

INTEGRATED URBAN-RURAL DEVELOPMENT PLANNING:  
COMPARISON OF "TOP-DOWN" AND "BOTTOM-UP" APPROACHES\*

by

Richard E. Rhoda  
Agency for International Development  
U.S. Department of State  
Washington, D.C. 20523

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## I. INTRODUCTION

Several different planning types have been used in Third World areas. Often the development of a specific plan has taken precedence over establishment of an ongoing planning process. Types of plans include national five-year plans, sector plans, regional plans, and city master plans. Development of a specific "plan" is generally a "top-down" exercise. The present paper focuses on the planning process which may be either "top-down" or bottom-up."

The term "integrated urban-rural development planning" is not widely used and, therefore, requires clarification. The term refers to planning efforts which address the overlap between urban and rural systems. This overlap includes functions which are essential to rural development but are provided in urban centers. Examples of such functions include provision of credit, fertilizer, farm implements, and other agricultural inputs; transport, marketing, and processing of agricultural production; supply of retailing, wholesaling, transportation, and personal services; and provision of public services, such as administration, education, and health care. Integrated urban-rural development planning is primarily concerned with improving the system of central place service centers. The focus is on what new functions are needed at which centers and how such functions can be provided most effectively. Numerous authors have addressed this topic.<sup>1/</sup>

The paper is divided into five sections. This short introduction is followed by a section which focuses on traditional "top-down" approaches. The third section concentrates on "bottom-up" methods. Section four discusses modifications of "top-down" and

"bottom-up" approaches which are likely to improve their chances of success. The final section summarizes the paper, draws conclusions, and identifies topics in need of additional investigation.

## II. TRADITIONAL "TOP-DOWN" PLANNING

The traditional approach to integrated urban-rural development planning can be classified as "technical" or "top-down." The existing central place system is analyzed and a determination is made concerning what new functions are needed at which centers.

### Assumptions

The traditional approach is based on several assumptions:

- (1) Planners and technical experts know best what is needed for the development of local populations in project areas.
- (2) Technical and technically rational planning is needed to insure integrated urban-rural development.
- (3) The local populations in project areas will accept the recommendations of planners and cooperate in project implementation.

Unfortunately, these assumptions do not hold in many developing areas.

### Elements of Traditional Planning

The traditional approach involves several elements including data collection, data analysis, and plan preparation.

#### A. Data Collection

Data are collected on characteristics of the project region,

the central place hierarchy, and linkages between centers and their hinterlands.

Regional Characteristics. These data provide an overview of the project region and usually include information on natural resources, major crops and industries in the economic base, potential for expanding economic base, and general socio-economic and cultural characteristics. Such data are often collected from existing studies and reports.

Central Place Hierarchy. Data are collected on the functions provided by urban centers which may range in size from the largest city to small village centers. Though information is obtained on all types of functions, specific attention is focused on functions closely linked to rural development — i.e., provision of farm inputs, handling and processing of agricultural products, and supply of important public and private goods and services. These data are collected from existing documents as well as through field surveys.

Linkages Between Centers and Hinterlands. Linkage data are the most difficult to obtain. Hinterland service areas are sometimes estimated from information on road networks and other transportation facilities, travel patterns of rural people, flows of agricultural goods to markets, and the spatial hierarchy of administrative systems.

#### B. Data Analysis

Data on the functions provided by each center are analyzed to identify the urban hierarchy. A number of different methods can

be used to conduct this analysis, including scalogram matrices, Guttman scaling, centrality indices, factor analysis or cluster analysis.<sup>2/</sup> The analysis indicates the level of each center on the urban hierarchy. Centers usually are grouped into a number of tiers and often classified by tier, such as regional centers, market towns, small cities, and village service centers. The classification of centers into tiers takes into consideration the spatial location of the centers, the transportation system, and area resources. The centers in each tier are mapped, and areas lacking needed functions are identified. Centers in poorly served areas are closely scrutinized and expert judgments are made concerning what functions are needed in those centers to stimulate rural development in their hinterlands. Often the functions needed are identified by comparing the functions provided in the poorly served area with those provided in more developed areas. In other cases, service provision standards on a per population or per area basis are used to identify what functions are needed in which centers. Location allocation algorithms are sometimes used to evaluate existing central place systems as well as design new systems.<sup>3/</sup>

#### G. Plan Preparation

Data analysis and expert judgments are used to develop a plan which specifies what functions are needed in which centers. The plan usually includes a discussion of appropriate implementation techniques; these generally rely heavily on the activities of national ministries. The plan may take the form of a shopping list of specific items which seem rational to planners at the time of

plan writing. Better plans are those which outline an ongoing process of data collection and analysis focused on identifying, designing, and implementing important development interventions. The process is iterative and plans are continually evaluated and updated.

### Discussion

The primary advantage of the traditional "top-down" approach is that it is rational, straightforward, and results in the identification of specific projects; for example, the location of a slaughterhouse of specific size at a specified location. On the other hand, the approach has several disadvantages which relate to implementation and eventual project success. The projects sometimes are identified without input from implementing agencies or project beneficiaries. The implementing agencies may not be enthusiastic about the projects imposed on them by the plan; in fact, they may disagree flatly with the proposed projects. Implementation of the proposed projects may be more difficult or complicated than the planners had anticipated. In any case, it is unwise to expect action agencies to work diligently toward the implementation of projects which have been identified by other agencies.

The same case may be made for project beneficiaries. They will not be willing to participate if the project does not reflect their development priorities; this is a particularly serious problem if the project is designed to be self-financing. Projects which do not have active local support will, in most cases, fail. This conclusion was reached in analysis of numerous rural development projects.

in a number of countries. <sup>4/</sup> Such studies indicate that local participation is the key to successful development projects. If this is true, then traditional "top-down" integrated urban-rural development projects, which generally ignore local input, are not likely to succeed

### III. THE "BOTTOM-UP" APPROACH

True, "bottom-up planning is initiated by the local population or local formal or informal institutions. It may involve little or no input from higher level agencies. Some examples of "bottom-up" planning include:

- (1) The decision of a farm cooperative to expand storage capability.
- (2) The determination by a tribal council that a new community building must be constructed.
- (3) Locally initiated provision of an improved potable water system funded by a national grant program.
- (4) The selection of a business site by a small entrepreneur.
- (5) The decision of an individual to buy a used truck and start a small transport activity between his (or her) village and a nearby market town.

Such examples of local actions may not constitute "planning" in the eyes of some readers. However, these actions are considered as planning in the context of this paper because they require the collection and processing of information in order to undertake actions which contribute to the development of the local area.

### Assumptions

Reliance on "bottom-up" development planning is based on a number of assumptions:

- (1) Local populations or institutions are willing to work for development.
- (2) Local groups know best what types of development activities they are willing to support actively.
- (3) Active support and participation by local groups are necessary for successful development activities.
- (4) Local groups know best what types of development activities are needed in their area.
- (5) Development can be achieved without a rational, technically sound plan which places local development within a coordinated, region-wide framework.

Empirical evidence suggests that the first three assumptions generally hold in developing areas.<sup>5/</sup> The validity of the fourth and fifth assumptions is arguable. The continuance of "top-down" planning is based on a rejection of assumptions four and five, the ambiguities and messiness of "bottom-up" planning, and the fact that planning professionals must justify their existence.

### Discussion

The key advantage of "bottom-up" planning is that it focuses on the most important group in the development process — namely, the beneficiaries. Local groups are responsible for every task of development planning — i.e., analysis of existing situations and constraints, determination of goals and priorities, identification and design of

specific projects, as well as project financing and implementation.

The "bottom-up" planning approach has a number of disadvantages. A major shortcoming of the approach is the inability of local groups to execute effectively all planning tasks. Local groups may be unaware of available alternatives or lack the knowledge needed to implement certain types of technical projects.

The "bottom-up" planning approach relies upon grassroots organizations for the planning and development initiative; consequently, "bottom-up" development planning may never take place. However, it is doubtful that any type of development activity can succeed in areas where the local population lacks initiative and enthusiasm for development.

When viewed from the top, "bottom-up" planning appears to be relatively messy for two reasons. First, local decision-making processes are unclear and may seem irrational to some professional planners. Second, local projects are identified as needed by local groups — i.e., a new water system here, a slaughterhouse there, and a credit cooperative in a third location. Such diverse projects are the outputs of a "bottom-up" planning process; consequently, they cannot be identified before the planning program is initiated. Such diverse project activities which result from a messy process are difficult to package neatly and subject to rigorous benefit/cost analysis. Therefore, "bottom-up" planning may result in lack of coordination between communities. Local organizations involved in "bottom-up" planning tend to think in terms of local solutions to local problems. It is sometimes difficult for local groups to accept the idea that the

benefits of a development activity located in one community can be shared by several surrounding communities. For example, a proposed agricultural storage and handling facility in a small city may benefit the surrounding region; however, the proposed facility may be perceived as belonging to the city and not the region. Consequently, village groups in the region may be unwilling to support actively the development of the new facility. Village "bottom-up" planning groups may seek to develop their own separate storage and handling facilities because they want complete control over the operation of the facility. The tendency of grassroots organizations to think in local terms, not area-wide needs and solutions, is perhaps the most serious disadvantage of "bottom-up" integrated urban-rural development planning. On the other hand, the "top-down" approach also lacks an effective mechanism of engendering cooperation among communities.

#### IV. MODIFIED "TOP-DOWN" AND "BOTTOM-UP" PLANNING

The preceding two sections suggest that neither strictly "top-down" nor purely "bottom-up" planning is appropriate for developing areas.

"Top-down" planning lacks the necessary involvement of the local population while the "bottom-up" approach gives insufficient attention to technical and area-wide problems of development. Neither approach provides a means of assuring cooperation among local communities.

##### Modified "Top-Down" Planning

Traditional "top-down" integrated urban-rural development planning can be modified to gain some of the advantages of the "bottom-

up" approach. Information can be collected on the perceived development needs, goals, and priorities of local groups; a variety of methods have been identified for collecting grassroots information and integrating it into the "top-down" planning process.<sup>6/</sup> Such data can be used along with other data in the development of plans which specify what new functions are needed in which centers. The identified functions or projects potentially can be both technically appropriate and consistent with local priorities. Plans which reflect local priorities are more likely to receive active local support; thus, chances of successful implementation are increased.

In addition to collecting and utilizing information on local priorities, technical planners also can consult periodically with local groups during the planning process. Such consultations can be used to explain technical aspects of the design and obtain relevant feedback on design alternatives. With this approach local groups and agencies have greater input to the plan and therefore are more apt to actively support its implementation. It is advisable in some cases to invite representatives from the local community to participate directly in the planning process. Such participation potentially can increase the degree to which the plan represents the priority needs of local groups. Hence, active local involvement in plan implementation is more likely and chances of project success are improved.

#### Modified "Bottom-Up" Planning

Some of the weaknesses of "bottom-up" integrated urban-rural development planning can be overcome by utilizing some "top-down" techniques. The inability of local groups to execute effectively all plan-

ning tasks usually can be overcome with appropriate technical assistance provided by national or regional agencies. Local groups can request technical assistance for a whole range of planning and development tasks, such as social and economic analysis, identification of constraints, design and implementation of specific projects, and evaluation of development activities.

Technical assistance personnel can work directly with local groups; this can enhance local planning skills as well as improve specific plans. Elementary skills also can be imparted directly through short-term training courses.

The need and opportunity for technical assistance often surface when local individuals or groups apply for small loans. While evaluating the loan application, funding institutions can make a quick assessment of the feasibility of the proposed activity. The assessment may result in a reevaluation of the proposed activity, redesign of the project, or provision of assistance with implementation of the activity. This type of technical assistance is provided by the municipal development institutes which have been established in several Latin American countries.<sup>1/</sup> In addition to providing loans for local development activities, the institute also helps local groups identify and analyze development alternatives, as well as design and implement projects. Similar technical assistance may be provided by the small loan divisions of industrial, agricultural, and commercial banks.

A number of national organizations are capable of providing the kind of technical assistance needed by local groups. Examples include agencies which conduct such investigations as resource assessments, regional economic analyses, and demographic studies as well as ministries involved with roads and transport, commerce, industry,

water and sewers, education, and health care services. To avoid confusion technical assistance efforts probably should be coordinated by a single national agency, such as a ministry of planning or local government or a municipal development institute. Such a central coordinating activity can be packaged neatly and, therefore, may be able to obtain funding from international development agencies.

There are no easy methods of modifying "bottom-up" planning so that cooperation among local communities is assured. Most local groups are not likely to support actively development activities which are located in other areas. Consequently, projects with region-wide benefits rarely obtain region-wide active participation and support. It is difficult to change the parochial perspective of local groups. Technical assistance activities, educative dialoguing, and "top-down" coercion may enable local groups eventually to think in terms of region-wide development activities. A national agency responsible for coordinating technical assistance to local planning groups can help in this endeavor. The agency can conduct broadscope regional planning studies which demonstrate the need for region-wide development activities. Such studies can identify areas of mutual interest and opportunities for effective cooperation among local communities. A central agency also can review local plans and seek to encourage cooperation and prevent nonproductive competition between local groups.

An area planning council can be formed with representatives from each local community. The council can identify development problems which require area-wide solutions, or local solutions related to or contributing to area-wide solutions. Suitable area-wide development projects can be planned by the council with appropriate technical assis-

tance from national agencies and informational and other inputs from local communities. Though previous attempts to establish area-wide planning councils have met with limited success, such attempts should be continued because no better means have been identified for achieving cooperation among local communities.

On some occasions it might be necessary to impose region-wide development activities in a "top-down" fashion. In such situations vigorous efforts should be made to insure that the imposed activity is as consistent as possible with the priorities and development perceptions of the local groups who are expected to benefit from the activity. Even "top-down" development projects can gain active local support if they are appropriately designed and allow local groups to participate in decisions concerning project implementation.<sup>8/</sup>

## V. SUMMARY AND CONCLUSIONS

### Overview

Integrated urban-rural development planning can be conducted using either "top-down" or "bottom-up" approaches. "Top-down" planning is based on the assumption that technically rational planning on a region-wide basis is needed to insure successful development. The main disadvantage of "top-down" planning is that it usually overlooks the perceived development goals and priorities of the local population. Consequently, plans are unlikely to receive active local support which is a key ingredient of successful development implementation. This problem can be overcome partially by collecting data on local priorities and incorporating this information into the planning process. In

addition, local participation in plan implementation can be improved by obtaining and utilizing feedback from local groups during the planning process.

The "bottom-up" approach is based on the idea that successful development requires active local participation and that such participation is assured if local groups identify and plan development activities. Though local groups lack the technical knowledge needed to plan and interrelate many development activities, this problem usually can be overcome by providing appropriate technical assistance.

### Conclusion

The best approach in most cases is a combination of "top-down" and "bottom-up" approaches. The "bottom-up" approach with "top-down" technical assistance is recommended in many situations. This strategy increases local planning capacity, promotes active local participation in plan implementation, and can lead to local self-sustaining development. In cases where cooperation among local communities is required, attempts can be made to establish an area-wide planning group with representatives from each community. The group should strive to identify appropriate development activities which are acceptable to the local communities.

In some situations "top-down" planning may be required. Such planning activity should seek to incorporate as much local input as possible. This may require detailed studies of local development perceptions, goals, and priorities; periodic soliciting of local feedback on plan development; and participation of local groups in decisions concerning development implementation.

Additional Investigation

Some aspects of integrated urban-rural development planning need to be investigated more thoroughly. Better methods are needed for promoting "bottom-up" planning and effectively combining it with the "top-down" planning process. Though ample evidence exists concerning the crucial role of local participation in project success,<sup>9/</sup> this evidence must be communicated more effectively to professional development planners in national and international agencies. Development agencies must begin to think in terms of how they most effectively can help local groups achieve their development goals. Unfortunately, most current agencies think in terms of how to get local groups to cooperate with the achievement of agency development goals.

The concept of area-wide solutions to local problems needs further thought. The concept is based on the notions of economies of scale and integration of rural areas with national economic systems. Knowledge of economies of scale based on Western experience is often used as an argument against small development activities in local areas. For example, evidence may suggest that a relatively large and modern farm cooperative can operate far more efficiently than numerous small cooperatives. However, individual local groups have limited influence on the decisions of large cooperatives; consequently, local groups may be unwilling to join or fully support large cooperatives. On the other hand, the establishment of numerous small cooperatives enables more local control of cooperative activities; therefore, active local support is easier to obtain. In short, large cooperatives may be technically more efficient but numerous small cooperatives may have better chances of

success because they are more apt to gain active local participation. Additional investigation is needed on the trade-off between technical economies of scale and likelihood of gaining active local participation.

Integrated urban-rural development is based on the assumption that stronger rural-urban linkages are needed for the development of rural areas. This assumption places more emphasis on comparative advantage and other economic factors than on local participation and self-reliance. Stronger rural-urban linkages can result in modernization of agriculture; reduction in subsistence farming, potentially higher yields, more efficient marketing of farm production, and improved rural access to urban-produced goods and services. These advantages are very important. However, stronger rural-urban linkages also may have negative impacts on rural areas. Such negative impacts are associated with reduced local control over the local economy, potential exploitation of rural population by national organizations, and a general increase in the dependency of the local society upon national and international systems.<sup>10/</sup> The disadvantages of integrated urban-rural development often are overlooked with the "top-down" planning approach. Further study is needed on the trade-offs between advantages and disadvantages of integrated urban-rural development.

## NOTES

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