, since at present they are producing imperfections in the land market, and act as contributors/catalysts to the growth of the informal sector.

The Forest, Soil, and Water conservation Ordinance (1946) as amended in 1957 and 1983, is the principal legislation for forest utilization and conservation, but is limited in its provision with respect to overall natural resource conservation. In 1981 the government of St. Lucia, together with CIDA, prepared a 10-year management plan for the Forestry Section of the Ministry of Agriculture. This plan was officially approved and forms the policy framework for future forestry development on the island. Its main policy objectives relate to preservation and protection of natural forests in selected areas, and planning for optimum land use with other users.

In 1988, a Crown Lands Policy was approved by the Cabinet of Ministers. One of its major objectives is to provide guidelines for land use policy for subsequent application on private lands. This Policy Paper seeks essentially to classify Crown Lands under four main categories: (1) lands requiring protection, (2) lands for agriculture, (3) lands required for government services, and (4) residential and industrial lands. It is intended that lands which require absolute protection, such as those exhibiting steep slopes, will be handed over to the Forestry and Lands Division of the Ministry of Agriculture or another relevant institution for protection and management. Lands zone for residential and industrial purposes will be sold, but on condition that prior planning permission has been obtained for the intended land use and development; while lands categorized as agricultural will not be sold, but leased on special conditions. The Paper recommends the establishment of a Crown Lands Committee, which will as a matter of priority categorize Crown Lands into the four zones identified above (Crown Lands Policy 1988).

The DCA and the Ministry of Agriculture cooperate on applications (which have submitted to the former for planning permission) that involve a nonagricultural development on agricultural lands. In deciding on such applications, the Ministry of Agriculture relies to a large extent on a set of Land Capability Maps which were prepared by the Organization of American States in the early 1980s. These maps have sought to classify all lands in St. Lucia on the basis of their land capability and the eight classes have been identified and can be summarized as follows:

- (a) Classes i-iv suitable for cultivation
- (b) Classes v-vii considered unsuitable and can only be cultivated after extensive corrective measures have been taken--e.g., terracing
- (c) Class viii they have severe restrictions that preclude their agricultural use and restrict their use only to recreation, wildlife, water supply, or to scenic use (DCA 1988).

The author has been advised, however, that the Ministry is currently preparing new land capability maps, since the present ones are not consonant with local conditions.

De Facto Land Policies

Although as mentioned earlier, there is no formalized national land policy in St. Lucia, it is possible to identify the emphasis and main thrusts of the government regarding land use and

development by merely observing the latter's behavior and actions. There is no progressive system of land banking or land assembly to facilitate the provision of low-income housing within the formal sector. In fact, the Housing and Urban Development Corporation was established in 1971 with the specific function of "promoting the development of housing in St. Lucia, and undertaking the planning and development of land for residential....purposes." (Housing and Urban Development Corporation Act, No. 14 of 1971) This corporation has been defunct for the past seven to eight years. The lack of importance of this corporation and the significance placed on its functions can be clearly discerned from the fact that the government has been continually taking lands vested in the corporation for residential purposes and donating them to charities and other organizations for nonresidential uses (Phillip 1988).

The government acquires or identifies land for housing purposes only on a piecemeal basis--as required for a specific project. An example of this "policy" is the relocation of the Conway squatters (Castries) to facilitate the erection of the Government Office Building and the implementation of the Castries Waterfront Project. These squatters have occupied the Conway lands for over 30 years and have never been located, since there were no projects which necessitated the clearing of the land. The government's policy toward squatter settlements is one which focuses on the relocation of these communities when the sites which they occupy are required for other competing land uses. It can only be concluded that the need for residential land is not accorded a high priority in the government's defacto land policies.

Quite a contrary reaction is realized regarding other use types, such as tourist and industrial class uses. It is clear that the government, through its actions, seeks to promote the development of land for tourist purposes. The industrial sector is also receiving quite a boost from the government, as new firms continue to get concessions, and new lands are being vested in the National Development Corporation, which is the venture and industrial arm of the government. Lands under the control of the corporation are kept largely for industrial uses, and there has not been any action by the government to use such lands for nonindustrial purposes. Agricultural lands are also strongly protected.

It appears, therefore, that the government is promoting these sectors of the economy (through its land use policies) which are earners of foreign exchange. The level of economic gain to be obtained from projects appears to be a key factor in the government's defacto land policy.

LAND MANAGEMENT INSTITUTIONAL FRAMEWORK

There are a large number of public sector institutions which play a role in the land management system in St. Lucia. Very broadly they can be categorized as follows:

Agencies Involved in the Formulation of Policy

1. Ministry of Personnel, Planning, Establishment and Training
 - (a) Economic Planning Section
 - (b) Land Survey, Registry and Mapping Unit
 - (c) Physical Planning Section

2. Ministry of Agriculture, Lands, Fisheries, and Cooperatives
 - (a) Department of Forests and Lands
 - (b) Extension Division

3. Ministry of Legal Affairs
 - (a) Attorney General's Office

4. Statutory Bodies
 - (a) Development Control Authority
 - (b) National Development Corporation
 - (c) Housing and Urban Development Corporation

Agencies Involved in Land Management

1. Ministry of Personnel, Planning, Establishment and Training
 - (a) Physical Planning Section
 - (b) Land Survey, Registry, and Mapping Unit

2. Ministry of Agriculture, Lands, Fisheries and Cooperatives
 - (a) Department of Forests and Lands
 - (b) Extension Division

3. Statutory Bodies
 - (a) National Development Corporation
 - (b) Housing and Urban Development Corporation
 - (c) St. Lucia National Trust.

Agencies Involved in Land Development

1. Ministry of Communications and Works
 - (a) Engineering Division
 - (b) Electrical Division

2. Ministry of Health, Housing and Labour
 - (a) Water and Sewerage Authority (WASA)
 - (b) Environmental Health Branch

3. Ministry of Agriculture, Lands, Fisheries and Cooperatives
 - (a) Engineering Division
 - (b) Extension Division

4. Statutory Bodies
 - (a) National Development Corporation
 - (b) Housing and Urban Development Corporation.

OVERVIEW OF INSTITUTIONS INVOLVED IN LAND MANAGEMENT

Note: All information with regard to how the various institutions see their mission is based on the observed performance and areas of concentration of these agencies. The annual budgets contained here are generally for the entire ministry but, where possible, budgets for subunits are included.

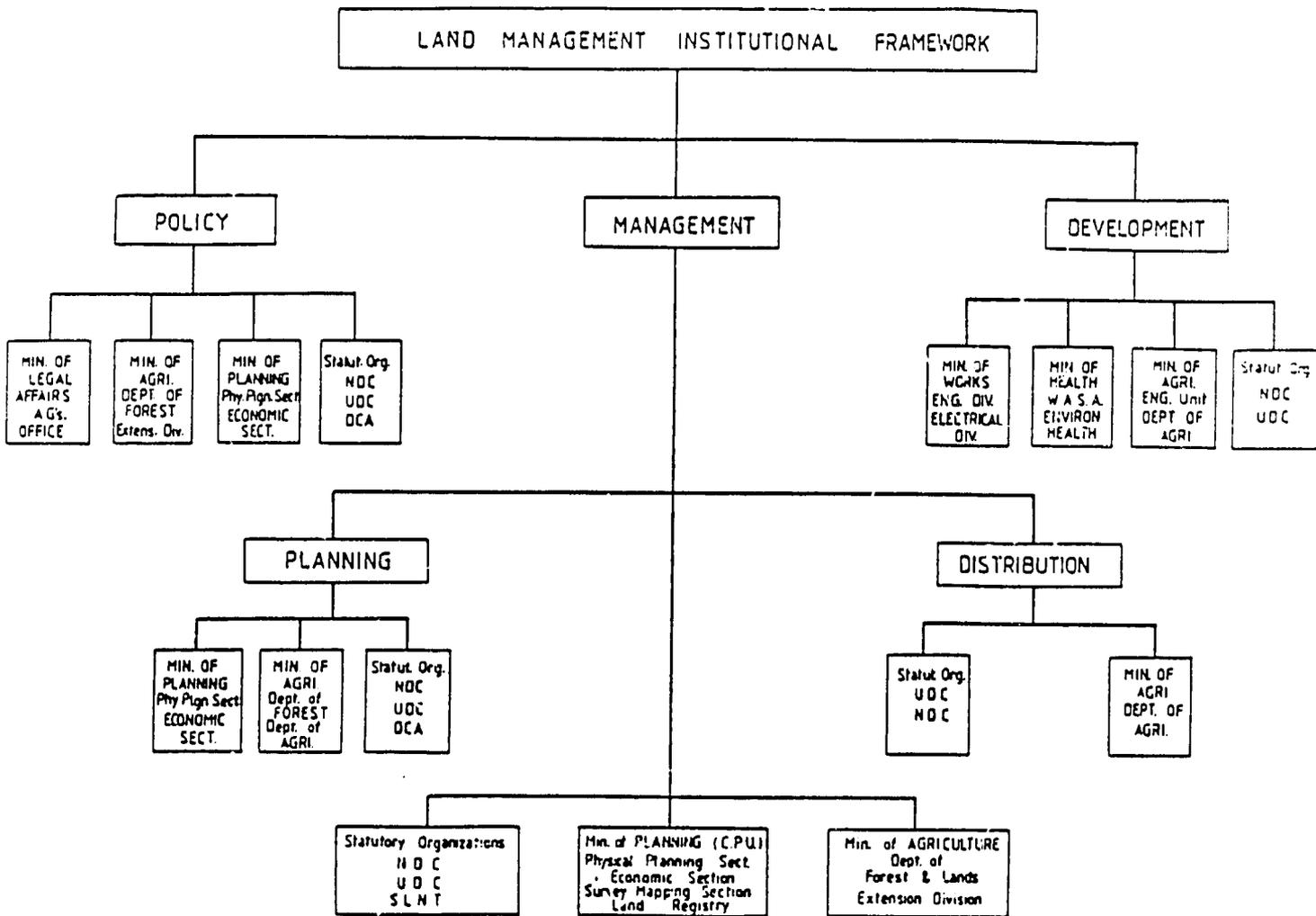
Ministry of Personnel, Planning, Establishment and Training

The Central Planning Unit (CPU), located within the Ministry of Personnel, Planning, Establishment and Training, is the economic and physical planning machinery of the government. It is comprised of seven subsections; however, only the Physical Planning Section, the Economic Planning Section, and the Land Survey, Registry and Mapping Section are directly involved in land activities. The 1989-90 budget allocation for this Ministry as a whole is approximately \$3.6 million for recurrent expenditures and \$15.2 million for capital projects.

Physical Planning Section. This section is responsible for the formulation of land use development plans and policies. It functions as the Executive Secretariat of the DCA, and its activities are guided by the Town and Country Planning Ordinance of 1946 and the Land Development (Interim Control) Act of 1971. This section appraises just over 1,000 applications submitted to the DCA every year. There are 17 technical members of the staff, of which only three are physical planners. The major operating problems experienced in this section relate to a shortage of professional staff and a weak legislative base with which to undertake the functions of enforcement. Much stricter laws and regulations are required if enforcement action is to be conducted effectively.

Economic Planning Section. This section is responsible for the preparation of economic development plans and policies for the country. There are seven economists, headed by a chief economist. It also has some level of input into the preparation of the National Capital Budget.

Table 13



Land Survey, Registry, and Mapping Unit. This subunit undertakes the surveying of land for subdivision and developmental purposes and is the central depository of land surveys and maps. The Registry Section was established under the umbrella of the Central Planning Unit following the completion of a cadastral survey (The Land Registration and Titling Project) in 1987.

Ministry of Agriculture, Lands, Fisheries, and Cooperatives

The two main departments with this Ministry which play a role in the land management system of St. Lucia are the Department of Forest and Lands and the Department of Agriculture. The 1989-90 budgetary allocations for the entire Ministry are approximately \$9.3 million for recurrent expenditures and \$22.6 million for capital projects.

Department of Forest and Lands. This department's functions are guided by the provisions of the Forest, Soil and Water Conservation Act of 1946 and its amendments in 1957 and 1983. It is headed by the Chief forestry Officer, with two assistances and five forest rangers. The department has undertaken a public awareness campaign and to this end it has developed a supplement entitled "Bush Talk" which appears in one of the local newspapers.

Department of Agriculture. The two units within this department which are expressly concerned with Land Management system are the Extension Division and the Engineering Division.

Extension Division. An interesting project which has been developed within this division is the Mabouya Valley Development Project, estimated to cost approximately EC\$10.9 million. This program was borne out of the recommendations made by an interagency committee established in 1984 to advise on the planning, monitoring and implementation of a comprehensive development program for the Mabouya Valley. There are five major components to this program: (1) rural settlement, (2) garden allotments, (3) hillside farms and subcatchment protection, (4) forestry, and (5) coastal development. The above will be implemented over a five-year period (*Economic and Social Review* 1989).

Engineering Division. The Water Resources and Irrigation Unit is primarily involved in the planning and development of irrigation systems for agricultural use. There are 12 members on the staff, including the Agricultural Engineer who heads the unit.

Ministry of Communications, Works, and Transport

For purposes of this report, the main subunits which need to be discussed are the Engineering Division and the Electrical Division. The 1989-90 budgetary allocations for the Engineering and Electrical Divisions are \$8.9 million and \$400,000 respectively for recurrent expenditures, while \$47.6 million and \$1 million are allocated for capital projects.

Engineering Division. This section is headed by the Chief Engineer, who has a team of approximately 22 staff members, including supervisors, road foremen, technicians and time keepers. This division's association with the land delivery system lies in its responsibility to construct and maintain roads, bridges, and drains. It is presently involved in the upgrading of the west coast road linking Castries to Soufriere.

Electrical Division. This division's operations includes two sections--maintenance and inspection--which together have a staff of 18 persons. The ultimate goal of this unit is to ensure public safety. To this end, it is mandatory that all developments must be inspected and approved by officers of this department before connections will be provided by the St. Lucia Electricity Services. The average number of new connections made by the latter is approximately 2,300 per annum.

Ministry of Health, Housing, and Labour

The work of two agencies, the Water and Sewerage Authority and the Environmental Health Branch, impact on the Land Management System on the island.

Water and Sewerage Authority (WASA). WASA is responsible for the planning, development, and management of the island's water system and for sewage disposal. The Authority, which was established by virtue of the Water and Sewage Act of 1984, is empowered to make regulations regarding effluent discharge from public sewers and to establish water quality standards.

Environmental Health Branch. This department has a regulatory function, in that it is responsible for the enforcing and monitoring of the sanitation provisions of both the 1975 Public Health Act and the 1978 Public Health (Water Quality Control) Regulations. This branch works closely with WASA.

Development Control Authority (DCA)

The functions of the DCA and its legislative base have already been discussed. The DCA is limited in the execution of its duties by poor legislation and lack of regulations. In addition, it suffers from a low level of manpower, especially technical staff. The DCA, however, does its utmost to ensure that agricultural lands are not compromised for other competing land uses, developments are compatible with each other, and that environmental degradation through development is kept to a minimum. Hence the reason the DCA has recently introduced the requirement of an Environmental Impact Assessment for major developments submitted to them for planning permission.

St. Lucia National Trust

This statutory agency was created under the National Trust Act of 1975 and is primarily involved in resource conservation and protection. At present a number of sites are vested in the Trust, including the Maria Islands Nature Reserve and the Pigeon Island National Park.

National Development Corporation

This corporation was established under the National Development Act of 1971 and operates on an average annual budget of approximately EC\$1.5 million. Its primary function is industrial development and investment, and it presently has over 6,000 acres under its control, most of which are zoned for industrial uses. The corporation controls five industrial estates located throughout the island, but with a concentration in the Vieux-Fort area. Its approach generally is to construct factory shells and lease them out to investors. It also undertakes some level of residential land subdivision, although this is not a major undertaking. Land management has been a problem for the corporation over recent years; squatters are occupying lands zoned for industrial purposes. The National Development Corporation is headed by a Board and a General Manager, but suffers from a shortage of manpower, to the extent that project documents are completed but are shelved pending implementation until staff can be released from other projects (Louis 1989).

Housing and Urban Development Corporation (UDC)

The UDC was created under the Housing and Urban Development Act of 1971, primarily to develop land for housing purposes; but, apart from the first three years of its existence when it was a vibrant enterprise, it has essentially failed in fulfilling its aims and objectives. For the past seven or eight years, the corporation has been defunct, but the government has recently made a decision to revive it. It is hoped that the revitalization of the UDC will prove successful so that it can perform the tasks for which it was originally established. At present new staff is being recruited. For the initial period, however, the UDC will be manned by a General Manager, Project Manager, and a Financial Comptroller.

PRIVATE SECTOR ENTITIES INVOLVED IN LAND DEVELOPMENT

Note: There is no readily available data on the operations of private sector entities in land development; consequently, the following analysis bears heavily on feedback from some developers.

Analysis

The majority of the private sector land developers cater to the demands of the middle and upper income segments of the population. There are at least six contracting firms, each of which

has the capacity to handle contracts worth up to \$3 million (Phillip 1988). Land developers can be put into three groups, small-scale developers, medium-scale developers, and large-scale developers.

Small-Scale Developers

This category of developer includes those who (a) construct houses on a "per customer" basis, and (b) develop family or personal lands. These developers do not purchase lands to resubdivide for sale, but are essentially involved in subdividing land which they either own or is held in family condominium. Although it appears that a number of these developers are engaged in this level of land subdivision, the author is of the view that the majority of them tend to focus on the construction of houses for individual customers.

Some of these small-scale developers also operate within the informal sector, and although no data are available on the magnitude of their contribution to the delivery of housing in that sector, it appears that they are fairly active within squatter settlements. Research undertaken in some of these communities revealed that in many instances, squatters use small builders for the partial construction of their homes--usually to construct the outer frames of the structures, after which self-help labor is employed to complete the house (Phillip 1988). In reality, therefore, many of these small builders perform their construction functions within both the formal and informal sectors.

Medium-Scale Developers

The majority of land developers in St. Lucia (in terms of numbers) fall within this category and are engaged in all types of land development, including land subdivision. An emerging trend within this class of developer is the delivery of land/house packages, rather than just residential lots.

The operations of two land developers will be reviewed here, but unfortunately they both exhibit a residential development, since the author was unable to obtain information on other firms involved in a wider spectrum of activities. Caution is advised in attempting to generalize from the following case studies, as they only relate to one particular aspect of land development.

Habitat, Ltd. Habitat, Ltd. has been in existence for the past four years and is engaged primarily in property development and residential construction. In 1987, the company offered land/house packages for sale, comprising a total of 12 houses costing approximately \$160,000 each (including land). In 1988, a further seven units were completed, with floor space ranging from 900 square feet to 2,096 square feet, on lots averaging 5,000 square feet and costing between \$100,000 and \$190,000. This low level of activity in 1988 was primarily due to adverse weather conditions and a shortage of building aggregate (*Economic and Social Review* 1989). Although the focus of the company is on the delivery of land/house packages for middle and upper income

groups, in 1989 Habitat hopes to embark on the production of lower middle income units at a cost of approximately \$80,000 (including land).

Build-It, Ltd. This is another relatively young company, incorporated in 1984. In that year, in collaboration with the Government of St. Lucia, 18 houses were built. Despite the fact that over the last four years the company has built 40 units, it must be noted that it was relatively inactive in 1987 with respect to home construction, and only four units were built in 1988. The company, however, envisages a more productive year in 1989 (*Economic and Social Review* 1989).

Large-Scale Developers

Like the other two categories, these developers are sometimes involved in all developmental activity, or concentrate on just residential development. However, there are some large scale developers who concentrate exclusively on the subdivision of land for a variety of uses--tourist, commercial, residential, agricultural, and, in some cases, industrial. Of these, some of the better know entities include Cap Estate, Ltd., Rodney Bay Company, Ltd., Bonne Terre Properties, Ltd., and Geest Industries, Ltd.. The first three undertake their functions of land subdivision primarily in the Gros-Islet region (see Map 1), while the latter concentrates on agricultural and residential development in other parts of the country.

The number of subdivisions conducted by these developers are contingent upon the level of demand for different categories of land and approval from the DCA. In some years, therefore, there might be a high level of development activity, while in others, no subdivisions are implemented.

Delmars' Construction, Ltd. This company has the capacity to handle large projects, evident from the fact that it has recently had contracts ranging between \$1.5 million and \$2.8 million, and is presently working on a \$3 million office building. In 1987, the company completed a land/house development of 14 units, each erected on 5,000 square feet of land and which were sold for \$70,000 to \$80,000. The director of the company, Mr. Delmar, indicated to the author that in any given year, the company has the capacity to deliver 50-60 houses (including land) and also handle a project with a contract value of \$3 million.

There are thus several private sector firms in the land development process which vary in terms of their capacity and areas of concentration. It is also quite noticeable that none of these developers, with the exception of the small builders who operate in the informal sector, attempt to address the demands of low-income families in terms of land and housing.

Public and Private Institutions Involved in Financing Land Development in St. Lucia

There are basically four public, or quasi-public, institutions involved in providing finance for land development in St. Lucia. These are:

1. National Insurance Scheme (NIS)
2. St. Lucia Development Bank (SLDB)
3. St. Lucia Mortgage and Financing Company (SMFC)
4. Rodney Bay Mortgage and Finance Company

Private sector institutions include commercial banks, insurance companies, credit units, and Barclays Finance Corporation of the Leeward and Windward Islands (BARFINCOR).

General Overview

At the end of December 1988, the Rodney Bay Finance Company, SMFC, SLDB, and the Commonwealth Development Corporation together had assets valued at over \$129.7 million, which reflects an 8.8 percent increase over the corresponding period in 1987 (*Economic and Social Review* 1989). The total value of loans (by selected sectors) disbursed by the institutions during 1988 are given in Table 13.

<u>Sector</u>	<u>Value in 1988</u> <u>(\$ millions)</u>	<u>Increase over 1987</u> <u>(\$ millions)</u>
Agriculture	4.3	0.3
Manufacturing	5.0	0.5
Hotel Industry	4.9	2.0
Mortgages for houses and land	<u>55.3</u>	<u>2.3</u>
Total Loans	65.7	1.4

Compiled by the author.
Source: *Economic and Social Review*, 1989.

The author is of the view that it is important to review some of the standard conditions attached to securing a mortgage (from most of the financial institutions) as they have severe

implications for the development of land for low-income housing. For example, institutions such as those listed above have adopted policies which allow them to finance up to 80 percent of residential developments. This, coupled with general high rates of interest (between 10-11 percent per annum) and shorter term financing period (usually 15 years), impede the low-income earner's ability to access formal sector financing for land development.

Public Sector Financial Institutions

The National Insurance Scheme (NIS). The NIS, established in 1978, is the sole wholesaler of local funds for housing in St. Lucia, and lends both to the SMFC and SLDB. By 1985, it had loaned \$13.5 million to the SMFC and approximately \$8 million to the SLDB. Although it requests that part of the funds which it disburses be used for low-income developments, it has not specifically attached any lending criteria to these funds. Consequently, the financial resources are used by the institutions according to their own lending policies, which are deterrents to low-income borrowers. At the end of June 1984, the NIS had \$34 million in fixed deposits in commercial banks, which increased to \$40 million by the end of June 1985.

The St. Lucia Development Bank (SLDB). This bank was established under the St. Lucia Development Act No. 22 of 1980 to provide finance, managerial and technical expertise for agriculture, industry, tourism, manpower training, and housing. Housing is the dominant area of the bank's lending activity--in 1985-86 it accounted for 54 percent of the total value of loans approved; in 1986-87, 52 percent. The bank provides financing for land subdivision or the purchase of land, on condition that the former will be developed into a land/house package and the latter will be built on immediately. Consequently, no data are available on the value of loans granted specifically for land subdivision or land purchase as these are reflected in the housing loan portfolio.

In the 1987-88 financial year, the SLDB approved housing loans which had an aggregate value of \$4.3 million. This reflects a steady increase in approvals which totaled \$2.1 million in 1982-83 to the present level of \$4.3 million. The bank will generally provide financing up to 80 percent of the cost of the development, and observes a maximum loan size of \$150,000, with a lower limit of \$3,000. The year 1988 was a peak year for the institution in terms of disbursements and loan approvals.

St. Lucia Mortgage and Finance Company (SMFC). The SMFC was incorporated in January 1968 and is jointly owned by the Commonwealth Development Corporation and the Government of St. Lucia. The bank provides financing for the erection, extension, and purchase of housing units, as well as for land subdivision, if the developer is proposing to erect houses on the lots. Recently, the SMFC, like the SLDB, has introduced financing for land purchase, on the condition that developers construct units on the land immediately so that the cost of the land can be incorporated into the house loans. In 1988, 42 applications for loans were processed, compared with 34 totaling approximately \$2.2 million in 1987 (G.O.S.L. 1989). The new

mortgage ceiling of \$200,000, together with a \$2 million loan from the NIS which is being used to service housing finance demands of low-income families, will no doubt lead to an increased number of applications for funds from this institution in 1989.

Rodney Bay Mortgage and Finance Company. This company, which started operations in 1970, restricts its activities to funding development in the Rodney Bay Area (located in the Gros-Islet Administrative District--see Map 1). The Government of St. Lucia and the Commonwealth Development Corporation each own 44.6 percent of the company's shares, while the remainder are held by St. Lucia Marine Enterprises, Ltd. The company provides funding for residential construction on the condition that the land is purchased at Rodney Bay through Rodney Bay, Ltd. Financing for land purchase is over a three-year period, with a 25 percent down payment and a 12 percent rate of interest. Although its emphasis since inception has been on housing, it is envisaged that tourism will be accorded greater attention in the future. In 1988, three loans valued at \$393,000 were disbursed, while in 1987, six were approved for a total of \$684,000. From 1970-88, the company has constructed 90 houses, 20 condominiums, a 10-apartment hotel, a 60-room hotel, six restaurants and one shop (*Economic and Social Review* 1989).

Private Sector Financial Institutions

Commercial Banks. In 1988, bank credit experienced a growth rate of 24.7 percent, and at the end of that year stood at \$445.1 million. Table 14 gives an insight into the allocation of credit to selected sectors.

<u>Sector</u>	<u>Value in 1988</u> <u>(\$ millions)</u>	<u>Increase over 1987</u> <u>(\$ millions)</u>
Agriculture	11.6	1.5
Manufacturing	14.7	1.7
Tourism	44.2	27.7
Personal Loans	213.4	63.6

Compiled by the author.
Source: *Economic and Social Review*, 1989.

Personal loans account for the largest share of commercial banks credit--47.9 percent, or \$213.4 million in 1988--an increase of 42.5 percent, or \$63.6 million over the 1987 period.

Under this portfolio, house and land purchase, the, the category with the greatest dependence on the banking system, represented 25.6 percent of total credit, or \$114 million, up from 22.9 percent in 1987 (G.O.S.L. 1989). From Table 15, it is clear that the Bank of Nova Scotia disposed of the most funds for the purchase of land and house packages, with other banks (with the exception of Barclays Bank), also showing increases in both the value and the number of loans approved during the 1988 period.

Insurance Companies. These companies stipulate basically the same conditions for securing a mortgage as the public sector financial institutions. They set no maximum or minimum limits on loans--it depends on the amount of funds which are available for lending and the level of demand for loans. Their policy is generally to service as many applications as possible, rather than approve just a few large mortgages.

Barclays Finance Corporation of the Leeward and Windward Islands (BARFINCOR). This agency started operations in 1973 and specializes in mortgage financing. IN 1988, BARFINCOR's loan approvals were valued at over \$6.6 million, of which approximately 15 percent were for housing (G.O.S.L. 1989). Its loan ceiling for residential and commercial developments are \$200,000 and \$750,000 respectively, but these are sometimes exceeded.

Credit Unions. The St. Lucia Co-operative League is comprised of 14 credit unions. The League's savings portfolio in September 1986 was approximately \$10.5 million, with total loans valued at the same amount. The St. Lucia Civil Service Co-operative Credit Union is the largest union in the League and has approximately 2,000 members. It has made several loans to members for land purchasing, housing construction, home improvements and extensions. Its loan ceiling is \$40,000 and it regularly lends out funds ranging between \$5,000 and \$15,000 for house construction, and \$1,000-\$5,000 for land purchases to its lowest income members (Garnet & Miller 1988).

LAND MANAGEMENT ISSUES

St. Lucia, like many small developing countries, has severe land management problems. However, it is interesting to note that many of the elements of a land management system (such as the institutional framework) actually exist, but do not function effectively or efficiently. In 1973, a Land Reform Commission was appointed as a result of growing concern about the "land problem." In the 1980s, as a direct result of the commission's recommendations, land resettlement, redistribution, and management projects were initiated. The demarcation of the forest reserve, the adoption of the Forest Management Plan and the Crown Land Policy are all attempts by the government to improve the land management capability of the country. Two major projects which warrant some discussion (since they have already started to significantly impact on land functions in the country) are the Land Registration and Titling Project and the St. Lucia Model Farms Project.

Table 15

Number and Value of Loans for the Purchase
of Land/House Packages
January-December, 1987-88

<u>Institution</u>	1987		1988	
	<u>No. Approved</u>	<u>Value \$m.</u>	<u>No. Approved</u>	<u>Value \$m</u>
Bank of Nova Scotia	761	22.95	967	38.36
St. Lucia Coop Bank	1,701	26.59	1,780	26.90
National Com. Bank	328	9.30	475	18.07
Royal Bank of Canada	340	8.66	467	16.13
Barclays Bank PLC	372	9.61	327	9.30
Canadian Imp. Bank	<u>128</u>	<u>2.63</u>	<u>167</u>	<u>5.25</u>
TOTAL	3,630	79.74	4,183	114.00

Source: G.O.S.L., 1989.

Note: Figures have been rounded off in the value column of 1988.

Unsubstantiated titles to land have created inefficiencies in the land market and impacted negatively on procedures aimed at alleviating the low-income housing problem, such as land banking and assembly. In August 1984, the Government of St. Lucia, in conjunction with USAID, embarked on a Land Registration and Titling Project with a principal goal being to "provide all current land holders with a title and to inaugurate an experimental program providing holders of family land with an opportunity to consolidate ownership." (D'Auvergne 1986) This project was completed in December 1987 and it is envisaged that clear title to land will facilitate land assembly for low-income projects, enable families to develop their lands through the formal sector and, most importantly, remove some of the imperfections in the land market.

The increasing tendency towards the subdivision of large estates into smaller holdings, although creating a more equitable distribution of land in the country, also produces negative effects on the agricultural sector as a whole. The government, in an attempt to address this problem, developed the St. Lucia Model Farms Programme in the Roseau Valley. This program was established as a government pilot project in land distribution for small, landless farmers and it comprises of 175 new farms to be leased to selected farmers through a system of lease-sale agreements. The lease is for a period of 15 years, after which the farmer can exercise an option to purchase. The underlying aim of this form of land tenure is to deter farmers from subdividing the holdings, at least until the end of the lease period.

The lack of clearly defined areas of responsibilities, together with poor communication and coordination of activities among the various institutions involved in policy formulation, land management, and development, have hindered attempts aimed at addressing land problems on an integrated basis. Improvements in the institutional framework are thus required if the land management capability of the country is to be strengthened.

St. Lucia has very limited developable land resources and this highlights the need for a national land policy to ensure that adequate provisions are made to accommodate all land uses. Although the government has adopted various land policies (see defacto policies, page 50), these are adopted on a piecemeal-ad hoc basis. A more detailed land policy which is clearly defined must be formulated and implemented so as to minimize problems between competing land uses. The urgency for such a policy in St. Lucia is clear. Urban land uses, for example, are encroaching on prime agricultural lands. This has serious implications, since such situations are irreversible and lead to an erosion of the economic base of the country.

One of the key features of a land policy relates to the identification of an institution which will function as a land delivery agency (Garnett and Miller 1988). To this end, the government has established the National Development Corporation to take care of the industrial demands of the country, while the primary function of the Housing and Urban Development Corporation is to address the residential demands. As discussed previously, the UDC has been defunct for a number of years and during that period no other agency had been mandated to carry out the functions of the UDC. However, the government is presently addressing this problem through the revitalization of the UDC. It is important for the UDC to be encouraged to focus on the housing needs of low-income families and to undertake site and service projects for this target population.

Certain policies and acts such as the Forest, Soil and Water Conservation Act of 1946 (with amendments in 1957 and 1983) make provisions for the government to control the use and management of certain lands which are privately owned. In order for such measures to be effective, owners must be given incentives (such as land exchanges) to encourage them to observe these procedures. Unless these measures are enshrined in a land policy, it will be very difficult to enforce them.

Weak legislation and enforcement regulations governing land development and conservation have contributed significantly to the low level of land management currently being practiced in the country. Specifically, the enforcement function of the DCA needs to be strengthened. At present, it is very difficult to control unauthorized development, since the existing legislation offers very little guidance, is not clear in its provisions, and no regulations have been formally adopted to strengthen the enforcement capability of the DCA.

The need for land use plans cannot be over emphasized, as trends indicate that lands are not being used optimally and prime agricultural holdings are being lost to alternative uses. The

Physical Planning Section of the Central Planning Unit has recognized the need for such plans, since those presently in use are outdated and offer only very broad guidelines for decision making. The section is severely constrained by a lack of manpower; therefore all human resources are directed toward the development control function of the department. Despite this, however, preliminary plans have recently been prepared for the Northwest Zone--the area where population pressures are greatest.

It is also important that land development and building standards be reviewed, to make them more consonant with the economic, social, and other realities of the majority of the population. It may be that dual or a "flexible" system of standards will have to be adopted to ensure that low-income families are able to construct their homes and develop their land through the formal sector.

Mortgage credit for low-income families is an essential element of land use management. Despite the fact that funds may be allocated for low-income housing purposes, the conditions attached to securing loans are usually so stringent that they effectively deny these families from accessing the funds. This situation is aptly summarized in the following statement:

"...prevailing practices whereby mortgages are offered ... for 15 years and down payment requirements ... are not really appropriate conditionalities for the poor..."
(Caricad 1985).

It is clear, therefore, that there is an urgent need for financial institutions to be more cognizant of the economic realities of low-income families, and to adopt measures, such as graduated mortgage repayment schemes and longer loan periods, which will ensure that these families can obtain formal-sector financing for the construction of their homes.

The private sector has an important role to play in the land delivery system. Although most of the land development presently being undertaken is being conducted by the private sector, a lack of government incentives has forced these developers to concentrate on developing properties for middle and upper income families. The public sector does not appear to have the capacity to cater to the housing and land demands of all low-income families; it is therefore imperative that the private sector be encouraged to address this segment of the housing and land markets. There is also the need for the government to adopt new approaches for the delivery of low-income housing.

Clear title to land parcels is an important prerequisite for the effective functioning of any land market. The completion of the Land Registration and Titling Project has sought to address this issue, and it is hoped that this project will enable farmers to obtain credit for the development of their holdings, and will also generate incentives for them to practice long-term soil conservation measures. However, it is clear that strategies directed at improving agricultural soil

conservation techniques are also required in order to minimize the loss of fertile soils and, by doing so, maximize the use of agricultural lands.

From the foregoing analysis, it is obvious that there is great potential for improving the land management system in St. Lucia. The basic infrastructure is in place to provide a base for strengthening the system, but without a concerted effort by the government, its ministries and other bodies impacting on land management in the country, very little will be achieved toward improving the present mode of operations.

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**ST. VINCENT AND THE GRENADINES
LAND MANAGEMENT AND DEVELOPMENT**

Bentley A. Browne

SYNOPSIS

St. Vincent and the Grenadines is a recent independent nation with very little resources for development. Land has always been a major source of wealth and power, and in the post-independent era (1979) there have been major national efforts to plan and manage its use and development. The state is called upon to manage the very limited lands land available for development in the midst of mass poverty, high rates of population growth, urbanization, and increasing new demand for land use as sections of the population develop a pro-metropolitan lifestyle, due largely to the influence of its northerly developed neighbors.

This paper shows that the state has declared well-intentioned land policies in terms of optimal utilization of resources to ensure greater equity and sustainability of development. However, for various reasons related to the politics and economics of small island, ex-colonial states, these policies have been ineffectively implemented. The writer argues that if land is to be properly managed there is need for major institutional changes, new legislation and enforcement capability, and manpower development in land-related fields, to ensure that the limited by vital land resources are harnessed effectively with optimal results, without jeopardizing the nation's long-term development prospects.

BACKGROUND

St. Vincent and the Grenadines is a small and independent state which is 155 square miles in size. It is comprised of St. Vincent, the main island (133 square miles) and a chain of ward islands and cays to the south called the Grenadines. St. Vincent is volcanic in origin, very rugged and mountainous, and has an active volcano, La Soufriere, which last erupted in 1979. The Grenadines, on the other hand, are low lying and are of coral formation.

Like most Caribbean states, St. Vincent and the Grenadines has undergone an extended period of colonization, with the monocultural production of sugar on plantation being the major economic activity. Today agriculture, industry, and tourism are the major activities. The agricultural sector is characterized by the production of bananas for the British market and the production of vegetable and food crops for the regional and local market. Small farmers occupying farms under five acres account for over 70 percent of agricultural production, while

most of the "old private estates" are underutilized and are in the process of being developed by the government into viable small farms of three to five acres as part of its land reform program, which is the key element of the National Agricultural Programme.

ECONOMIC

St. Vincent and the Grenadines is a small, open economy with agriculture as its main economic activity. Despite a series of natural disasters in 1986 and 1987, the St. Vincent and the Grenadines national accounts statistics show that the economy has maintained an average real growth rate of about 6 percent since 1983. The lowest economic activity was in 1986, when the growth rate was only 4.6 percent in real terms. Preliminary estimates for 1988 show a real growth rate of 8.4 percent.

The main concentration in agriculture is on fruit on ground crop production. A variety of commodities are produced for domestic consumption and export, but the sector is dominated by banana production. In 1987, about 9,800 acres of the nearly 30,000 acres of arable lands in the country were used to grow bananas. Export receipts from bananas totaled EC\$83.6 million in 1988, as opposed to EC\$43.2 million in 1987. The once buoyant trade in ground provisions (eddoes, dasheens and sweet potatoes) to Trinidad has fallen on difficult times due to the devaluation of the Trinidad dollar and overall contraction in the economy. In 1985, according to the Central Planning Unit estimates, agriculture employed 67 percent of the labor force.

Along with government services, manufacturing and construction are the other major sectors of the economy. Manufacturing contribution to real GDP averaged about 8 percent per annum over the same period. The expansion of manufacturing has been constrained by the availability of factory space. The Industrial Estate at Camnden Park is fully utilized and there has been some delay in getting the infrastructure work started at the New Diamond Industrial Estate. It is not expected that the infrastructure will be in place before 1992.

Implementation of the Public Sector Investment Programme and the growth in residential housing has fueled the growth of the construction sector. This sector grew by 11 percent between 1986 and 1988 and is a major source of employment, placing third to agriculture and government services.

In 1988, the tourism sector, labeled "hotels and restaurants" in the national accounts statistics, contributed just over EC\$4.8 million to real GDP. In terms of percentage, the sector has contributed an average of 3 percent to real GDP for the last three years.

The sector, however, is likely to show increased growth over the next decade. This will be fueled by construction activities such as an airport on Bequia and improvements to the airstrip on Union Island. Additionally, the new incentives for hotels, which include duty-free entry of materials for new hotels, repairs and expansion to existing plants, will begin to show positive

impact. So, too, will increased promotion and marketing campaigns, as well as efforts at product development.

During the 1990s agriculture will continue to be the major economic activity. The reliance on bananas as the major crop, however, will be lessened as government's diversification program takes effect. The success of this program will depend largely on the implementation of the land reform program, which seeks to distribute large estates currently owned by the government, and any other estates that might be offered for sale to small farmers. To date, over 5,000 acres on 19 estates have been earmarked for distribution. Growth performance will be strongly influenced by the timeliness of investments, particularly those under the Public Sector Investment Programme (PSIP). These investments and the inflows of capital from several external sources will have a direct effect on the economy (e.g., the construction industry) and will also affect the private sector response to this.

Other factors determining growth will be the timeliness of implementation of policies to maintain competitiveness, diversification of agriculture, the establishment of factory shells, and improved tourism facilities and management.

POPULATION

In 1987, the population of St. Vincent and the Grenadines was estimated at 112,589. The population of mainland St. Vincent was estimated at 104,258, with the remaining 8,331 persons residing in the Grenadines. Table 16 shows the changes in national population growth during the period 1960-87.

<u>Year</u>	<u>Population</u>	<u>Increase</u>	<u>Percent</u>
1960	79,948	----	
1970	86,314	6,366	7.9
1980	97,761	11,447	13.2
1987	112,589	14,828	15.1

Source: Statistics Division (CPU).

As can be seen from the table, the population has been growing since 1960. During the period 1960-70 the average rate of growth of the population was estimated at 1.4 percent, as compared

with a 2 percent annual rate of increase during the period 1971-81. Since 1981 the population has been increasing at about 1.2 percent per annum.

Table 17 provides information on births and deaths during the period 1980-87. Live births have averaged around 3,150 per annum between 1979-87. Deaths have averaged around 720 per year during this same period.

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Population (a)	102,802	103,972	105,463	106,944	108,189	109,407	110,742	111,835
Estimates (b)	103,261	104,683	106,243	107,697	108,748	110,192	111,149	112,589
Male	50,257	50,949	51,708	52,416	52,688	53,388	53,981	54,538
Female	53,004	53,734	54,535	55,281	56,060	56,804	57,438	58,051
Live Births	3,075	3,227	3,352	3,295	2,831	2,910	2,708	2,650
Male	1,574	1,600	1,677	1,608	1,453	1,433	1,403	1,326
Female	1,501	1,637	1,675	1,687	1,378	1,477	1,305	1,324
Still Births	42	10	---	---	---	21	---	---
Male	23	7	---	---	---	11	---	---
Female	19	3	---	---	---	10	---	---
Deaths under 1 year of age	185	161	136	122	75	59	67	62
Total deaths	724	772	745	779	703	651	655	644
Male	366	375	347	363	355	304	328	298
Female	358	397	398	416	348	347	327	346
Marriages	414	403	308	428	394	349	425	416

Note: (a) based on the 1980 census report (adjusted); (b) mid-year, (c) end of year.

St. Vincent and the Grenadines, with its limited land and economic opportunities, have had considerable external migration. Unfortunately there are no firm or accurate data on migration. Migration has had great impact on the rate of population growth. High rates of migration to North America, Britain and other CARICOM states, especially Trinidad, restricted population

growth to one-third of the national increase between 1960-70. The government has estimated a migration figure of 400 persons per year between 1970-76 and 800 persons per year since 1978. Between 1977-81 migration has been estimated to be around 28 percent of the national population increase.

Age Composition

The age composition of St. Vincent and the Grenadines, shown in Table 18 and Table 19, reveals a high proportion of persons under 15 years of age. This poses serious problems, not only in terms of a high dependency ratio, but there is a great strain on the physical, social, and economic infrastructure, particularly in the areas of education and employment prospects. In 1960, 46 percent of the population was under 15 years of age, in 1970, 52 percent, and in 1980, 42 percent was under 15 years, and 57 percent under 20 years of age.

Table 20 shows that households increased from 16,200 in 1960 to 25,350 between 1960-80. However, despite this increase in number of households, the rate of household formation was lower than the rate of increase in population between 1960-80. As a result, there was an increase in household size from 4.9-5.1. In 1984, 35 percent of the housing units had only one or two habitable rooms. When overcrowding is defined as over 2 persons per habitable room, 56 percent of the nation's population was living in overcrowded conditions in 1980.

Population Projection

In terms of population projects for the 1990s, no major changes in population are anticipated. The population should continue to increase at 1-1.2 percent per annum. It should be noted that the government is undertaking a vigorous family planning program, which may lead to a reduction in numbers per family. However, given the high proportion of nationals of child-bearing age, births could still average around 3,000-3,400 per annum. Death rates may remain constant (around 720 per annum) during this period, or even decline as a result of improvements in health services. Migration, which has been significant in the past, should be lower as a result of stricter immigration policies in the developed countries and the recession in Trinidad.

The age-composition of the population should not change significantly during the next 10 years. It is expected, therefore, that around 40 percent of the population will be under 15 years old, given the present high fertility rate and reduced opportunities for migration.

Household Changes

The rate of formation of households should slow down during the 1990s. During the 1970-80 period it was estimated that around 650 units per annum were produced, and this figure remained constant during the 1980s. In the 1990s, increased land scarcity (especially as a result of topography), high construction costs, the uncertainty of the banana market in Europe after

Table 18

Population by Age Groups and Sex
1960, 1970, 1980

Age Group Year	1960			1970			1980		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	8,201	8,010	16,211	7,321	7,069	14,390	7,215	7,013	14,228
5-9	6,542	6,340	12,882	8,143	8,012	16,155	7,476	7,252	14,732
10-14	5,206	5,007	10,212	6,926	6,732	13,658	7,060	6,778	13,838
16-19	3,599	3,691	7,190	4,414	4,677	9,101	6,347	6,343	12,717
20-24	2,703	3,329	6,032	2,727	3,239	5,966	4,595	4,998	9,693
25-29	1,940	2,554	4,494	1,632	2,072	3,704	2,757	3,132	5,889
30-34	1,686	2,163	3,849	1,362	1,918	3,270	2,089	2,223	4,312
35-39	1,513	1,971	3,484	1,376	1,892	3,268	1,523	1,743	3,266
40-44	1,315	1,803	3,118	1,224	1,752	2,976	1,391	1,745	3,136
45-49	1,248	1,608	2,851	1,148	1,517	2,665	1,290	1,657	3,947
50-54	1,105	1,401	2,506	1,108	1,529	2,637	1,215	1,552	2,767
55-59	781	1,130	1,911	1,036	1,257	2,293	1,007	1,233	2,246
60-64	612	1,119	1,731	902	1,139	2,141	1,101	1,377	2,478
65-69	363	720	1,083	645	938	1,583	947	1,141	2,088
70-74	317	641	958	376	710	1,088	636	801	1,437
75-79	211	417	528	207	472	679	417	634	1,051
80-84	132	278	410	142	317	459	172	420	592
85+	88	210	298	103	280	383	87	348	445
Total	37,561	42,387	79,948	40,792	45,522	86,314	47,361	50,400	97,761

Table 19

Population by Age Groups and Sex (Percent)

Age Group	1960			1970			1980		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 15	53.1	45.7	49.2	54.9	47.9	51.2	45.9	41.8	43.8
16-44	34.0	36.6	36.4	31.2	34.1	32.8	39.6	40.0	39.8
45-66	10.0	12.2	11.2	10.3	12.0	11.2	9.7	11.6	10.7
65+	2.9	5.3	4.2	3.6	6.0	4.8	4.8	6.6	5.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: States cases are not included.

Source: 1980 Census of Population, Volume 3.

Table 20

Population and Households, 1960-80

<u>Household Size</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>Percent Growth 1960-80</u>
No. of Households (000's)	16.2	16.9	20.3	26.3
Size of Household	4.9	5.3	5.1	3.7
Population	79.3	90.2	103.3	29.21

Source: Statistics Division (CPU).

1992, existing aged housing stock in need of replacement (20 percent) and expanding population, will result in the rate of household formation being lower than population increase by a greater margin than during 1960-80. As a result, there will be an increase in the size of households upward to 5.8-6.0 persons per household, and in many cases there will be doubling of households and residential overcrowding in conditions of poor environmental quality.

URBANIZATION

There is no clear definition of "urban areas" or "urban population" in St. Vincent and the Grenadines, even in official circles. Certain areas of St. Vincent have been legally designated as towns (in addition to Kingstown) and over the years have been given limited local government functions. These are Calliaqua, Georgetown, Layou, Barrouallie, and Chateaubelair. However, some researchers (Browne 1985) have defined urban areas in the context of St. Vincent and the Grenadines to be areas with over 3,000 people with limited administrative services (post offices, revenue offices, police station, local government office, and social service community centers, playing fields, etc.). Using this definition, all of the above-mentioned "towns" and Mesopotamia would qualify as urban areas.

From a functional standpoint it should be noted that Kingstown, the capital, is the nation's only urban center. Kingstown is not only the major port, but it is the nation's main administrative, financial, commercial, recreational, professional, and educational center. Kingstown is the typical example of a primate city of the third world, given its dominance over other areas. Kingstown has long overgrown its legal boundaries and functionally includes an area of about 4.5 miles radius from the center of the city. The Physical Planning Unit and other scholars engaged in research work have defined the urban area of Kingstown, or the Kingstown zone, to include the communities between Mt. Pleasant on the east to Rilland Hill on the west. Map 2 shows the extent of urban Kingstown, now referred to as greater Kingstown. The greater

Map 1

St. Vincent Population Density

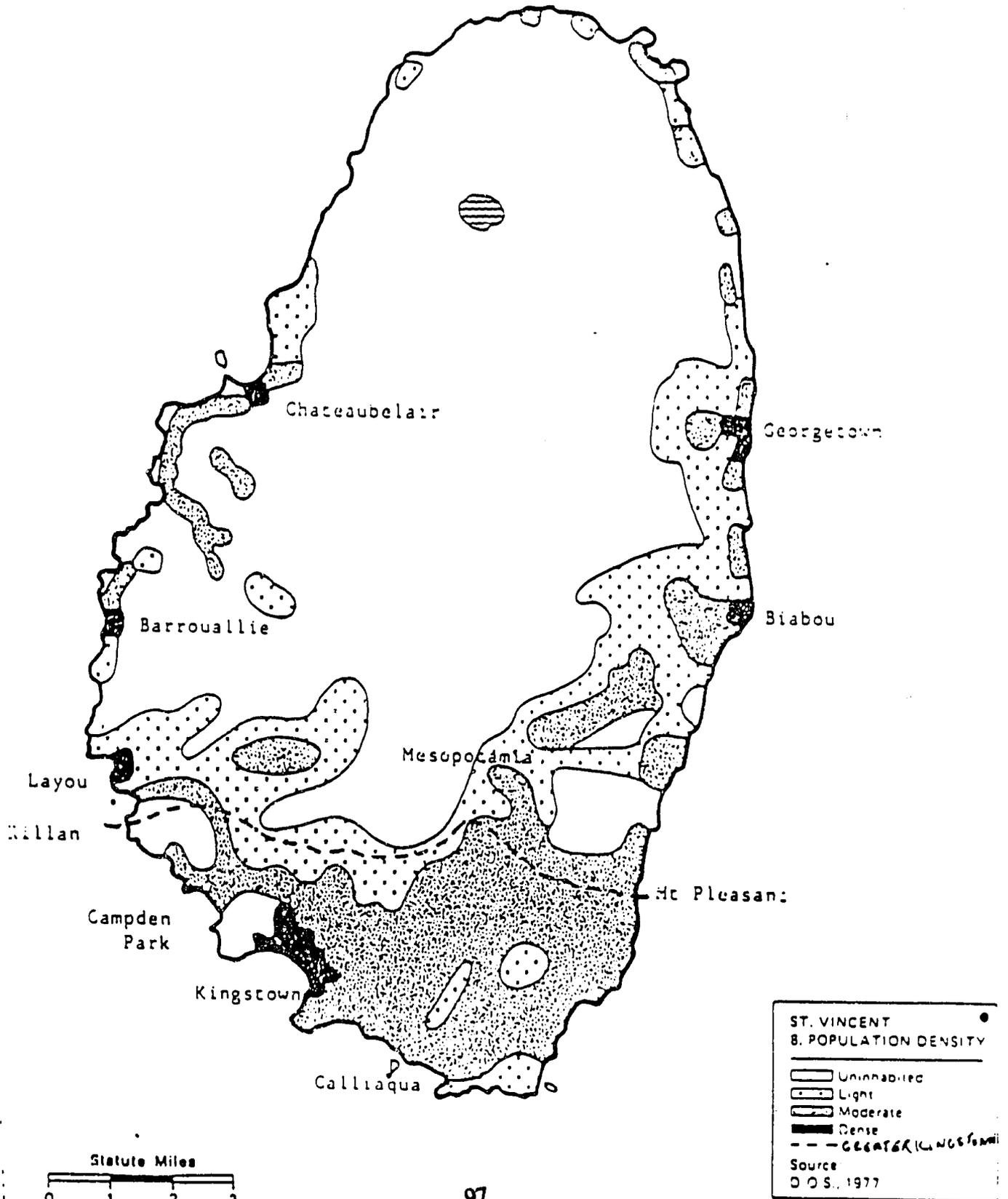


Table 21

Estimated Population by Census Divisions
1980-87

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Kingstown	17,451	17,691	17,955	18,201	18,378	18,378	18,830	19,028
Kingstown Sub	9,087	9,212	2,349	9,477	9,570	9,697	9,805	9,908
Calliqua	18,401	18,655	18,933	19,192	19,379	19,636	19,855	20,063
Marriaqua	8,870	8,992	9,126	9,251	9,341	9,466	9,571	9,671
Bridgetown	7,135	7,234	7,341	7,442	7,515	7,614	7,699	7,780
Colonarie	7,610	7,715	7,830	7,937	8,015	8,121	8,211	8,298
Georgetown	6,857	6,951	7,055	7,151	7,221	7,317	7,398	7,476
Sandy Bay	3,026	3,067	3,113	3,156	3,186	3,229	3,264	3,299
Layou	5,814	5,894	5,981	6,063	6,123	6,204	6,273	6,339
Barouallie	4,926	4,993	5,068	5,137	5,187	5,256	5,315	5,370
Chateaubelair	<u>6,443</u>	<u>6,532</u>	<u>6,630</u>	<u>6,720</u>	<u>6,786</u>	<u>6,876</u>	<u>6,953</u>	<u>7,026</u>
Total (Mainland)	95,620	96,936	98,381	99,727	100,701	102,038	103,174	104,258
N/Grenadines	4,998	5,067	5,142	5,213	4,263	5,333	5,393	5,449
S/Grenadines	<u>2,643</u>	<u>2,680</u>	<u>2,720</u>	<u>2,757</u>	<u>2,784</u>	<u>2,821</u>	<u>2,852</u>	<u>2,882</u>
Total	103,261	104,683	106,243	107,697	108,748	110,192	111,419	112,589

Based on the assumption that the population distribution is in the same proportion as for the 1980 census.

Source: 1980 Population Census Report.

Kingstown areas account for nearly 50 percent of the population on the mainland and over 40 percent of the state's population.

Table 21 shows the distribution of population by districts. Greater Kingstown has a population of around 52,000, which is nearly six times that of Georgetown (9,000), the second largest official town. Population distribution in St. Vincent has traditionally been highly coastalized with fairly large villages in a few fertile valleys, largely as a result of topography and colonialism. The southern area has generally been more populated than the northern region due to the existence of the active volcano, La Soufriere, in the north.

As can be seen from Table 21 and Table 22, population growth and densities have remained concentrated in the south and coastal areas, and these areas have experienced the greatest levels of growth during the period 1960-87. Population growth in the greater Kingstown area accounted for around 35 percent of the total population increase. During the 1960-70 period, the northern

urban areas of Georgetown and Chateaubelair experienced negative growth (0.7 percent and 0.2 percent respectively). This decline is attributed to the decline of the sugar industry, opportunities for external and internal migration, and general economic and social problems in these areas.

Table 22

Density of Population by Census Division

<u>Major Census Division</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1987</u>
Kingstown	2,463	2,881	3,029	10,015
Kingstown Sub				
Calliqua	1,045	1,190	1,478	1,700
Marriaqua	677	813	894	1,029
Bridgetown	765	885	939	1,081
Colonarie	470	322	538	610
Georgetown	305	284	292	337
Sandy Bay	466	475	541	622
Layou	436	466	496	571
Barouallie	276	296	329	378
Chateaubelair	<u>200</u>	<u>203</u>	<u>203</u>	<u>227</u>
Total (Mainland)	560	598	677	779
N/Grenadines	363	446	527	605
S/Grenadines	242	310	334	384
Total	532	574	651	749

Source: Census of Population, 1960, 1970, and 1980.

However, since 1970 all urban areas have been experiencing growth, although the rate of growth in the northerly urban areas have been very low.

The increased rate of growth in the greater Kingstown area, or southern region, is attributed largely to agricultural inertia in rural areas, the development of the new industrial and tourism sectors in greater Kingstown which are attractive to job seekers, the existence of better social and educational services in Kingstown, and the difficulties and high costs of communications (especially roads). State action over the last 20 years has general reinforced the spatial

inequalities and encouraged greater polarization of development, giving little attention to reversing the spatial imbalances which presently exist.

Rural migrants have flocked to the greater Kingstown area largely in search of jobs and social services and, according to the 1980 census, over 60 percent of the residents in the greater Kingstown area were born in another part of the island.

The rural migrants have established many new settlements on the foothills and steep hillsides surrounding the city center in areas such as Redemption Sharpes, Trigger Ridge, and Upper New Montrose, and in semi-urban areas near employment centers such as around the Campden Park Industrial Estate and Ottley Hall.

In addition to this inward movement of people into the greater Kingstown area, there is significant movement of population within and on the fringes, as lower middle income groups penetrate into and near the established upper middle income areas of New Montrose, Cane Garden, etc. Members of the upper middle class and new professionals are moving away from the city center and establishing expensive low-density settlements on the fringes in areas such as Penniston and Buccament on the western side, and Prospect, Belvedere, Brighton, and Mt. Pleasant on the east. It should be noted that there is considerable relocation of people from the inner city slums, where health and living conditions are intolerable, to new squatting sites which are being invaded by rural migrants.

The rate of growth and pattern of urbanization will tend to remain the same over the next 10 years. Areas outside the greater Kingstown area have little meaningful proposed program to curb the exodus of rural people into Kingstown. Agricultural development through the Land Reform Programme, which would provide 5-acre leasehold farms and inputs to farmers, is the main economic activity planned.

The success of such a program is debatable, given the low wages and seasonal employment in agriculture. Agriculture is perceived as a menial task, vulnerable to natural hazards and market conditions. Many rural people find it easier to avoid the risk and uncertainties of agriculture and to relocate in urban Kingstown, where they can get a foothold in the urban economy and get a better paid permanent job from the industrial, commercial, tourism, or service sector.

The development bias will still be toward the Kingstown urban area, as the major investments by the private sector (especially tourism, commerce, etc.) will take place in greater Kingstown. The major government employment projects will be located in or near the Kingstown urban area. For example, the proposed Diamond Industrial Estate, which would cover an area of 60 acres of land and employ over 4,000 persons, is in the greater Kingstown area.

As a result, one can expect the Kingstown area to be the fastest growing urban settlement, accounting for nearly 60 percent of the country population. Other urban areas will continue to

grow very slowly, but will not be able to compete or rival Kingstown. The towns of Georgetown and Chateaubelair will experience very little growth, their populations remaining constant.

Table 23 shows the information on the number of acres allocated to specific uses in St. Vincent and the Grenadines according to the 1972 census. Approximately 30,000 of the 85,000 acres, or 40 percent of the land, is allocated to agricultural use, and 1,340 acres, or 6 percent of the land, to urban use.

HOLDING BY TENURE	St. Vincent State		St. Vincent Island	
	<u>Acres</u>	<u>Percent of Total</u>	<u>Acres</u>	
Owned	29,918	87.1	16,571	
Rented	1,320	3.8	1,320	
Rent Free	1,477	4.3	1,477	
Share Tenancy	<u>1,640</u>	<u>4.8</u>	<u>1,034</u>	
Total Area in Holdings	34,355	100.0	30,402	
 LAND UTILIZATION				
Permanent Crops	9,623	28.0	9,366	
Other Crops	11,926	34.7	11,224	
Grassland-cultivated	734	2.1	706	
Grassland-uncultivated	4,009	11.7	3,410	
Forest and Woodland	6,200	18.0	4,016	
Built-up Area	526)		(454	
Other Land, including))		((
Derelict lands	<u>1,337</u>)	<u>5.5</u> (<u>1,226</u>	
Total Area in Holdings	34,355	100.0	30,402	
 Source: Agricultural Census, 1972-73 St. Vincent.				

Based on the land use in 1976 (see Map 2) the St. Vincent and the Grenadines development plan (1976) estimates that of the total area, agriculture on St. Vincent accounts for 41 percent of the land, forests 50 percent, and settlements around 9 percent. In terms of land holding, the 1972 census revealed that 27 farms, or 0.3 percent of all farms, controlled 53.8 percent of the total acreage, while 87.5 percent of all farms were less than one acre in size and utilized 34 percent of the total farmland. Nearly 90 percent of all farms are owned or held in "ownerlike fashion." Today reliable figures are unavailable, but the writer is of the

opinion that the area under agricultural production has increased at the expense of forested areas.

Today one can notice cultivation on very steep hills which, in some cases, is reaching the top of once forested areas. Between 1970-89 the forest area may have decreased by as much as 6 percent. Some areas in 1972 which were under cultivation have been converted to residential areas. The agricultural lands lost have generally been located on the fringes of urban Kingstown and have been converted to settlements, such as the Green Hill and Trigger Ridge areas, or as Campden Park and very shortly the Diamond Estate for Industrial and Settlement uses.

In 1972, 6,792 acres were not being utilized. Today this figure is much higher as many "estates" have decreased production activities and are presently awaiting subdivision into small farms to be leased to landless farmers. The major change with respect to land has been in the area of ownership. In 1972 a few individuals (families) controlled most of the arable land. Today the government is the major landholder. In addition to forest areas, government now owns most of the "former estates" and has in the last few years acquired the 10 main estates, amounting to over 10,000 acres, or 30 percent, of the agricultural land which forms the basis of the Land Reform Programme, to be divided into viable small farms for distribution to the landless.

Table 24

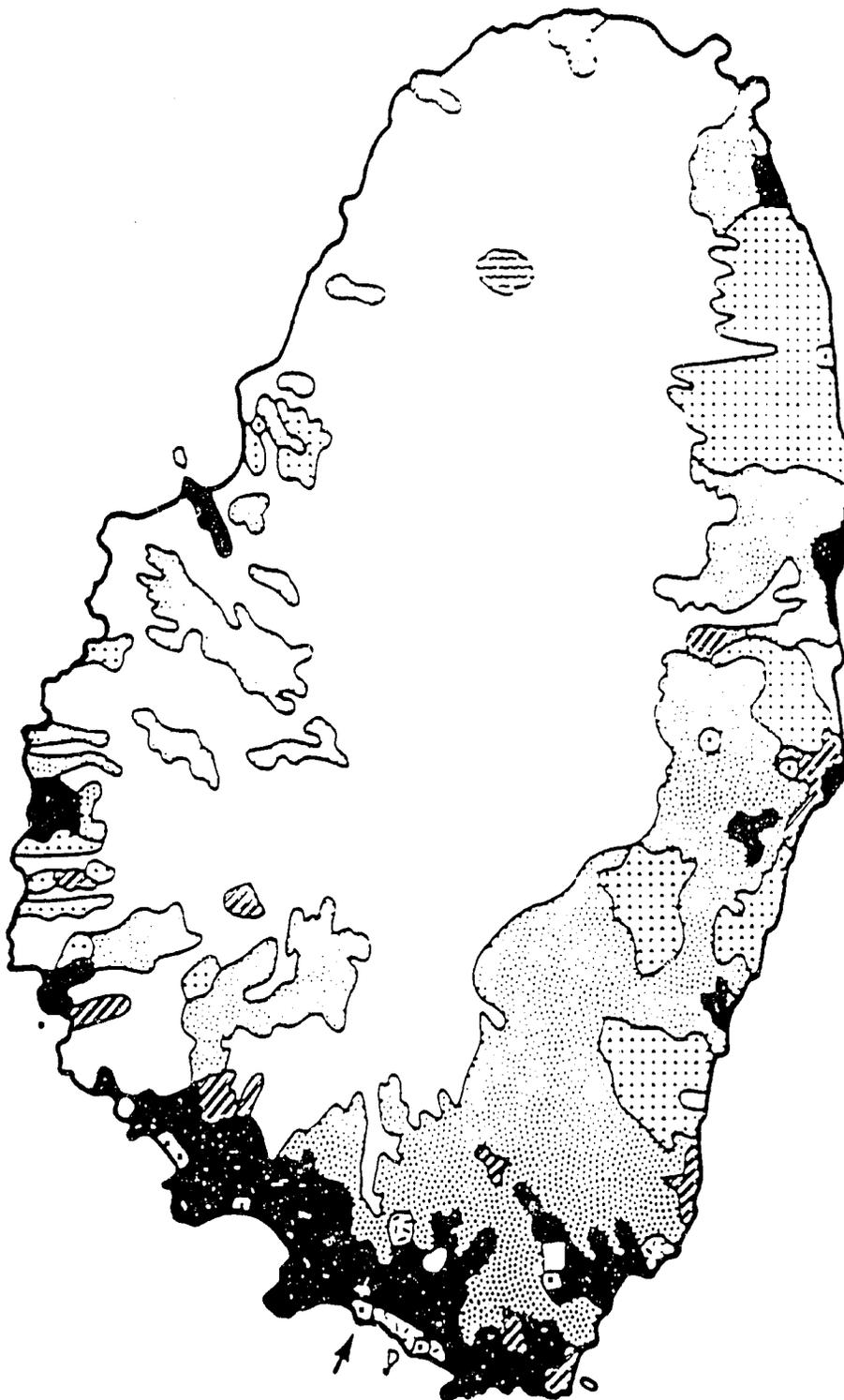
Land Use Distribution, St. Vincent, 1975

	<u>Acres</u>	<u>Percent</u>
Cultivation	20,830	24.5
Tree Crops	7,155	8.5
Pasture	<u>6,680</u>	<u>7.8</u>
Total Agriculture	34,665	40.8
Forest Reserve	7,520	8.8
Other Forest, Derelict		
Land, Rock, etc.	35,415	41.6
Total Forest	42,935	50.7
Settlements	<u>7,520</u>	<u>8.8</u>
Total	85,120	100.0

Note: Acreages are gross computed planimetrically from 1/50000 land use maps.
Compiled by the St. Vincent Ministry of Agriculture.

Map 2

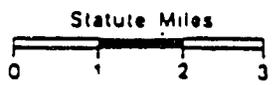
St. Vincent Present Land Use



ST VINCENT
9. PRESENT LAND USE

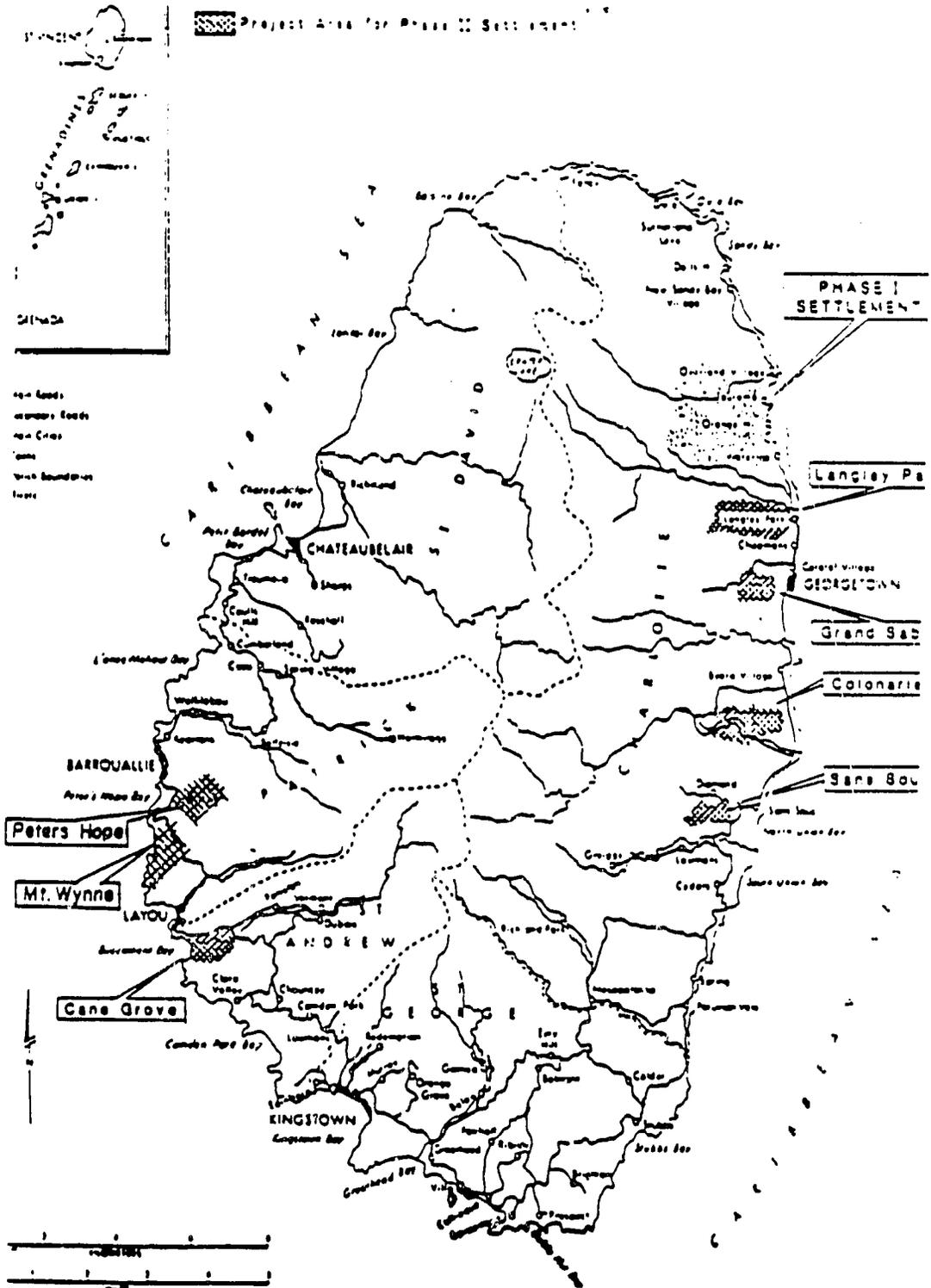
	Wetlands
	Tree crops
	Grazing
	Annual crops
	Urban and suburban
	Industrial
	Tourism
	Solid waste disposal

Source:
 St. Vincent National
 Development Plan 1976



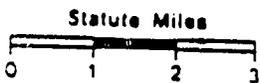
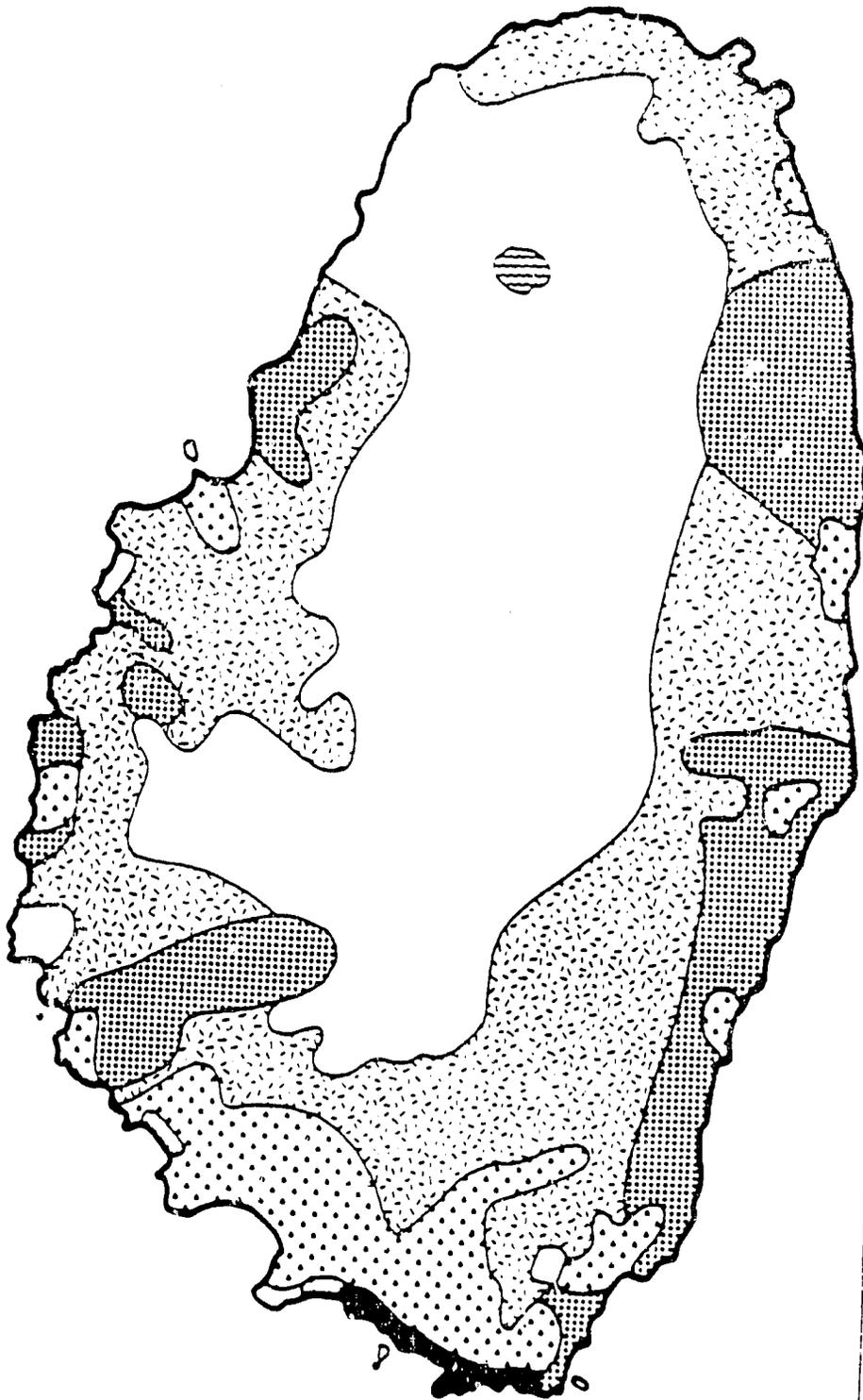
Map 3

Location of Settlement Areas St. Vincent's Agricultural Reform Programme



Map 4

St. Vincent Land Use Capability



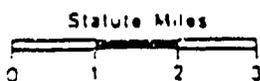
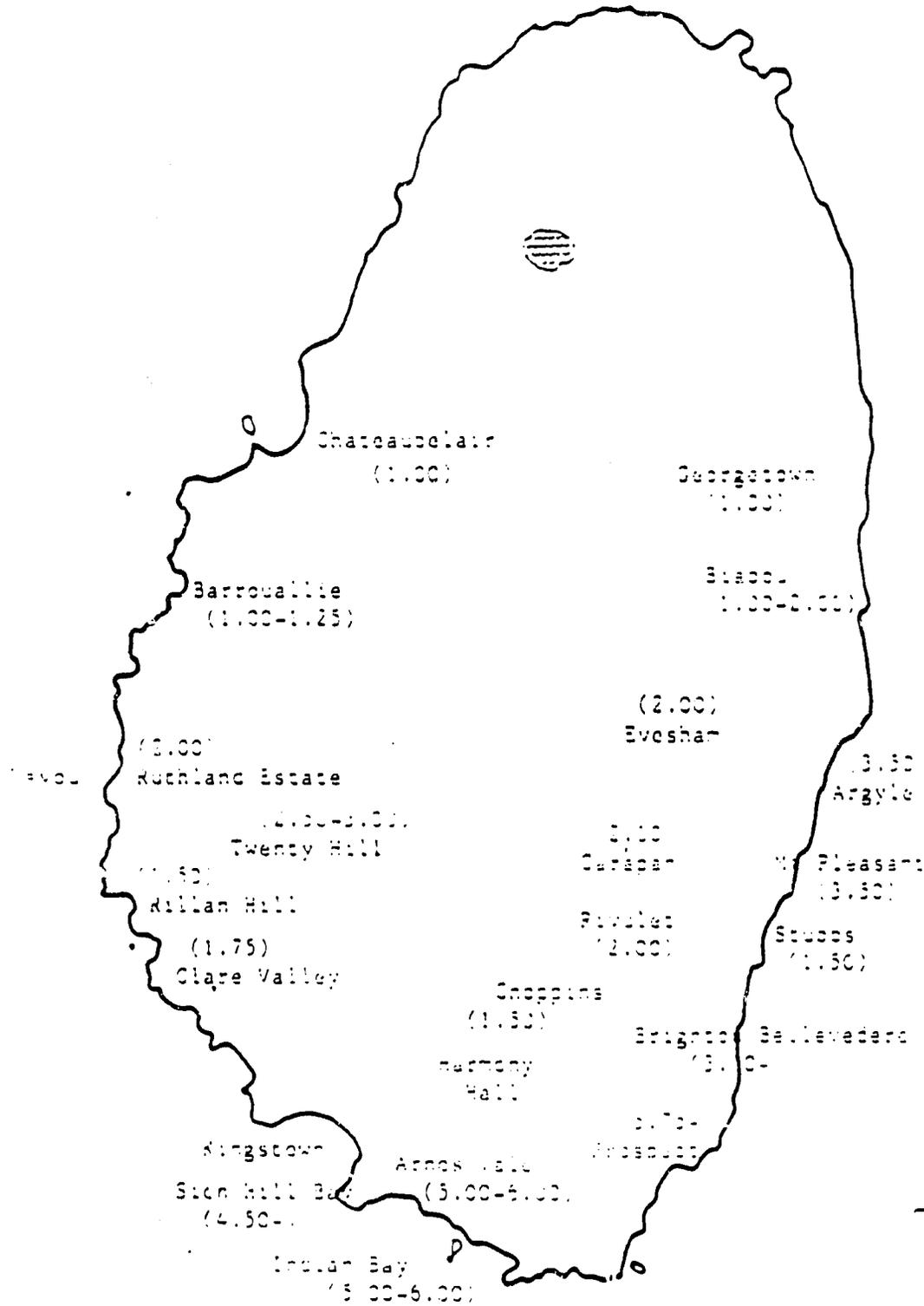
ST. VINCENT
3. LAND USE CAPABILITY

	Annual crops
	Tree crops
	Grazing
	Wildlands / Undeveloped
	Tourism
	Urban and suburban
	Industrial

Source:
St. Vincent National
Development Plan 1976

Map 5

St. Vincent Land Prices per Square Foot
(EC dollars)



ST VINCENT
Land prices per
sq ft EC dollars
Source: Comp
by: Ishmael
Sector Study of
Vincent (1987)

Table 25

Land Use Projection by Major Categories^a
(Percent)

<u>Land Use</u>	<u>1970</u>	<u>1990</u>	<u>1995</u>
Agriculture	40.8	46.5	48.0
Forest	50.0	44.0	42.0
Urban	8.8	11.5	13.0

^aBased on projection definition in National Development Plan 1976 and writer estimates.

LAND MARKET AND LAND VALUES

It is important to have some basic understanding of the land market before discussing land prices and the impact of land use changes or land prices.

Sales of landed property (freehold interests) takes place, but the land market in St. Vincent and the Grenadines is undeveloped and fairly inactive, in that there is not a definable market with a formal structure of buyers and sellers with perfect knowledge of demand and supply conditions (Ishmael 1989). There are few real estate or property developers and the land market operates at the level of "word of mouth" as the news is spread around that a particular piece of land is up for sale. As a result, it is very difficult for one to have an idea of land prices, since there are great variations in land prices even for adjoining lots in the same subdivision.

Large land developers are almost nonexistent, and few people are involved in the assembling and development of more than five lots in subdivisions. The usual practice is for a landholder to sell off a few lots in times of hardship by soliciting the services of a land surveyor. In fact, land is held and never disposed of except during hardship, and "you don't sell land" is the common reaction to landholders, given the land scarcity. As a result, there is an acute shortage of urban land and very few lots are coming on the market.

Land development takes place in an unplanned and ad hoc manner with little long-term considerations. The incremental approach to residential land development and expediency on the part of the developer to sell lands by avoiding the provision of basic services and infrastructure affects land prices. Unlike most countries in the Caribbean, most of the residential lots are sold

without any reasonable standard of infrastructure, and there is great differentiation in price between serviced and unserviced lots.

Despite these problems in assessing land values, Ishmael (1989) has indexed residential land values in the greater Kingstown area (see Map 5). Ishmael shows that there is great variation in price according to area and level of services provided. According to him, residential lots vary from Argyle in the east to Penniston in the west from as low as EC\$1.50 per square foot for unserviced land to as high as EC\$5.75 per square foot in prospect for land served by water and electricity and poor roads. Compared with the private sector, Housing and Lands Development Corp. has sold lands over the last year ranging from 12 cents per square foot for occupants over 20 years on a site, to as much as \$2.00 per square foot on new urban-area sites in 1989.

The Agriculture Department has recently been disposing of some of its crown land on the urban fringes for residential developments. In most cases these crown lands were rented originally as agricultural plots and the renters have over the years abandoned the agricultural use of the land and have allowed relatives and friends to erect residential units. The Agricultural Department has been disposing of these occupied crown lands with prices ranging from 12-60 cents per square foot depending on the length of occupancy.

The existence of the tourism zone from Indian Bay to Prospect has attracted many middle-income people, and as the upper income and tourist use (hotels, etc.) compete for the valuable scarce coastal strip. Land values have skyrocketed to over EC\$10 per square foot along the Villa and Indian Bay Beach areas.

In terms of land prices in the central business district, there is considerable variation, ranging from as low as EC\$20 per square foot to as much as EC\$100 at the peak land value intersection point, which is near the Market Square.

The incidence of idle state lands, especially near urban and employment centers, has had the effect of stabilizing land prices in some low-income residential areas. Land sellers are forced to offer lands at reasonable rates to potential buyers in order to secure land sales, and if prices are unreasonable they resort simply to invading "stateland," leaving the developer with unsold lots. This is particularly true in the Edinboro-Ottley Hall and the Largo Heights, Redemption Sharpes, Fairhall and Diamonds areas.

Land prices in St. Vincent and the Grenadines will continue to increase. Greatest price increases will occur in areas earmarked and ripe for tourism development (such as between Indian Bay and Prospect), industrial development (around the Diamond Estate) and commercial development (especially the one-mile radius of the central business district). Generally, as the government imposes stricter control measures to protect agricultural and forest land from urban uses and ensure the provision of serviced building lots, land prices will increase. Given the acute

land shortage situation and possibilities for high profits from land speculation, many private individuals have already begun banking land, which will further inflate land prices.

LAND PRICES

Lacking known mineral resources, and a colonial legacy which neglected the use of marine resources, land for agriculture has been the major pillar for development in the past, and will remain the major resource for development in the foreseeable future. To a large extent the future development of St. Vincent and the Grenadines is tied up in the utilization of its land and land-based resources--agricultural land and scenic environment for tourism. Land is a very scarce resource in St. Vincent and the Grenadines and, given the rugged topography, the demand for suitable land for agricultural and urban uses exceeds the supply. There is very little area left for development which would not lead to environmental damage (compare present land use (Map 2) with land capability (Map 4).

In many instances land cannot be found for important land uses as a result of locational, situational, and other constraints (e.g., land fill sites, airport development).

The use and development of land has not brought maximum benefits to the nation. The past and existing arrangements for land use and development and the pro-metropolitan development style pursued have resulted in underutilization of land resources, social inequalities and environmental degradation, which limits sustainable development and jeopardizes long-term development prospects.

With this context government land policy, as presented in the National Development Plan, various budget address, and official proclamations, can be summarized generally as follows:

- (a) The efficient allocation and utilization of all lands in the state
- (b) The conservation of all agricultural lands to prevent the loss of agricultural land to nonagricultural or urban uses.
- (c) The conservation, protection and improvement and management of forests, watersheds, and other natural resources and ecological fragile areas, such as the Tobago Cays, to ensure sustainable development.

With respect to agricultural land policy these are well enunciated in the development plan. Land reform is a key policy objective as the government seeks to further develop a viable small holder subsector, and will be subdividing all its agricultural lands (over 8,000 acres on nine plantations) into five-acre farms for distribution on leasehold arrangements to small farmers, under a series of land settlement schemes (see Map 3).

These new leased farms will get institutional, marketing and other support from the government to encourage the promotion of agricultural diversification. Lands which are critical

from an environment-conservation perspective--i.e., watersheds, park areas, forests, etc.--presently owned by the government, will be maintained and managed by the Ministry of Agriculture and Lands. Threatened areas, such as Tobago Cays, will be acquired (see Map 4).

With respect to urban land, the focus of land policy is primarily one which seeks to ensure that:

1. Urban growth and new settlement are confined to areas within existing urban areas and above all, the control of urban development and premature subdivision.

2. There is an adequate supply of land for low-income people. In this connection, the Housing and Land Development Corp. is to earmark priority areas for housing and undertake advance acquisition of land for future housing so as to limit potential speculation.

It would appear that the state is more concerned about intervening on issues related to the ownership, use and development of agricultural land than on residential low-income areas. State interest in urban land seems to center on ensuring a limited supply of land for a few government housing programs and by and large the state is prepared to let the free market system operate in urban land, and to collect annual land and property tax, together with the transfer tax resulting from changes in land ownership.

State control over private land is executed mainly through the physical planning system. The Town and Country Planning Act of 1976 provides for the orderly and progressive development of land and for the control and development (defined as building works, change of use, subdivision, and the display of advertisements). The Physical Planning and Development Board, a group comprised of three members of the public and the heads of departments from ministries connected with land development, is the authority "mandated to execute the purposes" and provision of the Town and Country Planning Act. The board's stated major function is to ensure the optimal utilization of land through the preparation of zoning plans--national, regional, and local--and the administration of development control using a permit system.

According to the Physical Planning and Development Board guidelines, planning aims to ensure in the long term that:

(a) Adequate space based on forecast needs is available for every type of land use or development activity.

(b) Land uses are properly situated and mutually compatible.

(c) The density of development in each area covered by planning is controlled in a manner designed to promote amenity as well as to facilitate economical servicing of all uses and development.

(d) New growth takes place in appropriate areas.

(e) A holistic and comprehensive approach, which will have regard to economic, social, physical and ecological considerations, is adopted in decision making concerning the use, occupancy and development of land.

As will be discussed in detail later, there is very little legal institutional framework in place to ensure that the physical planning process, as well as the functions of other departments and ministries involved in land administration management and planning, can be effectively implemented or executed.

LAND MANAGEMENT AND INSTITUTIONAL FRAMEWORK

In St. Vincent and the Grenadines there are many public sector agencies involved in various aspects of land management. The role and responsibilities of these institutions and agencies can be divided into four main areas:

- (a) land policy, planning and research
- (b) land management and distribution of public property
- (c) land administration and control of private land
- (d) infrastructure provision.

Land Policy, Planning and Research

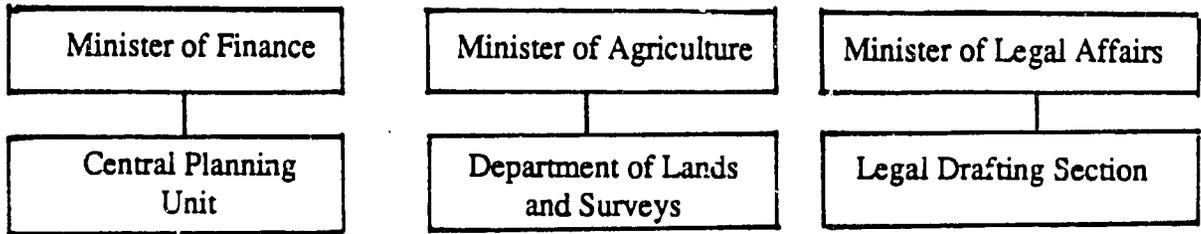
Figure 1 shows that the Central Planning Division of the Ministry of Finance and Planning, the Land and Surveys Department of the Ministry of Agriculture, and the Legal Drafting Section of the Ministry of Legal Affairs are the principal agencies involved in land policy, planning and research. The precise stated role and responsibilities of these agencies in this area are outlined in Figure 1.

Land Management and Distribution of Public Lands

As mentioned earlier, the government of St. Vincent and the Grenadines is a major land owner and state lands are owned, controlled, and distributed by a number of agencies in several ministries. Lands under the land reform programs are being controlled by various project management teams with less control by the ministries to which these "project management teams" owe their accountability. Thus, "Rabacca Farms, Ltd.," for example, is in control of over 3,000 acres and, while accountable to the Ministry of Agriculture, operates as an entity involved in the distribution of five-acre leasehold farms, together with the provision of rural infrastructure and housing in the northern part of St. Vincent. The Land and Surveys Department is involved in the rental and sale of crown lands and beach protection. The National Trust is responsible for the

Figure 1

Land Policy, Research and Planning



ROLE AND RESPONSIBILITIES:

1. Preparation of national development plans.

2. Assembling national budgets, especially capital projects.

3. Preparation of national, regional, and local physical planning zoning plans.

4. Development control standards.

6. Research on land development, national economy, and national development.

8. Fiscal measures, tax incentives
--taxation
--transfer tax, etc.
(Min. of Finance).

1. Development of policy on crown lands.

2. Land surveying standards.

3. Land research on information--topographic surveys and mapping.

5. Planning the use of government land and government projects.

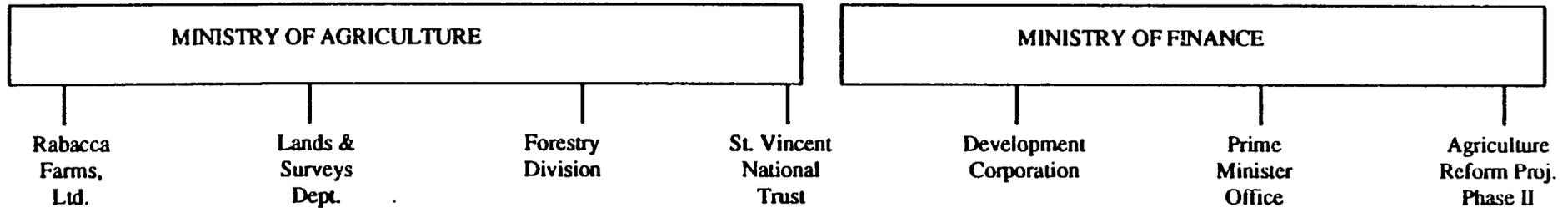
7. Articulation of government policy (Min. of Finance).

9. Alien landholding licenses.

1. Preparation of legislation to land use, planning, administration, and management.

Figure 2

Land Management and Distribution of Statelands

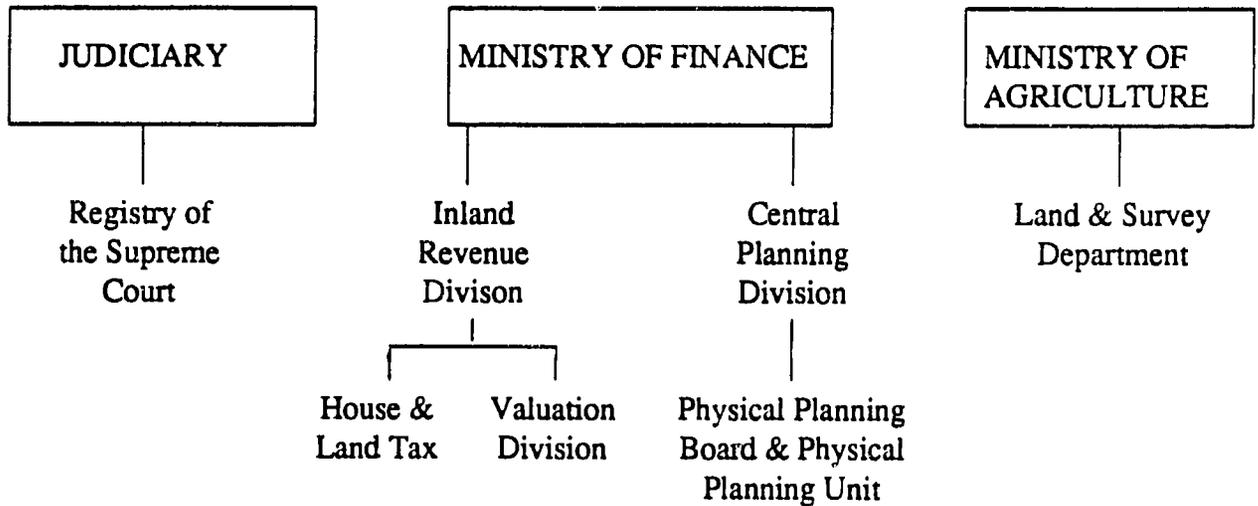


ROLE AND RESPONSIBILITIES

- | | | | | | | |
|--|--|---|--|--|--|---|
| <p>1. The execution of a land reform program, providing over 3,000 acres of lands to landless farmers.</p> <p>2. Provision of housing lots for low-income settlers in north St. Vincent.</p> <p>3. Provision of other agricultural input and expertise to ensure agricultural diversification.</p> | <p>1. Distribution of crown land--sale and rental terms.</p> <p>2. Protection of beachlands.</p> <p>3. Acquisition of land for public surveys.</p> <p>4. Survey of state lands for distribution.</p> | <p>1. Management of forest and watershed areas.</p> | <p>1. Management of historic geographic cultural scenic sites.</p> | <p>1. Owner and custodian for govt. lands with industrial and touristic potential.</p> <p>2. Management of industrial estates.</p> <p>3. Distribution of industrial plots.</p> | <p>1. Manager of urban land on the Kingstown reclaimed area.</p> | <p>1. Distribution of over 3,000 acres to small farmers on lease-hold basis.</p> <p>2. Developing agricultural diversified programs on lands owned.</p> |
|--|--|---|--|--|--|---|

Figure 3

Land Administration and Management

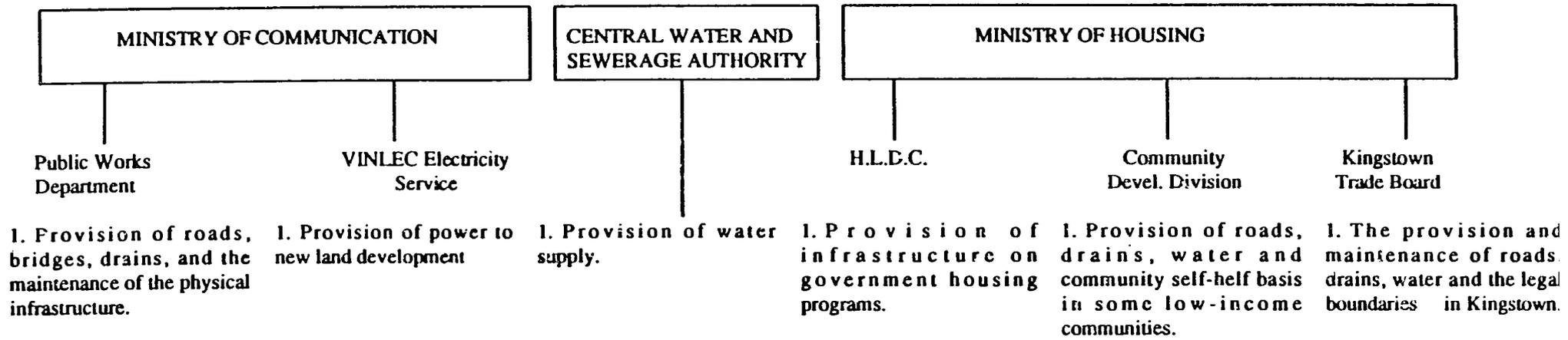


ROLE AND FUNCTION

- | | | | | |
|--|--|---|---|---|
| <p>1. The depository of deeds which documents the transaction in land such as sales, mortgage, gifts, etc.</p> | <p>1. Assessment and collection of property tax.</p> | <p>1. Preparing and maintaining valuation lists under the valuation and rating act.</p> | <p>1. Preparation of zoning plan.</p> | <p>1. Registration of all survey plan.</p> |
| <p>2. Recording of deeds to facilitate those wishing to acquire information on interest in land.</p> | | | <p>2. Development control standard.</p> | <p>2. Depository of all survey plan.</p> |
| <p>3. Public notice of the nature and extent of the rights of land.</p> | | | <p>3. Issues of development permit.</p> | <p>3. Land acquisition powers under the land acquisition act.</p> |
| | | | | <p>5. Valuation of private land to be acquired.</p> |

Figure 4

Provision of Infrastructure for Land Development



management of state-owned historic, geographic and ecologically fragile areas. The Forestry Division is responsible for the government forest areas (over 6,000 acres) and works in close cooperation with the Central Water Authority in the protection of watersheds. The Ministry of Agriculture is responsible for the management of state-owned property.

The Ministry of Finance is also involved in land management and land distribution. The Development Corporation, which is a state corporation responsible for the promotion and development of tourism and industry, has the responsibility of lands in the Campden Park Estate and over 60 acres on the proposed Diamond Industrial Site. State lands in the Grenadines with great potential for tourism, especial most of the island of Canouan, are under the control of Devco. The land of the Kingstown reclaimed site earmarked for commercial development was under the control of the Development Corporation, but recently this responsibility has been transferred to the Prime Minister's office. The Agricultural Reform Development Project, Phase 11 (ARDP 2) is under the control of the Ministry of Finance. This project involves the distribution of over 4,000 acres of land recently purchased by the government from seven former estates.

The management and distribution of land for housing has traditionally been the responsibility of the government principal housing institution--the Housing and Land Development Corporation--which falls under the control of the Ministry of Housing. The dismal performance of the HLDC in the 1970s has resulted in the government reducing its role in housing programs and the major housing program since 1984, the Fairhall Housing Scheme, was executed by the Ministry of Housing itself with no involvement by the HLDC. Presently the future of the HLDC is a major debate topic, and the government soon will be making its position clear on the future role of HLDC.

Land Management and Administration of Private Lands

There are many agencies involved in the management and administration of private lands. The principal ones are the Land and Surveys Departments, the Physical Planning Unit of the Central Planning Division, the Department of Inland Revenue, and the Registry of the Judiciary. Figure 3 shows the major agencies involved in land management and administration of private lands and their functions.

Provision of Infrastructure for Land Development

The Public Works Department of the Ministry of Communication is the major agency involved in the provision of infrastructure for government land development. Other government departments actively involved in infrastructure provision are the Housing and Land Development Corporation, Kingstown Town Board, and the Community Development Division of the Ministry of Housing. Two parastatals, the Central Water and Sewerage Authority and the St. Vincent

Electricity Services, Ltd. (VINLEC), are responsible for the provision of water and electricity, respectively (see Figure 4).

In view of the multiplicity of agencies involved in land management in St. Vincent, we will discuss below in greater detail only the major land-related agencies. These are the Registry, the Land and Surveys Department, the Physical Planning Unit of the Central Planning Division, and the Housing and Land Development Corporation.

The Registry. The Registry is located in the Judicial Department both institutionally and physically (as it is presently housed in the Supreme Court Building). The duties and responsibilities of the Registry can be summarized as the registration of: companies; patents and trademarks; births, deaths and marriages; deeds, including those relating to land; probate and administration of intestate estate; administering the court system; and in addition, the Registrar acts as a magistrate or notary public.

The Registry has a staff of 27, of which only two are professionals, the Registrar and one of the two deputy Registrars. The rest of the staff includes the following:

- 2 senior executive officers
- 1 executive officer
- 1 senior stenographer
- 1 stenographer
- 1 senior clerk
- 2 binders
- 5 clerks
- 3 typists
- 1 senior bailiff
- 3 vault attendants
- 1 office attendant.

The Registry Department has a variety of roles, but its main role as the depository of deeds which document all transactions is seriously hampered by (1) the lack of trained staff, (2) the system of indexing land by names rather than by reference to the land by a parcel identification system, (3) inadequate office space and improper and insufficient storage space for documents, and (4) the survey plans referred to in deeds stored outside the Registry in the Surveys Department.

The Land and Surveys Department. The Land and Surveys Department falls under the control of the Ministry of Agriculture, Industry and Labour and has the following duties:

1. Geodetic survey control and maintenance
2. Topographic survey, aerial photography and map making (and sale of maps)

3. Carrying out government surveys
4. Checking and approving any survey diagrams submitted with deeds relating to land
5. Fulfilling statutory duties of land acquisition under the Land Acquisition Act
6. Granting of tenancies from year to year over crown land
7. Receiving rents for crown lands
8. Providing valuation for the purchase or sale of lands by the government
9. Squatter control on crown land
10. Beach protection.

The Surveys Department has a staff of 21, but presently it is only 75 percent staffed, including:

- 1 chief surveyor
- 1 senior surveyor
- 6 staff surveyors
- 3 survey technicians
- 5 draftsmen
- 1 senior draftsman
- 1 vault attendant
- 1 votes clerk
- 2 crown lands officers.

The output of the Survey Department is seriously curtailed by the absence of many trained surveyors, the absence of transportation, and by inadequate filing system and storage space to ensure efficient retrieval of maps and plans stored in the Land and Surveys Department.

The low output of the department has had the effect of slowing down many government land development projects, and the government has approached many international agencies for surveyors. Two surveyors have recently been recruited through the United Nations volunteers system. The problem centers on the fact that surveyors are not designated as traveling officers and are not required to maintain a vehicle for their duties. The Survey Department has two jeeps; one is used exclusively by the chief surveyor and the other is rotated among the four survey teams that do exist. The idle surveyors use their time to do private work. There is only one licensed land surveyor in private practice, so there is high demand for their services. Private survey work seems to be the norm, for even the chief surveyor is permitted to carry out private survey work despite the conflicts of interest that arise, since he is the only person with authority to approve survey plans.

In addition, the Land and Surveys Department has been engaged in activities such as estate management, valuation, and general "land economy," in which it has no professional skills.

Physical Planning Unit. The Physical Planning Unit of the Central Planning Division within the Ministry of Finance is responsible for (1) preparation of physical plans (zoning plans); (2) administration of development control; and (3) providing assistance in preparing, monitoring, and implementing government projects. The Unit functions as the secretariat and technical arm of the Physical Planning and Development Board. the board is responsible for the implementation of the Town and Country Planning Act and operates in accordance with the provisions of the Town and Country Planning Act of 1976.

The staff includes:

- 1 physical planner (professional)
- 4 technical supervisors
- 1 senior building inspector
- 1 draftsman
- 2 physical planning assistants.

(Clerical and administrative services are provided form the administration unit of the Central Planning Division.

The Physical Planning Unit presently makes decisions on about 45 planning applications monthly, and is involved in very little forward or long-term planning (preparation of physical plans). Over 90 percent of the staff time is spent in day-to-day development control work. Limited and untrained staff, lack of clear planning policy and zoning planning and institutional problems contribute to low output from this division.

Housing and Land Development Corporation. The Housing and Land Development Corporation (HLDC) is the implementing agency of the state housing policy and was established under the Housing and Land Development Corporation Act of 1976 to give effect to the planning and development of housing and land for residential and community purposes and provide for the designation and acquisition of land for development. The corporation has a 12-member Board of Management with government officers and four private sector members.

The corporation has been involved in land acquisition and land banking, land distribution, development of housing schemes, housing units built for sale, and the sale and credit of building materials.

The staff includes:

- 1 manager
- 1 deputy manager
- 1 technical supervisor
- 1 technician

- 1 accountant
- 1 deputy accountant
- 2 account clerks
- 1 executive officer
- 2 clerks
- 2 typists
- 1 office attendant
- 1 driver

The performance of the Housing and Land Development Corporation over the last years has been quite dismal and the corporation has failed in its functions as a result of poor management, inadequate technical skills, corruption and gross management irregularities, informal and loose business arrangements, and political and official abuse. Today, as a result of mismanagement, etc., the corporation is in a bad financial position and its public image is so severely tarnished that even the government has refrained from using it as a vehicle for the execution of housing programs. Specific recommendations about the future role of the corporation have been made and will be considered by the government.

Private Sector Entities Involved in Land Development

As mentioned above, there is the absence of a well developed market. A few individuals are involved in land sales or the real estate business; but at present there is no individual in the private sector who is a specialist real estate agent. Most of the individuals are businessmen who are involved in another business full time and operate as a real estate agent only on a part-time basis.

In the area of professional services related to land development there is only one trained land surveyor operating in private practice; government-employed surveyors are involved in the bulk of private survey work. There are two architectural firms, one engineering firm, and a number of draftsmen providing architectural and engineering services. During the 1985-89 period, the annual building construction is estimated to be approximately 750 commercial buildings and 675 residential buildings.

In the area of building construction and infrastructure services (road building) there are about six small contractors, with the majority of the construction work carried out by petty contractors who are involved mainly in labor contracts. Most of the major development projects are carried out by regional contractors.

St. Vincent is highly dependent on foreign capital to finance capital projects. As a result, a great deal of the government land development projects utilize professional services and contractors from the source of origin of the capital funds.

Financing Institutions. There are approximately 20 finance institutions in St. Vincent and the Grenadines, including a number of insurance companies, building societies and associations, cooperative banks and credit unions, involved in mortgage financing. The amount of advances spent on financing construction and land development increased from \$8.5 million in 1983 to \$73.5 million in 1987. Presently, most of the financing agencies cater to the top 30 percent of the state's population, with the lower income group having no major institution from which they can obtain mortgage financing. Prior to 1988, most commercial banks offered mortgages at 12 percent, with repayment over 12-15 years, requested one-quarter of the total cost of the loan as down payment, and demanded a monthly repayment of maximum 30 percent of fixed or reliable income.

In 1988 the National Commercial Bank (NCB) established a new mortgage window with \$4.05 million obtained from the Caribbean Development Bank (CDB) and with matching financing from the National Insurance Scheme. This new mortgage finance program will disburse around \$10.7 million in the next four years at interest rates of 10 percent with repayment of up to 20 years for new houses. Improvement or expansion programs would secure 10-year repayment periods. According to the agreement with the CDB, one-third of the funds must be spent on applicants with incomes below EC\$15,000 annually.

This new mortgage facility has had tremendous success. After 11 months in operation, 218 loans, totaling \$7,676,052, have been approved, and \$6,496,865 disbursed (Budget Address 1989-90). This success has forced the foreign commercial banks to lower their mortgage financing terms--especially interest rates (from 12 percent to 10 percent)--to be more competitive.

Since mid-1988, therefore, Vincentians have been able to achieve loans on more concessionary terms for mortgage finance from commercial banks. However, these concessions were not drastic enough to reach the lower sections of the population. Basically, these concessions have allowed the same middle income groups who already had access to credit to carry out residential land development with less economic hardship.

Financing agencies have generally concentrated on disbursing funds for home construction and land acquisition, but have released minimal funds to developers to assist with the provision of infrastructural services for residential and other subdivisions.

Land Management Issues

As mentioned above, increased pressures on limited land area prompted the state to formulate policies for the optimal utilization of resources, the promotion of greater equity in development, and to ensure sustainable development. An attempt will now be made to highlight the major issues and constraints in land management and to discuss why the state has been unable to successfully implement the declared land policies.

First, the wise and judicious use of land is seen as a desirable objective. The physical planning process is intended to achieve the goal of optimal utilization of land. However, very little action has been taken to ensure the physical planning system is equipped to achieve this goal.

The Town and Country Planning Act of 1976 makes provision for the production of national, regional, and local physical development plans to guide land development. At present there is no national physical development plan. In 1976 the United Nations Development Programme (UNDP) prepared a national physical plan, but the procedures as laid out in the planning legislation to give the plan its legal basis were never followed. The planning authority administers development control through a permit system, but the planning standards used are "guidelines" which lack the force of law. The Town and Country Planning Act of 1976 makes provision for regulations to set out physically planning standards but, to date, no regulations have been issued. As a result, the planning authority is in a weak position in terms of guiding future land developments or controlling bad development, since planning decisions can be successfully challenged in courts.

While the state generally declares its commitment to planning, the society as a whole sees "planning" as a major stumbling block to land development. This view is supported by many politicians who are afraid to deny individual rights over the use and development of land in the public and national interest. The *de facto* policy is, therefore, that the state will not restrict any development activity on private lands, especially if the development entails construction work which can employ unskilled labor and improve the unemployment situation and economy as a whole.

A major problem facing most of the agencies that own land, or are responsible for enforcing development control, is the absence of enforcement power and the unwillingness of the state to exercise these powers where they do exist. Thus, while the state passively declares that there is to be no squatting on state lands, squatters claim that they were given permission "verbally" by the politicians and senior civil servants, and even were encouraged by these individuals, to build concrete structures rather than timber structures. The state has generally refused to provide resources to government agencies to assist in removal of squatters. Politicians, in particular, have tended to avoid the eviction of squatters, since their political support could be seriously eroded. The absence of political will to deal with detrimental land uses, such as squatting on areas earmarked for government projects, agricultural squatting in key watersheds and environmental destruction in fragile areas, has been a major cause for the failure of the enforcement of the land policies.

Despite the relative small size of the bureaucracy and the close location of the ministries to each other, there is very little coordination and cooperation among land-related agencies to ensure implementation of state land policies. Each agency tends to operate in isolation and generally resists attempts at coordination, since in many cases it is seen as reducing the power base of

individual agencies. For example, there is a serious problem on the issue of procedures for land subdivision. According to the 1973 Surveyor Act, the chief surveyor is authorized to approve all survey plans; the Town and Country Planning Act of 1976 requires that all subdivisions be approved by the Physical Planning and Development Board. This Board, in approving subdivisions, demands that the developer provide infrastructural services--roads, water, and electricity--before the sale or disposition of any parcel of land. To avoid costs most developers bypass the planning authority and give their plans to the chief surveyor (who is a member of the Physical Planning and Development Board) who approves the plan if it meets the requirement of the Surveyors Act.

Thus, lots in a subdivision are disposed of and buyers of individual lots are usually not provided with infrastructural services. In the long run the state must expend scarce funds to provide these services, as the lot owners place tremendous demands on their political representatives. A cabinet decision of 1983 stipulated that all subdivision plans must be approved by the planning board prior to being lodged and approved by the chief surveyor. Today, the chief surveyor still engages in the practice of approving survey plans without ensuring that planning permission was granted for land subdivision. Less than 25 percent of the plans approved by the chief surveyor between 1985-88 had received planning permission from the planning authority. This lack of coordination and cooperation between ministries and departments limits effective land management. As a result, land is allocated for many undesirable and incompatible uses.

The fragmentation of former estates and increased urbanization have resulted in a greater number of land transactions. According to the registry records, there has been a 63 percent increase in the number of recorded deeds between the 1979 and 1988 period, and the number of property transactions increased by 73 percent (from 884 to 1,208 transactions) from 1983 to 1988. The general scarcity of land has resulted in increased land values. The existing land information system is a major constraint, as it cannot cope with the high demands placed on it to provide reliable and timely data on land values, tenure, demarcation of holdings, etc. There is need for a comprehensive cadastral land information system (CLIS) which will include delineation, adjudication, and recording interest in each parcel of land in the state. The CLIS would provide timely data on (1) boundaries of parcels, and (2) nature of title, tenure, and identification of rights of holder. This new CLIS should be developed along the lines of the St. Lucia model and should lead to the establishment of a new land registry within the Land and Surveys Department. The Land and Surveys Department should be incorporated within the Central Planning Division of the Ministry of Finance and Planning. A CLIS would greatly enhance the capability of the government in the planning and management of its land resources, since it would provide clear boundaries of state lands and provide critical data and pertinent information relevant to land use planning and the provision of services, as well as assist generally in land valuation and tax collection.

At present, many land owners lack titles, or have disputed boundaries which restrict the development of their land. The establishment of a CLIS would assist these individuals by

ensuring greater security of tenure, improved access to credit, and would further improve the land market. In particular, the agricultural and housing sector of the economy would be greatly stimulated.

St. Vincent and the Grenadines is presently using statute laws relating to land which are archaic and British in origin and which the British discarded in 1825 and replaced with the Law of Property Act of 1925 (FAO 1987). The FAO Report (1987) regarded the following land regulations as archaic or spent:

- The Three Chain Act
- Public Lands and Building Act
- Crown Land Act
- Real Property Act
- Land Charges Act
- Partition Act
- Boundaries Settlement Act
- Land Surveyors Act.

The land laws of St. Vincent and the Grenadines are therefore in need of urgent and thorough review to ensure that there is a new and consolidating modern legislation which would not only reflect the national needs but would allow for full cooperation and coordination between the various agencies involved in land administration. It should be noted that the practice of providing legislation through the main act but never passing the relevant regulations to ensure the proper implementation and enforcement of the main act should be discontinued. The Town and Country Planning Act, Forestry and Wildlife Act, valuation, surveys, and many of the property and taxation legislation need to be reviewed and the new acts and regulations brought into force. There is need for institutional strengthening and assurance of greater coordination of land-related agencies. The suggestion of establishing the land registry and placing the Land and Surveys Department within the Central Planning Division should go a long way in improving coordination. The state should lessen the number of agencies involved in land management and encourage greater "estate and land management" through a specialized agency with professional skills in the area of land management. The state needs to establish skills and professional capability in the area of land economy to better assist in areas in which it presently has little expertise. For example: (1) negotiations on land prices and forms of land tenure, (2) land valuation, (3) rent, (4) different types of land taxation, and (5) management of leases granted by the government.

As suggested, there is need to strengthen the manpower in the Physical Planning Division to ensure more national long-term physical planning takes place. The Surveys Department also needs strengthening. Above all, necessary equipment, especially transportation, should be made available to these officials. There is need for the establishment of a new housing agency with the skills and expertise to function as a facilitator of the nations low-income housing program,

especially in the areas of land banking, and the planning and execution of site and services programs.

CONCLUSION

St. Vincent and the Grenadines has a small land area. There is increasing pressure from the rapidly expanding population for land for agricultural and urban uses in excess of the available supply. Despite the government-state policies of ensuring optimal utilization and efficient management of land, land administration and management is inefficient, since the state lacks the institutional, legal mechanism, and information base critical for proper land administration. There is an urgent need for greater political will to implement the state land policies, greater coordination among land agencies, and institutional strengthening. There is a dire need for a new land registry. The financial cost of implementing some of these recommended solutions would be great, but are justifiable on long-term economic and environmental grounds.

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PART III
TECHNICAL PRESENTATIONS

**PROBLEMS AND OPPORTUNITIES IN LAND MANAGEMENT
IN AN INSTITUTIONAL CONTEXT
CASE EXAMPLES AND LAND MARKET STUDIES**

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I have been asked to present a brief technical paper on Problems and Opportunities in Urban Land Management in an institutional context. I have also been asked to discuss applicable experience and ideas from other regions. I have chosen examples from PADCO's recent experience that involved land market analysis. I have a few copies of these materials which can be provided upon request. I have chosen not to emphasize land registration/cadastral systems because these will no doubt be discussed elsewhere in the conference.

PADCO recently carried out an assignment in the Eastern Caribbean entitled "Preliminary Assessment-Constraints and Opportunities in the Infrastructure/Shelter Sector," supported by RHUDO/CAR, AID/Barbados, and the CDB. One of the key issues identified in this study was the sensitive competition for land between agricultural and urban uses (residential, industrial, commercial, etc.). A key concern that was raised is whether urban land requirements can be met without sacrificing too much valuable agricultural land.

The study noted that serious deficiencies exist in the delivery of urbanized land and basic shelter and in land management. It noted problems in access to basic services, unorganized urban expansion, and inefficiencies in land use. It further noted the rapid growth of informal settlements, and the need for public and private cooperation in this field. This study is most likely known and available to the participants of this conference. For this reason I have focused on some broad lessons from other places as the subject of this paper. However, I have attempted to use illustrations that are pertinent to the Caribbean.

Institutional arrangements for land development are probably less important than clear and financially viable land policies and development standards. Over the years PADCO, supported by a variety of donors, has worked with diverse institutions concerned with land development: the national Urban Development Corporation in Indonesia; national land development authorities in Tunisia, Morocco, Cameroon, Cote D'Ivoire; national housing authorities in many places including Thailand, Togo, and Korea; numerous urban development and housing ministries; and many municipalities throughout the developing world. Each of these has had responsibilities for making land and shelter available for low-income groups.

Publicly-sponsored development authorities and corporations were created to overcome bureaucratic and budgetary bottlenecks generally associated with central ministries, agencies and

local government. Alternatively, the latter has either established "special accounts"--i.e., for donor-funded projects--or development boards for the same purpose. Virtually all parastatals have been given a special "social" mandate that provides greater financial autonomy than public institutions, access to public land reserves, and the right to acquire land (often through expropriation) for development purposes. However, their record in satisfying shelter needs, particularly those of low-income groups, has not been highly successful. In fact, most of these agencies currently suffer from severe financial difficulties due to the policies they have been following. In many places (Tunisia, Cote d'Ivoire, Cameroon, etc.), these institutions have been the subject of major reforms because of financial problems associated with their policies and management.

Parastatals usually function on a "no profit, no loss" basis. Unfortunately, through the use of too costly land and development standards, their plots and units have not been affordable to the income groups they were destined to serve without large subsidies. As a result, plots were sold at below-market prices, which in turn has fueled both financial difficulties and speculation (as the plot allocation process has proven difficult to control).

General thinking is that the private sector (where it is active) will look after the middle and upper income groups, while the public sector should sponsor low-income housing. However, experience indicates that public sector subdivision schemes have not been very successful in serving low-income groups, either.

In many developing countries, parastatals for land and shelter development were created at a time when private sector initiative in formal land development was virtually nonexistent. While a trend from private involvement in housing and building construction towards land development has been evolving, public sector advantages in this sector have somewhat discourage private initiative. In Tunisia, for example, the national land development agency had unique rights to develop public land reserves. This in effect allowed it to sell developed plots at much lower costs than the private sector could have done. Now that these reserves have largely been depleted, it will increasingly find itself in competition with the private sector.

Public/private cooperation between these agencies has generally been limited to setting aside land areas within parastatal schemes for private sector subdivisions. This is becoming increasingly common, and has been practiced in Cameroon, Pakistan, and other places. In Morocco, AID is supporting a municipal joint public/private development program which involves installation of trunk infrastructure by the municipality, cost recovery within an improvement district, and subdivision and guided land development by private developers and land owners.

A common weakness of land development agencies has been the lack of a marketing strategy. While marketing studies permit publicly-sponsored groups to better design and target their schemes, they also permit a better understanding of the operational dynamics of the private

formal and informal land markets. By not evaluating these markets, publicly-sponsored schemes often suffer from the problems noted above: inappropriate land development and infrastructure standards; difficulty in serving target groups; speculation; negative cash flows that can be offset only by costly subsidies or decapitalization; and possible erosion of land reserves.

Market studies reveal that informal private sector "developers" are usually the most active and successful in meeting low-income shelter needs. Studies also indicate that these groups require some public sector recognition, security of land tenure, and legitimate access to basic infrastructure (water, power, and transport). Also needed are subdivision guidelines at basic standards such as minimum rights of way, etc. (Guided land development is becoming one such mechanism for serving this end in Nepal, Thailand, Morocco, Tunisia, Cameroon, and in other countries.)

While human resource constraints appear to be a problem in the Caribbean, in many other places institutions concerned with land development and management often start out lean but end up overstaffed, with subsequently high operating costs. This is another reason why many of these organizations are currently undergoing management audits and reforms. For all practical purposes, the concerned agencies have shifted from a technical to a mainly managerial role. This usually involves supervision and monitoring of local consultants. Experience suggests needs for the following types of human resource support: more financial management training at higher levels in the organization; reforms in policies and regulations to guide planners and managers; increased capability in land and housing market analysis, project management training for technical staff; and training in improved methodologies and technologies for land planning and management.

Over the past several years, PADCO has been working with AID's Office of Housing and Urban Programs and other donors to study urban land markets. The following presents some of the general findings of several case studies and how they relate to the institutional and policy concerns noted above.

Karachi, Pakistan

Karachi is a very large city growing at 5 percent per year. However, the principles involved in this illustration apply to much smaller settlements as well. The Karachi Development Authority (KDA) has had a virtual monopoly on public vacant land development and sales within the metropolitan region. The KDA has over the past 20 years been selling off semi-serviced land at very low prices to private households, building societies, etc., well before actual demand presented itself. Unfortunately, despite its prerogatives, the KDA has not been able to properly or efficiently respond to the market requirements. Many of its schemes have taken 20 or more years to mature. As a result, about 300,000 plots lie vacant with the built-up area, enough to accommodate 1.2 million inhabitants.

Despite the KDA's monopoly on public land development, about 70 percent of residential land conversion between 1970 and 1988 was carried out by the informal housing sector (a figure not unlike many other metropolitan areas in the developing world), and about 40 percent of all residential land area is now occupied by informal housing.

Illegal subdivision of land has become the system by which low-income households acquire land. Tenure is promised by so-called land grabbers who get "protection" from public officers. Water (usually by tanker) and transport are usually arranged to purchasers. Layouts nowadays roughly conform to KDA norms. The sites become fully developed and serviced over them.

This dichotomy in Karachi's land market is the result of the following factors:

- ◆ Despite low density urban development and large vacant land areas there is a severe housing crisis.
- ◆ Very large areas of semi-serviced land were sold by the KDA without secondary and tertiary infrastructure. This land could then not be occupied in response to growing demand.
- ◆ The KDA sold its semi-serviced land well below market prices, foregoing opportunities to earn major revenues that it could have used for urban extension, infrastructure investment, and "infill" of vacant areas. (According to our estimates, it should have recovered an additional \$10 million in 1985 alone.)
- ◆ Land sold by the KDA became the target of speculators (there being few other areas for investment) who hold the land for long periods without investing in local infrastructure.
- ◆ Land sold off to private groups and held for speculation has resulted in price increases that exclude low-income groups. For example, average purchase price in unplanned areas are less than 25 percent of those in planned areas and rents were about one-half the value.
- ◆ In essence, the KDA gave away control over the land market because of its need to raise revenues. This policy, and the long maturation of its schemes, has also resulted in a deterioration of trunk infrastructure in its peripheral and unoccupied development areas (with subsequent high replacement and maintenance costs).
- ◆ The lack of a formal land delivery system that could satisfy low-income households needs, in term, led to the creation of an informal land development market.

Tunis, Tunisia

In Tunisia, the national land development agency (AFH), like the KDA, has access to large state and land reserves. It too sold off fully developed plots below market value, while seriously depleting its public land reserves and resource base for acquisition of land on the private market. In the past, it did not seriously face competition with the private sector. However, now that it no longer has a strong comparative advantage in land reserves, this is likely to change.

As noted above, the AFH developed land at standards that made it unaffordable to low-income groups despite both land and interest (plot purchase) subsidies. As a result, low-income groups turned to squatting and informal land development schemes that have traditionally housed at least one-quarter of Tunisia's urban populations. In Tunisia and Pakistan, these areas have been the subject of significant upgrading schemes, including the provision of more secure tenure.

Shelter and land delivery institutions in Tunisia are now undergoing major reforms, including movement away from traditional subdivisions toward the provision of trunk infrastructure, cost recovery through the establishment of improvement districts and betterment taxes, and development of adjoining areas by private parties. Legislation has now been drafted to encourage private sector activity in land development.

Bangkok, Thailand

Thailand's National Housing Authority's (NHA) various housing and land development programs have consistently suffered from the same problems noted in Karachi and Tunis: unnecessarily high and expensive development standards, requisite subsidies, and subsequent resource constraints, which have meant that only a limited number of plots and units could be produced. From 1975-78, units were being produced with subsidies ranging between 60 and 100 percent.

According to PADCC's Bangkok land management study, undertaken in 1986-87, while some progress was made in reducing standards and subsidies from 1978-85, the private sector was much more responsive to market conditions. It shifted from a fairly saturated middle-income market to lower-middle income households by reducing plot (i.e., to 80 m²) and unit sizes. As a result, it was able to consistently sell 84 percent of its plots at full cost versus 65 percent of partially subsidized plots by the NHA. Other initiatives that the private sector took involved increasing densities and saleable areas in subdivisions, and experimenting with new materials and methods, facilitating financing, etc.

The public sector was found to suffer from self-imposed bottlenecks involving unrealistically high subdivision and building standards. While the formal private sector was obliged to follow these standards, less well capitalized Thai entrepreneurs found loopholes that allowed them to operate in the informal land subdivision market. Rudimentary drainage, sewage,

parks and playgrounds, street lighting, etc. were kept to a minimum. For example, road widths ranged between 4 and 16 meters, only about one-half the roads were paved, etc. As a result, square meter land development costs were one-third to one-half those in formal sector developments. The study found that these plots were affordable by groups in the 20-40th percentiles of the income distribution.

According to a 1986 PADCO study, NHA land acquisition policies also handicapped the agency. Its policies did not permit acquisition of plots less than 16 hectares, while most of its acquisitions were on the order of 96 hectares in distant fringe areas. Private sector acquisitions, on the other hand, were on the order of 8 hectares in much better locations with much less need for off-site infrastructure and other services. NHA land acquisitions were located far from employment centers and with poor access to services. Savings in land acquisitions costs were eaten up by major investments in clearing and preparing sites and extending trunk infrastructure.

Amman, Jordan

A study for a national housing policy in Jordan, for which PADCO was the prime contractor in 1985-87, revealed that zoning regulations had a very adverse impact on Amman's urban land market. The master plan had designated too much land for high standard housing development, resulting in a surplus of land affordable only by upper-income groups and a shortage of land for middle- and low-income households. Much land in the metropolitan area remained vacant as a result of the plan. Consequently, because demand was so high for smaller low cost plots and units, their prices per square meter were actually higher than those in the higher standard areas.

Kathmandu, Nepal

The Kathmandu Valley in Nepal shares many similar problems as do countries in the Caribbean. The land area is finite and competition between land uses, particularly urban and productive arable land, is critical. One of the main outputs of the study was a concept plan for future development which would ease conflicts between competing uses and to address problems of inefficiency in urban growth.

The Kathmandu Valley Urban Land Policy Study undertaken by PADCO and financed by AID (RHUDO/Bangkok) in 1985 revealed that the urban land market was entirely dominated by private land brokers. These groups enabled an expansion of Kathmandu's residential area by 134 percent between 1971 and 1981. The few publicly-sponsored land development schemes that had been initiated remained largely vacant after more than a decade because they got bogged down in land acquisition, the clear titling of plots which were sold, and an inability to complete infrastructure programs.

The land brokers in Nepal were found to be unique in that their ability to operate in the land market depended on a knowledge of land ownership (often obscure in public records) and

perspective land sellers and plot purchasers. Rather than acquiring land for development (which was limited by land reform legislation), the brokers secretly arrange agreements between the parties for a commission and cement the subdivision of land through the acquisition and control of access roads (rights of way). No other infrastructure is introduced.

As local authorities in Kathmandu do not have adequate land development regulations and enforcement capacity, the process described above results in unplanned, irregular development patterns which are eventually expensive to service. Road rights of way are kept to a minimum (often only allowing two small vehicles to pass) and road widening also proves very expensive.

Public land acquisition and development policies have equally aggravated development efficiency. Various ministries have acquired land and located buildings in an ad hoc fashion without regard to valuable arable land and flood plains. While a public religious trust holds large reserves in the valley, these are not being strategically used for development purposes.

High land prices have virtually excluded low-income households from entering the land market. While a small number of informal settlements exist in very undesirable areas, most low-income households have densified the old medieval city where living conditions have become extremely poor.

A key initiative undertaken by the authorities in response to the land policy study was a planning and development act for the Kathmandu Valley. A moratorium on construction in flood plains has been enacted and a road development program to stimulate growth in strategic development areas is being prepared. A proposal was also put forth to put a surtax on land transaction taxes in order to raise funds for supporting guided land development by land brokers.

A special program will soon get started to provide institutional "teeth" to the act and to related development issues, and to address critical environmental issues which have emerged in the valley.

San Pedro Sula, Honduras

PADCO undertook a study to identify critical land development issues, project land and housing needs and prepare a proposal for a strategic land and housing development process for San Pedro Sula. As in Nepal, one of the main outputs of the assignment was a preliminary development plan to improve the efficiency of urban growth. This secondary city is growing at an annual growth rate of 6 percent, with which recent shelter production is keeping pace. However, a substantial deficit still remains. Furthermore, about 38 percent of the population currently resides in informal settlements.

A sample of five low-income housing projects revealed that lots were barely affordable to the median income groups. Unfortunately, economic and income trends suggest that land and

housing are becoming increasingly unaffordable to low-income groups. The cost of urban infrastructure, for example, is increasing at about 15 percent per year.

Urban expansion has also been occurring in an inefficient manner due to a variety of factors. To respond to pressing land policy and development issues, a series of recommendations were developed including: the need for a development plan, including forecasts of future land and housing needs; a special urban consolidation scheme; the need for a specialized unit to carry out the program; the need for modified zoning regulations, including a special nonspatial category for low-cost residential plots; public cooperation with private landowners and other groups; better use of the betterment tax, expansion of the boundary for better planning control and resource mobilization, etc.

One outcome of the study was a systematic action plan which has to be generalized to include the following:

1. ***Set quantitative land and housing development targets.*** Planners and policymakers must first prepare firm baselines data and estimates of land and housing requirements in increments of five-year periods. These are needed as a basis for establishing appropriate land development policies and estimating capital investment requirements. It was noted that policymakers must ensure that the required amount of land can and will be developed (by public or private parties) over the planning period.

2. ***Establish short-term plans based on the above.*** Detailed plans should include proposed land uses, plot plans and layouts; estimation of infrastructure needs and costs, and a financing plan for funding infrastructure development.

In those places where large amounts of land lie vacant within a metropolitan area, special "infill" programs need to be developed in coordination with other agencies, particularly those concerned with water, power, roads, and transport. A lack of supporting infrastructure was found to be the key constraint to development of these areas. Other findings suggest the need for revisions in land use and zoning regulations and to supplement an investment program with a finance plan that is monitored and revised on a regular basis. Urban extension programs should be incremental and stimulated by investment in access roads. Ideally, the plan should be reviewed annually and revised every five years.

3. ***Check institutional coordination and capacity.*** In most urban places, institutional capacity and coordination between the key actors in the urban development process are consistent problems. If coordination is to be effective, it must check on general capability to implement development plans, execute infrastructure programs and land acquisition, carry out zoning and planning controls, provide or support realistic alternatives to squatting and illegal subdivision of land, review existing and potential revenue generation mechanisms, and analyze how budgetary resources are currently being utilized.

This will require a critical review of roles, responsibilities, and capabilities of all parties concerned. Once strengths and weaknesses are identified, an improvement program, including institutional, management, and legal reforms, and training programs, may be devised which are consistent with available resources.

4. *Removal of impediments to efficient land and housing market operation.* As noted above, the key impediment to efficient land markets usually involves inadequate access to basic infrastructure. Other impediments often include "self-imposed" development standards and pricing policies. Almost without exception serviced public land has been sold well below market values, resulting in the defeating cycle mentioned above. These difficulties can only be overcome with a better understanding of the land market and the activities of the private formal and informal sectors. Wherever possible, the public sector should limit its activities to a facilitating role for private sector initiatives, such as the provision of trunk infrastructure, planning guidelines and technical assistance, credit, and removal of other impediments such as unnecessarily complex bureaucratic procedures. It should not attempt to compete with the private sector, but rather encourage it. Where appropriate, it should undertake joint development programs.

Other steps that can be taken are to extend limits of authority, review existing zoning regulations, and reduce residential subdivision and engineering standards to allow for more cost effective urbanization, and improve land acquisition procedures.

5. *Design and implement financial mechanisms.* Institutional capacity is ultimately a function of available resources. Most urban places have not exercised their resource mobilization potential and the necessary political will to do so. Among development authorities, dramatic increases in revenues may be brought about through revisions in regulations regarding pricing and allocation of residential plots.

Experience suggests that resource mobilization can be increased if affordable and if it results in direct improvement of urban services for beneficiaries. Alternatives include the establishment of improvement districts for levying infrastructure taxes, cost sharing and betterment levies, surcharges, and revisions in tariff structures.

While cadastral systems are generally weak in developing countries, the greatest resource potential generally lies in augmented property tax revenues. Tax rates and assessment bases are usually outdated, as are urban boundaries in which the taxes may be levied.

6. *Promote private sector initiatives.* Formal private sector participation can be best encouraged through access to credit and supporting infrastructure and joint land development schemes. In addition, the public sector should concentrate on removing bottlenecks such as lengthy and cumbersome procedures for subdivision, and building permits and zoning and development regulations which are appropriate to the local setting. Other means of potential

public support would include sale or lease of public sector land under specific development guidelines, provision of technical assistance, and the identification of priority areas for development and control.

In virtually every country it will be important to establish a mechanism to promote informal private sector initiatives for low-cost housing development. As few governments have taken steps to regularize the informal development process, it is most likely that special programs will need to be established to work with land owners, developers, land brokers, lessees, cooperatives, and other groups that are active in informal land development. Such programs may involve provision of credit and technical support, reviews of local budgets and programs to assess their likely impacts on planning objectives, and access to infrastructure and more secure tenure.

7. *Monitor and revise land development processes and ongoing forward planning.* In order to monitor progress toward achieving housing and land development goals, it is important to establish an information bank of baselines data for continued monitoring. Land price and market data can usually be readily obtained from real estate brokers. While socio-economic and planning data may be obtained through traditional methods, other means, such as the use of remote sensing, is an inexpensive means to get regular updates on the growth of the built-up area, changes in land use and residential types, etc. Cadastral and tabular data can be linked to these methodologies to help form a data bank for planning and land management as well. On the basis of this information, better planning, programming, and targeting of land development programs is possible.

REGULATING THE DEVELOPMENT OF URBAN LAND: OPPORTUNITIES FOR REFORM

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INTRODUCTION

Governments in virtually all countries regulate the private development of urban land. The three principal means are: (1) zoning ordinances (which specify allowable uses of land in different zones that comprise the urban area); (2) subdivision regulations (which control the layout and intensity of development when dividing land for resale); and (3) building regulations (which set standards as to structural quality and electric, water, sanitation and other service systems).

International analysis has shown that, in much of the developing world, such regulations are so unrealistic that they are seriously frustrating the development process and, in particular, making conditions harder for the urban poor. The United Nations' widely endorsed *Global Strategy for Shelter to the Year 2000* calls for nations to reconsider their regulatory environments and a number of them have begun to do so. Yet this has often proven a painful assignment. In some cases, the regulations are supported by strong vested interests which are not about to see them overturned easily. More important is the recognition that the regulations respond to deep-seated societal values and reforms that are insensitive to those values will be doomed politically.

This paper begins by examining the nature of this dilemma. It then reviews a number of solutions that have been proposed to address the dilemma, and concludes with some optimism. The environment is now more conducive to reform. The path will be difficult, but if reformers actively publicize the societal costs of current regulations and propose balanced alternatives, it should be possible to make some headway on this issue in most countries.

THE STANDARDS PROBLEM

The heart of the problem as it is typically described is that the standards in these regulations require unreasonably costly materials, technologies, and land use patterns--so much so that legally approved housing is unaffordable to most new urban households. For example:

- 1960 site development regulations in Uttar Pradesh (India) required wide roads, excessive public open space and residential plot sizes. It is estimated that only the top 5 percent of all urban households could afford to locate in developments built to these standards. (Bertaud et al., 1988).

- Cost analyses of modest housing meeting the standards of the Kingston Development Order in Jamaica showed that they were affordable only to the top 15 percent of the income distribution. (Construction Resource and Development Centre, 1987).

The problem is most often explained as a "colonial inheritance": standards borrowed from codes in industrial countries that are inapplicable in the developing world. But in many developing countries the standards have remained rigid or even worsened since independence. From the 1950s through the 1970s, the design professions everywhere were extremely cautious with respect to health and safety. Sizeable "safety factors" were added in to make absolutely sure that hazards would be avoided without consideration to the effect on costs and, thereby, development (see Gakenheimer and Brando, 1988, for a discussion of the incentives involved).

THE PROCESSING PROBLEM

More recent studies suggest that in some places slow and cumbersome processing of development applications may be as much of a problem as the standards themselves.

- A study of all subdivision applications processed by Jamaica's Town Planning Department from 1982 to 1986 showed the average processing speed to be just over six months. (This was mostly explained by slow work by outside referral agencies). The status of 20 percent of the applications that had gone into the system at the beginning of the period could not be accounted for by the end of it (Coiner 1987).
- More seriously, land development applications in Malaysia typically take three to five years before final determinations are given (World Bank 1989).
- In Ahmedabad (India), "The time consumed for getting No Objection Certificates . . . can range from 2 to 5 years and, for getting the final sanction, from 10 to 12 months. During the initial periods of submission, the developer has to go to the office of the competent authority almost every day" (Wadhva 1986).

Obviously, circumstances like these greatly increase the risks and costs for would be developers.

THE EFFECTS

With Weak Enforcement. Most developing countries do not have the staff and other resources needed to enforce their regulations effectively. This is an invitation to avoidance. Given unaffordably high standards, onerous application procedures (and limits to the capacity of the rental market), most new urban households have no alternative other than to develop their own shelter "illegally"--often on land to which they have no legal right and almost always without access to public water, sanitation, and other services. Where enforcement is weak, this is the typical outcome. The share of total housing production that is built without government approval has been estimated in the range of 50 to 70 percent in Jamaica (Kingsley and Wines 1987) and 80-to 85 percent in Indonesia (UNCHS 1989). In some countries, the numbers are enormous. In

India's cities, 32 to 40 million people lived in unapproved shelter in 1981. This is 20 to 26 percent of the total urban population (Lee, 1988).

The costs of these outcomes are substantial. Most important are the social costs of large populations living in squalid, unplanned, and unserved environments for long periods of time (particularly the health hazards). There are also direct economic costs. For example, it is much more expensive to install infrastructure after the fact in a settlement that has been built up haphazardly than to do so ahead of time in one with an orderly site plan. More broadly, illegal settlements are located where the colonizers think they can most easily get away with it--frequently locations that disturb the efficiency of the urban area as a whole. Fragmented growth in this manner wastes scarce land resources, increases aggregate commuting, raises the total costs of trunk infrastructure, and threatens lands that are critical from the standpoint of both agricultural development and environmental concerns. Finally, the existence of unrealistic standards still constrains shelter investment to some extent, even where enforcement is weak (there is always a cost to breaking the law). This constraint implies losses in job opportunities for the poor as well as in GDP.

With Serious Enforcement. Few governments have had the enforcement capacity to prevent the accelerated growth of illegal settlements as noted above. One that has done so in recent years is Malaysia, but the result has been a devastating problem for its national economy. By bottling up effective demand for housing, inflation in the sector has skyrocketed. From 1972 to 1982, Malaysia's housing prices rose 19 percent per year on average, in contrast to only a 7 percent annual rise in the consumer price index (World Bank 1989).

Effects on Businesses and Job Creation. Planners have tended to focus on the problems unrealistic standards create for low-income housing. The problems are no less real, however, for new or expanding businesses. There has been no research as yet to quantify the effects, but the general pattern is fairly obvious. Standards that imply high construction costs and onerous bureaucratic hurdles retard investment in factories, shops, and offices in the same way they do for housing. Some investors finally decide not to go ahead with their projects. Where construction does take place, the extra cost of the input is translated into higher costs for the goods and services produced, making them less competitive. In either case, the result is ultimately less new job creation in the economy as a whole.

THE POTENTIAL GAINS FROM REFORM

No one has reliably quantified the complex pattern of benefits that would be gained by any country from appropriate regulatory reforms. There are indications, however, that they could be significant. One example is the savings that might result if Jamaica could cut back its current urban land use ratios, which appear appear quite excessive by world standards.

Acres of developed urban land per 1,000 inhabitants:

- 48.2 *Kingston Metropolitan Area, Jamaica* (Kingsley and McLean, 1987)
- 47.5 *Average, 48 Large U.S. Cities* (Niedercorn and Hearle, 1962)
- 20.5 *Average, Cities in Developing Countries* (United Nations Centre for Human Settlements, 1986)
- 16.5 *Buenos Aires, Argentina* (Kitay, 1985)

Thus the metropolitan Kingston uses almost 2.5 times as much urban land per capita as the average for cities in developing countries and even a bit more than the average for a number of large U.S. cities in the 1960s. The figure for Buenos Aires is one example of a number of cities in middle income countries that use urban land much more efficiently.

Estimates adapted from the Government of Jamaica's National Shelter Strategy (1987) indicate that the nation's urban population will grow from 1.05 million in 1982 to about 1.80 million in 2010--an increase of .75 million people. In accommodating this growth, there will obviously be much more encroachment in prime agricultural lands and environmentally sensitive areas if present land use ratios are maintained than if they could be significantly reduced. Equally dramatic would be the effect on costs. Lower per capita urban land use means less road area and shorter pipe lengths for infrastructure systems, as well as lower site development costs in the aggregate.

It would be unrealistic to expect Jamaica to cut back to the developing country average, but cutting back just part way, say to 35 acres per 1,000, would yield tremendous savings. It would reduce the new land needed to accommodate the .75 million new urban dwellers from 35,900 acres to 26,100 acres (a 27 percent reduction). Assuming on-site development and infrastructure costs of J\$1 million per acre, this would itself result in a savings of about J\$10 billion and there would be additional reductions in off-site infrastructure (major roads and trunk mains) as well.

APPROACHES TO ADDRESSING THE ISSUE

A More Promising Environment for Reform. While recent studies have brought a clearer understanding of the impacts, urban analysts have been aware of the damaging effects of onerous land development regulations for some time (see, for example, Courtney, 1978, and Rivkin, 1978). Why has so little been done to address the problem before now?

The probable answer is that those concerned felt that the political obstacles were too formidable. For most of the past two decades, they focused their efforts instead on implementing pilot sites-and-services and slum improvement projects to demonstrate the viability of low cost solutions. Such projects dealt with a very small fraction of total residential needs. It was much simpler to stress their experimental nature and secure exemptions from local codes rather than to attempt wholesale code reforms ahead of time.

The late 1980s, however, present a different environment. First, those who designed and supported the pilot projects of the 1970s have recognized that this approach alone is not likely to lead to wide-scale "replicability" (see Cohen, 1983). Second, accelerating urbanization has meant that the effects of unaffordably high standards (most obviously, the massive growth of unserved squatter settlements) have become more evident and there is more political pressure to do something about them. Finally, the severe economic conditions that have faced developing nations of late have made most of their leaders considerably more cost conscious. As professionals begin to demonstrate that the unreasonable safety factors built into earlier health and safety standards are now threatening development, politicians seem more willing to pay attention.

The Need for Balance. Given a more promising environment, what is the most sensible path to reform? Some have argued that standards and controls should be eliminated altogether. They often point out that Houston, Texas has never had a zoning ordinance and it has not had any notable land use problems (in fact, its land use and density patterns have not developed much differently from those in other U.S. cities). Experience suggests, however, that few, if any, third-world localities are likely to be willing to totally give up their zoning powers, and even Houston has controls over site planning and construction. Economists generally agree that there is a sound theoretical basis for some government control over land markets. This is because market discipline alone does not prevent negative externalities: i.e., when individuals take actions in their own self interest that create negative conditions for others, such as traffic congestion, pollution, and health or fire hazards. The relevant questions relate to the nature and severity of the controls rather than to their existence.

There are also good reasons not to cut standards back too far. Some of the early zeal for affordability in sites-and-services projects, for example, led to minimalist designs that proved undesirable. In some cases, initial reductions in capital costs (e.g., lower quality roads or sanitation systems) implied substantial increases in maintenance costs so that there was no real saving over the long term. In others, lot sizes were so small that the residents could not add rooms to be rented out or use their land for other income earning activities that were essential to their survival. It was found that if lots were too small to permit a family to build its vision of a decent home eventually, they would not invest much in the site themselves. The goal, therefore, should be a balanced revision to standards which is sensitive to social, motivational, and economic concerns over the long term rather than focusing solely on short term capital cost reduction.

Approaches to Reform. Consistent with the goal of balanced revisions, this paper suggests five approaches that should both address the problems raised earlier and meet with greater political and social acceptance.

1. Restructure and Simplify (relating the extent of control to resources required for enforcement primarily by retaining controls in some zones, and/or for specified types of development, and relaxing and/or eliminating them in others).

2. Encourage Efficient Site Planning (promoting the use of techniques that substantially reduce costs without offsetting reductions in the quality of development).

3. Find the Leverage Points (using cost analysis to identify which standards have the greatest impacts on affordability).

4. Permit Incremental Quality Improvement for the Poor (finding ways to legitimize informal development that promote quality improvement over the long term).

5. Streamline Processing (using computer systems and other techniques to dramatically improve processing speeds).

1. RESTRUCTURE AND SIMPLIFY

When standards remain on the books but everyone knows they will not be enforced, the legal system as a whole loses credibility. One way out of this problem can be to first, assess how much enforcement capacity really exists, and second, design standards that focus only on the most critical issues and areas in a manner that they can be enforced within that capacity.

This might mean a very different kind of zoning map, for example--one that formally recognizes three types of zones.

a. Controlled Development (Critical Development Zones). Fairly tight controls would be retained in these areas. They might include: areas around tourist attractions; watersheds, flood plains, and other environmentally sensitive areas; and key activity centers (e.g., downtown areas or manufacturing centers).

b. Controlled Development (Regular Development Zones). Development in these zones would still require prior government approval but the regulations would be less stringent. They might provide broad ranges of acceptable land use intensity and permit a mixture of residential and related commercial and office activities, without trying to specify locations for each on a lot-by-lot basis. Activities considered seriously detrimental to residential-cum-working environments (e.g., automotive repair, noxious manufacturing processes) could be specifically excluded; but otherwise, there would be substantial flexibility. In recent years, planners have begun to advocate more "mixed use" development, recognizing that earlier zoning which required spatial separation between residential areas and all income earning activities produced sterile environments. Locational mixes of homes and work places (e.g., apartments over shops) have been characteristic of the world's most attractive cities and have an important advantage in reducing aggregate commutation.

c. Flexible Development Zones. Depending on available enforcement capacity and other factors, it may be appropriate to exempt some areas from control altogether. Development in these zones would be legally recognized without any applications being made to government

(perhaps with the exception of requiring building code review only for structures with more than two stories). Some countries (e.g., much of the Caribbean) might not need to make extensive use of this type of zone, but in others it would probably be dominant. Indonesia is a good example. The existing informal sector land development process around Indonesia's major cities ignores official land use and building controls but it is quite effective (see Struyk et al., 1989). Squatting is not much of a problem--informal facilitators lay out subdivisions and arrange for land transfers on a legal (or at least quasi-legal) basis. Although far from ideal and generally lacking services, the resulting settlements are of reasonable quality. Urban growth in Indonesia is taking place at a very rapid pace and the government could not hope to enforce thorough controls on all of it--the attempt to do so might well confuse and frustrate what is now a fairly efficient means of urban expansion. More valuable government interventions might include: (1) using the placement and timing of major road investments to guide the locational pattern; and (2) providing guide books and technical assistance to informal subdividers (and local officials) promoting the benefits of more efficient site designs and standards. Recognizing such areas officially as Flexible Development Zones in the codes should encourage yet more rapid quality improvements within them over time.

Recognizing all three of these types of zones would give countries substantial flexibility in relating controls to enforcement capacity more realistically. As noted, the mix would differ in different countries (some would need to make much more use of the Flexible Development approach than others). Also, countries could change their own mix internally over time as administrative capacity changes. (Given expected continuing pressures on government budgets and growing evidence on the limited benefits from land use controls, however, it is doubtful that any should make tight control over all land even a long-term objective.)

Another step that should much enhance the efficiency of the system in the controlled zones would be to simplify and clarify the standards themselves. The rules in zoning and subdivision regulations are often written in a general, ambiguous style and, in some cases, some of the criteria actually applied in reviewing applications are not written down at all (see discussion of this problem in Jamaica in Kingsley, Olsen, and Telgarsky, 1989). Unclear (and unwritten) rules create the need for negotiation between the developer and the reviewer. This is costly due to the extra time required for both of them, and it means the developer cannot be certain of the outcome ahead of time (adding to the risk of an already risky investment). It is yet more costly when engineers or other experts have to make the final judgments in these reviews. Clear criteria (those that can largely be applied by clerks once they have been taught how to do so) improve the incentive structure for developers, as well as the immediate efficiency of the review process.

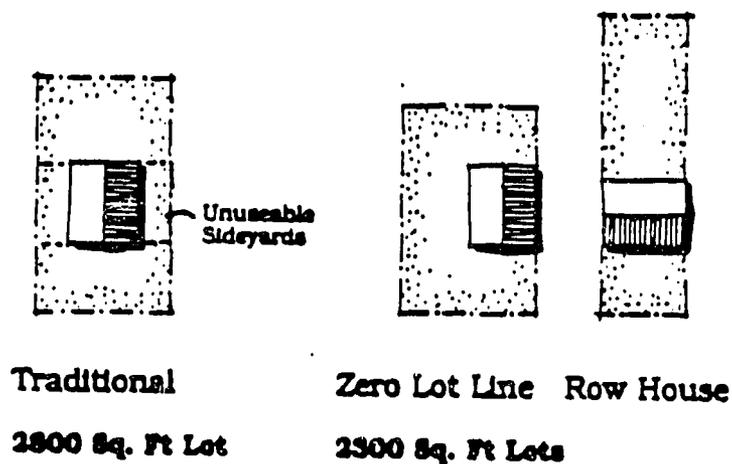
2. ENCOURAGE EFFICIENT SITE PLANNING

Because of increasing concerns about affordability, new site planning techniques are being employed in many countries to use urban land more efficiently. These techniques permit notable cost reductions without commensurate losses in quality. They offer an approach, for example, by which third world cities can use less land for urban growth without creating an unreasonably

"high density" atmosphere. Such techniques could be promoted among development designers for all zones, and written in to the standards in the controlled zones.

One way to save land is illustrated in Figure 1. Standard residential lots waste space because they normally have side yards so small they cannot be used. The drawing at the left shows a traditional lot (40 feet by 70 feet) with 500 square feet devoted to side yards. The drawings at the right illustrate *zero-lot-line and row house* approaches which eliminate those 500 square feet without any real reduction in "useable" outdoor space.

Figure 1

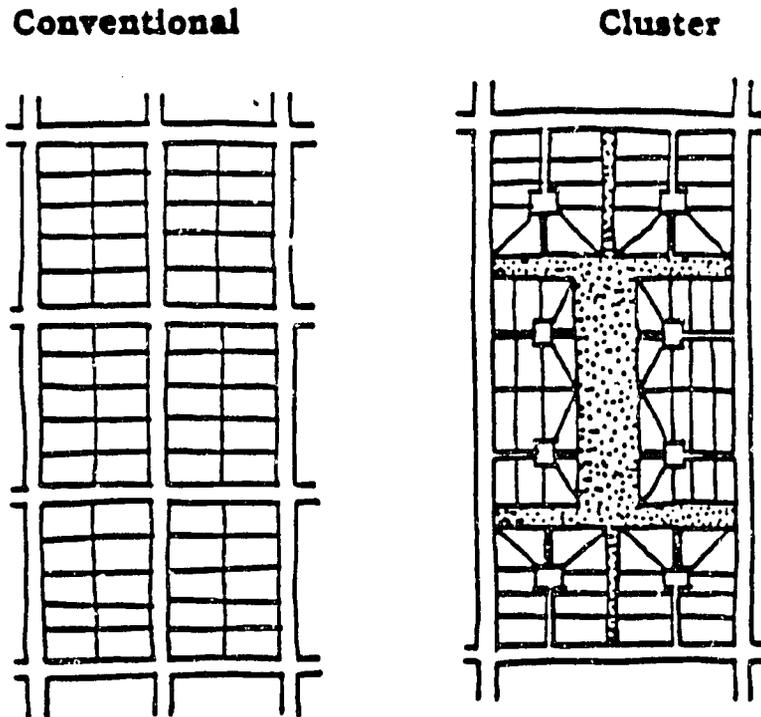


Moving up a level, these techniques are combined with a cluster design in the plan shown in Figure 2. This particular comparison was developed by the U.S. National Association of Homebuilders (1986). The cluster approach has become very popular in the industrial countries and it is rapidly gaining popularity in the developing world as well. Its advantages, as shown in this diagram, are that while it uses exactly the same amount of land in total it offers:

- Less noise and more privacy (because it eliminates automobile traffic through the residential area).
- The creation of considerable common open space (each lot has direct access).
- More lots (76 vs. 60 or a 27 percent increase in the number of households accommodated). Yet the lots are only modestly smaller and contain roughly an equivalent amount of "useable" outside space.
- Lower costs due to (1) much less street area to pave; and (2) much shorter pipe lengths for water and sewerage (mains have to go into each of the cul-de-sacs only and not across the entire area in either direction).

- This design created a substantial amount of open space. It could be redesigned to offer less open space and yet more private lots if a different ratio was desired.

Figure 2



The neighborhood plans in Figures 3 and 4 both occupy the same amount of land in total and both rely on the cluster approach, but they differ in a number of other respects (analysis again from the National Association of Homebuilders, 1986). The "conventional" design contains large lots that are all the same size. In contrast, the "balanced" neighborhood offers:

- A variety of lot sizes and housing types (which offers a broader range of choice and encourages some mixture of income groups).
- Smaller lot sizes on average.
- Narrower lot frontages (to reduce street length) and reduced street widths.
- A considerable increase in common open space.
- The siting of that open space to: (1) preserve attractive features (e.g., stands of trees and rock outcroppings); (2) enhance and take advantage of natural drainage patterns; and (3) avoid building on topographic features where grading would be costly.
- Enough extra space to provide some recreational and commercial facilities.

Figure 3
Conventional Neighborhood
Uniform Lot Sizes

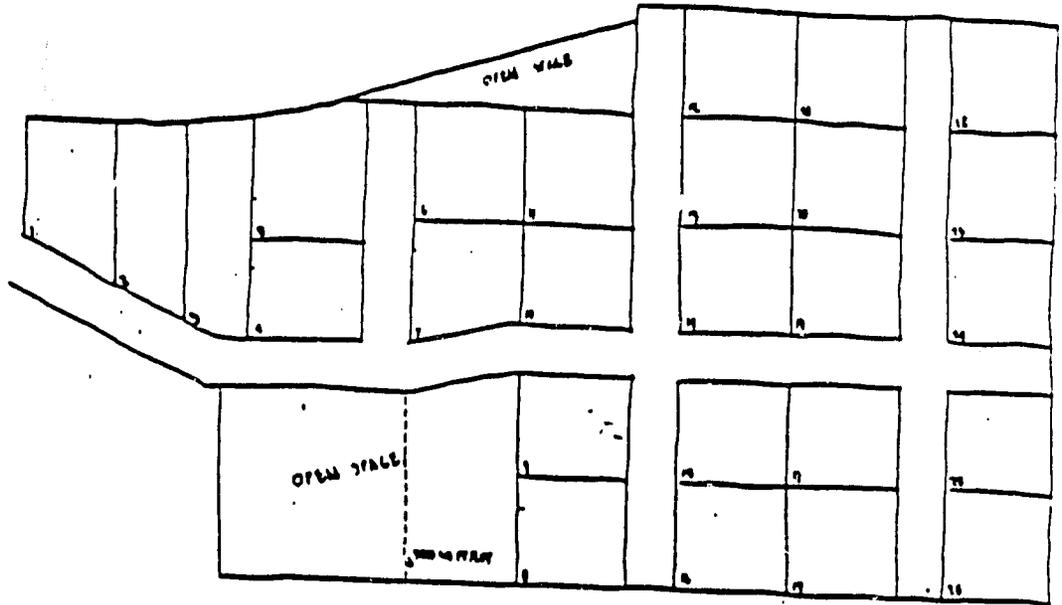


Figure 4
Balanced Neighborhood
Mixed Lot Sizes

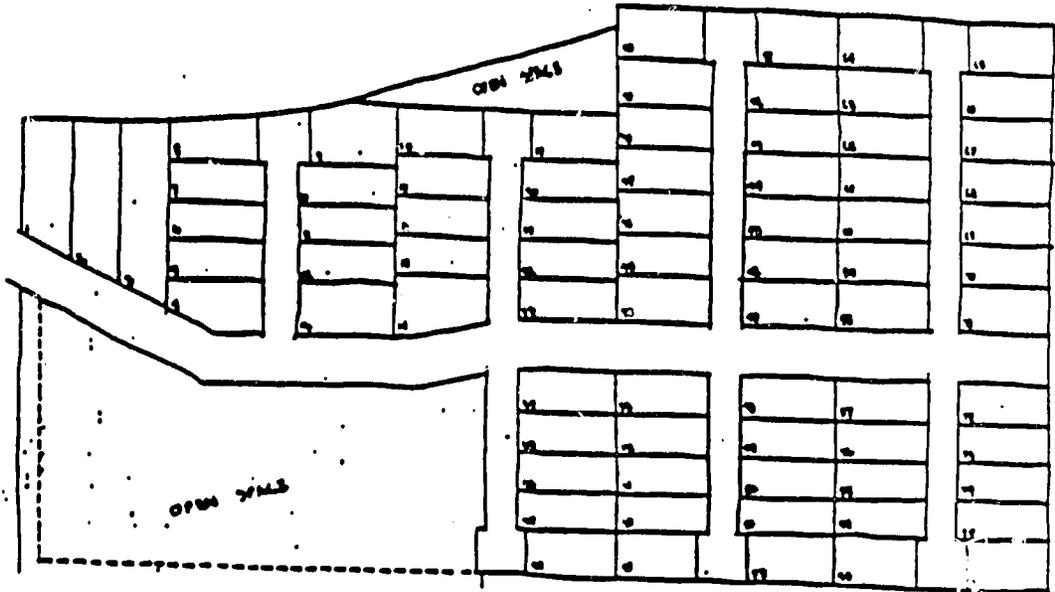


Figure 5

OPTION 1



OPTION 2



The balanced neighborhood design has a number of advantages that should be relevant for site design in the Caribbean:

- 257% more common open space
- 16% smaller average lot size
- 9% less linear feet of roads
- 37% less road surface (square feet)
- 19% less lineal feet of water mains
- 53% less lineal feet of storm sewer, and

- 33% less *total cost of land and infrastructure*

An alternative on the same piece of land, of course, would be to reduce the amount of common open space and provide more residential lots, further increasing the efficiency of the development.

3. COST ANALYSIS TO LOCATE LEVERAGE POINTS

Techniques for efficient site planning like those noted above should be applicable anywhere. But beyond encouraging these, most countries will have to go further to cut back at least some of their present standards. Doing so in a sensitive manner requires analysis to show where reductions will have the greatest impact on costs.

Tables 1 and 2 illustrate this approach for alternative subdivision designs in Jamaica (from Kingsley, Olsen, and Telgarsky, 1989). Option 1 entails large lots (averaging 4,091 square feet--roughly the minimum size at which present standards permit on-site sanitation) and provides a total of 26 lots. The lots in Option 2 average 1,510 square feet and a total of 76 are provided. Option 2 also takes advantage of the cluster approach which permits narrower roads into cul-de-sacs and fewer lineal feet of roads and water/sewer pipe (Figure 5).

Estimates of land and site development costs are shown in Table 1. Both cases assume sanitation is to be provided via a piped collection system and an on-site package treatment plan. As would be expected given its higher density, the total cost of a serviced lot in Option 2 is much lower than that for Option 1: \$34,500 vs. \$72,900. It is apparent that sanitation costs dominate these totals. The package plan alone accounts for 37 percent of the total cost in Option 2. Yet, because of difficult maintenance problems, package plants are not regarded as an effective sanitation solution in Jamaica. They are in fact actively discouraged by the Jamaica's National Water Commission.

Table 1

Structure of Land and Site Development Costs

	Option 1 (4,091 sq.ft. lot)		Option 2 (1,510 sq.ft. lot)	
	<u>J\$/Lot</u>	<u>Percent</u>	<u>J\$/Lo.</u>	<u>Percent</u>
Land cost	21,022	28.8	8,403	24.4
Infrastructure				
Roads	12,265	16.8	3,556	10.3
Walkways	6,393	7.4	2,193	6.4
Water supply	6,097	7.0	2,230	6.5
Sanitation				
Collection	8,758	12.0	4,240	12.3
Treatment	18,960	26.0	12,957	37.6
Storm drainage	1,154	1.6	658	1.9
Subtotal	51,627	70.8	25,834	75.0
Landscaping	230	0.3	230	0.7
Total	72,879	100.0	34,467	100.0

Note: both options assume package plant sewage treatment.

Table 2 adopts the total costs from the previous table as a base case, and shows how they would vary with several alternative development assumptions. Concerning sanitation, several findings are of interest:

1. As far as on-site costs go, the least expensive option would be connection to a public sewer system if one was available in the area. But this is not a fair test since some share of the costs of off-site collection and treatment have not been factored in.

2. Sanitation by individual septic tanks is not much cheaper the package plant solution, but utilizing pit-latrines would offer substantial savings.

Table 2

Alternatives to Reduce Costs

	Option 1 (4,091 sq.ft. lot)		Option 2 (1,510 sq.ft. lot)	
	<u>J\$/Lot</u>	<u>Percent</u>	<u>J\$/Lot</u>	<u>Percent</u>
Base Cost (from Table 1)	72,879	0.0	34,467	0.0
Sanitation Alternatives				
Pub.Sewer Connect.	54,688	-25.0	21,773	-36.8
Septic tanks	60,161	-17.5	32,270	-6.4
Pit latrines	47,161	-35.3	19,270	-44.1
Other Alternatives				
Eliminate curbs and sidewalks	64,952	-10.9	31,653	-8.2
Reduce quality of road surface	70,132	-3.8	34,289	-0.5

Within each size category, sanitation options seem to be the main factors driving costs. Permitting the elimination of curbs and gutters in minor access streets would also reduce costs significantly. Cutting the quality of the road surface, however, could have a very small effect and, considering the likely impact on longer term maintenance, doing so would probably not be cost effective.

The most important cost reduction, however, would occur if on-site sanitation techniques could be used on smaller plots. Studies over the past decade have concluded that on-site approaches are much safer than had previously been considered (see, for example, Kalbermatten et al., 1982). By today's standards, Jamaica's requirements (minimum lot sizes of 4,000 square feet in urban areas, 8,000 square feet in suburban areas, and 1/4 acre in rural areas) are far out of line. World Bank studies (1988) imply that, depending on soil conditions, septic tanks and pit-latrines can be safe on lots in the 800-2,500 square feet range. Even smaller minimums have been recommended in Asia; for example, 673 square feet in Indonesia (Jabotabek Advisory Team, 1981). There is no need for Jamaica to reduce its standards to Asian levels, but a considerable reduction appears essential if Jamaica is to bring down its excessive urban land use ratios noted earlier in this paper.

In other countries, a similar analysis might indicate that other elements have a more important impact on costs. The point is that country-specific cost analysis is essential to

finding the most cost-effective way to adjust standards and building arguments that are compelling enough to motivate change politically.

4. PERMIT INCREMENTAL QUALITY IMPROVEMENT FOR THE POOR

It is becoming more broadly accepted in the developing world that the imposition of unaffordably high standards in the regulations leads to lower standards in practice as many lower income families are left with no alternative but to build their own shelters illegally on unserviced land. The only way to actually achieve decent standards in the long term is to bring lower income families into the "legal system" initially (even though their housing quality may be low at first) and then reinforce natural incentives for quality improvements over time.

Accordingly, there is growing consideration of regulations that legally authorize low-income households to build crude shelters on land they have purchased or otherwise have obtained the right to occupy. They would be thereby authorized to receive minimal services (water, sanitation, and electricity) and then be given a period of years in which to replace or upgrade their initial dwellings to achieve basic structural, health, and safety standards (see UNCHS, 1989a). Experience around the world has shown that when low income settlers have secure tenure and services, they tend naturally to invest sizeable amounts to improve the quality of their homes as soon as they can afford to do so (for Caribbean experience on this point see Ishmael, 1987, and McLeod, 1987). Government can facilitate this process by providing pre-approved standard house plans, technical assistance, access to credit on reasonable terms, support for community improvement organizations, etc. The additional motivation of facing some civil penalty for failing to improve their dwellings would probably not be harmful, but it would probably be redundant for the most part.

It might be argued that developing sites and services schemes based on these notions is the job of government agencies and only their projects should be exempt from regular standards. In almost all countries, however, there are serious constraints on government production capacity. Few have been able to satisfy more than a negligible fraction of their nation's low- and moderate-income housing needs. If countries are going to make a true commitment to addressing those needs consistent with the thrust of the *Global Strategy for Shelter*, the private sector will have to become involved in a substantial way.

Private developers have to make a profit to survive. They are not likely to find it profitable to provide sites and services projects solely for the poorest of the poor. However, examples in several countries over the past few years indicate they can profitably develop for households with incomes considerably below middle and upper income levels that have been their primary targets in the past. In some cases, this entails partnerships with public agencies where the latter eases regulatory burdens and provides some form of financial or in-kind support (see World Bank, 1988). In others, private firms have been able to develop profitable settlements on their own through a mixture of lot sizes for middle, moderate, and some lower income households. Thailand has recently experienced a boom in privately produced housing

for below-median income families, primarily because a number of smaller private developers discovered loopholes in the formal regulations that permitted them to substantially reduce initial standards (PADCO, 1986).

Formally changing standards to permit such development is likely to require a *two-tiered approach* in the controlled zones of most countries; i.e., one set of standards for higher income subdivisions and a separate set governing developments for moderate and low income households. The latter would permit more economical site designs and the incremental approach to infrastructure and building quality. Jamaica's new Development Order for metropolitan Kingston, for example, allows such an approach. Permission to use alternative standards requires a quantity surveyor's estimate of costs and sales prices and the finding that those prices would be affordable to households with below-median incomes.

5. STREAMLINING APPLICATIONS PROCESSING

Thought has been given to this problem in a number of countries of late (see, for example, Vranicar et al., 1980) and the technical solutions appear fairly straightforward. Five steps are probably most important:

1. ***Install a Computer Based Tracking/Management System.*** Dramatic reductions in computer costs have made such systems feasible now in almost all environments and it is difficult to imagine effective processing reforms today without one. The design of a computer management system must begin with a clear itemization of the current processing sequence. At that stage it is usually fairly easy to identify redundant procedures and eliminate them. Once installed the computer can save on staff time by directly printing required processing forms and external correspondence at the proper times. More important the system can produce management reports on processing speeds and backlogs which almost never get prepared in manual processing. Such reports are the foundation for discovering where slow-downs occur, prioritizing problems, and devising steps to overcome them. One of the greatest benefits with computer systems is simply the capability to quickly track where each application stands and, thereby, avoid the losses of applications that occur in many planning agencies. (For a description of the computer system recently implemented along these lines by Jamaica's Town Planning Department see Kingsley, Olsen and Telgarsky, 1989).

2. ***Establish One-Stop Service.*** One of the most wasteful aspects of the process in many countries is the practice of having applications reviewed by a number of different government agencies. Jamaica's Town Planning Department, for example, has routinely sent out subdivision applications for review by several outside agencies. These external reviews account for 140 days of the 180 days it takes on average to process an application. Analysis has shown that most of this time is consumed simply by processes of transmission and logging, and sitting in in-boxes. And the reviews themselves are largely unnecessary--i.e., with a clear statement of the criteria used by the external agencies the Town Planning staff could make the determinations competently

themselves without the applications ever leaving that department (see Kingsley, Olsen and Telgarsky, 1989).

3. ***Permit Fast Tracking for Simple Applications.*** Applications for small residential subdivisions and building schemes are generally straightforward and can be reviewed very quickly. Yet they normally constitute the large majority of all applications submitted. A dramatically simplified processing routine for them can do much to increase average processing speeds and release scarce staff resources to support better workload management overall.

4. ***Write Clear and Simple Standards.*** This is a restatement of the point made earlier in another context. Simple and unambiguous rules (e.g., streets may occupy no more than 25 percent of the site) can be applied quickly by staff without advanced degrees. As noted earlier, ambiguous standards require negotiation between the developer and the reviewers and that takes excess time and reduces the certainty of the outcome.

5. ***Promote the Importance of Rapid Processing.*** This can be done by: (a) conducting and publicizing studies demonstrating the dampening effect of slow and uncertain processing on investment; (b) publicizing management reports on changing processing speeds; (c) setting targets for improving those speeds; and (d) using information on processing speeds as a factor in staff performance reviews.

None of these steps is technically difficult, yet there are political risks in a program of this sort. Bureaucrats steeped in a tradition of hazard prevention at all costs are likely to resist. There may well be outright opposition from agencies to be cut out of day-to-day application reviews altogether, even if they retain involvement in setting the policies and standards. Streamlining application reviews, like reforming the standards themselves, requires political will to change the status quo--a subject to which I turn in the final section of this paper.

DEVELOPING THE POLITICAL WILL

Those concerned about land development reforms have often seen themselves as politically powerless. When confronted with tough problems, a frequent response is: "we have to wait until the political will develops to make progress on this front." There is much to suggest that this response is too timid today, particularly given the factors outlined earlier in this paper that have improved the environment for change.

Professionals do have a powerful political weapon they can use without overstepping their roles in society: information. They can conduct studies that show quite dramatically how the current regulatory environment imposes substantial costs on society and that the burdens fall most heavily on the poor. Such studies must squarely address the economic implications of the regulations at hand and seek balanced solutions that will not defy the underlying values that support meaningful regulation. The professionals can also more aggressively publicize the results,

both by relying on general media presentation and by building and working closely with intergroup networks that stand to gain from reforms.

The latter can be an impressive coalition. When developers, architects, and engineers fully understand how problems with standards and processing cut back on investment (and therefore their own business potential) they may become quite vocal advocates for reform. National economic planners who care about aggregate investment, job generation, and inflation should reach similar conclusions.

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**LAND USE POLICY AND THE INFORMAL SECTOR IN THE CARIBBEAN:
A STUDY IN CAUSE AND EFFECT**

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INTRODUCTION

The articulation of integrated land use policy measures and plans aimed at the comprehensive planning and management of the land resource in the islands of the Caribbean is increasingly being viewed by international AID donors and regional governments alike as pivotal to the successful achievement of long-term development objectives in the region. The built-in inefficiencies and long-term effects of the traditional *laissez-faire* approach to land use planning in most of the islands is finally becoming cause for concern. Environmental degradation and the suboptimization of scarce natural resources are now viewed as a direct and cumulative cost affecting the viability of long-term growth itself (World Bank 1989).

The relative scarcity of the land resource, both in terms of the small size of the islands concerned as well as constraints posed by topography and population pressure on developable lands, the need to accommodate the demand of multi-users, the transformation of the land resource base into a factor of production in pursuit of long-term development goals are all elements which need to be computed and balanced in the planning process. The need to protect the environment while at the same time utilizing natural resources to promote sustainable growth are two of the most complex and worrisome features of the "development tightrope" faced by politicians and developmentalists in the region.

While the need to compute these various variables into the *modus operandi* within which land use resource policy is formulated has been recognized, there is one dimension to this operating framework which remains totally lacking. This is a failure shared by international AID agencies, regional organizations, governments, and ministries alike. Collectively and individually they have all failed to recognize the direct role played by the informal sector in determining land uses over fairly large areas, and the environmental degradation resulting from its cumulative activities. This is one of the reasons for the frustration of the planning process in most of these islands. Plans, be they economic development plans or national housing plans, all encompass the same bias. They are formulated for a minority of the population--namely, those who can afford to operate within the system--and essentially do not take into account the responses and initiatives of the bulk of the population whose predominant characteristic is one of poverty, and whose main productive asset is neither capital nor land, but their own labor. This labor is used as currency in

a system of barter, in exchange for goods and services, building materials, and most importantly, in the production of their own shelter. Self and mutual help are the underlying tenets of survival.

The informal sector encompasses all those activities which fall outside the regulatory system of licenses, standards, permits and taxes, and is made up of two subcategories: an economic sector encompassing the production of a wide range of goods and services produced by self-employed owner-operators, and a housing sector. Within both subsectors, people who are poor mobilize resources of all types in order to generate employment, provide earnings, and to facilitate both the construction and improvement of their own shelter.

The scale and importance of the informal sector should not be underestimated. The results of research conducted in 1987 in a number of squatter settlements on the island point to the unquestionable importance of the informal sector (Ishmael 1988). Upwards of 65 percent of all the housing units and the largest share of all cheap rental units produced regionally are constructed by this sector, which is able to significantly increase the affordability of shelter through the use of recycled building materials, the illegal occupation of land, an incremental approach to the building of houses, and the use of self and mutual help. In some settlements, the sector is instrumental in providing over 40 percent of all urban-based economic activities, generating earnings however low, providing job opportunities, and supplying goods and services in the amounts and at prices which are affordable to those who are poor. For example, in times of economic recession, as in the case of Guyana, the ranks of the informal sector swell to include middle income households which, in good times, are able to participate in the formal market economy. Several low-income settlements on the islands rely on self-help to provide community facilities, infrastructure and basic services. In many ways this sector exerts a significant impact on the use of land and its development.

Effective land use planning and management is also affected by the political and institutional environment within which policies are defined and enacted. Certain observations need to be made very clear. One has to differentiate between explicitly stated policies which are formulated by the body politic are enacted, and those others also explicitly defined but armed with very few "teeth," are never enforced (nor are they meant to be) and, in reality, are very little more than "paper" policies whose sole purpose is to lend an aura of respectability to the establishment. Then there are the second types of policies which are unwritten but which are tacitly understood as the *de facto* policies which underwrite the operating day-to-day management framework within which things get done. In these islands, these types of policies are sometimes the most important.

The purpose of this paper is to examine the way in which the informal sector is shaped by the political and institutional system within which land use policies are defined and implemented, and the way in which the dominant characteristics of the political and institutional system lends itself to manipulation by the informal sector. In this way people who live and work within the informal sector are able to change the use of land, marginalize land from optimal uses, introduce conflicting land uses, engage in environmentally damaging practices of varying sorts; most

because they have little alternative and/or are ignorant of the negative repercussions of their collective behavior, and all of them because they are aided by a political and institutional environment in which the dominant characteristics perpetuate both external and internal abuse, as we shall see later. But first, an attempt to qualify the extent and type of relationship which exists between land use policies and the informal sector is the focus of the next section.

Land Use and the Informal Sector

On many of the islands in the Caribbean land use planning is carried out on an ad hoc, incremental basis which is totally unstructured. On most of the islands there is a direct correlation between land use policies, both explicitly and nonexplicitly defined, and the activities of the informal sector, as well as a similar relationship between the informal sector and the evolution of land use policy. Underlying it all, the perception of inaction on the part of authorities is central to the scale and type of operations of the informal sector. The dynamics of this symbiotic relationship inform the analysis which follows.

Land use policies, both explicit and *de facto*, are one of the several factors which determine the size and activities of the informal sector at any one time. Many of these policies directly impact on levels of rural-urban migration which fuel the urban-based informal sector on the islands. Some of these policies are rooted in the historical distribution of land. For example, on all of the islands, the historical legacy of the colonial and plantation economies is one in which the bulk of the population does not have access to land. On most of the islands, less than 1 percent of the landowners controlled more than 90 percent of the total land under cultivation in the 1970s. On St. Lucia, for example, 100 percent of land classes I, II, and III (i.e., the most fertile lands) in the early 1980s were controlled by 10 large estates (Rojas and Meganck 1987).

In an effort to redress the historical imbalance and in an effort to achieve a number of national socioeconomic development goals, a number of the OECS islands are embarking on land reform and distributive programs of varying complexity. The land-lease project in Antigua, the Land Reform Programme in St. Vincent, the model farms and Mabouya Valley projects in St. Lucia, the Land Divestment Programme in Grenada and the Integrated Rural Development project in Dominica are examples of the emerging redistributive trends since the 1980s. However, the fact is that while each of these projects hold out the promise to mitigate levels of rural poverty in localized areas in the long run, the bulk of rural populations still eke out marginal livelihood through subsistence farming. Apart from the negative effects on forest conservation and watershed management, this type of small peasant agriculture has had direct and growing impact on rates of rural-urban migration, the growth of the urban-based informal sector, the accelerated rate of growth of urbanization in general and of the primate city in particular, exerting severe pressure on existing social and capital infrastructure in the major towns and cities in the Caribbean.

Between 1950-70, urban populations in the Caribbean grew at more than twice the rate of the rural population. During 1970-80, the urban growth rate increased, become more than four times that of the rural populations, a trend which is expected to continue into the future due to the dislocation to rural populations caused by current macroeconomic development policies. It is estimated that well over 64 percent of the Caribbean's regional population will reside in urban areas by the year 2000, compared with 38 percent in 1960. Between 1970-75, migrations from rural areas contributed varying levels to urban growth on individual islands, varying from 52.6 percent of the total urban expansion of Jamaica, 42.1 percent for Trinidad and Tobago, and almost 30 percent for the Caribbean as a whole (Hope 1986). Analysis of the 1980 census data shows that over 62 percent of the population of Kingstown and its environs in St. Vincent were born in another part of the island. Results of my own research in Dominica and St. Vincent in 1987 showed that over 36 percent of the residents of the lowest income settlements were rural migrants.

The urban bias in resource allocation, the long neglect of the small peasant and landless workers in the agricultural sector, the increasing costs of inputs in the face of falling commodity prices, the lack of an adequate system of feeder roads into the rural countryside, and the high cost of transportation to central markets all fuel the rural exodus. The results of the dislocation of the rural population is vividly demonstrated in the flocks of young men who prefer idleness at city street corners or labor in the informal sector labor market in preference to a life of manual labor from which the rewards are mere pittance in relation to a minimum basket of goods and services.

In this regard it is sobering to note that the very high levels of unemployment in the urban context do not act as deterrents to potential rural migrants, since the decision to leave the countryside is based on a number of push and pull factors. Apart from the lack of jobs in the rural areas, respondents to the research indicated that the most compelling reasons which motivated them to move to town were the high cost of round trip transportation (as high as EC\$14 return trip for the small village of Owia in northern St. Vincent) from the countryside to town in search of jobs, and the accurate perception that an urban base provided a locational advantage with regards to proximity to information concerning jobs as they arose. It is small wonder, then, that rural urban migration has become a dramatic component in the increase in urban population over the last decade in particular.

The cultural affinity for land ownership is another dynamic which influences the impact of the informal sector on the implementation of land use objectives. Land on the islands is a prized commodity. Regardless of the size of the parcel, land is an economic asset which can be used as collateral with which to secure financing, it can be used to generate income when it is "worked" or if it is rented, and it can be sold. More importantly, for those who come to town, and for the urban poor, owning a piece of land allows for the security of a foothold in the urban economy.

Within the urban areas themselves, policies relating to minimum lot sizes, standards regulating the use of land, construction of buildings, the level and type of infrastructure, the

separation of uses within the context of the relative scarcity of land in the urban area, increase the price of land in the urban environment. The urban poor and rural migrants are both unable to purchase land on which to construct a dwelling. Economics also factors out their ability to purchase a home in the formal sector. They are faced with two options, the rental of squalid quarters in communities within the inner city slums and older more established squatter settlements on the banks of the Roseau River in Dominica, Rose Place in St. Vincent and the Faux-a-Chaud in St. Lucia. Or, alternatively, they can illegally appropriate lands in rapidly-growing squatter settlements on the urban periphery: Fond Cole and Tarish Pit in Dominica, Grand Anse in Grenada, Trigger Ridge and Redemption Sharpes in St. Vincent. It is here, in the establishment of the newer squatter settlements, that the informal sector exerts major impact on land use policies and objectives, while within the older, more established settlements the impact on land use policy is generally through the introduction of conflicting land uses; and, because of the higher densities which prevail in these settlements, raise serious questions about public health and safety in the face of inadequate service and sewerage facilities.

The newer spontaneous settlements are basically of two types: those close to the downtown area, and others still within the urban area, but located further away from the Central Business District (CBD). Generally speaking, the closer they are to the central business district, the more marginal their location, since they are sited on lands by-passed by earlier development generally because such lands were viewed as marginal and very undesirable: excessively steep hillsides, river and large drainage banks, quarry pits, and in a few extreme cases of frustration, a cemetery or two. The squatter settlements at Redemption Sharpes, Trigger Ridge, Spring Village perched on very steep hillsides above central Kingstown in St. Vincent, the settlement of Tarish Pit located in the bottom of an old quarry in Dominica, the squatters residing in the Castries cemetery here in St. Lucia, typify these settlements in which proximity to the CDB is of overriding importance. Further away from the CDB the land which is illegally occupied is more desirable, slopes are gentle, and individual households occupy larger lots in a tradeoff between level of amenity, travel time and cost to areas of employment typical of all housing markets.

Within the older settlements densification is taking place at an accelerated rate. Building materials left over from the transformation of a unit from timber into concrete are either sold or given to a new squatter in exchange for labor, or are immediately erected in the yard of the original dwelling to be rented to one or two families as a source of income generation. In this way, the last remaining parcels under the crest of the 600' contour at Upper New Montrose in St. Vincent are currently being developed. The same process can be seen in the River Road community in Grenada. Land which had been left vacant due to the steepness of slopes which need to be traversed and the difficulty of transporting building materials manually to the site are now being developed. Increasing pressure for residential land within the urban area allows even the most marginal site to assume a large degree of attractiveness over time.

The actual location of these settlements has nothing to do with land use objectives or principles. The principal criteria for location is that the land be in public ownership. Potential

squatters know better than to squat on private lands in the face of the threat of swift eviction, but understand that their removal from public lands has a political dimension which is exploitable. In all cases the site has easy access into the downtown area, is vacant, or perceived as being idle. There are other factors which are given equal weight. In the case of the Grand Anse squatter settlement, for example, the attraction was twofold: a large parcel of public lands located in an area which is currently being developed at a rapid rate. A USAID-funded industrial park has been constructed, major tourism and up-market residential construction are all taking place in the immediate area. The squatters provide waiters, waitresses, maids, gardeners, and handymen, while cutting out transportation costs completely. Thus the locational magnet in this case is the winning combination of available public lands within an area of relatively high demand for labor.

In most cases, the introduction of infrastructure to service a legal subdivision has been the catalyst which triggered the occupation of lands by the squatters. In St. Vincent 20 years ago, the government residential subdivision at Arnos Vale paved the way for the development of the adjacent squatter community of Malla Village on lands which formed part of an old quarry. In a similar fashion, the development of the New Montrose residential community around the same time precipitated the development of the squatter community of Monkey Hill, now dignified and renamed Upper New Montrose, on steep slopes above the original subdivision. In a much more recent example, in 1988 the introduction of infrastructure and services to serve the needs of the public sector Fairhall residential community immediately spurred tremendous squatter activity. Thus, in response to the question posed to squatters in St. Vincent and Dominica: Why did you come here, to this location? Of the responses, 62 percent were that the land was there and was idle; only 7 percent indicated that the land was in a good location. One can conclude, therefore, that the availability of any vacant publicly-owned land within the greater urban area within reasonable proximity to services is of overriding locational importance, and that the specific site within the urban area a factor of secondary importance.

In this way, the informal sector, via the activities of squatters, is able to change the use of land; even where specific plans exist for the use of a site, the sector is able to force a change of these plans, or demand that the original plan objectives be modified sufficiently to accommodate their needs. The squatter community in Grand Anse occupies high value public lands which were zoned for upper income housing. These lands were to be subdivided and sold at a profit on the market. The illegal acquisition of the land by the squatters for a variety of low-income residential and commercial uses has resulted in a situation in which even if the land is sold to the squatters, rather than deriving a profit prices will have to be significantly subsidized.

Squatters in the Trigger Ridge and Redemption Sharpes areas in St. Vincent are changing increasingly large areas from agricultural to residential and are developing lands, which should be left in natural state to protect slope stability, into small subsistence plots. This is due to the fact that the rural migrants who come to town bring with them urban aspirations and a rural way of life, each wanting a small subsistence plot behind their home. In this way, a look at the slopes above Kingstown shows the upward march of the homes of the squatters; and, above them, the

subsistence plots pushed up increasingly steep slopes. On the same island, in the Green Hill area, the conversion by squatters of good agricultural lands into residential use is beginning to impact negatively on the production of ground provisions for export to neighboring islands, since this area has long been one of the main sites involved in this type of agricultural activity.

There are several other examples of informal sector impact on the execution of land use objectives. In the Ottley Hall area of St. Vincent 36 squatters occupy a section of the last remaining area of open land in the urban area with major development potential. Since 1972 plans have been on the drawing board for the use of this site for a mix of tourism and upper income residential development. In January of this year planning permission was granted in principal to a group of investors who wish to maximize the tourism and recreational potential of the site. However, the only access to the bay at the bottom of the valley is through the growing squatter community. Unless something can be done immediately about the squatters, the actual implementation of any development plans is uncertain. At the Fairhall site, squatters have erected concrete houses on the lands allocated for community facilities and open space. As Pat Phillip pointed out in the St. Lucia country paper, squatters at Faux-a-Chaud continue to occupy lands zoned for the expansion of port-related facilities. In this way the informal sector is able to influence the use of land within the urban area, distort project objectives and, in some cases, obstruct the implementation of specific types of development which have the potential for significant economic returns for the economy as a whole.

Within the urban area the informal sector also plays a major role, not only through the appropriation of sites for residential development, but also through the production of goods and services through the introduction of industrial and commercial uses. More often than not, these types of uses operate within the residential area. This is due to the fact that people who are poor are forced by necessity to maximize the capital invested in their homes. The physical structure is much more than a home or an item of consumption; it is also a production entity, since many who live in the informal sector are also self-employed as hucksters, shop operators, shoemakers, furniture makers, and mechanics. In most cases, the home doubles as the factory, storeroom, and shop. While this type of intensive use is a response by those in the informal sector to the lack of capital, it exacerbates the problems faced by the planners in carrying out sound land use planning practices.

In some communities the introduction of noncompatible uses increases the pollution and public health problems which prevail in many of these settlements. In Tarrish Pit Dominica, a fairly large slaughter house is operated out of one of the residences. The entrails are dumped into the nearby ravine the banks of which are home to a number of families. Quite often garbage is dumped over the nearest gully or in the nearest river. Toilet systems range from the bush in Fond Cole to bucket systems emptied in the nearest body of water. Needless to say, parasitic diseases are rampant in most communities of this type.

In cases where the self-employment activity results in output which is sold on the streets at intersections, in stalls, on sidewalks, at bus terminals and public markets, street vendors are gradually exerting pressure to have their space needs met. The Japanese-funded project in St. Vincent currently nearing completion on the foreshore in Kingstown is one such project which is providing street and stall vendors with modern facilities within the downtown area from which to ply their ware.

Especially in the topographically more rugged islands, there are specific areas within the urban area which should not be built upon either in the interest of slope stability, preservation of forest, or for proper watershed management. However, across the island such lands are being developed by the informal sector. The price tag on this type of development is high, and the long-term effects are serious. The slopes of Mt. St. Andrew in St. Vincent, the northern slopes of the Grand Anse Squatter community, the ravine and old quarry bottom at Tarish Pit and Gutter Village in Dominica, are examples of this type of development. The clearing of steep slopes for subsistence agriculture leads to problems of erosion and the threat of land slides, together with the potential danger to life and property. Down river, waters are polluted and silt laden and sedimentation, with flooding at the lower elevations the end result. Wastes dumped in rivers, as in the case of the river off the River Road community in Grenada, are flushed to sea where they pollute the reefs and diminish water quality. Over the last several years the appalling vision of layers of green algae growth on top of the waters off the Grand Anse Beach, the area with the most tourism potential in Grenada, is a serious case in point. The adverse effects in the long run, will be felt by the population as a whole, and the tourism sector in particular.

In the final analysis, the effects of land development by the informal sector carries a price tag, be it for clean up exercise or reforestation, damage to life and property, adverse effects on health, as well as the high cost involved in providing services over time settlements development in areas which should remain unbuilt. These costs must be borne by the society at large, which also shoulders the opportunity cost of not being able to implement development plans for a particular area.

This brings us to the logical question: if plans have been made for the development of a particular site, why aren't squatters simply relocated? Why aren't anti-squatting measures enacted and enforced? The answers to these questions are not simple; they are multifaceted and complex and form the subject of the following section as we look at the institutional and political framework within which land use planning evolves and is implemented.

The Institutional Framework

There are three basic elements which constitute the institutional framework within which land use policies are defined and implemented: (1) the political body, which defines policy and determines priorities based on prevailing ideology; (2) the goals and objectives of the institutions generally empowered by legislation and enabling regulations and guided by policy documents

and directives approved by the political body; and (3) the bureaucrats and technocrats in the public sector who are responsible for the planning, management and allocation of the land resource. The overriding characteristic of the institutional setting or system operating in most of the island is the curious mix of both formal and informal processes and procedures, based on interpersonal relationships whose effects are compounded by institutional morbidity and inertia. The general weakness of the institutions themselves, lack of manpower and capital resources, and the heavy hand of partisan politics all serve to constrain the efficient and effective practice of land use planning. It is these self-defeating characteristics which give license to informal sector actors to impact on land use, and later, once their numbers consolidate beyond a critical mass level, to translate numbers into political leverage with which to make a variety of demand, including the provision of services and legalized tenure. Ironically, it is this very ability to make demands on government by which the informal sector is most manipulated by the body politic.

Political Realities. In the islands it would be foolhardy to discount the political realities which serve to shape policy. The promise of votes is a major component in the evaluation of projects, the deferment of decisions, or the decision to opt for inaction. The bestowing of favors to party supporters is part of the paternalistic syndrome which has traditionally characterized West Indian politics. On the other hand, legitimate concerns regarding the need to reduce unemployment, secure foreign exchange, or attract investment are the realities, more so than technical appraisal, which may compel a government to vote in favor of a particular development, which may bring with it major negative land use and environmental repercussions. It is, however, the promise of votes and the need to ensure that political damage does not result through the implementation of unpopular action which are the two features that have most relevance in the context of the relationship which exists between the political body, land use policy, and the informal sector.

The informal sector, especially through the establishment of urban squatter settlements, has become an increasingly sensitive political issue in most developing countries; the Caribbean is no exception. This observation is even more so in those islands in which squatting within the urban and peri-urban areas has reached endemic proportions. The major reason for this increasing sensitivity is the sheer numbers involved in these informal settlements, increasingly representing larger portions of all urban residents. These newer residents are viewed as generally unknown, potentially volatile sectors of the population. Increasingly, squatter settlements are seen as reservoirs for initiating alternative political demands. State condonement, and at times active encouragement, coupled with the provision of some basic services, are the major instruments by which governments have attempted to integrate these "unstable" elements of the population with the wider existing socioeconomic framework (Castelles 1983).

Research into the origins of five informal settlements referred to earlier showed that in the past, particularly in the post self-rule period which preceded independence in the late 1960s and 1970s, politicians in several of the islands exuberantly advocated that people "take" the land, since it belonged to the "people." Acting under what was seen as public license to co-opt public

goods (in the form of land), the first tentative steps towards illegal occupancy of land were taken. Even after the first burst of euphoria associated with self-rule and then independence, the distribution of public lands as a means of gaining popular support has been used extensively in those islands with relatively large amounts of publicly-owned or "crown" lands.

Pre-election periods epitomize this syndrome. Party supporters squatting on public lands are given building materials from government stock, and the use of public transportation to deliver materials to the site. Materials are used to consolidate and upgrade homes which illegally occupy public lands. Within the settlements themselves roads are paved, utilities provided, and every year, the promise of secure tenure is the beacon of hope held out. Data from the islands represented in an earlier work showed that over one-third of all squatters claimed to have been authorized to squat. Almost 80 percent claim that authority was granted by a past Prime Minister, Minister, Parliamentary Representative for the area, or some other government official, generally from the Ministry of Finance and Planning or Housing, who had allegedly authorized them to "take" a house spot with the proviso "If anyone asks you to move, tell them I sent you."

Those who are poor, out of sheer necessity, do not always wait for such direct authorizations. After the devastation of Hurricane Allen in Dominica in 1979, when almost 75 percent of the housing stock was completely destroyed or substantially damaged, Dominicans were told by government that they should exercise initiative and independence and not to wait for the government to take care of all reconstruction efforts. With a generous dose of literal interpretation, thousands of Dominicans who had never owned a home before collected and looted materials in the aftermath of the devastation. Within weeks the steep slopes of Fond Cole were colonized by hundreds of squatters. It should be noted, however, that there are many people who already own homes within the formal sector, who themselves build units on public lands to secure additional income from the rental or sale of the unit. This was confirmed in several cases in Fond Cole. When questioned about this, the rationale for several respondents was quite simple: "Why not? Everyone is doing it."

The political stance towards the illegal occupation of land is the primary determinant in the perception of security of tenure by potential and actual squatters. Determination of the political stance towards the illegal occupation of land, and illegal uses and development in general, is found less in what the legislation or state policies are, and more in terms of the action taken by politicians. In this case, action is of three types: the first is the more prevalent "blind eye" approach, very much in keeping with the *laissez-faire* approach to land use planning in general; the second, used in very few cases, is relocation to alternative sites (as in the case of the relocation of several families to Stock Farm in Dominica); and the third involves the use of various sanctions, including forced removal of the offending use. The political stand on squatting, which has reached major proportions in St. Vincent, serves to illustrate the more common approach.

The situation at Ottley Hall has been outlined earlier. For the last nine years, since the first squatters were established on the site, there has been much talk and no action concerning the

relocation of the squatters on this site. In 1984 there were only 4 squatters; by 1986, 15; and at the last count in December 1988, there were 36 squatters on the site, with the newest occupants constructing substantial concrete houses. Over the years the perception of inaction on the part of the relevant authorities has been regarded as public license to infiltrate the site to greater densities, after which any regularization action will be that more difficult to implement. In fact, unless action is taken soon, the option will cease to exist. In a futile attempt to bring this issue to a head, in early January 1989 discussions were held with the Ministry of Housing. While this Ministry was keen to relocate the squatters to an alternative site, the Ministry felt that the matter was outside its jurisdiction, since the lands had been vested in DevCo., the Public Sector Development Corporation. Talks with DevCo. were fruitless. They were unwilling to relinquish control of the site and, while they were themselves interested in having the site cleared for tourism and high income residential development, they felt that they were impotent to remove and relocate the squatters, since they would not be given the political support necessary to undertake this operation. Talks with one minister pointed to the fact that with general elections but a few months away, no one wished to make an issue of Otley Hall for fear of political backlash.

On the other side of the urban area, at the Fairhall site, squatting proceeded in earnest with the introduction of the first roads and services. The start of a rumor stating that all squatters with homes on permanent foundations would be allowed to stay on the site led to a frenzy of construction activity on the site. Seemingly overnight, squatters started converting their homes from timber to concrete. Newer arrivals bypassed the timber unit stage completely, moving directly into a wall unit phase. The number of squatters grew so quickly that, in the face of complete inaction by the government, houses were even constructed on the area marked for open space and the construction of community facilities, completely changing original project proposals and objectives and changing the use of land through *de facto* occupancy into residential use.

These unstated or *de facto* policies are known by the population at large. examination of the differences in perception of tenure security between the squatters in St. Vincent and those of Dominica revealed that the bulk of squatters who felt very secure in their tenure arrangements--even more so than residents who were renters--lived in St. Vincent. These squatters were very vocal in their rights to the land, stating that there was "no way" government could ever make them move; moreover, if government ever relocated them, they would first have to be compensated for their homes plus improvements made to the land. They felt that *de facto* occupation brought with it all the rights of the system of title and deed, so much so that an enterprising number of them, to whom I refer as "capitalist squatters," occupied a number of sites within the urban and peri-urban area simultaneously, selling, trading, and renting rights to land, turning a public factor of production into an individual asset generating capital and income.

Squatters in St. Vincent feel free to operate in this way because the functional reality of the situation is that the political hierarchy has traditionally turned a blind eye to the illegal occupation of lands, and has at times in the past played an active role in this phenomenon. On the other

hand, in Dominica, especially under the current government, squatters feel very insecure of their long-term tenure status. In 1987, while working in Dominica, the Prime Minister, who has taken a strong stand against squatting, was in the middle of a public battle with major utilities to stop them from providing services to a relatively new and growing squatter community in Goodwill. The uncertainty generated by this stand translated into a dramatic difference between the two islands in the level of investment made in businesses and houses which illegally occupied public lands.

In the course of a recent very interesting discussion on the subject of squatting and the urgent need to enforce anti-squatting measures, while at the same time providing those who are poor with other alternatives, I was told by a government Minister in St. Vincent that, while the government is acutely aware of the need to contain squatting, they are even more sensitive to the politically damaging repercussion resulting from forced relocation. Moreover, no Parliamentarian or Minister would agree to allow the first incident of forced relocation to occur within his constituency. Interestingly enough, however, I have been told that a few weeks after this discussion took place, this Minister stated in a televised report that any new squatting within his constituency would be met with stringent measures, including the bulldozer. I do not think that the bulldozer has yet been employed, but public statements like this are steps in the right direction.

Institutions. By and large the institutions involved in land use policy definition and implementation in the islands are weak. Lack of clearly defined roles and responsibilities, overlapping functions, lack of efficient coordination and effective consultation, all work to create a system with a high degree of nonaccountability. Since responsibilities are not clearly earmarked, it is easy to pass the buck on problems as they emerge. Lack of adequate capital and trained manpower resources exacerbate the problem. Moreover, in most of the islands the actual evolution of land uses are left to the dictates of the market, a fact which results in serious problems due to the relatively small amount of developable land and the carrying capacity of the natural resource base. Most of the islands operate without a land use plan. As a result, the operational framework is one which is passive and, at the very best, responds to various crises as they emerge. Consequently, land use planning and development proceeds in an *ad hoc* disjointed way on a piece-meal, incremental basis. Contrary to prevailing opinion, there is no lack of legislation covering the management, planning, and use of land in these islands. The lack of complementarity between the various pieces of legislation, together with the lack of coordination between the various entities involved, lie at the root of the problem. In some cases, the lack of political support to enforce the powers of legislation shelves many a needed initiative.

The inefficiencies and weaknesses in the institutional framework allow for the manipulation and expansive role of the informal sector in appropriating land for various uses. A recent study on the housing sector in St. Vincent found that one of the fundamental problems which mitigates against the orderly and progressive development of land is due to the disjointed nature of the several legislative acts which cover land use and development. There is the Town and Country

Planning Acts of 1974, amended in 1981 and 1983, the Land Surveyor's Act of 1983, various Crown Lands, Forestry and Agricultural Acts which govern the use, sale, rent and development of all lands private and public. However, none of those various acts are mutually reinforcing and almost none of the acts are enforced to comply with the spirit and intent of the legislation.

Examination of the Town and Country Planning Act and its amendments and the chief surveyor's act illustrates this point. While the Town and Country Planning Act makes provision for the development of the island within comprehensive guidelines, the planning process is circumvented primarily by the fact that the Land Surveyors Act of 1973, No. 2, covers not only procedures for surveying, but also gives the chief surveyor authority to register all survey plans that meet the provisions of this act, without any reference to the Town and Country Planning Act of 1976. Since attorneys in St. Vincent routinely convey land as long as a survey plan has been registered, regardless of whether or not planning permission was sought or granted, most people simply bypass the planning process entirely, and contract the services of a surveyor, all of whom--except one--work in the public sector. The surveyor subdivides the land, and the chief surveyor registers ensuing plats. The land is then used for a variety of uses regardless of whether or not, from a land use point of view, a particular use should be introduced within a particular area. In this way, for example, in 1987 a total of nine subdivisions were dealt with by the planning office. In the same year, the chief surveyor registered 43 subdivisions, covering a total of 1,524 acres, for a variety of land uses for which planning permission was neither sought nor granted (Ishmael 1989). Ironically, the fact that the chief surveyor sits on the Town and Country Planning Board, which prepares guidelines for development control and screens applications, makes no difference. On the contrary, the chief surveyor feels that planners who work out of the Town and Country Planning board are major "blockers" to development.

It should be noted that there has long been a historical tension between the rights of private owners and the need to reconcile those rights to national objectives. In this regard planning in the islands is not an easy task. In St. Vincent, for example, there is a negative societal perception of planning. It is estimated that only one-third of all development goes through the planning process in the island. Consequently, it is clear that most development on the island currently occurs outside the formal setting.

Examples of this lack of enforcement of legislation is to be found in all ministries, as can be seen in an examination of the operations of the Ministry of Agriculture in St. Vincent. Over the years, hundreds of households have leased or rented agricultural lots from this ministry. In most cases, rents are never paid and lease provisions not enforced. Legislation pertaining to good land use and husbandry practices safeguarding lands from deforestation and erosion is not enforced, so that all around Kingstown small agricultural plots are pushed higher up steep mountain slopes. In their place the original agricultural plots have been subdivided and appropriated by squatters and changed over into a mix of residential and, sometimes, commercial use. Problems of deforestation, soil erosion and land slippage, silting of the streams and rivers, are tangible manifestations of the lack of enforcement of legislation and the lack of proper planning practices

which, if unchecked, will result in irreparable environmental damage and serious long-term economic effects.

One of the other factors which allows for the co-option of land by illegal users is the length of time which elapses between project design and actual implementation, a time period which can be months or even years. The moment the public knows that government is in the process of acquiring lands from private owners, or that large-scale development which will demand labor is in the pipeline, neighboring public lands, including the actual site to be developed, immediately become subject to infiltration by squatters. There are, of course, an array of factors which legitimately delay project implementation. Quite often, however, the main reason for delay is institutional inertia. This inertia is not unique to the Caribbean; indeed, institutional organizational inertia is the subject of many socio-organizational theories. On the islands, the end result of this inertia is that project objectives become severely distorted.

The Sans Soucis estate in St. Vincent is a case in point. The estate was acquired some time ago by government under the motto "Land for the Landless" as one of several estates involved in its land reform and distribution project. This project, with capital funding from the World Bank, was officially underway on July 1, 1989. However, there are already over 50 farmers who have moved onto the land. One of the project objectives was that lands would be distributed to farmers who resided in the area who did not already own land. However, several of the illegal farmers own land in other areas which they claim not to be as well suited to agriculture in terms of soil conditions. Several other farmers do not reside in the area. In late May 1989, opposition parties were already exploiting the situation with emotional headlines in party newspapers about poor farmers being driven off public lands by a heartless government. On the other hand, farmers who reside in the area feel that they have legitimate rights to the estate lands since they labored on the estate for years, and reside in the area. Consequently, even before the project gets off the ground, project officials are faced with complex issues of a socioeconomic nature which transcend those objectives based purely on land distribution. And, quite clearly, it shows that the whole system of passivity which pervades the implementation of land use policies is exploited, not only by the populace via the informal sector, but also by the political system exploiting problems and issues for the sake of political profile.

In other cases, informal sector actors through their own initiatives are able to exert pressure on a project to expand sufficiently, to address their own particular needs. The Mabouya Valley Project in St. Lucia is a case in point. Apart from the provision of five-acre banana farms, and reforestation and soil conservation activities in elevated areas, project objectives were forced to expand to include provisions of small garden plots on good agricultural lands to subsistence farmers who, through illegal use, were using slash and burn agricultural techniques to encroach on an adjacent forest reserve.

There are also cases of gross bureaucratic incompetence which are manipulated by the informal sector. This example is drawn from Grenada. While the government said that it was

committed to the objective of no further squatting at Grande Anse to allow for the implementation of an OAS project, building materials from the National Housing Repair program managed by the Ministry of HOusing were being successfully exploited by the squatters themselves to consolidate existing units and to construct new ones on the site. In this way, one public sector program, operating within its mandate to provide building material loans and grants to those of low income, was itself the principal reason for defeating government's objective to stem further construction on this site. The successful manipulation of the system by squatters is shown by the fact that the average rate of construction on the site was about five units per annum between 1977-82. Between 1987-87, the average number of units constructed annually had increased slightly to approximately seven. By the period 1987-88, a year in which the National Housing Repair program reported major growth in the program, the annual rate of new construction had surged to 110 new units, reflecting a rate of almost 2.5 new units constructed per week (Ishmael 1988). This level of construction resulted in an accelerated rate of densification seriously compromising the implementation of any upgrading exercise on the site. Lack of coordination of activities and effective communication, together with government inaction, were largely responsible for the situation as it now stands.

Bureaucratic Rule. There is another serious yet human scale dimension to the problem, for which it is difficult to find solutions in the short term. IN many of the government ministries and departments on the islands, the heads of departments are older bureaucrats who have worked their way up through the ranks, collected experience along the way, and somewhere along the line begun to view the department which they head as their private domain. There is much interdepartmental tension between these people and the younger staff, many of whom are well trained and competent in their fields. Files are kept under lock and key in one office, information not shared and, in some cases, important files are taken home by the department head every weekend. Worse is the fact that in several cases important information is never documented but stored in the boss's head, since that makes him more indispensable and better able to match up to the superior technical competence of junior staff members. This type of situation among others leads to the total frustration and lack of morale on the part of the junior staff, who feel that repeated attempts to make a solid contribution are constantly stifled. Most of these staff members are looking for the first good opportunity to leave their position and the island itself once the period of in-service bonding has expired.

So, for example, when trying to determine the ownership of the individual parcels on which the squatters at Grand Anse had built their homes, this consultant was thoroughly frustrated because the head of a particular department was out of the country. He was the only one with access to major files and documents; moreover, there was no written documentation of the boundaries of public lands in the area. All of this information was stored in his head. Consequently, with him off the island, work on acquisition and project design ground to a halt, while the squatters were busy keeping their rate of construction on the site at a constant pace. The same situation exists in St. Vincent in the situation outlined previously between the Chief Surveyor's Office and the Town and Country Planning Office. In other cases past managers of

the National Housing and Lands Development Corporation on that island viewed the corporation's assets as personal fortunes, distributing land and building materials to themselves, family, and friends.

Some of the reason why these things happen is part of the "Old Boys' Club." Business is conducted on the basis of a network of interpersonal relationships made possible by the smallness of the society. For a number of those in the public sector this translates into a series of loose arrangements, and not along the binding ties of contractual agreements, making for quite a lot of problems in the event of disputes which have to be settled within the legal system. There is also a certain "freeness" mentality, which characterizes the general perception of government role in society and, by inuendo, public assets. In this way, it is generally felt that if people can get something from government for nothing, it is somehow their right.

What Can Be Done?

The underlying question which needs to be answered is this: Given the functional constraints and operating realities presented earlier, how much scope is there for change? The answer is not that simple. In the first place, it is clear that we can no longer afford to produce plans and targets which are completely uncoupled from the reality of the existence of the informal sector, especially in view of the increasingly important role which the sector play in providing alternatives to formal sector deficiencies for a large and growing share of Caribbean people. Attempts to address these deficiencies can only be accomplished with commitments to make a radical break from the top down approach to policy formulation and resource allocation, and to change the stereotypical way in which those in the establishment have traditionally looked at the world. Secondly, most of these deficiencies within the formal sector are rooted in historical social inequalities and institutional bias. In this regard any change must be preconditioned by discarding the old tried and failed attempt at molding the population in this region to fit into the existing institutional framework. Instead, the time is ripe to mold the institutions to reflect the needs and socioeconomic and cultural realities of the Caribbean people.

A mandate such as this will of necessity have far-reaching repercussions. It will, for example, affect the way in which regional and local funding agencies such as the Caribbean Development Bank (CDB) and the local National Development Banks evaluate projects and allocate funds. It will affect the allocation of social overhead capital and allow for the formulation of development policies aimed at decentralizing development projects in ways which will allow for the participation of a wider population base in the benefits of economic growth rather than perpetuate the continued marginalization of large segments of the population. This will impact on levels of rural poverty, the establishment of long-term sustainable development and a mitigation of the rural-urban exodus. Initiatives such as these, while quite diverse, will nonetheless impact positively on the formulation and implementation of effective and efficient land use policies over the long term.

The Institutional Challenge. It is clear that the informal sector is an essential bridge in the ability of the population in the Caribbean to service their basic needs in the absence of either willingness or ability to do so by the formal sector. Years ago public sector policy towards squatters was patterned on North American public policy of the 1960s and was encompassed in the bulldozer mentality of slum clearance and forced relocation. While there is certainly urgent need for tough enforcement of anti-squatting legislation, unless affordable alternatives are offered, squatters cleared from one site will simply re-emerge at another. Herein lies the dilemma of land use planning on the islands--the lack of a suitable range of alternatives.

In the Caribbean, we are forced by economics to be pragmatic. Regional governments are in no position to service the shelter needs of all those in urgent need of safe and sanitary shelter. On the other hand, the informal sector has shown tremendous drive and initiative in addressing its own needs in the face of a real lack of alternatives and no institutional support. The capital investment made by the informal sector, while small and incremental on an individual scale, is quite substantial when disaggregated, for example, as a percentage of units in the housing stock. Ways must be found to channel this tremendous drive and initiative of the informal sector in ways which are not at odds with overall goals and objectives of sound land use planning practice. But this is a two-way street, and it is imperative also that land use policies recognize and plan for the needs of this sector. This dual-faceted objective can only be achieved through the formulation of the right mix of policies, legislation, incentives, programs and overall institutional and political support. All efforts in this regard will be useless unless much more emphasis is placed on the development of sound land use planning practices and resource management to replace the essentially *ad hoc, laissez-faire* attitude which currently typifies the practice of land use planning on most of the islands.

Given that the need for land, shelter and credit of those who are poor have never been met, and continue not to be serviced by the formal private sector, it is clear that this vacuum can only be addressed by public sector intervention. While this vacuum is partially filled by private informal sector initiative, this initiative has to be redirected within a systematic framework. The nature of the public sector intervention envisaged will require the articulation of clearly defined policy objectives encompassing specific programs relating to land tenure, the provision of sites and services, the legalization of tenure to squatters, the extension of technical assistance to self-helpers and small builders, and the provision of varying levels of subsidies targeted specifically to those most in need. However, the design and execution of projects and the successful attainment of policy and programmatic objectives is preconditioned by the presence of strong institutions, an ingredient sorely lacking on most of the islands. As a result, institutional building and strengthening is a key prerequisite in any attempt to change the existing framework within which land use planning is effected.

Access to Land. The lack of an adequate number of small serviced lots which are affordable is one of the main reasons why people who are poor resort to squatting. One of the major stumbling blocks on the Islands in the ability to redress this problem is the lack of an appropriate

mechanism to supply relatively large numbers of small, affordable lots to the market. Earlier on, the existing institutional structure on most of the island, characterized by large numbers of agencies and ministries involved in the management, planning and development of the land resource, has been shown to be unwieldy and ineffective. It is clear that land use planning and resource management would benefit a great deal through the centralization of all responsibilities dealing with the planning, management and distribution of land for various uses.

An institution such as this, perhaps called the Land Resource Center, would encompass the Land Valuation Department, the Registry, Lands and Surveys, as well as the Planning Office. The center would be directly responsible for the preparation of land use plans, both national and site specific, the identification and acquisition of land for purposes of a land banking program, the identification of sites and the design of sites and services schemes, the preparation of tender documents for project execution, the preparation of specifications for basic small-core units which beneficiaries would consolidate through self-help, and the provision of technical assistance and training sessions on-site and in-house to self-helpers and small builders. The staffing of the center would be heavily biased towards the technical profession.

Access to Capital. While the institutionalization of a mechanism to produce an adequate supply of affordable lots on the market geared to the needs of lower income groups is a critical step in the right direction, without the support of a viable financing mechanism, the objectives of such a program would be lost, since one of the dilemmas facing the bulk of the region's population is the lack of any financial institutions which is either willing or able to service their need for credit and capital. This situation also characterizes the focus of the National Development Banks on the islands which, while more sympathetic than other commercial institutions, still do not focus in any significant way on the needs of the poor. As a matter of fact, at least two of the managers of these banks have pointed out that they are commercial institutions and that their only mandate is to produce a profit. This attitude is due not only to the fact that people who are poor generally constitute a higher risk clientele, but also because the profit margins on a portfolio of hundreds of small loans is small and administratively cumbersome.

The establishment of a Housing Finance Bank, which would act both as a depository for household savings--the largest source of untapped savings in developing countries--(Mayo 1985) and as a service center, is key in this regard. The institution which would initially be funded by external lines of credit would liaise with the Land Resource Center, providing capital for shelter-related projects, as well as supplying credit for the purchase of land, mortgages and small home improvement loans for people on the islands earning under \$10,000 per year (the threshold below which people cannot generally service the criteria for credit from the commercial sector).

Part of the functions of such an institution would be the institutionalization of outreach relationships with various indigenous groups, such as the large Marriqua Burial Society in St. Vincent with a membership of over 32,000 persons, which together with other community-based groups represent the largest depositories of informal sector savings. This new institution,

or "Peoples' Bank," would function also as a depository for contract savings. When savings reach a predetermined level the institution can match the amount saved and on-lend funds to the depositor to facilitate some specific activity related to shelter. In this way, realistic attempts can be made to integrate and support indigenous methods of savings while channeling accumulated funds into areas which assist in integrating informal sector activities within the main stream socioeconomic framework.

Bearing in mind the fact that one of the bottlenecks in the provision of services and infrastructure to sites and services is that, quite often, infrastructural costs are tied up in the land indefinitely, a related recommendation would be the creation of a pool of funds specifically to seed infrastructural development costs. This fund would operate as a revolving loan pool which would allow the institutionalization of a mechanism needed to finance the delivery of small, affordable, serviced lots in an efficient and systematic manner.

To take this scenario through a logical sequence under this proposal, a contractor who has been awarded the contract to provide the infrastructure will draw down the capital which is needed from the revolving loan pool. The individual household participating in the project will qualify for a mortgage or loan reflective only of the sum required to actually purchase a unit or lot, but also inclusive of the actual development cost of the lot. The development costs will be treated as a cash transaction, and will be put back into the revolving pool, allowing the pool to be replenished and utilized for the development and upgrading of other sites. The individual household will pay for these costs over the life of the mortgage. Initiatives such as these are currently under consideration by the government of St. Vincent in their attempt to put land use planning and shelter and service provision within a systematic framework (Ishmael 1989).

The Bottom Line

Creative solutions must and can be found to alleviate most of the problems already identified. The current lack of sufficient technical manpower must be balanced by the availability of further training programs, as well as the extension of incentives for newly-trained professionals to return home and contribute to the development of the region. Incentives must also be provided to professionals already within the system to stay on, and not move out due to overbearing levels of frustration. Regional educational institutions such as UWI are playing a significant role in this regard and stand ready to take up the wider challenge; the role played by CAST in Jamaica and the emerging role which will be played by CERMES in Barbados will assist in providing the technical skills so badly needed. However, it is clear that technical assistance packages will continue to play an important role in this regard for some time to come provided that these packages are specifically directed to achieving nationally determined priorities and objectives. The introduction of high tech information management systems is key and will assist in reducing institutional inertia, assist in the timely execution of projects, and dispense with the inefficient system of individually-based information management systems in which information is held by a single person or groups of people.

The marshaling of self-help within the context of institutional support and technical assistance will ensure that basic standards are met. The provision of sites and services catering to the needs of those who currently operate within the informal sector will ensure that broad land use objectives can be met, specific project goals implemented without being compromised, and environmentally sensitive areas remain free from the cutlass and ax of the informal sector developer. Political realities will remain. Projects will continue, at least for a while, to be judged less of technical merit than on matters relating to political expediency. But we should note that planning involves advocacy, the ability to sell ideas, present alternatives, highlight tradeoffs. The ability to sell the concept of planning through education and public relations initiatives is a necessary ingredient in the process of achieving greater political and societal support for the benefits associated with the process of planning conducted within a systematic framework.

This may all sound too simply, but clearly it is not. In the final analysis, it must be understood that the voices in the informal sector have a legitimate right to be heard, and basic needs which must be met. These needs can only be addressed through the formulation of specific programs addressing the needs identified *by* that sector, and not *for* it. While the existence of the informal sector is a tangible response to the lack of alternatives offered by the formal sector, the presentation of alternatives have to be handled within the context of the carrot and stick approach. Informal sector initiatives have to be supported, and their abuses curbed. The way forward is not simple, but simplicity of task should not be the yardstick by which the decision is made to postpone actions urgently needed today. The enormous dimension of land use problems on most of the islands cannot wait for tomorrow. The price of inaction is too great. If collectively we are unable to influence and change the dynamics of the relationship which exists between the informal sector and the institutional apparatus within which land use plans and policies are defined and implemented, the cumulative effects will be quite predictable: We will all lose, as individuals and as nations.

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